

3-31-52

DEPARTMENT OF THE NAVY
Bureau of Aeronautics
Washington 25, D. C.

Aer-EL-453

04750
6 Mar 1952

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From: Chief, Bureau of Aeronautics
To: Director, Naval Research Laboratory
Washington 25, D. C.
(Program Records Officer)

Subj: Establishment of Problem at Naval Research Laboratory;
request for

Ref: (a) BuAer Project Directive No. PTR-EL-45006

Encl: (1) Problem Details
(2) Preliminary Specification, AN/ALQ-2(XN-1) Equipment

1. It is requested that a problem be established at NRL in accordance with the enclosures and the following information:
 - a. Project Title: Consultant Services on the Development of Automatic Chaff Dispenser Set AN/ALQ-2(XN-1).
 - b. Bureau Problem Number: NRL-EL-45003.
 - c. Estimated Completion Date: 31 December 1952.
2. Abstract of Problem: Furnish consultant services on development of Automatic Window/Chaff Dispenser Set AN/ALQ-2(XN-1) and test preliminary model of associated Radar Receiver R-469(XN-2)/ALQ-2. Furnish consultant services during airborne testing at MATSTCEN.
3. The following additional information is supplied:
 - a. The probable date of delivery of the preliminary model of Receiver R-469(XN-2)/ALQ-2 to NRL: May 1952.
 - b. Installation of and airborne testing will be conducted by MATSTCEN under Project TED PTR-EL-45006.
 - c. The Cognizant Engineer for BuAer is Mr. C. A. Gregory, Code EL-453; Telephone Liberty 5-6700, Extension 64178.

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d. Precedence requested by BuAer with relation to its other problems at NRL: It is requested that a precedence be established for this problem which will render consultant services as required to permit preliminary test of receiver in order to effect delivery to NATESTCEN by July 1952.

4. It is requested that the cost of this problem be charged to Allotment M, Bureau Control No. 40659, Expenditure Account 46846. Additional Fiscal Year 52, Allotment M, funds are not available for specific allocation to this problem.

Copy to: (with encl (1))

Addressee (6)

CNO (Op-341D)

CNO (Op-20X)

CNO (Op-421)

CNO (Op-551)

ONR

BuShips (Code 810)

NAESU

NATESTCEN

NADIVCEN (AMBL Programs Control)

By direction

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SECURITY INFORMATION

2

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PROBLEM DETAILS

Short Title: Consultant Services on AN/ALQ-2(XN-1)

1. Supporting Data: Recent development of techniques in the usages of confusion reflectors - Window or Chaff - indicate their effectiveness as a countermeasure for aircraft against AI and AGL radars, as well as against surface based fire control radars. Extracting operational requirements, together with the split time element involved in the most effective usages of Window or Chaff, point to the necessity of developing automatic dispensers which will detect the presence of enemy fire control signals and dispense materials at the proper instant of time.

In view of the above requirement, BuAer has established Contract NOa(s)-52-469-c to develop the AN/ALQ-2(XN-2). The background of experience and known techniques possessed by NRL through Project NRL-EL-358 and other BuAer problems are invaluable to the expeditious prosecution of this development.

2. Furnish consultant service as required to complete the development of the AN/ALQ-2(XN-1) Automatic Dispenser. Such consultant services shall cover the following:
 - a. Design of the crystal receiver, antennas, video and triggering circuits; and preliminary tests thereon.
 - b. Evaluation of effectiveness of dispensing rates, dispersion of and quantities of materials to be used by the AN/ALQ-2(XN-1) Automatic Dispensing Set.

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ENCLOSURE (1)

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