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LANDING FORCE DEVELOPMENT CENTER
MARINE CORPS SCHOOLS
QUANTICO, VIRGINIA**

(NAVMC—QUANTICO)



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NOX

Model GA-468 Single-Place Inflatoplane;
Summary Report

PROJECT NO. 52-59-02

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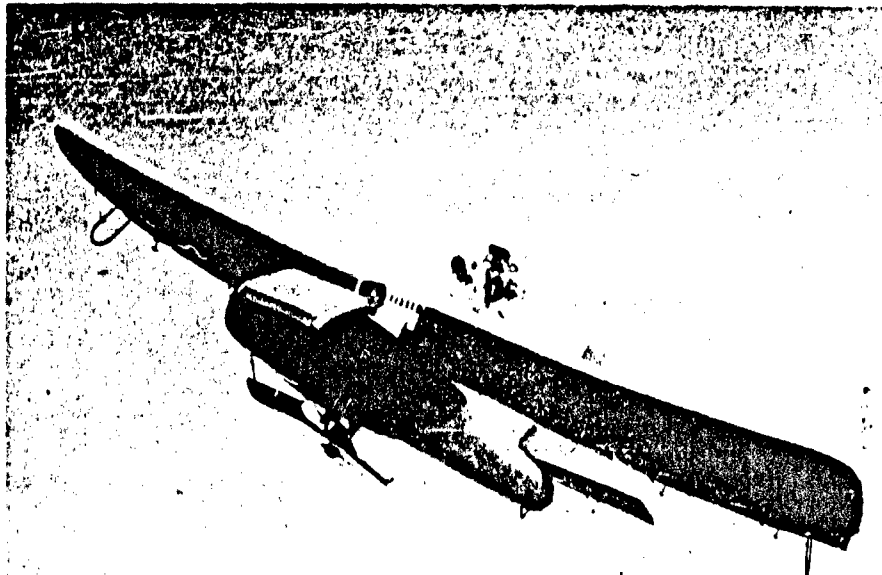
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Quantico, Virginia

46/4A/MSS:lpd

CLASSIFICATION: Unclassified

PROJECT NO.: 52-59-02

SUBJECT: Model GA-468 Single-Place Inflatoplane; Summary Report



ABSTRACT

1. The Model GA-468 Inflatoplane is a single-place, inflatable aircraft designed as an escape and evasion, limited reconnaissance and downed pilot rescue vehicle. The project was cancelled prior to receipt of a test aircraft by the Marine Corps Landing Force Development Center; consequently, the suitability of the Inflatoplane to perform the above missions was not demonstrated. Monitoring of test activity conducted elsewhere leads to the recommendation that no further consideration be given to the use of the Model GA-468 Inflatoplane by the Marine Corps.

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REFERENCE: (a) CMC Project Directive AAP-3-sla ser 08C1459 of Apr 1959
 (b) Project TED No. PTR AC-6401.2, Report No. 1, Special Report, 29 Apr 1959
 (c) Project TED No. PTR AC-6401.2, Report No. 2, Special Report, 4 Aug 1959
 (d) CMC ltr AAP-5-sla of 27 Oct 1960 to CMCS (CMCLFDA)
 (e) Ch, BuWeps ltr RA-60/4-CWS:mm of 19 Jan 1961 to Pres, MCEB

1. INTRODUCTION

a. Purpose - Project No. 52-59-02 was established by reference (a) with a "C" priority to test, evaluate and determine the suitability of the Goodyear GA-468 Single-Place Inflatoplane as an escape and evasion, limited reconnaissance and downed pilot rescue vehicle for the Marine Corps.

b. Background

(1) The Office of the Chief of Naval Research was a monitoring agency for the development of the Model GA-468 Inflatoplane, and agreed to make one of these airplanes available to the Marine Corps for the conduct of "user" tests at Marine Corps Schools, Quantico.

(2) Project TED-PTR-AC-6401.2 was established at the Naval Air Test Center to witness contractor aerodynamic and structural tests in order to establish flight safety limits for Marine Corps testing. Results of these tests were reported in references (b) and (c). Upon completion of NATC evaluation the aircraft was to have been delivered to Quantico for the conduct of further tests.

c. Description

The GA-468 Inflatoplane, Figure 1, is a single-place, lightweight, inflatable aircraft designed primarily for rescue and utility missions. It is a high-wing monoplane with a tractor-type propulsion system mounted above the wing. The power plant is an H-63A Nelson engine rated at 43HP which also provides power to drive an air pump in order to maintain air pressure and thus aircraft rigidity during flight. A unicycle, hydro-ski, or combination wheel/hydro-ski may be used as a landing gear on the aircraft. Physical characteristics are:

Wing span	22 feet
Length	23 feet
Height	7 feet 4 inches
Empty weight	225 pounds
Max. gross weight	550 pounds

2. DISCUSSION

a. A formal Marine Corps requirement does not exist for a fixed-wing utility, limited reconnaissance and downed pilot rescue aircraft. The GA-468 inflatable aircraft was to be tested to determine its suitability to fulfill its intended mission requirements and obtain operating and maintenance data.

b. It was recognized that this vehicle was not developed to Bureau of Aeronautics (subsequently BuWeps) specifications and that no contractor demonstration of the flight envelope under BuAer cognizance was planned. In order to make the Inflatoplane available to the Marine Corps, BuAer was requested by CMC to consider the contractor's demonstration and flight envelope as the basis for a preliminary evaluation by NATC, Patuxent River to include recommendations relative to the suitability of the aircraft for subsequent "user" tests by the Marine Corps.

c. While contractor tests were being conducted at NATC, monitor activity under this project included inspection of monthly progress

reports furnished by Goodyear Aircraft Corporation and visits to Patuxent River and BuWeps to stay abreast of the evaluation program. A project NCO from the MCEB attended a 40-hour school on erection and maintenance of the Inflatoplane conducted by Goodyear in March, 1959. Preliminary liaison to provide facilities and personnel for the conduct of Marine Corps test were completed in May 1959.

d. Repeated postponement of the schedule date for delivery of the aircraft to Quantico was caused by two in-flight failures of the wing structure. One such failure caused the death of a test pilot. Subsequent modifications by the contractor and additional wind tunnel testing further prolonged the BuWeps evaluation program.

e. Completion of the Patuxent River NATC flight demonstration and delivery of the airplane to Quantico was anticipated in the 3rd quarter of FY61. However, reference (d), which cancelled Project No. 52-59-02, was received in November 1960. Subsequent information regarding cancellation of the NATC demonstration was contained in reference (e). Contact with BuWeps technical monitors revealed that no further testing is contemplated.

3. CONCLUSIONS

a. Testing of the Inflatoplane was stopped and the project was cancelled prior to completion of tests; consequently, the ability of the Inflatoplane to perform specialized missions of escape and evasion, downed pilot rescue, and limited reconnaissance was not demonstrated.

4. RECOMMENDATIONS

It is recommended that:

a. No further consideration be given to the use of the GA-468 Inflatoplane by the Marine Corps.

b. This summary report be considered the final report under Project No. 52-59-02.

Submitted by:

R. M. BAKER
Colonel, U. S. Marine Corps
President, Marine Corps Equipment Board

C. A. LASTER
Colonel, U. S. Marine Corps
Director, Marine Corps Landing Force Development Center

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Model GA-468 Single-Place Inflatorplane

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