

6500 (Human - Journal -)

AUG 17 1962

FIFTH ENDORSEMENT on OinC, USNMRL, USN SUBASE NLON,
Groton, Conn., str NAMRL-1-1A 1301 Ser: 23 dtd 15 May 1962

From: Secretary of the Navy
To: Office in Charge, U. S. Naval Medical Research Laboratory,
U. S. Naval Submarine Base New London, Groton, Connecticut

Subj: Permission to use naval personnel as subjects in prolonged
 exposure to pressure; request for

1. Permission is granted to utilize naval personnel in tests in phases
C and D of enclosure (4), subject to the four restrictions listed in
FOURTH ENDORSEMENT.

PAUL B. FAY, Jr.
Under Secretary of the Navy

Copy to:
COMSUBLANT
CO USN SUBASE NLON
BUMED
CNP

Journal

Prepared by CDR Turley/OUSN/17 August 1962

Paul Fay
RETURNED TO ORIGINATOR FOR
DISPOSITION THIS DATE AUG 17 1962

NAV1.941006.060

6500 (L... Volunteer)

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AUG 9 1962

FOURTH ENDORSEMENT on OinC, USNMRL, USN SUBASE NLON, Groton, Conn., ltr
NAMRL-1-1A 1301 Ser: 24 dtd 15 May 1962

From: Chief of Naval Personnel
To: Secretary of the Navy

Subj: Permission to use naval personnel as subjects in prolonged
exposure to pressure; request for

1. Forwarded. It is recommended that the use of human experimental test
subjects be authorized for phases C and D of enclosure (4), subject to
the following restrictions:

- a. All test subjects must be less than 35 years of age.
- b. All test subjects must meet the physical standards for diving
outlined in Article 15-30, Manual of the Medical Department.
- c. The experimental group shall not exceed three members actually
undergoing tests at any one time.
- d. The principal supervisor shall not serve as an experimental
subject.

C. K. DUNCAN
ASSISTANT CHIEF FOR PLANS

Copy to:
COMSUBLANT
CO USN SUBASE NLON
OIC USNMRL NLON
BUMED

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6420.1
23 July 1962

THIRD ENDORSEMENT on OinC, USNMRL, USN SUBASE NLOW, Groton, Conn., ltr
NAMRL-1-1A 1301 Ser:24 dtd 15 May 1962

From: Chief, Bureau of Medicine and Surgery
To: The Secretary of the Navy
Via: Chief of Naval Personnel

Subj: Permission to use naval personnel as subjects in prolonged
exposure to pressure; request for

Ref: (a) Article 15-30 Manual Medical Department

1. Forwarded concurring with the remarks contained in the first
endorsement except as modified herein. Subject to the following
comment, approval of the proposal is recommended.

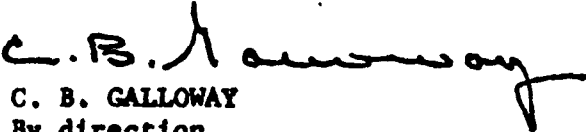
a. Medical officers with extensive experience in the care of
divers have observed that individuals who are beyond the age of
35 years are unusually susceptible to decompression sickness and
do not respond well to the usual treatment for this condition.
Individuals in this age group are also more likely to incur per-
manent disability following decompression sickness. It has been
long-standing practice in the Navy to avoid exposing divers over
the age of 40 years to unusually stressful conditions.

b. Phase C of enclosure (4) proposes to expose volunteers to
a mixture comprising approximately 21% oxygen and 79% helium at
atmospheric pressure for a period of six days. Phase D of
enclosure (4) proposes to expose volunteers at a pressure of 4
atmospheres, equivalent to a diving depth of about 100 feet to
an atmosphere comprising 5.25 per cent oxygen and 94.75 per cent
helium for a period of six days. Based on a review of the recent
data obtained in animal experiments, it is considered that volunteers
would not be exposed to any undue health hazard in the course of per-
forming phases C and D of this proposal provided, they were less than
35 years of age and in all respects met the physical standards for
diving as outlined in reference (b).

c. The limitation expressed above eliminates three of the four
volunteers named in the basic letter.

d. It is considered that previous training or experience in diving is not a necessary prerequisite for volunteers participating in this study.

e. At the present time the permission to use Naval personnel as subjects in this study should be limited to phases C and D. An evaluation of the data obtained in these studies should precede granting permission to expose subjects for a period of 14 days at a pressure equivalent to a depth of 200 feet (Phase E).


C. B. GALLOWAY
By direction

Copy to:
COMSUBLANT
CO USN SUBASE NLON
OIC USNMRL NLON

FF4-12

1300

Ser: DEP NI/

5013

9 JUL 1962

SECOND ENDORSEMENT on OInC, USNMRL, USN SUBASE NLON, Groton, Conn., ltr
NAMRL-1-1A 1301 Ser: 24 of 15 May 1962

From: Deputy Commander Submarine Force, U. S. Atlantic Fleet
To: The Secretary of the Navy
Via: (1) Chief, Bureau of Medicine and Surgery
(2) Chief of Naval Personnel

Subj: Permission to use naval personnel as subjects in prolonged
exposure to pressure; request for

1. Forwarded concurring with the remarks contained in the First En-
dorsement.

Copy to:
COMSUBLANT
CO USN SUBASE NLON
OIC USNMRL NLON


JOHN B. HESS
By direction

1157 JUN 1 8 1962

FIRST ENDORSEMENT on OinC, USNMRL, USN SuBase NLon, Groton, Conn. ltr
 NAMRL-1-1A 1301 Ser: 24 of 15 May 1962

From: Commanding Officer, U. S. Naval Submarine Base New London, Groton,
 Connecticut

To: The Secretary of the Navy

Via: (1) Deputy Commander Submarine Force, U. S. Atlantic Fleet
 (2) Chief, Bureau of Medicine and Surgery
 (3) Chief of Naval Personnel

Subj: Permission to use naval personnel as subjects in prolonged exposure
 to pressure; request for-

1. Readdressed and forwarded. Subject to the following comments, approval
 of the proposal is recommended:

a. Research Proposal BuMed 98 (Rev 10-49) MR 005.14 Submarine Medicine,
 No. 3100.03, Phase C, (Human Experimentation under Helium Oxygen at one
 atmosphere of pressure) specifically proposes the use of a climatized alti-
 tude chamber. To date, this chamber is still in the construction stage with
 a nebulous delivery date. Preliminary check-out runs must be completed
 prior to employment of the chamber for human experimentation.

b. MR Phase C originally proposed but three volunteers. This proposal
 requests four (4) volunteers. It is presumed that the fourth volunteer is
 a standby member and the experimental group will be limited to three (3)
 members.

c. The chronological ages of the proposed volunteers (e.g., 2100: 46½;
 2300: 44½; E-7: 36 and E-6: 32) place the first two beyond the limit ordi-
 narily used in experimental procedures of this nature.

d. The exact role of the proposed 2100 volunteer member in this project
 is not clearly defined. It is not considered desirable to have the princi-
 pal supervisor serve as an actual project participant. It is recommended
 that his status be delineated to project officer where the benefit of his
 past experience and training in submarine medicine may be more profitably
 utilized; or, that another qualified senior submarine medical officer be
 designated to oversee the actual experimental work.

e. Request for subjects in Phase D should be withheld pending comple-
 tion of evaluation of the studies in Phase C.


 N. D. GAGE

10558

Copy to:
 OinC, USNMRL, SuBase NLon
 COMSUBLANT

U. S. NAVAL MEDICAL RESEARCH LABORATORY
U. S. Naval Submarine Base New London
Groton, Connecticut

NAMRL-1-1A

1301

Ser: 24

15 May 1962

From: Officer in Charge, U. S. Naval Medical Research Laboratory,
U. S. Naval Submarine Base New London, Groton, Connecticut

To: The Secretary of the Navy

Via: (1) Commanding Officer, U. S. Naval Submarine Base New London,
Groton, Connecticut
(2) Chief, Bureau of Medicine and Surgery
(3) Chief of Naval Personnel

Subj: Permission to use naval personnel as subjects in prolonged exposure to
pressure; request for

Ref: (a) BUMED Manual Chapter I, para 17

Encl: (1) NMRL Report No. 374 "Prolonged Exposure of Animals to Pressurized
Normal and Synthetic Atmospheres"
(2) A Proposal for Underwater Research, by George F. BOND, CDR, MC,
U. S. Navy
(3) Possible Applications of Research Concept: I. Military II. Civilian
(4) Research Proposal BUMED 98 (Rev 10-49)

1. Enclosure (1) represents a report of animal experiments completed under
phases (A) and (B) of subtask 3100.03 "Prolonged Exposure to High Ambient
Pressures of Synthetic Gas Mixtures". Enclosures (2) and (3) present narrative
descriptions of purpose, scope, and applications of this research concept.

2. As required by reference (a), this Laboratory requests permission to use the
below listed volunteer subjects in a test involving prolonged exposure to high am-
bient pressures, as outlined in enclosure (4):

George F. BOND, CDR, MC, USN 582417
Walter F. MAZZONE, CDR, MSC, USN 185916
Frederick J. JOHLER, ENC 234 41 42
Robert A. BARTH, QM1 302 30 34

George F. Bond
GEORGE F. BOND