

Human Guinea Pigs In CPS Detached Service, 1943-1946

Compiled by Anne M. Yoder, Archivist Swarthmore College Peace Collection November 2010 During World War II, it was conceived that men doing alternative service in Civilian Public Service (CPS) might make good subjects for various medical experiments that scientists and doctors were eager to pursue in spite of the manpower shortage. Though careful to weed out any experiments that might be too closely related to war-work, the American Friends Service Committee (AFSC) and the Brethren Service Committee (BSC) provided oversight for numerous experiments around the United States. Best publicized were those related to starvation, where men agreed to be put on a very limited diet for a number of weeks while they were tested for various things.

The Selective Service System listed 32 sub-units of Unit 115 and 9 of Unit 140¹. However, there seem to have been several experiments that do not fit this list; this was probably because men were "detached" from their detached service unit (115) for more than one experiment, or there were several types of experiments done by the same sub-unit. Not all were done under contract, as far as can be discovered. All mentions of experiments are included below, but not all have sub-unit numbers, or they are indicated as part 1 (etc.) of a sub-unit.

Most of the information below was gleaned from work reports sent to NSBRO and/or to General Hershey by Mary B. Newman, director of Unit 115. It is very unlikely that it is complete and there may be mistakes throughout. Unfortunately, not all of the reports and correspondence found in the NSBRO and AFSC files at the SCPC agree, so that a certain amount of confusion still exists about these sub-units.

OSRD = Office of Scientific Research & Development; OSG = Office of the Surgeon General Sub-unit numbers and/or parts in brackets assigned by SCPC Archivist

Unit Number: 115.1 [part 1]

Sponsoring Institution: California Institute of Technology
Address: Pasadena, California
Director/s: Dr. J.B. Koepfli (1946)
Project: OSRD - malaria
Contract: OEMcmr-282 and/or OEMcmr-212
Number of Men Assigned: 1 man at a time
Date/s: 1945 (September) – 1946 (February)
Place/s where project took place:
Oversight Agency:
Other information:
Names of men on assignment: Joseph R. Goodman?; Andrew A. Benson?

Unit Number: 115.1 [part 2]

Sponsoring Institution: California Institute of Technology Address: Pasadena, California Director/s: Dr. David B. Tyler Project: OSRD – fatigue / biochemical & psychological changes during prolonged wakefulness Contract: OEMcmr-282 and/or OEMcmr-212 Number of Men Assigned: 12 men at a time Date/s: Place/s where project took place: Oversight Agency: Other information: men were kept awake for a 112-hour period of wakefulness, spent in manual activity and recreation Names of men on assignment:

Unit Number: 115.2 Sponsoring Institution: University of Southern California Address: Los Angeles, California Director/s: Dr. D.R. Drury Project: OSRD - altitude pressure Contract: OEMcmr-288 Number of Men Assigned: 1 man Date/s: 1946 (January-February) Place/s where project took place: Oversight Agency: Other information: Names of men on assignment: Joseph R. Goodman

Unit Number: 115.3

Sponsoring Institution: Welfare Island Hospital
Address: Welfare Island, New York
Director/s: Dr. Charles Glen King & Dr. Kurt Lange
Project: OSRD - altitude pressure / specially-balanced diets for pre-flight or in-flight meals

Contract: OEMcmr-Number of Men Assigned: 38 [25?] men at a time Date/s: February 8-15, 1945 Place/s where project took place: Oversight Agency: Other information: experiment/s conducted by The Committee on Medical Research, OSRD, through the Nutrition Foundation Inc. Names of men on assignment:

Unit Number: 115.4

Sponsoring Institution: Welfare Island Hospital
Address: Welfare Island, New York
Director/s: Dr. David Schwimmer
Project: OSRD - life raft / life boat rations
Contract: OEMcmrNumber of Men Assigned: up to 11 (or 17?) men?
Date/s: 1945 (February) – 1946 (January)
Place/s where project took place: ?? Metropolitan Research Unit, New York Medical College?
Oversight Agency: AFSC
Other information: called the Liferaft Unit
Names of men on assignment: Robert T. Barker; Emerson L. Darnell; John M. Drum; William L. Fifield; Toshiyuki Fukishima; Hardy S. Gibson; John A. Goeing; Robert W. Gray; Barrett Hollister; Lawrence Iannaccone;

Loren V. Kattner; Joseph W. Letson; Lawrence W. Linvill; Donald Lipfert; Lawrence R. Mallery; James H. McKelvie; James D. Murray; William Plummer III; James M. Read; Jyuichi Sato; Robert Scism; Robert A. Semple; Palmer M. Sharpless; Andrew I. Shiga; Stanford G. Summers; Matt H. Thomson; Frederick B. Tolles; Robert J. Wagner; Carold B. Welty; Ellis T. Williams; William R. Young; Howard K. Zandbergen

Unit Number: 115.5

Sponsoring Institution: Nutrition Foundation, Inc. Address: Chrysler Building, New York City Director/s: Charles Glen King & Dr. Alvin L. Barach Project: OSRD - high altitude / physiological changes in man at simulated high altitudes / effect of low oxygen pressure on nutritional requirements

Contract: OEMcmr-224; OEMcmr-47

Number of Men Assigned: 11

Date/s: 1943 (September) – 1945 (November?) [or starting in October 1942?]

Place/s where project took place: Goldwater Memorial Hospital (formerly Welfare Island Hospital)? Oversight Agency: AFSC

Other information: Names of men on assignment: Frank R. Andrews; Leonard Billings; Arthur Lee Boucher; George F. Cates; Rex Corfman; James Robert Corney; Emlen Cresson; Allan Eister; Austin Jay Gaugel; Howard Goldstein; William Hoskins; Woodrow Kaiser [not in CPS Directory]; John Kendall; Robert Laubauch; C. Stuart Livermore; Thomas Edgar Madigan; Glenn Mallison; Richard Mitchell; Emlen Palmer; Theodore Norman Pfeiffer; Willard Piepenburg; Theodore Pfeiffer; William Plummer; Horace Joffre Prescord; Donald Sanderson; F. Porter Sargent; Donald W. Schaefer; Robert Scism; Will Seeman; Roy H. Sommerer; Malcolm Spensley; Jack Orin Vittetoe; Otis Earl Waite; Joseph (Jerry) Gordon Williams; Stanley H. Williamson; Walter Woodman

Unit Number: 115.5 [part 2?]

Sponsoring Institution: Aviation Research Laboratory, Columbia University **Address:** 620 West 168th Street, New York City, New York **Director/s:** Dr. Morris Eckman Project: OSRD - high altitude Contract: OEMcmr-47? Number of Men Assigned: up to 2 men Date/s: 1944 (July) – 1945 (November) Place/s where project took place: Oversight Agency: BSC Other information: Names of men on assignment: Wilson Hopkins Bent; John Victor Byas Jr.; Laurence Wilson C. Emig; George S. Granger; Lawrence Iannaccone; George Tovey

Unit Number: 115.6

Sponsoring Institution: Metropolitan Hospital
Address: Welfare Island, New York
Director/s: Dr. Kurt Lange
Project: OSRD – frostbite / prevention of gangrene subsequent to frostbite & immersion foot
Contract: OEMcmr-533?
Number of Men Assigned: 4 men at a time
Date/s: 1945 (October-December)
Place/s where project took place:
Oversight Agency:
Other information: men housed at Metropolitan Hospital to do half-time hospital work when not engaged in experiment/s?; experiment studied tissue damage after exposure to severe cold [details may be learned in bulletin "Surgery, Gynecology and Obstetrics," April 1945]
Names of men on assignment: Samuel E. Bertsche; Clifford J. Guindon; Fred P. Kenderdine; James Fleming Perry

Unit Number: 115.7 [part 1]

Sponsoring Institution: Department of Chemistry, Harvard University Address: Cambridge, Massachusetts Director/s: Dr. Paul D. Bartlett Project: OSRD -Contract: OEMcmr-136 Number of Men Assigned: 1 man Date/s: 1945 (May-October)? Place/s where project took place: Oversight Agency: AFSC Other information: malaria also? nutrition & fatigue experiments directed by Dr. Johnson? Names of men on assignment: Curtis Kyle Packer

Unit Number: 115.7 [part 2]

Sponsoring Institution: Psycho-Acoustic Laboratory, Harvard University
Address: Cambridge, Massachusetts
Director/s: Dr. S.S. Stevens (1943-1945) & Edwin B. Newman (1946)
Project: OSRD – psycho-acoustic / sound control / communication under the extremely adverse conditions presented by the high noise levels encountered in aircraft
Contract: OEMsr-658 (NDRC)
Number of Men Assigned: 8 men, up to 13-14 men
Date/s: 1943 (November) – 1946 (February)
Place/s where project took place:

Oversight Agency: AFSC

Other information: this experiment involved a study of fourteen types of electric hearing aids, the measurement of the transmissibility of words, and volume by electrical regulation

Names of men on assignment: David Bacon; Joseph R. Brown; John Cary; Joseph Fletcher; Rufus L. Grayson; John Hanna; Stephen Johnson; William Matchett; Edward W. Meece; Gilbert Michel; Charles S. Miller; C. Kyle Packer; George Roberts; Hubert Stadlmayr; Charles Wadsworth

Unit Number: 115.7 [part 2 continued]

Sponsoring Institution: Cruft Laboratory [Fatigue Laboratory?], Harvard University
Address: Cambridge, Massachusetts
Director/s: W.H. Forbes & Dr. Cecil K. Drinker
Project: OSRD – psycho-acoustic
Contract: OEMsrNumber of Men Assigned:
Date/s: finished by September 7, 1943
Place/s where project took place:
Oversight Agency: AFSC?
Other information: used up to 48 men from CPS Camp #32?
Names of men on assignment:

These names are separated from the Psycho-Acoustic Laboratory in Nov. 1943 report to General Hershey David Bacon; Joseph Fletcher; John Hanna; Charles S. Miller; C. Kyle Packer; Martin Ponch; Hubert Stadlmayr; Charles Wadsworth

Unit Number: 115.8

Sponsoring Institution: New York University Address: New York, New York Director/s: Project: OSRD - poison gas Contract: Number of Men Assigned: up to 2 men Date/s: 1945 (August 28) – 1946 (February 1) Place/s where project took place: Oversight Agency: Other information: this sub-unit proposed only? Names of men on assignment:

Unit Number: 115.9

Sponsoring Institution: Stanford University Address: Palo Alto, California Director/s: Dr. Francis W. Bergstrom Project: OSRD – malaria / synthesis of potential anti-malarials Contract: OEMcmr-343 Number of Men Assigned: 1 man Date/s: 1944 (September? November?) - 1945 (December) Place/s where project took place: Oversight Agency: AFSC Other information: Names of men on assignment: Dr. Andrew Alm Benson Jr.

Unit Number: 115.10

Sponsoring Institution: Medical School (Department of Pediatrics), Harvard University
Address: Boston, Massachusetts
Director/s: Dr. Allan M. Butler
Project: OSRD - sea water / toxicity of seawater and emergency rations for life boats
Contract: OEMcmr-478
Number of Men Assigned: 6 men
Date/s: 1943 (September) – 1945 (December) [according to SSS list]
Place/s where project took place: Massachusetts General Hospital(?)
Oversight Agency: AFSC
Other information:
Names of men on assignment: February 1944: Edgar Dawson Bell Jr.; Robert Gabriel Ekelund; Milton Gold; Timothy Haworth; Wallace Hamilton; Paul Johnson; Morris Albert Linton Jr.

Unit Number: 115.11

Sponsoring Institution: Massachusetts General Hospital Address: Boston, Massachusetts Director/s: Project: OSRD - malaria Contract: OEMcmr-Number of Men Assigned: 1 man at a time Date/s: 1944 (February) – 1945 (December) [according to SSS list] Place/s where project took place: Oversight Agency: Other information: Names of men on assignment:

Unit Number: 115.12

Sponsoring Institution: University of Michigan
Address: Ann Arbor, Michigan
Director/s: Dr. Jerome W. Conn & Margaret Johnson
Project: OSRD – weather / efficiency of men in tropical climates /riding a stationary bike five hours a day every day of the week in the tropical heat /effects of high humidity and high temperature upon metabolism
Contract: OEMcmr-232 [National Research Project #M-1566]
Number of Men Assigned: 4-6 men at a time
Date/s: 1943 (October) – 1946 (February)
Place/s where project took place: University of Michigan Hospital
Oversight Agency: BSC
Other information:
Names of men on assignment: DeLoss William Baker?; Bertrand Lytell Barrett; Howard Leopold Bogan; Glen Coffield; Kurtz Ebbert; Nelson Fuson?; Kenneth Holcomb; Glen Lester Johnson; Clarence Russell Leazenby; Ralph Shively?; Byron M. Taber

Unit Number: 115.13

Sponsoring Institution: Haskins Laboratories Address: New York, New York Director/s: Dr. Frank S. Cooper & Paul H. Zahl Project: OSRD - sensory device Contract: OEMcmr-Number of Men Assigned: 1 man at a time Date/s: 1944 (July) – 1945 (November) Place/s where project took place: Oversight Agency: Other information: Names of men on assignment: Dr. LeRoy Gregor Schulz; Dr. Edward G. Ramberg

Unit Number: 115.14

Sponsoring Institution: University of Rochester School of Medicine **Address:** Rochester, New York **Director/s:** Dr. Wallace O. Fenn & Dr. E.F. Adolph Project: OSRD - cold weather / diet & altitude / increased pulmonary pressure Contract: OEMcmr-147 & OEMcmr-483 Number of Men Assigned: OEMcmr-147: 4-15 men at a time / OEMcmr-483: 2-8 men at a time **Date/s:** 1944 (February) – 1946 (February) **Place/s where project took place:** Strong Memorial Hospital? **Oversight Agency:** BSC **Other information:** see also 115.21 [part 1] for same experiment(?) Names of men on assignment: For OEMcmr-147: Albert John Benglen; Amos Culp; Robert T. Dick; Irvin F. Eller; John Jonathan Heil; Theodore S. Horvath; Robert I. Long; William Lowden; Berle J. Miller; W. Hobart Mitchell; Roland L. Ortmayer; George L. Spicer; Raymond W. Stanley; Mirl W. Whitaker OEMcmr-483: Leo Elmer Baldwin Jr.; Albert J. Benglen, Irvin F. Eller; Oral Fletcher Fisher; Frank W. Hastings; Harry L. Kadet; Robert I. Long; Berle J. Miller; Mirl W. Whitaker

Unit Number: 115.15

Sponsoring Institution: Department of Physiology, Indiana University
Address: Bloomington, Indiana
Director/s: Dr. Sid Robinson
Project: OSRD – climatology / physiological effects of various types of clothing on men in hot climates / temperature & humidity
Contract: OEMcmr-351
Number of Men Assigned: 3-4 men at a time
Date/s: 1943 (December) - 1946?
Place/s where project took place:
Oversight Agency: BSC
Other information:
Names of men on assignment: Max E. Bertholf; Leon Glatt; Anglo Justiss; Walker D. Kirkes; J. Lon Pope; Harold William Safford; Merrill D. Sanger

Unit Number: 115.16 [part 1]

Sponsoring Institution: University of Michigan Address: Ann Arbor, Michigan Director/s: Dr. F.E. Bartell Project: OSRD – physiological hygiene Contract: OEMcmr-252 Number of Men Assigned: up to 10 men? Date/s: 1943-1946? Place/s where project took place: Oversight Agency: BSC Other information: Names of men on assignment: C. Arnold Behre?; Nelson Fuson?

Unit Number: 115.16 [part 2]

Sponsoring Institution: University of Michigan Address: Ann Arbor, Michigan Director/s: Dr. H. L Randall Project: OSRD -Contract: OEMcmr-442 Number of Men Assigned: 1 man Date/s: Place/s where project took place: Oversight Agency: BSC Other information: Names of men on assignment:

Unit Number: 115.17 [part 1]

Sponsoring Institution: Laboratory of Physiological Hygiene, University of Minnesota Address: Minneapolis, Minnesota Director/s: Dr. Ancel Keys Project: OSRD – starvation (rations) Contract: OEMcmr-27 Number of Men Assigned: 8 men Date/s: Place/s where project took place: Oversight Agency: BSC Other information: Names of men on assignment: see below

Unit Number: 115.17 [part 2]

Sponsoring Institution: Laboratory of Physiological Hygiene, University of Minnesota Address: Minneapolis, Minnesota Director/s: Dr. Ancel Keys Project: OSRD – starvation (nutrition) / factors in deterioration & rehabilitation Contract: OEMcmr-413 Number of Men Assigned: 12 men Date/s: 1944-1945 Place/s where project took place: Oversight Agency: BSC Other information: Names of men on assignment: see below

Unit Number: 115.17 [part 3]

Sponsoring Institution: Laboratory of Physiological Hygiene, University of Minnesota
Address: Minneapolis, Minnesota
Director/s: Dr. Ancel Keys
Project: OSRD – BSC Starvation Studies

Contract: OEMcmr-Number of Men Assigned: 45 men Date/s: Place/s where project took place: Oversight Agency: BSC Other information: Names of men on assignment: see below

Does some of the above go in sub-unit 18????? **Unit Number:** 115.18

Sponsoring Institution: Laboratory of Physiological Hygiene, University of Minnesota Address: Minneapolis, Minnesota Director/s: Dr. Ancel Keys Project: OSRD – thiamine / starvation (cerebral blood flow???) Contract: OEMcmr-Number of Men Assigned: up to 40 men? Date/s: 1943 (September)? – 1946 (February)? Place/s where project took place: Oversight Agency: BSC Other information:

Names of men on assignment in 115.17 and/or 115.18, 1943 (November) – 1946 (March; May?):

Howard W. Alexander; William F. Anderson II; Charles W. Baker; Joseph S. Blair Jr.; Harold Blickenstaff; Lynn Brown Jr.; Colbert Hughes Browne; R. Wendell Burrous; Arthur D. Butler; Warder H. Cadbury; George I. Caine; Walter S. Carlson; William O. Caster; Royal Selwyn; Copeland; Edward J. Cowles; Frank P. Donovan Jr.; Wilbur Dunbar; George C. Ebeling; Glen Fisher; Joseph C. Franklin; Carlyle R. Fredrick; Jasper H.B. Garner; Andrew C. Gibas; Lester J. Glick; James R. Graham; Harold Guetzkow [assistant psychologist in charge of most of the psychological testing program]; W. Jarrott Harkey; Earl Heckman; Wilbur C. Held [worked only in laboratory kitchen, not as a guinea pig?]; Roscoe C. Hinkle Jr.; Max M. Kampleman; Reed F. Landis Jr.; Samuel B. Legg; Philip E. Liljengren; Howard T. Lutz; Donald C. Martinson; Robert P. McCullagh; William T. McReynolds; William Ralph Michener; Dan J. Miller; L. Wesley Miller; Norman S. Miller; Richard Mitchell; Donald W. Mott; Richard E.Mundy; Edwin G. Nicholson; John J. O'Leary; Peter S. Olmsted; Carl E. Patterson; Daniel J. Peacock; John N. Phillips Jr.; James Plaugher; Woodrow F. Rainwater; Donald G. Sanders; Trevor J. Sandness; Cedric Scholberg; Wendell Norris Schulz [worked on as statistician, not as a guinea pig?]; Richard B. Seymour; Charles D. Smith; Arthur Snowden; William M. Stanton; William W. Steinberger; Robert W. Stevens; Raymond Summers; Eugene Sunnen; Marshall Sutton; Wendell C. Thompson; G. Kenneth Tuttle; Marvin Van Wormer; Robert Villwock; William V. Wallace; Grant O. Washburn; Franklin T. Watkins; W. Earl Weygandt; Robert Willoughby; Gerald Wilsnack; U. Adrian Wilson; William Yoder

Unit Number: 115.19

Sponsoring Institution: Massachusetts Institute of Technology Address: Cambridge, Massachusetts Director/s: Dr. L.F. Hamilton (& Dr. Foster?) Project: OSRD - malaria Contract: OEMcmr-191 Number of Men Assigned: 1 man at a time Date/s: 1945 (November) – 1946 (February) Place/s where project took place: Oversight Agency: Other information: Names of men on assignment: Curtis Kyle Packer

Unit Number: 115.20

Sponsoring Institution: Ohio State University
Address: Columbus, Ohio
Director/s: Dr. Fred A.Hitchcock (& Frank A. Hartman for part)
Project: OSRD – physiology / physiological changes of human beings to very rapid changes of barometric pressure / explosive decompression
Contract: OEMcmr-74
Number of Men Assigned: 2-4 men at a time
Date/s: 1945 (July)? – 1946?
Place/s where project took place:
Oversight Agency: AFSC
Other information:
Names of men on assignment:
Amos Brokaw; Oscar Flor; William Hart; Donald Rages; Kenneth Smith [Brokaw & Rages asked to be transferred because they felt the experiments were too closely connected with the military]

Unit Number: 115.21 [part 1]
Sponsoring Institution: University of Rochester
Address: Rochester, New York
Director/s: Dr. Wallace O. Fenn
Project: OSRD – nutrition?
Contract: OEMcmr-147
Number of Men Assigned: up to 4 men
Date/s:
Place/s where project took place: Strong Memorial Hospital
Oversight Agency: AFSC?
Other information: same as 115.14? (is the only difference that these men were chosen & overseen by the AFSC, whereas sub-unit 14 men were chosen & overseen by the BSC?)
Names of men on assignment: Amos Culp; John Heil; Theodore Horvath; William Hobart Mitchell ["Murlin allowed Fenn to use four of his men between experiments, for altitude studies" - to be from BSC, to expire March 31, 1946; – so should these be in 115.14?]

Unit Number: 115.21 [part 2]

Sponsoring Institution: Strong Memorial Hospital Address: Rochester, New York Director/s: Dr. John Murlin Project: OSRD – physiology / specific dynamic/effect of foods / biological value of proteins in human subjects Contract: OEMcmr-376 Number of Men Assigned: 5-19 (21?) men at a time Date/s: 1944 (May) – 1945 (July?)

Place/s where project took place:

Oversight Agency: AFSC

Other information: James McWhirter assigned to Dr. Edward F. Adolph for June 1945; since August 1944 had 10 men for nutrition study, which expired on June 30, 1945 – Selective Service approved increase of five men in Spring 1945 [to be from BSC – so does this belong in 115.14?]

Names of men on assignment: Leo Elmer Baldwin Jr.; Albert John Benglen Jr.; Amos D. Culp; Robert T. Dick; Arthur Dole; Irvin Francis Eller; Oral Fletcher Fisher; Frank W. Hastings; John Jonathan Heil; Theodore S. Horvath; Harry L. Kadet; Robert Irvin Long [Albert Long?]; William Lowden; James McWhirter; Berle Jesse

Miller; William Hobart Mitchell; Roland L. Ortmayer; George Longbine Spicer Jr.; Raymond Stanley; Peter Watson; Mirl W. Whitaker

Unit Number: 115.21 [part 3]

Sponsoring Institution: Strong Memorial Hospital? / University of Rochester
Address: Rochester, New York
Director/s: Dr. Edward F. Adolph
Project: OSRD – water metabolism in the desert(?)
Contract: OEMcmr-206
Number of Men Assigned: 1-6 men at a time
Date/s: 1944-1945
Place/s where project took place:
Oversight Agency: AFSC
Other information:
Names of men on assignment: Robert T. Dick; Arthur Dole; Oral F. Fisher; Frank W. Hastings; James
McWhirter [only man assigned in at least March, April & June 1945]; Raymond Stanley; Peter Watson

Unit Number: 115.22 [part 1]

Sponsoring Institution: Third New York University Medical Division, Goldwater Memorial Hospital
Address: Welfare Island, New York
Director/s: Dr. James I. Shannon, Director of Research Service
Project: OSRD – malaria (research / clinical studies) / malarial chemotheraphy
Contract: OEMcmr-112
Number of Men Assigned: 2-6 men at a time
Date/s: : 1943 (October) – 1946 (February)
Place/s where project took place:
Oversight Agency: AFSC
Other information:
Names of men on assignment:
John Baer; Joseph E. Brown III; Emlen L. Cresson; Wesley Dill; George V. Downing Jr.; John M. Murray

Unit Number: 115.22 [part 2]

Sponsoring Institution: Research Service, Goldwater Memorial Hospital
Address: Welfare Island, New York
Director/s: Dr. James I. Shannon (Director of Research Service) & Dr. David P. Earle
Project: OSRD – malaria (experiment/s)
Contract: OEMcmrNumber of Men Assigned: 10-30 men at a time
Date/s: : 1945 (February) – 1946 (February)
Place/s where project took place:

Oversight Agency: AFSC

Other information: called the Malaria Unit, Goldwater Memorial Hospital

Names of men on assignment:

Frank Everett Bartholomew; Alvin W. Brown; Charles K. Brown III; John H. Broy; Leland C. Bullen; Howard W. Bunting; Charles E. Carpenter; Edward M. Clark; Roger Craven; William George Dorsey; George R. Edwards; John H. Fletcher; Richard Jay Foote; Charles N. Gilbert; Richard C. Goodwin; Russell A. Hammar; Frank L. Hornbrook Jr.; Folger D. Hunt; Robert C. James; David P. Leonard; Henry R. Mack; Ralph H. Moore; John Alden Nichols; Richard W. Northway; Robert A. Roe; Charles R. Schon; David R. Stannard; Lloyd B. Swift; Robert A. Weaver; Frederick Gerald Williams; Lloyd [Floyd?] Williams

Unit Number: 115.22 [part 3]

Sponsoring Institution: Nutrition Foundation, Inc. Address: Chrysler Building, New York City Director/s: Dr. Charles Glen King Project: OSRD – folic acid Contract: OEMcmr-

Number of Men Assigned: 13 men at a time

Date/s: : 1945 (October) – 1946 (February)

Place/s where project took place:

Oversight Agency: AFSC

Other information: experiment studied the effect of diets regulating the amount of B Complex **Names of men on assignment:** Hubert Garner; Austin Gaugel; William B. Hoskins; John Kendall; Theodore B. Lanning; Robert Laubach; C. Stuart Livermore; George R. New; James H. Ricks; Roy Sommerer; Herbert C. Standing; Gordon F. Streib; George V. Tovey; Marvin C. Van Wormer

Unit Number: 115.23

Sponsoring Institution: Department of Medicine, University of Chicago [or University of Chicago Medical School]
Address: Manteno, Illinois
Director/s: Dr. Alf S. Alving
Project: OSRD – malaria; clinical testing of anti-malarial drugs
Contract: OEMcmr-450
Number of Men Assigned: 5-15 men at a time
Date/s: 1944 (June) – 1946 (May)
Place/s where project took place: Manteno State Hospital
Oversight Agency: BSC
Other information: Medical Research Project 25
Names of men on assignment: Robert W. Bergstrand; Amos Eugene Bowers; Ernest Copp; John Dart; George Davidson; Robert C. Davis; Carlyle Frederick; Gayle Day Grove; Truman Hammel; Vernon Shirley Hoffman; Harry Kidder; Arthur S. Lentz; David Ira Long; Wayne Lucore; Walter Gelston McNeil; Howard Nagle; Melville

Nolt; Floyd Rawlings; E. Melvin Rugg; Paul Edwin Smith; Eugene Carl Sunnen; George Harlan Wise

Unit Number: 115.24 [part 1]

Sponsoring Institution: Harvard Medical School, Massachusetts General Hospital Address: Boston, Massachusetts **Director/s:** Dr. Allan M. Butler **Project:** OSRD – malaria; development of anti-malarial therapy **Contract:** OEMcmr-419 Number of Men Assigned: 20-27 men at a time Date/s: 1943 (September) -Place/s where project took place: Massachusetts General Hospital **Oversight Agency:** AFSC **Other information:** experiment took place at CPS Camp #32 (West Compton, New Hampshire) Names of men on assignment: Edgar D. Bell Jr.; Richard Bennett; Charles Bloomstein; James O. Bond; David Christensen; Glenn Corney; Lowell Cox; Kenneth W. Eels; Robert G. Ekeland; Edward Ewing; Milton Gold; Wallace Hamilton [not in CPS Directory]; George Hogle; John Hollister; Paul Johnson; Robert J. Kleinhans; Virgil Kruel; Morris Albert Linton Jr.; Kenneth Murchison; Marvin Penner; Bill Read; Edward Savery; Stanley C. Ulick; Raymond Underwood; Francis Walton; Walter Wilcken; Floyd Lester Wildermuth; Robert Wixom; Robert Stuart Wright

Unit Number: 115.24 [part 2]

Sponsoring Institution: Harvard Medical School, Massachusetts General Hospital
Address: Boston, Massachusetts
Director/s: Dr. Fuller Albright (& Dr. E.C. Reifenstein Jr.)
Project: OSRD – effect of alterations in the protein intake & of the metabolic rate on the storage of protein tissue as determined by nitrogen and phosphorus balances; metabolism & convalescence
Contract: OEMcmr-169
Number of Men Assigned: 1 man at a time
Date/s:
Place/s where project took place: Massachusetts General Hospital
Oversight Agency: AFSC
Other information:
Names of men on assignment:

**AFSC report "Some Extra-Curricular Experiments Participated In At Massachusetts General Hospital" (engaged in by CPS men outside of their regularly assigned duties):

1/ replacement of subcutaneous tissue; 2/ effects of fagiue or adrenal cortex hormones; 3/ vitamin C injections through skin; 4/ Quinadine's concentration in blood plasma; 5/ blocking sympathetic nerves through spinal anesthesia without affecting motor or sensory nerves; 6/ brain wave pentathol for epileptic seizures; 7/ effect of emotions on gastric secretions.

Unit Number: 115.25

Sponsoring Institution: Department of Chemistry, Columbia University
Address: New York, New York
Director/s: Dr. Robert C. Elderfield
Project: OSRD – malaria / development of new and more effective anti-malarial drugs involving study of the metabolic rate in the human organism of the new drugs
Contract: OEMcmr-340
Number of Men Assigned: 1-3 men at a time
Date/s: 1944 (October) – 1946 (February)
Place/s where project took place: Columbia University
Oversight Agency: AFSC
Other information:
Names of men on assignment: James Victor Guthrie; J. Huston Westover; Louis Wiederhold III

Unit Number: 115.26

Sponsoring Institution: Cornell University Medical College, New York Hospital
Address: New York, New York
Director/s: Dr. David P. Barr & Dr. John E. Deitrick (Cornell Medical Center)
Project: OSRD - bed rest / metabolic effects of prolonged bed rest / convalescence
Contract: OEMcmr-417
Number of Men Assigned: 1-2 men at a time [one report said 10 men]
Date/s: 1945-1946?
Place/s where project took place: New York Hospital & Cornell University Medical College
Oversight Agency: AFSC
Other information: men were in bed with a cast extending from their toes to above the waist for six weeks
Names of men on assignment:
Cornell Medical Center, bed rest / convalescence experiments, under the direction of Dr. John E. Deitrick
1944 (July) – 1946 (February): Francis Bacon; Edwin O. Moon; Charles R. Osborn

New York Hospital, under the direction of Dr. John E. Deitrick

September 1944, January 1945, September-October 1945: Edwin O. Moon; Charles R. Osborne February-August 1945: Andrew I. Shiga; Stanley C. Wright

Unit Number: 115.27
Sponsoring Institution: Cornell University
Address: Ithaca, New York
Director/s: Dr. Norman S. Moore (& Dr. Maynard)
Project: OSRD - bed rest / cold conditions; effect of protein level in the diet upon resistance to cold with special reference to the respiratory exchange and body reaction to low temperatures
Contract: OEMcmr-425
Number of Men Assigned: 4-8 men
Date/s: 1944-1946
Place/s where project took place:
Oversight Agency: BSC
Other information: also, hypostatic pneumonia / bedrest experiments directed by Dr. Deitrick, and other experiments under the direction of Dr. Norman & Dr. Barr
Names of men on assignment: Bent B. Andreson; James J. Cassels; I. Harold Landes?; Wayne S. Overmyer

Unit Number: 115.28

Sponsoring Institution: University of Illinois Medical School [or College of Medicine, University of Illinois] Address: Chicago, Illinois

Director/s: Dr. Robert W. Keeton & Dr. H.H. Mitchell

Project: OSRD - high altitude / cold weather / effect of diet on ability to withstand rapid & intensive exposure to cold temperatures

Contract: OEMcmr-234 [continuation of contract was denied]

Number of Men Assigned: 24

Date/s: 1942-1944

Place/s where project took place: College of Medicine, University of Illinois

Oversight Agency: BSC

Other information: called the Cold Research Project

Names of men on assignment: William James Bachman; DeLoss William Baker; Robert W. Bergstrand; Charles Conrad Browne; Thomas Erwin Coffin; John F. De Veny; Stanley Chittenden Duffendack; Gene Johnston Elliott; John M. Eustice; Robert Samuel Frantz?; Thomas R. Fritts; Vance Edgar Allen Geier; James William Guthrie; Elroy Arthur Hanks; Jerome Parsons Hartig?; Hart Aaron Johnson; Fred George Leasure; Arthur Stanley Lentz; Alfred Leon Livingston; David I. Long; Walter G. McNeil; M.E. Metzger?; Berle Jesse Miller; Alfred Siegfried Reindl; Floyd Reisch?; Earl Melvin Rugg; Harold William Safford; William L. Siemon; Arthur Earl Snowdon; Paul R. Stout; Douglas C. Strain; Richard G. Underwood; George Harlan Wise

Unit Number: 115.29

Sponsoring Institution: Frank Billings Medical Clinic, University of Chicago
Address: Chicago, Illinois [Manteno, Illlinois]
Director/s: Dr. Henry T. Ricketts
Project: OSRD – high altitude / aviation medicine / maximum altitude it was safe to fly without oxygen
Contract: OEMcmr-113
Number of Men Assigned: 1 man [wanted 6 men]
Date/s: 1943 (February 19 – December 31) [or 1943 (September 15) – 1944 (January 17)]
Place/s where project took place:
Oversight Agency: AFSC?
Other information: BSC & MCC declined to participate in finding volunteers

Names of men on assignment: Francis Anderson (September-December 1943)

Unit Number: 115.30

Sponsoring Institution: Animal Nutrition Laboratory, University of Illinois
Address: Urbana, Illinois
Director/s: Dr. H.H. Mitchell (Department of Animal Husbandry)
Project: OSRD - heat / tropical conditions /diet under exposure to temperatures & humidities simulating those of desert & jungle
Contract: OEMcmr-227
Number of Men Assigned: 6-7 men at a time
Date/s: 1943 (September 24) – 1944 (July 31)
Place/s where project took place:
Oversight Agency: MCC?
Other information: called the Heat Research Project
Names of men on assignment: Courtenay David Anselm; Howard Raymond Blosser; Paul Clinton Blosser; Elmer C. Fricke; Duane Frederick Hougham; Edward J. Miller; George Fritz Nachtigall; Henry Troyer

Unit Number: 115.31

Sponsoring Institution: Department of Physiology & Pharmacology, Northwestern University Medical School
Address: Chicago, Illinois
Director/s: Dr. Theodore E. Friedemann (Laboratory of the Abbott Fund) & Dr. A.C. Ivy
Project: OSRD – diet-altitude / effects of diet on altitude tolerance
Contract: OEMcmr-373
Number of Men Assigned: 6-7 men at a time
Date/s: 1943 (September) – 1946 (April)
Place/s where project took place:
Oversight Agency: BSC
Other information: men lived at the YMCA
Names of men on assignment: Delbert D. Blickenstaff; Edward Crill; Joseph Charles Dell; Harvey Everall
Dibrell Jr.; Gareth William Heisler; Albert Hartwell Jewell Jr.; Lester Frederick Johnson; Kenneth H. Keeton; Roy
Wesley Miller; John Henry Smith; Lee R. Smith

Unit Number: 115.32

Sponsoring Institution: Mayo Foundation for Medical Education & Research [or Mayo Clinic], University of Minnesota
Address: Rochester, Minnesota
Director/s: Dr. E.J. Baldes (& Dr. Donald C. Balfour & Dr. Walter M. Boothby?) & Dr. C.F. Code & Dr. E.H. Wood)
Project: OSRD – aero-medical / physiological effects of rapid acceleration and deceleration upon individuals in prone and seated positions / aviation medicine experiments
Contract: OEMcmr-129
Number of Men Assigned: 2 men at a time
Date/s: 1943 (November) – 1946 (March)
Place/s where project took place:
Oversight Agency: BSC
Other information: called the Mayo Aero Medical Unit
Names of men on assignment: Jesse Dean Stoner; Merlin Augusta Neher

Unit Number: 115.[33] (same as 140.1?)

Sponsoring Institution:

Address: Pinehurst, North Carolina Director/s: Major Theo. J. Abernethy Project: OSRD - atypical pneumonia Contract: OEMcmr-

Number of Men Assigned: 1-50 at a time

Date/s: 1944-1945?

Place/s where project took place:

Oversight Agency: AFSC?

Other information: took place at CPS Camp #108 (Gatlinburg, Tennessee) in October 1943; later at CPS Camp #44 (Luray, Virginia)?

Names of men on assignment:

First Experiment, September 1944 (& more?): Carl Harrison DeSilver; Henry Harrison Marter; Harold Vaness Rusher; Russell Wirt Yohn

Second Experiment, September 1944 (& more?): James Armstrong; David Ellis Beals; George Henry Bock; James Bradenburg; Amos Glenn Brokaw; Charles Conrad Browne; Marion Palmer Bryant; John Havens Burrowes; Arthur D. Butler; William Henry Cadbury; Robert Berger Carlson; Richard Ralston Catlett; Charles Ernest Davis; Carl Jacob Diebel; George Carl Ebeling Jr.; Ray Nelson Funk; Seth Gifford; Chalmer Charles Gillin; Logan Drinker Gilman; Robert Clarence Goering; Walter Rainy Grundman; Henry William Ilinitch; Reed Fretz Landis; Marvin Lyle Leffel; Wallace Marvin Lornell; Waldron Howard Lowe; Donald Charles Martinson; Kenneth Eugene Matthies; Dalton Hunter McBee; Wendell Marlin McMillan; Elmer A. Miller; Richard Mitchell; David William Mott; Peter Scott Olmsted; Brian Edgar Francis O'Neil; Milton Dean Reimer; George Wesley Romine; Konrad Holmes Schroeder; Melvin Earl Schroeder; Merle Kenneth Shilling; Melvin Roy Siemens; Ralph Frederick Soelzer; Tilman Ivan Stangeland; Thomas Charles Steger; Oliver Ellis Stone; Stanford Grayston Summers; Samuel Raynier Tyson; Otis Earl Waite; Richard Waite; Allen Joseph Weaver; Willis James Wollman In other experiments, 1944: William Blake Ackerman; Merlin Jay Applegate; Howard William Bunting; John Lazarus Byer; James Joseph Cassels; Richard A. Chartier; Amos David Culp; Jeremiah P. Edwards; John Henry Eisenhard Jr.; Edward Flaccus; Albert P. Gault; George H. Gouldey; Gayle Day Grove; Robert Hawkins; Paul Willard Hertzler; Emil Charles Hirrschoff; Willie Owen Horton; Paul Samuel Jenkins; Theodore Kermit Lilley; Howard TenBroeck Lutz; Vernon Musser Martin; Virgil Ellis Martin; Lawrence McKeever Miller; Ralph Howard Moore; Irving Archer Morrissett; Karl Edward Olson; Edward Outland; Ralph Elisha Smith; Henry Ernest Sostman; Russell Conwell Tuttle; Marvin Clinton Van Wormer; Marle Clayne Weaver; Thad Frank White; Henry Lawrence Wolff

<u>November 1944</u>: John H. Burrowes; Ray N. Funk; Peter S. Olmsted; Oliver Ellis Stone; Otis E. Waite <u>December 1944 & January 1945</u>: Oliver Ellis Stone

Also??: Robert M. Davenport?; I. Harold Landes?; Stanley H. Williamson?

Unit Number: 115.[34]

Sponsoring Institution: Johns Hopkins Hospital
Address: Baltimore, Maryland
Director/s: Dr. Roy S. Bigham Jr.
Project: OSRD - convalescence experiments / protein metabolism in normal persons relative to variations in diet
Contract: OEMcmr-189
Number of Men Assigned: up to 2 men
Date/s: 1945 (May 30) – 1946 (June 24)
Place/s where project took place:
Oversight Agency: BSC
Other information:

Names of men on assignment: Hubert Thomas (April 25 – July 7, 1945); Philip Trout (April 25 – July 7, 1945)

Unit Number: 115.[35]

Sponsoring Institution: Cerophyl Laboratories Address: Kansas City, Missouri Director/s: Dr. Charles F. Schnabel Project: OSRD – grass tips / nutrition Contract: OEMcmr-Number of Men Assigned: Date/s: Place/s where project took place: Oversight Agency: BSC Other information: used 50 men at CPS Camp #7 (Magnolia, Arkansas) Names of men on assignment:

Unit Number: 115.[36]

Sponsoring Institution: Memorial Hospital for the Treatment of Cancer & Allied Diseases
Address: New York, New York
Director/s: Dr. Fred W. Stewart & Dr. C.P. Rhoads
Project: OSG – metabolic effect of testosterone on a normal human being & relation to cancer growth
Contract: OEMcmrNumber of Men Assigned: 1 man
Date/s: 1943 (September) – 1944 (November)
Place/s where project took place:
Oversight Agency:
Other information: according to letter from Dr. Stewart, all experiments were done under supervision by Dr. Jules Abels
Names of men on assignment: Eugene Emerson Collier

Unit Number: 115.[37] Sponsoring Institution: Laboratories of the International Health Division, Rockefeller Foundation Address: New York, New York Director/s: Dr. W.A. Davis Project: ? – louse-killing agents to control typhus fever / insecticides Contract: OEMcmr-Number of Men Assigned: 87 men Date/s: Place/s where project took place: Oversight Agency: AFSC Other information: underware was infected with lice and ages and distributed to the men to be were co

Other information: underwear was infested with lice and eggs and distributed to the men to be worn continuously for three weeks; men were given various insecticides and lice were counted after each; a group of 25-30 men carried lice for three week periods; took place at CPS Camp #32 (Compton, New Hampshire) Names of men on assignment: Eugene Emerson Collier

Unit Number: 140.1 [see also 115.[33]]

Sponsoring Institution:Address: Pinehurst, North CarolinaDirector/s: Major Theo J. Abernathy & Dr. John Dingle (director of Ft. Bragg in 1944)

Project: OSG - atypical pneumonia

Contract:

Number of Men Assigned: up to 189 men

Date/s: 1945 (July-September)?

Place/s where project took place:

Oversight Agency:

Other information: there is evidence that unit #140.1 in Pinehurst, created in 1945, had its origins in one of the #115 units from earlier years

Names of men on assignment: Robert W. Bergstrand?; Robert N. Davenport?; J. Harold Landes?; Charles E. Oswald?; Konrad H. Schroeder?

Unit Number: 140.2

Sponsoring Institution: Philadelphia University Hospital [and/or University of Pennsylvania] / Commission on Measles & Mumps and/or Mission on Influenza & Communicable Diseases
Address: Philadelphia, Pennsylvania
Director/s: Dr. (Captain) John R. Neefe & Dr. Joseph Stokes Jr, & Dr. John R. Paul
Project: OSG – jaundice / infectious hepatitus
Contract:
Number of Men Assigned: up to 94 men (25-35 men at a time, plus 20 men from Philadelphia State Hospital [Byberry])

Date/s: 1944 (November) – 1946 (May)

Place/s where project took place:

Oversight Agency: AFSC

Other information: called Infectious Hepatitis Research unit

Names of men on assignment:

<u>November-December 1944</u>: Francis Anderson; Purnell Benson; James Brandenburg; Alvin Brown; John Broy; Richard Eastman; Elmer Finck; Logan Gilman; Milton Gold; John A. Hartman; Harry Hines; Don Holmquist; George Iten; Walton James; Luther Lerch; Louis Lock; Waldron Lowe; Michael Marsh; Robert Meyer; Frank V. Miles; Freddie Miller; Al Miner; Irving Morrissett; Robert Nagler; William Neumann; Arnold Olena; Dean Phillips; William E. Rhodes; Ralph Rudd; Howard Zandbergen; Benjamin Segal; Eugene Thorne; George Webb <u>From Philadelphia State Hospital [Byberry]</u>: Walter F. Altman; Robert A. Bone; David W. Calhoun; John (Jack) E. Corbett; Herbert J. Curtis; Avery H. Demond; Samuel Blake Ellis; Neil H. Harrison; Charles R. Lord; Delmar W. Martin; Ward C. Miles; George R. Ruddell; Lee M. Schaal; Orlando K. Scherling; William R. Schorman

Unit Number: 140.3

Sponsoring Institution: Commission on Neurotropic Virus Diseases

Address: New Haven, Connecticut

Director/s: Dr. John R. Paul (New Haven Hospital)

Project: OSG - neurotropic virus / jaundice

Contract:

Number of Men Assigned: up to 25 men at a time

Date/s: 1945 (January) – 1946 (March)

Place/s where project took place: Yale University; 14 men to be assigned [1944 letter said 20 volunteers] to CPS Unit #81 (Connecticut State Hospital, Middletown, Connecticut) & 11 to CPS Unit #82 (Fairfield State Hospital, Newtown, Connecticut)

Oversight Agency:

Other information:

Names of men on assignment: November-December 1944: Warren G. Dugan; O. Noble Hart

<u>Recommended by BSC:</u> Henry [George H.?] Bock; Clarence W. Mark; Ira M. Wine (1st alternate: James E. Oliver; 2nd alternate: William Reisch)

From CPS Camp #23 (Coschocton, Ohio): Harold Peterson ; Thomas Steger

<u>From CPS Camp #59 (Elkton, Oregon)</u>: Roger Craven; Robert Hungerford; Howard Kreibel; Jan W. Long <u>From CPS Unit #68 (Norwich State Hospital, Norwich, Connecticut)</u>: Dean Eighnme [not in CPS Directory]; C. Dean Hoefle [not in CPS Directory]; James A. Joyce; George Fred Trombley

<u>From CPS Camp #76 (Glendora, California):</u> Fred D. Fellow Jr.; Robert C. James; David H. Miller; Michael E. Ritzman; Samuel R. Tyson; Charles Winter

From CPS Camp #94 (Trenton, North Dakota): Keith B. Salmonson; Albert N. Votaw

From CPS Camp #108 (Gatlinburg, Tennessee): Henry H. Thatcher

<u>From special service units:</u> Elton Atwater?; Peter W. Elkington; Seth K. Gifford; Leonard S. Kenworthy? George Loveland; John Alden Nichols; Mark T. Deibler?; John Alden Nichols?; Paul F. Noftz; Charles W. Piersol?; Felix Ramon Santiago; Thomas Charles Steger?; Stanley H. Williamson

Unit Number: 140.4

Sponsoring Institution: Nutrition Foundation Address: Welfare Island, New York Director/s: Dr. Charles G. King Project: OSG – life raft rations Contract: Number of Men Assigned: up to 50 [90?] men Date/s: 1946 (October-December) Place/s where project took place:

Oversight Agency:

Other information: men were isolated in one building and followed an exact diet; no water was allowed to be drunk; average weight loss was 20 pounds [this information may belong in unit 115.4]

Names of men on assignment: John H. Drum?; George S. Granger?; George V. Tovey?; Francis Ridding Wilson?

Unit Number: 140.5

Sponsoring Institution: Address: New York, New York Director/s: Project: OSG - frostbite Contract: Number of Men Assigned: up to 5 men Date/s: 1946 (April 18 – September 24) Place/s where project took place: Oversight Agency: Other information: Names of men on assignment: C. Arnold Behre?

Unit Number: 140.6

Sponsoring Institution: Address: Ann Arbor, Michigan Director/s: Project: OSG - physiological hygiene Contract: Number of Men Assigned: up to 5 men

Date/s: 1946 (January 31 – August 22) Place/s where project took place: Oversight Agency: Other information: Names of men on assignment: DeLoss William Baker; Glenn S. Coffield?; Kurtz Ebbert?; Kenneth R. Holcomb?

Unit Number: 140.7

Sponsoring Institution: Address: Minneapolis, Minnesota Director/s: Project: OSG - starvation Contract: Number of Men Assigned: up to 65 men Date/s: 1946 (January 31 - June 26) Place/s where project took place: Oversight Agency: Other information: Names of men on assignment:

Unit Number: 140.8

Sponsoring Institution: Medical Nutrition Laboratory Address: Chicago, Illinois Chicago, Illinois Director/s: Project: OSG – nutrition / calcium Contract: Number of Men Assigned: up to 10 men Date/s: 1946 (April 9 - December 10) Place/s where project took place: Oversight Agency: Other information: Names of men on assignment:

Unit Number: 140.9

Sponsoring Institution: Northwestern University Medical School Address: Chicago, Illinois Director/s: Project: OSG – physiology / nutrition Contract: Number of Men Assigned: up to 13 men Date/s: 1945 (May 30) – 1946 (June 24) Place/s where project took place: Oversight Agency: Other information: Names of men on assignment: ¹"List of 151 Civilian Public Service Camps" Conscientious Objection: Special Monograph No. 11, Volume II, Appendices A-G, 1950: 283-288

²Work reports, NSBRO files, Series C,1 (re: Unit 115 & 140), Center on Conscience and War Records (DG 025), Swarthmore College Peace Collection; see also Series D of DG 025, and Series M,4 of DG 002 (American Friends Service Committee: Civilian Public Service Records)