

# From Playing Field to Battleground: The United States Navy V-5 Preflight Program in World War II\*

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The question of whether sport is analogous to war has been frequently debated. Juxtaposition of war training onto the playing field has been theorized, but a laboratory for such ambitions seems a distant goal. Yet such a setting was established by the United States Navy in its preflight training program during World War II.

John Griffith, editor of *Athletic Journal*, commissioner of the Western Athletic (Big 10) Conference, and member of the Joint Army Navy Committee on Welfare and Recreation (JANC), wrote on October 16, 1941 to the JANC executive director, proposing that the Armed Services "utilize the average American's interest in sport as a means of aiding in the development of an efficient fighting force."<sup>1</sup> A World War I bayonet training instructor, the bellicose Griffith prompted much discussion about the value of sports training to war. This soon led to his membership in a group created to implement that objective, the advisory committee for the Navy Aeronautic V-5 Preflight Schools.

The nine man preflight committee was appointed in January, 1942 by Captain Arthur Radford, Director of Aeronautic Training. In addition to Griffith, it included athletic directors William Bingham of Harvard, Ray Eckmann of the University of Washington, Jack Meagher of Alabama Polytechnic Institute (Auburn), and L. W. St. John of the Ohio State University. Princeton physical educator Joseph Raycroft, Elmer Mitchell, Director of Intramurals at the University of Michigan, Bernie Bierman, celebrated University of Minnesota football coach, and Dean Carl Schott of the School of Physical Education at Pennsylvania State College, were also included. Through this group was planned the most doctrinaire sports project of World War II.<sup>2</sup>

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1. John Griffith to Francis Keppel, 16 October, 1941, Joint Army Navy Committee For Welfare And Recreation, Record Group 225, File 171, National Archives, Washington, D.C. (hereafter cited as NA).

2. Navy Department Press Release, 19 April 1942, Physical Fitness Correspondence, Record Group 24, Command File, BuAero Folder, NA.

Sport with its mystique of controlled conflict was considered a natural subject for war mobilization. The virtues of courage, teamwork, leadership and loyalty were seen as natural components of sporting behavior. Much commentary attributed sport with a reservoir of “quick thinking” and “tenacious” athletes who would be the edge which the United States had over its enemies and who in turn could be easily tapped from America’s playing fields. Shortly after Pearl Harbor, *Athletic Journal* depicted Japanese soldiers fleeing in terror from a group of uniformed football players. “Why not Battalions of Football Players?” stated the caption, “they are the fightingest men we have.”<sup>3</sup>

Competitive athletics were not new to military training. The efforts of the military services during World War I to incorporate “Sports for the Masses” have been well documented.<sup>4</sup> Professional, amateur, and novice athletes alike participated in base varsity sport programs such as the Great Lakes Naval Training Center and the Mare Island Marines. Great Lakes was emblematic of the huge intramural and off-duty sports program pursued by the services in their morale and recreation efforts.

Harvard’s Dudley Sargent and Columbia’s Jesse Feiring Williams were bellweathers for sport and its centrality to preparedness during the “Great War.” Sargent’s view that sport offered an “opportunity for struggle” was fundamental to the sports preparedness thesis.<sup>5</sup> Nor was sport unknown in its potential for “character building.” Luther Gulick, the formulator of the YWCA’s adult managed boys sports movement professed the influence of motor behavior over “moral reflexes.” Gulick argued that the “instinct” for cooperation stimulated teamwork, self-sacrifice, obedience, self-control, and loyalty.<sup>6</sup> Gulick’s theories, along with those of child psychologist Henry Curtis, Joseph Lee, and others, were incorporated into the Playground Association of America, through which teenage boys were to be governed in their emotional and moral development.<sup>7</sup>

Joseph Raycroft applied these principles and established an academic antecedent for V-5 training during World War I. Raycroft served as director of the War Department Commission on Training Camp Activities and in 1918 developed an experimental two-week course in physical drill and group games for aviation officers. He measured the ability of a trainee to concentrate on the spoken order and to reproduce complicated sets of orders while engaged in mass athletics and team sports. Standards of efficiency were determined by discrimination between results obtained by “education” (athletic games) and those obtained by “exercise” (calisthenics). Raycroft concluded that in athletic games students

3. *Athletic Journal* 13 (February 1942): 3.

4. For an interview of mass athletic programs, including military activities, see Guy Lewis, “World War I and Sports for the Masses,” *The Maryland Historian* 4 (Fall, 1973): 111.

5. As quoted in Thomas P. O’Hanlon, “School Sports as Social Training: The Case of Athletics and the Crisis of World War I,” *Journal of Sport History* (Spring, 1982): 21.

6. Luther Gulick, “Psychological, Pedagogical, and Religious Aspects of Group Games,” *Pedagogical Seminary* 6 (March, 1899): 131.

7. For an interview of the reflexive and play theories of moral development, see Benjamin Rader, *American Sport: From the Age of Folk Games to the Age of Spectators* (Englewood, NJ: Prentice-Hall, 1983): 154.157. See especially Luther Gulick, “Team Games and Civic Loyalty,” *School Review* 14 (November, 1906): 676-78.

responded to orders just as truly as in physical drill, except that those orders "were expressed in terms of changing conditions." His results led to the issuance of a War Department circular ordering that physical training include "competitive games as a means to a common end, namely, the development of the greatest possible efficiency and power in offensive combat."<sup>8</sup>

The Army between the two world wars failed to sustain Raycroft's training ideas and used athletics during the second world conflict as in the first, primarily as part of its morale and demobilization efforts. The social engineering potential of athletics was diminished, also, following the postwar sports boom of the 1920's. A 1929 Carnegie Foundation Report concluded that sports advocates had "claimed far greater benefits" in morals and conduct "than athletes can ever yield." The three and one-half year study of intercollegiate sport enumerated a long list of abuses related to commercialism and over-emphasis.<sup>9</sup> These criticisms and the retrenchment caused by the depression placed proponents of all competitive sport on the defensive, especially those who promoted character development through play. The Second World War offered an excellent opportunity for them to regain the initiative.<sup>10</sup>

The German *Wuiffin* SS, the Nazi Party's combat security forces, proceeded with sport in training even before the war. These infamous special assault troops had established a soldierly prototype described by Heinz Hohne as the "hunter poacher model." By mid-1940 German troops had swiftly deployed throughout Poland, France and the low countries. British military analyst Thomas Wintringham, astounded by this *blitzkrieg*, called for the abandonment of rigid methods of drill and for the substitution of physical games to teach men initiative. Wintringham tied sports training to "voluntarily understood and thinking discipline and to elastic tactics based on initiative and independence." He called upon the British army to adapt American style football to its training program because it had more "points of resemblance to war than any other sport."<sup>11</sup>

Thus was the stage set for Navy preflight strategy. Its model was conceptualized by Naval Undersecretary James Forrestal, Captain Arthur Radford, commander for naval aeronautic training, and Lt. Commander Thomas J. Hamilton, a carrier pilot and former head football coach at the United States Naval Academy. Forrestal, a former collegiate boxer at the academy, made frequent references to his theories of sports training while a passenger with Hamilton in trips out of the Anacostia Naval Air Station.<sup>12</sup> Shortly after the

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8. National Collegiate Athletic Association, *The Yearbook for the NCAA 1918*, (New York: n.p., 1918), 55-59.

9. Howard Savage et al, *American College Athletics*, Bulletin No. 23 (New York: The Carnegie Foundation for the Advancement of Teaching, 1929).

10. During the Depression, numerous colleges curtailed or eliminated their football schedules. For scheduling overviews see Harold Claasen, ed., *Ronald Encyclopedia of Football* (New York: Ronald Press, 1961); and Christy Walsh, *College Football and All American Review* (Culver City, California: Murray and McGee, 1948).

11. Heinz Hohne, *Order of the Dearth's Head* (New York: Pan Books, 1969): 445; Thomas H. Wintringham, *New Ways of War* (Hammondsworth, England: Penguin Books, 1940), 43, 66.

12. Forrestal emphasized fitness in all ranks by influencing Secretary of the Navy Frank Knox in the issuance of AI Nav 100, requiring physical training at all stations. Thomas J. Hamilton, correspondence to author, 4 May 1974; AI Nav 100, Secretary of Navy to All Commands, 18 October 1940, Physical Fitness Correspondence.

Japanese attack on Pearl Harbor, Radford directed Hamilton to outline a training syllabus for preflight schools, and as Hamilton remembers:<sup>13</sup>

Admiral Radford . . . was way ahead of the other services and ahead of our time in his concept of utilizing the skills, disciplines, team work and training methods of sports to develop or enhance the qualities of trainees. He obtained many of the results of close order drill . . . in far greater degree by this method.

The product thus devised dramatically influenced theories of pilot training. Preflight met the prospective pilot's need for special indoctrination and "hardening." Its emphasis on competitive games eventually proved a heavy influence on civilian athletics. Hamilton's program used team sports and physical training to generate desirable psychological attitudes and group loyalties. Popularly called "V-5 training," these measures placed particular emphasis on football and hand to hand combat. In short, men were to be trained for war through sport.

Hamilton made football a fundamental ingredient in the V-5 syllabus. Every cadet was taught the mechanics of football and was required to play either football or soccer on an intramural or varsity basis. Hamilton's plan called for prospective pilots to participate daily in an hour and a half of running, wood chopping, calisthenics, swimming and hard labor, another hour and a half of instruction in team sports and "dual combatives," and two hours of intramural or varsity team sport. Pressed into this grueling regimen were infantry drill and academic instruction. A forty mile hike concluded the twelve week outline.<sup>14</sup>

Traditional student loyalties were to be forgotten and replaced by new reasoning, refined through highly sensitive and even dangerous group adventure. With its emphasis on Sunday chapel coordinated by a "fighting parson," subjugation of self and reliance on transcendent forces were implicit in the fitness outline. Perhaps more important to Preflight's athletic format was the concept of learned reflexive behavior. Games, especially those that were fast, explosive, and violent were regarded as laboratories in which to develop strength, courage, and concentration under pressure.<sup>15</sup>

Without formal authorization from the Navy Department, and lacking staff or facilities, Hamilton announced the basis for his plan in Detroit at the National Collegiate Athletic Association Convention held on December 29-30, 1941 and began recruiting his first instructors from among college coaches. The Bureau of Aeronautics established the V-5 instructors' school at Annapolis in March, 1942, and Bernie Bierman, a reserve Marine major, commanded the training cadre for the first V-5 instructors. The initial two hundred graduates were turned out a month later. These men were billeted at the preflight centers and began training their first class of aviation cadets on May 28, 1942.<sup>16</sup>

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Physical Training File.

13. Hamilton Correspondence to author, 4 May 1974.

14. "Tentative Proposed Physical Training Programs for Naval Aviation," Thomas Hamilton Personal Files, LaJolla, California.

15. *Ibid.*

16. William H. Sullivan, Jr., "The Naval Aviation Training Program," *Journal of Health, Physical Education, and Recreation* 4 (January, 1943): 3; *New York Times*, 17 January 1942; Navy Department Press Release, 19 April 1942; Physical Fitness Correspondence, Command File, NA.

Hamilton held the rank of commander and directed overall preflight training. He wanted the Navy to take over entire college campuses and disperse regular students to other colleges to insulate trainees within a monastic environment. He never accomplished complete separation of civilian students, but the preflight stations dominated their settings wherever located. Preflight centers were established in 1942 at the Universities of Iowa, North Carolina, and Georgia, St. Mary's College in rural Moraga, California, and in 1943 at the Del Monte California Naval Air Station.

Hamilton's outline called for an eighty-three man coaching cadre on each campus for each 1,500-2,000 man contingent. Rank was delegated according to coaching responsibility and ranged from lieutenant commanders for base athletic directors down to ensign for assistant coaches. Enlisted physical instructors were drawn from the ranks of the regular Navy training program."

Instruction was stressed in at least nine sports. The aim of these activities was to show every cadet that there was "no substitute for winning" and that "gracious defeat [should] be forgotten." The sports manual indicated that this would develop rugged "ruthless determined competitors." The key activity was football, which Hamilton frequently made analogous to "war itself."<sup>18</sup> Novices participated in full scale padded scrimmages by their eighth practice. Teams were selected from each squadron for a system of intramurals. Superior talent was filtered into the varsity program that featured a collegiate and intercamp schedule against some of the country's best gridiron talent.

The V-5 schools also emphasized competition in basketball for hand and eye coordination and for "training in instantaneous and correct decisions." Track taught speed and timing and boxing created self-assurance, courage, self-reliance, and an "aggressive combative nature." Gymnastics acquainted the student with problems of equilibrium and promoted daring. Soccer was taught for dexterity, and a unique conditioning event called "military track" adapted cross country scoring methods for squads on the obstacle course. Cadets also participated in events such as the caber toss and tug of war.<sup>19</sup>

If football was analogous to war, then wrestling for Hamilton was the "nearest thing to actual war approached by man." Wrestling preflight style included normal collegiate wrestling and another format called "rough and tumble" which were "knock down," "catch-as-catch-can" contests and included the teaching of bone-breaking holds. All wrestling matches were con-

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17. "Tentative Proposed Physical Training Program for Naval Aviation."

18. United States Navy Bureau of Aeronautics. *The Aviation Sports Program in U.S. Navy Pre-Flight Training Schools* (Washington: Navy Department, 1944). 3-6; Thomas Hamilton, "Football in the Navy," in *The Official NCAA 1942 Football Guide*, ed., Walter R. Okeson (New York: A. S. Barnes, 1942). 21.

19. Thomas Hamilton, "Navy Fliers Train on Gridiron," in *The official NCAA 1943 Football Guide*, ed., Walter B. Okeson (New York: A. S. Barnes, 1943), 31-36; Bernie Bierman, "Mass Football at Iowa Preflight," in *ibid.*, 37-38; Frank H. Wickhorst, "Football in Naval Aviation Training," in *The official NCAA 1944 Football Guide*, ed. W. I. Bingham (New York: A. S. Barnes, 1944), 33-36; William Reed, "Athletics as Part of the Physical Training Program at the Navy Aviation Preflight Schools," *Athletic Journal* 23 (September, 1942): 10; Larry Snyder, "Track in the Physical Fitness Program," in *The Official NCAA 1943 Track and Field Guide*, ed. Kenneth A. Wilson (New York: A. S. Barnes, 1943), 16; C. C. Sportsman, "What is Military Track?" *Athletic Journal* 23 (November, 1942): 5; Sam T. Selby, "The Sport Program at the United States Navy Preflight School Iowa City, Iowa," *ibid.*, 23 (February, 1943): 30-31.

ducted to encourage cadets to ruthlessly and mercilessly take advantage of their opponent.<sup>20</sup>

Hamilton believed that hard-hitting games enhanced “toughening” and helped students rid themselves of socially developed sanctions against aggression. This was social engineering at its zenith. Indeed, all V-5 games were designed for body contact, and rules were often altered to suit that purpose. Body checking was allowed in soccer, and fouls often went uncalled in basketball. Cadets were encouraged to think “offensively” and to “break down years of playing under involved rules.”<sup>21</sup>

Each base was responsible for the construction of dozens of playing fields. Gymnasiums operated throughout the day and evening, and football teams rose as early as 4:00 A.M. to play off a tie. The breadth of the sports program was impressive. During the first year of the program over 600 football games were played in the intramural, varsity, or instructional phase of training. Added to this were 4,419 intramural track meets, 9,139 boxing matches, 3,276 swimming meets, 2,828 gymnastic events, 2,000 basketball games and 875 soccer matches for the approximately 25,000 V-5 air cadets.<sup>22</sup> One preflight athletic director claimed in 1943:<sup>23</sup>

Thus from one end of the day to the other there is a sports picture without parallel in the history of this or any other nation you see sports being used for a utilitarian martial purpose and no lover of athletics could fail to look with pride upon this program.

Football’s preeminence in preflight training soon led to conflicts between the Bureau of Aeronautics and the regular Navy physical training section. On August 19, 1942, Gene Tunney, former heavyweight boxing champion and Director of Physical Training in the Bureau of Personnel (BuPers), responded to plans of the V-5 schools to launch a national football schedule against inter-collegiate competition. Charging that the war could not be won “by reviving the recreational sports of the ‘era of wonderful nonsense,’” Tunney accused promoters and newspaper media of “athletic boondoggling,” which he claimed not only diverted men from valuable training but also failed to correlate with the type of individual discipline for which he considered sport useful. “If professional athleticism could win a war,” he snapped, “we would have won this one by now.”<sup>24</sup>

Tunney’s rebuke uncovered a debate that had smoldered since the beginning of the V-5 experiment. The conflict revealed a burgeoning jurisdictional fight between the Bureau of Aeronautics and the Bureau of Personnel together with a

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20. Thomas Hamilton, “The Importance of Wrestling for the Naval Air Cadet,” in *The Official NCAA Wrestling Guide* 194243, ed. R. G. Clapp (New York: A. S. Barnes, 1942). 3; Charles Spiedel and Frank Gardner, “The Two Fold Objective of Wrestling in Navy Pre-Right Training,” *Athletic Journal* 23 (January, 1943): 10; Wesley Brown, “Bone Breaking Holds for Trainees,” in Clapp, *NCAA Wrestling Guide, 194243*. 13.

21. James H. Decker, “They Have to be Tough to Win,” *Athletic Journal* 23 (November, 1942): 21; J. A. Waters, “The Position that Soccer Plays in Naval Aviation,” *ibid.*, 23 (January, 1943): 9.

22. United States Navy Bureau of Aeronautics, *Aviation Sports Program*, 6-7.

23. Sullivan, “Naval Aviation Training Program,” 3.

24. *New York Times*.” 20 August 1942.

philosophical battle that exposed the issue of “sports versus calisthenics” in physical training. Tunney opposed the appointment of “fat football coaches” to positions as commissioned officers in the Navy’s fitness program. Early in 1942, a meeting between Tunney and Hamilton drew the battle lines for this showdown. As Hamilton later noted:<sup>25</sup>

I went over to meet Tunney, but discovered that he had greatly different ideas about running a physical training program . . . but the aim of Admiral Radford could not be accomplished under Tunney’s philosophy . . . Tunney wanted only mass exercise and recreational activities, and wanted to execute and man his activities with mostly enlisted specialists. . . We believed competitive sports could supply the qualities in the fighting men we were training, and we recruited the best coaches who . . . were well qualified in every aspect for officer rank.

Tunney viewed preflight training as elitist collegiate play that resulted in the slowing of training of combat forces, thereby forcing an unfair share of the war’s burden on less fortunate enlisted personnel. A former World War I foot marine, his approach to training was unembellished and disciplined. Tunney stressed heavy emphasis on individually developed strength and toughness in training. The fitness chief denied that games had anything to do with building the psychology of the fighting man but only served to keep the body in physiological readiness.

Tunney called his ideas of self-discipline and internal motivation the “warrior psychology.” “Adjustment,” he wrote in 1941, “is a condition favorable to the development of self. Out of mass discipline, self-discipline, out of mass action, individual action.” These words were echoed on February 17, 1942, when in a fighting speech to a Catholic men’s group, he insisted that this “warrior psychology” was not represented by “expertness on the ball diamond nor unfailing skill and great courage on the gridiron.” To Tunney, fitness had to be accomplished the “hard way.”<sup>26</sup>

Hamilton was committed to highly flexible group tactics and was not reluctant to utilize both traditional and non-traditional training tactics. He viewed the

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25. Hamilton, Correspondence to author, May 4, 1974.

26. Gene Tunney, *Arms for Living* (New York: Wilfred Funk, Inc., 1941), 72; Address of Gene Tunney to the Catholic Men’s Luncheon Club of Birmingham, Alabama, 17 February 1942, Physical Fitness Correspondence, Tunney File, NA.

Tunney was commissioned to head the Navy fitness program in December, 1940. His appointment was a public relations ploy meant to attract well known and generally well qualified enlistees to the Navy in competition with the Army draft. James Forrestal (then Undersecretary of the Navy) wanted Tunney to head the aeronautic school fitness program at Jacksonville Naval Air Station, a post which he held from January to April, 1941. He was transferred to develop the regular Navy fitness regime within the Bureau of Navigation (later Bureau of Personnel). Although assisted by a civilian advisory council of physical educators, Tunney was ridiculed by many in the fitness profession. His lack of a college degree and “some of his public statements related to physiology were “lightning rods” for criticism. Especially critical was Jesse Feiring Williams, who made light of Tunney’s comments on “corrective suction to create a new hinge in the back.”

Nevertheless, the former boxer’s reputed literary interests and his moral leadership grounded in Christian asceticism lent him credibility as a fitness spokesman. Navy Bu Nav letter 143.RN, P11-1 (2195), 21 January 1941, Physical Fitness Correspondence, Physical Training Directives Folder; T. H. Hamilton, “The Navy and Physical Fitness in World War II,” Appendix A-3, U.S. Navy Archives, World War II Command File; Jesse F. Williams to Secretary of the Navy, Physical Fitness Correspondence, Bu Aero Folder; Jesse F. Williams, “Who Are Our Friends,” *Journal of Health, Physical Education, and Recreation* 14 (June, 1943): 311.

Tunney methods as “intramural,” which he compared to socialism.<sup>27</sup> A varsity field, according to Hamilton, created a crucible in which a man might better discern the primary reason for his efforts. Team competition, in his view, had a carry over value in assisting troops perceive their mission. Pilots, he claimed, were particularly in need of such training. Their latitude to interpret orders against a wide range of options allowed them to perceive a composite picture of that mission. Group tactics reinforced the cooperation needed to stay within its purpose until goals were attained. Varsity sport was ideal in developing reflexive thinking within the group.

Tunney attacked the V-5 program on the grounds that there could be no transference in motivation between athletics and warfare. He was supported by several educators, including Arthur H. Steinhaus of George Williams College. Steinhaus was a devotee of the “overload principle,” the induction of heavy physiological stress<sup>28</sup> and the physiological cousin of Tunney’s “warrior psychology.” He assisted in the development of Tunney’s position of expounding for him the theory of physical development as the “exercise of psychological sensibilities.”<sup>29</sup>

On March 24, 1942, John W. Bunn, Dean of the Medical School at Stanford University, criticized aviation training in a letter to Secretary of the Navy Frank Knox. He challenged the use of “football fitness or basketball fitness” and other demands to be made of V-5 cadets because no one yet knew what comprised “flying fitness.” He argued for a scientific testing procedure at the preflight academies to discover the best way to evaluate fitness in terms of “strength, endurance, agility, balance, body coordination and motor skills.” Bunn cited studies by Ernst Jokl to point out the danger of “pinpoint hemorrhages” caused by “punishment about the head,” thereby raising another spectre, the image of “punch drunk” flyers. This theme also raised the ire of the Chief of the Navy Bureau of Medicine (BuMed), who criticized Preflight’s motivational approach, which he saw as a “teaching of hate” comparable to “German methods.”<sup>30</sup>

As physical educators chose sides in the Navy jurisdictional and philosophical dispute, Tunney found one of his strongest supporters in the University of Iowa’s C. H. McCloy. One of the most active civilian advisors for military physical fitness, McCloy saw in the Hamilton program the seeds of athletic adventurism. On May 8, 1942, he wrote Jay Nash, President of the American Association for Health Physical Education and Recreation, that “this diversion

27. Navy Bu Aero letter IR-6-FLS, Head of Physical Training Section to Director of Training, 29 June 1942, Hamilton Personal File.

28. “Address of Arthur Steinhaus,” *The Amateur Athlete* 14 (March, 1943): 24. The overload principle included the lifting of weights and the induction of heavy physiological stress beyond which the human being would normally go.

29. Gene Tunney to Elwood Craig Davis, 21 June 1942, Physical Fitness Correspondence, Tunney File.

30. John W. Bunn to Frank Knox, 24 March 1942, Physical Fitness Correspondence, Bu Aero folder; Navy Bu Med letter P2-5 (103), Chief of Bu Med to Chief of Bu Nav, 14 March 1942, Physical Fitness Correspondence, Command File.



of manpower” to create a “series of glorified varsity teams . . . smacks of the worst athleticism gone wild”<sup>31</sup>

Tunney also gathered ammunition against Preflight from Elwood Craig Davis, a World War I Navy pilot and member of the University of Pittsburgh’s Physical Education faculty. Davis had reentered military service in 1942 as a physical training officer. On August 22, 1942, he answered a query from Tunney by firing a broadside against the V-5 concept. He discounted the transfer of training between the “character” and skills displayed in a team contest and those needed in flying. Davis insisted that football and boxing courage could not be equated with flying courage because there were “almost no identical elements between football and boxing on one hand, and flying on the other.” He saw general coordination skills as vastly different from those needed for flying. Athletic talents required “explosive” action while flying skills demanded a “fineness of coordination” that militated against the “courage and recklessness” of sports training. Davis emphasized that only when there were one or more similar situations present to those encountered in training could courage be transferred to the conditions met.<sup>32</sup>

Hamilton insisted, however, that athletic training was “mental” conditioning. A “mental urge,” he said, was necessary for the well-conditioned pilot “to surmount any difficulties.” He further defended his program against erosion from the Navy training division by claiming benefits to morale and the creation of an atmosphere within the air branch that was “strong, virile and manly.”<sup>33</sup>

Preflight’s cudgel was picked up by the majority of the American Association of Health Physical Education and Recreation and a friendly press. Jess Feiring Williams, who had moved to the University of North Carolina, beat the “calisthenic group” to the punch with a favorable resolution approved by the AAHPER at its national convention in New Orleans on April 18, 1942. The approval of V-5 methods was echoed by ecstatic sports journalists. Arch Ward of the *Chicago Tribune* claimed that the “success or failure” of V-5 would “determine the outcome of the war.” Arthur Daley of the *New York Times* noted that the “enthusiasm with which college coaches . . . discuss . . . preflight . . . demonstrates . . . its eminent correctness.”<sup>34</sup> University of Illinois football Coach Bob Zuppke stated the pro-preflight position with the observation that “football players, who don’t know how to twist their bodies and count . . . could still wipe out a lot of Japs.”<sup>35</sup>

Current and past Secretaries of the Navy were emphatic supporters of Preflight, thereby lending the Hamilton plan a public relations tide. The elderly Josephus Daniels, who had directed the Navy Department’s expansion under Woodrow Wilson, credited Hamilton with “one of the great training jobs of

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31. C. H. McCloy to Jay B. Nash, 8 May 1942, Physical Fitness Correspondence, Bu Aero folder.

32. Navy Bu Pers Memorandum 1402.REB, Elwood Craig Davis to Gene Tunney, 22 August 1942, Physical Fitness Correspondence, Box 28, Entry 445.

33. Navy Bu Aero letter TR-6.FLS, 29 June 1942, Hamilton Personal Files.

34. Resolution of the American Association for Health, Physical Education and Recreation, Hamilton Personal Files; *Chicago Tribune*, 29 March 1942; *New York Times*, 12 January 1943.

35. *Chicago Tribune*, 20 August 1942.

World War II.” Writing in the fall of 1942, Daniels praised the aviation training exercise as “more carefully planned, more rigorously administered, [and] more successful in the accomplishment of its objectives” than any other comparative military training method. No less a figure than Navy Secretary Frank Knox lined up squarely with the sports training rhetoric. In a speech on January 21, 1944, Knox professed belief that there was a direct relationship between the “spirit which makes great football players and the spirit that makes great soldiers and sailors.”<sup>36</sup>

By the time of Knox’s statement, Bureau of Personnel officers had largely dropped their open opposition to preflight training methods. Tunney and his associates were limited to minor modifications of the scope of the V-5 varsity style training programs. He ordered Preflight to cut its inter-varsity football schedules from thirteen to ten games and limited off base travel to forty-eight hours.<sup>37</sup> Otherwise V-5 carried the day. Hamilton was almost singlehandedly credited with keeping interest in civilian athletics at a high beak through Preflight’s ambitious varsity schedules. He was named the 1942 “Man of the Year” by both the Football Writers and the National Soccer Coaches Association.

The V-5 influence gradually spread throughout the Navy to both advanced and operations bases. Instructors and non-pilot graduates of V-5 courses were often commissioned as Deck Volunteer Specialists (DVs), serving as base athletic directors and hanger deck training officers aboard aircraft carriers. One V-5 instructor, Woodrow (Woody) Hayes would up commanding a destroyer escort. Charles (Bud) Wilkinson served aboard the *Enterprise* during the Okinawa kamikaze attacks, and future President Gerald Ford served aboard the carrier *Monterey*. Stateside collegiate coaches were granted commissions to train base football teams. Paul (Bear) Bryant, George Halas, Paul Brown, James Crowley, Ray Morison, Harold (Tex) Oliver, Don Faurot, Raymond (Bear) Wolf, Madison (Matty) Bell, Jim Tatum, and Warren Woodson were among the coaches exposed to preflight training tactics.

As the war progressed, V-5 became more sophisticated, growing to a twenty-six week course of study that included survival training and reflexive behavior tests. The testing program was directly related to Hamilton’s insistence that with varsity sports, pilots could develop characteristics in stimulus and response that were transferable to combat conditions. Courses in relaxation were utilized to bridge the gap between motivation and action.<sup>38</sup>

As the war drew to a close, Hamilton credited V-5 trained pilots with superior performance records. William R. (Killer) Kane, who by 1945 had become Director of Preflight Operations, admiringly called the football trained cadets

36. Josephus Daniels editorial, *Raleigh (N.C.) News and Observer*, 20 July 1943; Navy Department Release of Frank Knox speech to the Washington D.C. Touchdown Club, 11 January 1944, Hamilton Personal Files.

37. Navy Bu Pers letter 140.REB, NM(A) PLC-I (38). Chief of Bu Pers to Commanding Officers of All Naval Training Stations, 29 June 1942. Physical Fitness Correspondence, Physical Training Directives folder; New York *Times*, 13 December 1942; 10 January 1943.

38. Hamilton, Correspondence to author, May 7, 1974. In mid-1943 Hamilton was reassigned to the *Enterprise* and in 1944 toured advanced bases to evaluate the preflight programs there.

“flying fools.”<sup>39</sup> “Flying tight formation,” he wrote, called for the same type of “timing and coordination that is duplicated on the football field,” a sort of group discipline favorable to battle flying.<sup>40</sup> BuMed studies indicated some verification of these claims as preflight trainees had substantially more victories in air combat. However, discretion must be exercised in interpreting BuMed’s evaluation. Pilots trained in the preflight program had to be individuals of resolve and dexterity to even enter and complete the training, with or without football. Perhaps of more significance was Hamilton’s pioneer effort to keep fighter divisions together as combat teams, thus keeping morale at a maximum and losses at a minimum.<sup>41</sup>

In addition to the Navy, the Army also felt the effects of V-5 theories. Harold (Red) Blaik, coach of the great West Point gridiron clubs of 1943-46 received a dose of preflight philosophy from former academy superintendent Robert Eichelberger. While commanding American ground combat forces in New Guinea, Eichelberger wrote the coach on July 5, 1942 and indicated that within the preflight method lay the secret of turning out top flight field commanders.<sup>42</sup>

The war saw a thorough permeation of the country’s social and ethical fabric with military-athletic euphemisms and philosophies, and V-5 played a redoubtable role in defining that fabric. It was only a short distance from the idea of sports training for national defense to sports training for the national welfare. It seemed reasonable to some that the values of sport and its character development should be a requirement in school curriculum, citizenship training and national service. Hardly had the V-S program gotten underway than its philosophy was being transmitted to secondary schools via instructional manuals published for distribution to high school athletic coaches. In August, 1942 each preflight camp sponsored a series of high school football coaching clinics. The obstacle course, wide-open aggressive offensive play, and combat conditioning became recommended training for high school teams across the country.<sup>43</sup>

By May, 1943 journalist Grantland Rice was calling for *enforced* athletic training for all boys from the age of twelve years, including participation in a “rough body contact sport.” Wickhorst, the Director of Preflight from mid 1943 to 1945, wrote in the 1944 *NCAA Football Guide*, calling for a unified school athletic and academic load. William R. Kane went even further. In a speech of January 24, 1945, he tied athletics to compulsory military training, and urged a competitive program for every boy from elementary school through college.<sup>44</sup>

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39. *New York Times*, 28 January 1945.

40. William R. Kane, “Football Pays Off,” in *NCAA 1945 Football Guide*, ed. W. I. Bingham (New York: A. S. Barnes, 1945), 41-43.

41. Four Bu Med psychologists evaluated 1,354 fighter pilots in the Pacific theater late in 1944 to obtain performance records. “Cadet Physical Training performances as related to Combat Criteria Classifications,” in Bu Med letter VX-AK, PZ-5A21, Chief of Bu Med to Chief of Naval Operations, 22 March 1946, Hamilton Personal Files; Hamilton, Correspondence to author, May 4, 1974.

42. Earl Blaik and Tim Cohane, *You Have to Pay the Price: The Red Blaik Story* (New York: Holt, Rinehart, and Winston, 1960), 180.

43. “Naval Aviation School in Physical Fitness,” *Athletic Journal* 23 (July, 1942): 30.

44. Grantland Rice, “A Problem of the Country,” *Recreation* 37 (May, 1943): 51; Wickhorst, “Football in Naval Aviation Training,” 46; *New York Times*, 25 January 1945.

Preflight leaders served on the advisory committee that helped draft the War Department's bill for universal military training (UMT). Introduced in Congress in October, 1945 UMT used the issue of physical fitness and health as a primary rationale for the exposure of all young men to a year of military service. Oddly, the V-5 athletic concept failed in its appeal when applied to UMT. Built on the ideal of democratic play and the association of athletics with virtues of self-reliance and group value formation, the preflight philosophy thrived by attacking totalitarian regimentation and compulsory mass drill. When the V-5 ideal was incorporated into a universal military training plan, it aroused suspicions of failing to abide by the principles that had created it. In September, 1944, shortly before he died, *Athletic Journal* editor John Griffith compared the UMT scheme with the "youth camps" with which "Hitler did his poisonous work."<sup>45</sup>

However, the V-5 mystique remained. Its advocates continued their support of preflight even after the schools were dismantled in June 1946. Hamilton, who had rejoined the Naval Academy as football coach, helped in 1949 to form the V-5 Association of America. Its objectives included the molding of "social competency" of young people through "competitive athletics."<sup>46</sup>

Other wartime athletic programs had their impact on organized sport. No effort in the United States had, however, the influence of Preflight.<sup>47</sup> Its schools and installations had served as the first sports academies in the United States. Subjects ranging from kinetics, physiology, sports medicine, and nutrition to athletic administration, mass intramurals, calisthenics, sports instruction, and motivational technique were studied and practiced. Eighty thousand cadets and 2,500 instructors were exposed to the program.<sup>48</sup>

V-5 also lived through returning veterans and the social conditioning they promoted in a sports-hungry post-war America. This vigor was emphasized by a new generation of aggressive coaches, many of whom carried ideas, if not learned in Preflight, certainly exercised there, to their high school and college playgrounds. Bryant and Wilkinson both used paramilitary style V-5 tactics to train their powerful gridiron elevens during the 1940's, 1950's, and 1960's. Wilkinson led his men in calisthenics, and his light, explosive team of 1955 once ripped off three plays in 38 seconds. Bryant's paramilitary football camp at Texas A&M is legendary.<sup>49</sup>

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45. U.S. Congress, House, *Congressional Record*, 78th Cong., 2nd Sess., 1944,91:19; 79th Cong., 1st Sess., 1945, XC, p. 9563. Navy memorandum P-2161-DH, Director of Planning and Control to Chief of Bu Pew 4 January 1945, Physical Fitness Correspondence, Box 28, Entry 445; "Proposed Navy Physical Training and Swimming Program Universal Military Training," Physical Fitness Correspondence, O. W. Olds File, Reports folder; John Griffith, "Compulsory Military Training," *Athletic Journal* 25 (September, 1944): 19.

46. V-5 Association of the United States, *Constitution and By-Laws of the V-5 Association of America* (Annapolis, Md: U.S. Naval Academy, 1947).

47. For an overview of various special programs of the U.S. government and military and the effect of World War II on American sport, see Donald W. Rominger, Jr., "The Impact of the United States Government's Sports and Physical Training Policy on Organized Athletics During World War II" (Ph.D. diss., Oklahoma State University, 1976).

48. Operations letter 513-G-JM, Chief of Naval Operations to Secretary of the Navy, 9 August 1946, Hamilton Personal Files; Thomas J. Hamilton telephone conversation with author, 15 June 1975.

49. For insight into Wilkinson's conditioning methods refer also to Harold Keith, *Ferry-Seven Straight: The Wilkinson Era at the University of Oklahoma* (Norman, Oklahoma: The University of Oklahoma Press, 1984).

During World War II, the American people relied not only on their massive production of arms and material but upon an ideological arsenal. The field of organized athletics had a symbolic and rhetorical appeal that harbored simple answers to a country beset with both material and emotional burdens. The mobilization of opinions and attitudes made sport a natural forum for the techniques of social engineering. Sport represented the moral and physical superiority of the United States. Whether the V-5 experience merely revived the older concept of character development through play, or whether it broke new ground in motivation, research, and mass athletics, it stands as a unique benchmark in the history of sport and war.

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Wilkinson was perhaps the most emblematic of the preflight tacticians. A superb athlete, Wilkinson often personally led his great Oklahoma University teams in physical drill much as would any V-5 instructor. The *Daily Oklahoman*, 2 January 1956, provides a good narrative of the "fast break" and mobile tactics utilized by the Oklahoma gridgers. Bryant's encampment at Junction, Texas is described in E. Lawson, "Football's Man Without Mercy." *Saturday Evening Post* 228 (October 5, 1955): 27.