The Tonnage of the Continental Ship Alfred

Fundamental to any consideration of the comparative strength, fire power, and sailing qualities of warships is a knowledge of their size. Royal Navy historians are fortunate in this matter for there are published lists of all English warships going back to the early part of the sixteenth century which give not only their size in tons burthen but which also record each ship's dimensions, the number of guns carried, and other information as well. The scholar concerned with the Continental Navy of the United Colonies has a much more difficult task facing him, especially if he is interested in the very first ships of the new navy. There are few surviving records concerning these vessels and what is extant is often contradictory. The material presented here is the result of research into the history of one of these ships, the first American flagship, the Alfred. It is offered with the intention of both establishing the tonnage of this ship and, perhaps, pointing the way for others who might wish to attempt the same project for other ships of the period.

Depending on what source one reads, one can arrive at the conclusion that the Alfred, as a two-hundred-ton vessel, was overgunned and probably, as a result, cranky and a poor sailer, or, as a four-hundred-and-forty-ton ship, carried an inexplicably weak broadside and must have been somewhat hard to manage. The published figures for her tonnage vary that greatly.\(^1\) At neither extreme does

\(^1\) Tonnage figures for the Alfred which appear in various published works are listed below with their source. The first, second, and fourth sources are all a variation on or copying of Augustus C. Buell, although this dependence is not so indicated. For a discussion of Buell, see note 15.


the *Alfred* appear to have been a particularly notable example of colonial shipbuilding. Yet we have John Barry, no mean ship captain, calling her "the finest ship... in America."\(^2\) In her he set something of a speed record for eighteenth-century merchant vessels, according to William Bell Clark.\(^3\) A key to the solution of this dilemma is the establishment of the true tonnage of the *Alfred*, for size and sailing qualities are interrelated.

Some time in the late spring or early summer of 1774, the partners of Willing, Morris, and Company, merchants of Philadelphia, contracted with the shipbuilding firm of Wharton and Humphreys of that city for the construction of a new merchant ship.\(^4\) The *Black Prince*, as they chose to name her, was duly registered at the Philadelphia Customs House by one of her owners, John Nixon, on December 19, 1774. Nixon described her in the register as "a square sterned Vessel of the Burthen of two hundred Tons or thereabouts," and paid the standard fourteen shilling registry fee.\(^5\) Nine days later, on December 28, the *Black Prince* under the command of John Barry left on her maiden voyage for Bristol, England, with a cargo of wheat, flour, and lumber. Barry was back in Philadelphia on April 23, 1775, and, after a hurried unloading and reloading, sailed for London on May 1, arriving there on June 27.\(^6\) There is, therefore, no question that the ship *Black Prince*, which was surveyed for *Lloyd's Register of Shipping* in June, 1775, was the same *Black Prince* entered in the Philadelphia register some six months before.

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\(^3\) Clark, *Gallant John Barry*, 55-56.


\(^6\) Clark, *Gallant John Barry*, 41-52.
The notation which appeared in Lloyd's Register for 1776 confirms this in detail, for it described the Black Prince as having been built in Philadelphia in 1774, belonging to "Welling & Co. [sic]," and commanded by "J. Barry." Yet Lloyd's recorded her as having measured three hundred and eighty tons. No doubt exists that both of these references are to the same ship, but the great disparity in tonnage appears irreconcilable.

The career of the Black Prince did not end with her return to Philadelphia and neither do the tonnages ascribed to her. At the time of John Barry's arrival back in the colonies the Continental Congress was in the midst of its transition from resistance to rebellion. It had recently sent Washington to command the army in New England, and in so doing effectively changed the revolt from colonial to continental. At the same time, Congress was arguing the need for a navy of equal proportions—a Continental Navy. On November 2, 1775, it authorized the recently constituted Naval Committee to purchase and outfit four vessels to form the nucleus of its first fleet. One of the first official actions of the Naval Committee was the purchase of the Black Prince from Willing, Morris, and Company, and her conversion to the Continental Ship Alfred. The newly christened warship soon embarked on a career which was to take her far and wide in the service of the Continental Congress, until she finally met her defeat off the coast of Barbados on March 9, 1778, at the hands of two British sloops of war, the Ariadne and the Ceres. As with any man-of-war, the Alfred was the subject of numerous reports during her span of duty and, while most of them had to do with the number of guns and men she carried, some of them did make reference to her tonnage. The unanimity of these later accounts, supported by further corroborating evidence, resolves the question of the Alfred's tonnage and leads to several interesting conclusions about the nature of tonnage itself.

The fall of 1777 found the Alfred in the harbor of Lorient, France, under the command of Captain Elisha Hinman, preparing, though

7 Lloyd's Register of Shipping (London, 1776).
no one then knew it, for her last cruise under the Continental colors. While there she was seen, and her description reported to the British Admiralty, by one who was introduced as a "Gentleman of the strictest veracity." "The Alfred," he related, "was formerly a Merchantman [and] is about 275 or 300 tons." After her capture the Royal Navy announced the fact in the London Gazette of September 12-15, 1778: "By the ARIADNE and CERES. Alfred, Elisha Hinman Master, 300 tons, 180 men, a Congress Ship of War." A year and a half after the Alfred's seizure, on April 24, 1778, John Paul Jones, who had previously commanded the Alfred, captured the British sloop of war Drake in a battle off the northeast coast of Ireland. Sometime later, in a correspondence with John Ross, the Continental agent at Nantes, who was apparently interested in buying the prize-ship Drake, Jones announced that she had been "built at Philadelphia for private use four years ago ... [and] she is nearly as large as the Alfred." The Admiralty Library, London, has records of both the tonnage and the dimensions of the Drake, not only giving us a comparative tonnage figure but allowing us also to assess the manner of its calculation. The Drake was seventy-five feet, ten and three-quarter inches long by her keel, twenty-six feet, one inch wide, and eighteen feet, three and one-half inches deep. Her recorded tonnage was two hundred and seventy-five. The tonnage of the Drake, as was that of all eighteenth-century Royal Navy vessels, was computed using a formula enacted into English law in 1695.\footnote{9 F. Steward to "My Lord," Dec. 16, 1777, Admiralty Papers, Series 1, Vol. 1838, Acct. 13, No. 64, Public Record Office, London.} Simply expressed, the formula reads $T = L \times B \times \frac{3}{2}B$, with "L" equalling the length of the keel of the vessel, "so much as she treads on the ground," "B" its breadth "to be taken within board by the midship beam from plank to plank," and "$\frac{3}{2}B$" equalling the depth of the vessel figured as one-half its breadth. 6 & 7 W. III. c. 12. IX; Danby Pickering, ed., The Statutes at Large, From the First Year of K. William and Q. Mary to the Eighth Year of K. William III (Cambridge, England, 1764). Any sample of the ships listed in John Charnock, An History of Marine Architecture (London, 1800-1802), III, 245-281, will show that the Royal Navy used this formula throughout the eighteenth century.\footnote{10 Jones to Ross, Aug. 23, 1778, Record Group 45, No. 395, Correspondence of John Paul Jones on the USS Ranger, National Archives, Washington. In a later letter, Ross, who evidently thought that the Drake might be the Commerce, told Jones that the old Commerce from Philadelphia was "8 years old and not near as large as the Alfred—her burthen not exceeding 220 to 230 Tons." Ross to Jones, Sept. 1, 1778, John Paul Jones Manuscripts, Library of Congress.}
The *Alfred*, therefore, according to these accounts, was more than two hundred and seventy-five tons and something approaching three hundred tons. The most probable figure for her tonnage is three hundred. It is evident that the tonnage so designated was that calculated on the formula of 1695, either by actual admeasurement, in the case of the reports of the *Ariadne* and *Ceres*, or by educated comparative estimate, as was that most certainly of the Admiralty report of her description in Lorient.

Still necessary, however, is a proper accounting of the two earlier tonnage figures. Doubt about the accuracy of the *Lloyd's Register* entry provides a convenient but not wholly convincing means for the questioning of that figure. The Secretary of *Lloyd's Register of Shipping* when presented with the evidence summarized here suggested that “in view of the fact that our entry for the owner would appear to be incorrect” an error in copying the tonnage figure “is more than likely also.” The misreading of a zero for an eight could have accounted for the transcription of three hundred and eighty tons rather than three hundred. In any event, the *Lloyd's Register* entry needs to be more closely examined and, provided further support for the lower figure is found elsewhere, the theory of a mistaken reading of one number for another provides as reasonable an explanation for an apparent error as can presently be found.

The needed additional support for the hypothesis that the *Alfred* measured three hundred tons comes in the form of an explanation of the origin of the most variant of the legitimate tonnages for the *Alfred*, that found in the Philadelphia register. Thomas Irving, the former “Inspector General of Imports and Exports of North America, and Register of Shipping,” provided an authoritative answer to our quandary in a report to the House of Commons in 1792. In a letter accompanying “An Account of the Number and Tonnage of Vessels built, in the several [North American] Provinces . . . during the Years 1769, 1770, and 1771,” he warned that “Vessels . . . were generally registered considerably under the real Burthen” in the “Proportion . . . as Two is to Three.” In other words, Irving

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13 Secretary of Lloyd's to the author, Oct. 16, 1961.
admitted that, as an officially recognized practice, the registrars of the colonies recorded the tonnage of vessels at about two-thirds of their actual calculated value. Applying his dictum to the hypothetical three hundred ton figure for the *Alfred*, we would expect to find a registered tonnage of two hundred tons, the precise amount recorded by John Nixon. The Continental Ship *Alfred* thus measured three hundred tons.

The conclusions suggested by this study indicate that the tonnage formula of 1695 was the method used in arriving at the "real Burthen" (to use Irving's words) both by the Royal Navy and by mercantile interests, and that there also obviously existed a widespread practice of subtracting one-third of the computed tonnage when a vessel was registered (the reason for this latter practice and its geographical and temporal limits have yet to be established). Both of these tentative conclusions need further testing. One fact does seem certain. The tonnage of vessels was definitely computed and this computed tonnage was universally recognized as the size of a ship even by those who, for particular purposes, discounted it.

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15 The three hundred ton figure would help explain a difficulty William Bell Clark had when he thought the first cargo carried by the *Black Prince* an "enormous" one "for a 200 ton vessel." Clark, *Gallant John Barry*, 41.

There exist two other tonnage figures for the *Alfred*. Samuel Eliot Morison estimated the *Alfred* to have been a 350 ton ship. *John Paul Jones*, 38. He revised his estimate "downward at least 50 tons" on the basis of the information presented in this article (letter to the author, Oct. 24, 1961). Augustus C. Buell, in his spurious life of Jones, fabricated a short history of the *Black Prince* and claimed she measured 440 tons. *Paul Jones*, I, 29–30. Morison showed Buell's whole book to be the tissue of lies it is and he asks "any librarian who reads this" to reclassify Buell's book as fiction, an injunction which this author heartily seconds. *John Paul Jones*, 425-428. John W. Crear specifically disproved Buell's concoctions about the *Black Prince* in "The Story of the 'Black Prince',' Vineland Historical Magazine, XXIV (1939), 186-193.

16 See Bernard and Lotte Bailyn, *Massachusetts Shipping, 1697-1714: A Statistical Study* (Cambridge, 1959), 9, where an equivalent conclusion was reached. The implicit major premise upon which this whole discussion is predicated is that there was a "real" tonnage. For eighteenth-century English America and, in particular, for the immediate temporal and geographical boundaries involved here, this is thought to have been tonnage as computed on the formula of 1695. The results of this investigation would seem to substantiate the validity of this major premise and its corollary. The author hopes to elaborate on these points in the near future.