Hazardous Duty in Short Desertion: The Formulation of Military Law Concepts

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ALFRED AVINS*

A. Lybrand's Case, Current Military Law Formation, and Hazardous Duty in Short Desertion.

The traditional casenote is written a few months after the decision is published. A year after the case is reported, it is already like the autumn leaves, losing its vitality and ready to drop to the earth, there to mix with the mass of the law as new cases press it out of focus. When two years have elapsed, the opinion typically has grown as stale as last year's snow. To discuss a case seventeen years old must seem like a display of extraordinary procrastination.

Nevertheless, one can sometimes gain a new focus with old glasses. This author has been a repeated critic of current substantive military law formation, as being haphazard, unscientific, and just plain out of touch with those considerations which should be considered relevant. ¹ However, in criticizing the negative aspects of substantive military law formulation, this author has not heretofore set forth in a step-by-step analysis the means which military tribunals should use in creating substantive military law. This methodology can best be explored by focusing on a specific problem.

The problem of what constitutes "hazardous duty" in military desertion affords an advantageous field for this endeavor. Article 85(a) (2) of the Uniform Code of Military Justice²

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² 10 U.S.C. § 885(a) (2).
makes it a capital crime in time of war for a serviceman to go AWOL with intent to avoid "hazardous duty," as one soldier whose life-span was considerably shortened by a firing squad during World War II found out to his regret.\(^3\)

The legislative history of the statute is singularly scanty as to the meaning of the term "hazardous";\(^4\) the Manual for Courts-Martial provides little more guidance.\(^5\) Accordingly, the military courts are left to shift for themselves as best they can, to formulate a definition of "hazardous" through case-by-case analysis and application. The process through which this common-law formulation of substantive military law is carried on in this field provides a fruitful microcosm by which methodology in military law-making can be studied.

Of all the cases involving the meaning of "hazardous duty" in short desertion, Lybrand's case\(^6\) is the most worthy of analysis in depth. A doubtful case, with a difficult fact pattern, it presents a complex of problems which should have produced a perceptive discussion. Instead the Board of Review deciding it followed a stereotyped route to an unimpressive result. Although decided during World War II, the problems this case raises are of current interest and importance.

This article will focus on that case, taking up first the Board of Review's opinion, next the infirmities in which its route resulted, and finally a more satisfactory solution to military law formulation, in this area. From this, it is believed that military law formulation in other areas can avoid the same type of pitfalls.

B. A Haphazard Approach to Test for Hazardous Duty.

On November 3, 1943, Lybrand, the accused, was a member of a company located in Sicily. On that date, when accused went AWOL, it was common knowledge among members of the company that they were preparing for overseas movement, the general rumor being that the outfit was being shipped to

\(^3\) ETO 5555, Slovik, 15 ETO 151 (1945).
\(^6\) ETO 2368, Lybrand, 6 ETO 333 (1944).
England. Between that date and November 7th, when accused was returned to his organization, the company moved to a staging area at Palermo, Sicily, a concededly non-hazardous journey. Two days after accused was returned, the company embarked on a transport and proceeded by water from Palermo to Liverpool, England, without being subjected to enemy attack or other hazard.

On the day accused was returned, he was asked why he left. He told his commanding officer that "he was fed up" with his unit and "had no intention of coming back until after the 9th Division had left Sicily." He also informed the officer that he wanted to get into a unit in Italy, and would not have returned except for the fact that MP's apprehended him.\(^7\)

Accused was charged with AWOL with "intent to avoid hazardous duty, to wit: Movement overseas," as a violation of the then short desertion statute. Faced with the problem of proving this uneventful voyage to be hazardous, the prosecution at trial asked various company officers for their opinions. For example, the company commander testified: "I don't confess to be an authority as to whether or not it is hazardous, but it does involve the chance of being torpedoed or hit by a bomb." And the following colloquy occurred between the prosecution and the executive officer:

"Q. Would the trip from Palermo to England be considered hazardous?

"A. . . . I don't believe at the time that we left that we knew where we were going.

"Q. Would the ordinary overseas movement be considered hazardous?

"A. Yes . . . if you didn't know where you were going.

"Q. Then, at the time you were preparing for a movement overseas, while still in Sicily, would that prospective movement be considered dangerous?

\(^7\)Id., at 336.
"A. I think it would be."

The unsatisfactory nature of the above evidence is patent. A group of company grade infantry officers could hardly be considered experts on ship sinkings or the chances of surviving a sea voyage. Such information as they would have would no doubt be based on rumor, fourth-hand hearsay, and whatever isolated experiences they may have had. An opinion based on such a lack of knowledge is valueless, and indeed prejudicial. The above officers were giving vent to personal fears, rather than adding factual knowledge. They may have anticipated danger although the seas had been swept clear of enemy craft; contrawise, they may believe no danger existed although submarines lurked at every turn and the enemy air force was swarming about. Such subjective opinions are not legal proof, and even the board of review seems to have been unimpressed with this evidence.

Faced with a void in the record on the issue of hazard, the board declares that "the heart of the case against accused is the question whether the court was justified in taking judicial notice that the journey by water from Palermo, Sicily, to Liverpool, England, ... was 'hazardous duty.'" The board's road to thus dispensing with inconveniently absent evidence commences with selections defining hazard from civilian dictionaries, hardly an illuminating source in light of the vague generalities to be found therein.

Next the board moves to civilian sources. "All navigation is perilous," it says, citing a civilian case, a theory which would obliterate the distinction between hazardous and non-hazardous duty in the navy and in all army overseas movements as well. Apparently unconvinced themselves by so sweeping a doctrine, it postulates the "obvious" elements of hazard involved in a wartime sea journey in a theater of opera-

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8 Id., at 336-7.
9 Id., at 339.
10 Extracted from these sources are the following: "Exposed to or involving danger; perilous; risky" and "involving hazard or special danger." Id., at 340. This hardly advances the board's analysis at all.
tions. The board cites one civilian case for the proposition that vessels are menaced by "removal for belligerent purposes of all or any aids to navigation,"\textsuperscript{12} although there is not the slightest shred of evidence cited to support the theory that this alleged peril ever seriously endangered Allied shipping during World War II. The board then cites a third case to show the peril of submarines,\textsuperscript{13} and winds up by taking judicial notice itself of the danger of enemy air action.

To start with, civilian precedents are generally inapplicable to a determination of what hazardous duty is because they look to one object while military law looks to another. In the above cases, civilian courts were construing the terms of marine insurance policies, and the loose language or generalized observations in such a case do not bear on the question to which short desertion is directed, viz.: how great must peril be before men are deterred from their duty by it. But a greater vice still is found in following these cases, for it constitutes a crystal-clear example of the blind leading the blind. Here military courts, presumably in the area of their specialized expertise as to the hazards of war, are following civilian judges with no such specialized knowledge. Such resort to militarily untutored sources is surely an unsatisfactory method of formulating sound military law concepts.

Of course, some facts of military significance are so well known that even civilian judges cannot fail to perceive them. Thus, in one case, a federal court held:

[The ship] was a part of a large convoy . . . because it was in waters infested by submarines and other naval craft of the Axis Nations. The long lists of submarine sinkings to which the public became accustomed during the interval in question, can leave no doubt in the mind of any thinking person but that our convoys traversing the high seas were in every sense of the term, not only "in the field," but in actual combat zones. . . . [The] vessels were in constant and deadly peril during the voyage, [and]

he was passing through waters frequently the scene of
violent armed conflict. These facts are too well known to
be disregarded or waived aside. . . . The convoy was
simply a means of conveyance used by the army in bring-
ing up supplies and munitions through territory constantly
subject to enemy attack. Whether the road lay over land
or water and whether short or long could make no dif-
cence; the course traversed constituted a supply line to our
armed forces abroad, menaced throughout its length by
armed forces of the enemy.14

But the above case referred to a trans-Atlantic convoy
during the early days of World War II, and indeed, during
that early period, shipping was hazardous. By the end of
1940, surface raiders in the North Atlantic cost the British,
Allied, and neutral merchant marines 86 ships sunk; in 1941
they sank 84 vessels more. German submarines sank 585
ships by the close of 1940, and 432 ships in 1941. The Luft-
waffe accounted for 202 vessels up to the end of 1940, and
371 more in 1941. Mines dispatched 280 boats by the termi-
nation of 1940, and 111 additional craft in 1941.15

Axis depredations continued unabated during 1942. In
the first four months of that year, the German navy "pulled
off one of the greatest merchant ship massacres in history,"
sinking, through submarine action, 82 merchant vessels in
the Eastern Sea Frontier alone, together with 55 vessels in
the Bermuda area.16 Between March 1 and July 1, U-boats
knocked off another 160 to 170 ships in these two areas
alone.17 From September 1942, to the end of that year,

Kilpatrick, 53 F. Supp. 80 (E.D.Va., 1943), where the court referred at
p. 84, to the "grave dangers from the land, the sky, and the sea." And in
Ex Parte Gerlach, 247 Fed. 616 (S.D.N.Y., 1917), the court at 617 de-
clared:

In this case he was on an Army transport, and peril from sub-
marines existed when he refused to stand watch. The captain in
charge of the vessel had, in my opinion, the right to call upon all
persons on board to protect the transport in any way that seemed
best in view of the danger.

15 10 Morison History of United States Naval Operations
In World War II 4 (1956).

16 Id., at 7.

17 Id., at 8.
convoys in the North Atlantic lost an average of 26 vessels per month, and in early 1943, the rate was accelerated, rising to an "all-time high" of 49 ships sunk in March by U-boats out of 687 vessels in convoy. Between November 1st and March 31st, Allied and neutral merchant ship losses reached the "unprecedented figure" of 166 craft. Under these circumstances, it was indeed common knowledge that trans-Atlantic voyages were perilous during the beginning of the war.

But the board spreads the above common knowledge too thin and too far. After using some loose language which hardly rises to the level of obiter dicta from several military cases, the board concludes that the court-martial need not have presumed that a sea voyage was hazardous because judicial notice could be taken thereof. Yet, in fact, far from it being common knowledge that accused's shipping route was hazardous, it was something which probably could not have been proved at all, for the simple reason that in all likelihood the perils of accused's voyage, which is the only one which could have concerned the board, were probably slim indeed. To appreciate the inapplicability of the above-mentioned "common knowledge," it must be remembered that accused was not embarking on a trans-Atlantic passage through submarine-infested waters, but rather was taking a Mediterranean cruise. We must therefore examine the situation in that area, and as of the latter part of 1943.

C. The True Background of Lybrand's Case.

In early May of 1943, the Axis forces were cornered in the northeastern part of Tunisia, fighting with their backs to the sea. On May 7th, Bizerte fell to the Americans, and two days later, General Krause was forced to surrender 25,000 of the Afrika Korps. A few days thereafter the remaining 150,000 Axis troops in Tunisia were captured. "Only a small number of the enemy attempted to escape by sea, and owing to the vigilance with which the Royal Navy carried out its patrols, only a handful succeeded in crossing the Sicilian Straits."
So impotent was Axis sea power in the Mediterranean even at this early date, that it was unable to ferry these troops across the narrow Sicilian Straits and thus avoid a "loss . . . considered by the entire German Army to be a catastrophe second only in magnitude to that of Stalingrad." 20 After Tunisia fell, "Allied air and sea power were supreme throughout the southern Mediterranean," and the British Vice Admiral at Malta commented, "almost with a touch of pique," on the failure of the Germans to attempt evacuation:

Two features of the operation are prominent. First, the complete absence of any Axis men of war or shipping, which was very disappointing, and, secondly, the manner in which the Axis Air Forces deserted the theater of operations and left our destroyer patrols to operate without inconvenience. 21

The growing ineffectiveness of Axis sea power was felt in the submarine service during the Sicilian campaign. Although the waters swarmed with Allied shipping, and the Germans kept three to four U-boats operating around the island all during this period, "the excellent anti-submarine protection given by United States and British escorts, and by planes of Coastal Command Northwest African Air Force," reduced Allied losses to the minuscule. 22 In turn, however, Allied attacks almost wiped out Axis submarines. 23

German submarine power in the Mediterranean continued to decline after the fall of Sicily. No more than 18 U-boats at any one time operated in the whole sea after that date, and they were subject to heavy losses due to the efficient Allied

20 Ibid.
21 Id., at 259-260.
22 9 MORISON HISTORY OF THE UNITED STATES NAVAL OPERATIONS IN WORLD WAR II 41 (1954). The author also notes, at 38, that an Italian naval "challenge to Allied sea supremacy at that point would be hazardous, if not suicidal."
23 Id., at 40. And the author declares at 43:
All in all, the Axis submarines put in a miserable performance . . . Three U-boats and nine Italian submarines were sunk within three weeks; and they had nothing to show for their sacrifice except five merchant ships, a tanker, and two LSTs. Casualties on both sides were remarkably few.
Between May and September 1943 an average of 400 ships monthly sailed through the Tunisian War Channel; the numbers increased so rapidly that in 1944 the figure was about 1200 a month, but during this whole period from all this press of shipping, the Allies lost only 25 vessels to U-boats. Between May 1943 and August 1944, four surface vessels were sunk by German submarines in the western Mediterranean, of which only one was a non-fighting ship. And Axis naval strength further declined on September 9, 1943, the day after the Italian armistice, when the whole Italian fleet defected to the Allies.

Nor did Axis air power fare any better. On July 1, 1943, their total strength which could be deployed in the theater consisted of 600 Italian aircraft and about 780 German planes, as against 3,680 American airplanes of the Northwest African Air Force. The Luftwaffe then lacked torpedo bombers, and as for the Regia Aeronautica, "the effect of the North African campaign on [it] has been described as a hemorrhage." The picture continued to get progressively worse for the Germans. The fall of Sicily, the invasion of Italy, and the securing of Naples in Allied hands by October 1, 1943, deprived them of important airstrips. More bases were lost when Sardinia and Corsica had to be evacuated in September of that year. The Italian armistice deprived them of further air support.

German air attacks against Mediterranean convoys, designed to stem the Allied build up in that theater, met with "heavy losses and lack of success." Often the Luftwaffe would not only fail to sink any vessels, but it would be unable to score any significant hits. As an example of the effective-

24 10 MORISON 252.
25 Id., at 250.
26 Id., at 254-5.
27 9 MORISON 243.
28 Id., at 56-7.
29 Id., at 310.
30 Id., at 304.
31 10 MORISON 264.
32 Id., at 266-7, 271-2.
ness of Coastal Command, Northwest African Air Force, in covering all convoys that passed Gibraltar, on June 26, 1943, an eastbound convoy was attacked by over one hundred German planes off Cape Bon, but Coastal's fighters kept them so busy that not one ship was seriously damaged.33

The U-boat record in the Atlantic during the period in question was equally dismal, and towards the end of 1943, the Allies definitely gained the upper hand in the struggle.34 Thus, between May and August of 1943, 16 submarines and 8 refueling ships for submarines were sunk, as against one merchantman, in the central Atlantic.35 August was a banner month for anti-submarine warfare; 26 U-boats were sunk, as against only four merchantmen.36 During 1944, 266 convoys crossed the North Atlantic with 12,907 ships and 1,945 escorts; only 10 were sunk by submarines.37 As Morison declares:

In a speech to the House of Commons on 21 September 1943, Winston Churchill announced, with unusual gusto even for him, that "for the four months which ended on 18th September, no merchant vessel was sunk by enemy action in the North Atlantic. ... During the first fortnight in this September, no Allied ships were sunk by U-boat action in any part of the world".

This oration was ... broadcast around the world [where] it evoked a cheer in many a United States ship

33 9 MORISON 59.
34 10 MORISON 244.
35 Id., at 128.
36 Id., at 132. And see p. 250, where the author recounts unprecedented American convoy success as follows:

In May 1944, when Operations Dragoon (invasion of Southern France) was being prepared, these fast convoys were revived; and from 1 July 1944 they departed Norfolk. ... There were no losses in these fast convoys.

Between December 1942 and March 1945, twenty-four UGF convoys transported 536,134 troops from the United States to the Mediterranean. Thirty ... fast tanker convoys from the Caribbean to the Mediterranean, with an average of seven tankers each, sailed at 32-day intervals between February 1943 and June 1944 with no loss or damage.

37 Id., at 328.
engaged in convoy duty and brought joy to thousands of people in the families of soldiers and sailors then afloat on the great deep. 38

The above statistics make shaky indeed the cornerstones upon which the board’s assumptions rest. Far from showing that a Mediterranean sea voyage was hazardous in late 1943, they strongly point towards the opposite conclusion. It appears from an examination of the overall naval picture at the time accused was destined to sail that the probability of his ship being sunk was exceedingly slim. If there was anything to alter this picture in the case of accused’s convoy, it should have been brought out in evidence. Judicial notice can hardly serve as a substitute for facts which nobody knows. 39

True, it may be argued that a showing of some sinkings shows potential hazard, 40 which need not materialize in every case to constitute hazardous duty. 41 But unless it materializes in a sufficient number of cases to deter men from performing their duty, it is not within the reason or rule of the short

38 Id., at 135-7.
39 ETO 2396, Pennington, 6 ETO 351, 355-6 (1944).
40 Cf. ETO 5953, Myers, 16 ETO 57, 58-9 (1945):

The prosecution showed conditions of active combat, including attack and counter attack, accompanied by heavy enemy fire, for the night of 22 and 23 November. The record is silent as to specific combat conditions on 25 November, except for evidence that accused’s command was still in the same general territory and was separated from the enemy by only 250 to 300 yards. . . . [T]he general situation on 25 November, the date on which accused was proved to have been absent from his command, was shown to have been fraught with potential hazard so as to support the finding of the court that . . . accused absented himself from his command to avoid hazardous duty.

41 In ETO 5803, Alexander, 16 ETO 1 (1945), the board declared at 4:

It was further shown that . . . accused’s section was under orders to perform a mission which involved the laying of a smoke screen before a fort occupied by the enemy and it is clear that these orders involved “hazardous duty,” as alleged. The section had only that morning returned to the company area after performing a similar mission during which it had been subjected to enemy fire. The mission scheduled to begin on the evening of 19 November 1944 was to be performed in close proximity to the enemy and it was anticipated that the section would again be fired upon. The mission was actually performed within the range of enemy weapons and the exposure to danger was obvious. The mere fact that the danger did not materialize on this particular occasion does not mean that the operation was not hazardous in nature.
desertion statute, for all human activities bear the seeds of peril within their framework. But the statute cannot reach that far, and nothing appears in this case on which to base an intelligent dividing line. Furthermore, even were this conceded arguendo, history still destroys one of the board’s basic premises, that overseas movement in an active theater of operations is ipso facto hazardous, \(^\text{42}\) for no Allied merchant shipping was sunk in that sea by U-boats after May 1944, \(^\text{43}\) although the theater remained the scene of bitter combat for almost a year thereafter. And not even the most extensive stretching of the concept of “hazardous duty” could encompass a complete absence of risk.

All this assumes that loss of life must be great when a troop transport is sunk, but experience teaches that it is not necessarily so, for efficient rescue can reduce risk to a minimum. \(^\text{44}\) Thus, in one of the worst North Atlantic battles of 1943, rescue work despite heavy weather and fog was so good that out of three American ships sunk by submarines only eight men were lost. \(^\text{45}\) And on December 28, 1944, when a crowded troopship was sunk by a U-boat off northern Britain, only six men were lost. \(^\text{46}\) If this record could be maintained in northern wintery waters where the danger from heavy seas and exposure is so great, the risk to life is even less in the quieter and warmer Mediterranean during the fall. And, it must be remembered, loss of shipping alone does not make duty perilous; there must be risk to life as well as to equipment.

Finally, still another factor militates against risk in this voyage. The convoy accused took was a westbound convoy. Eastbound convoys were flooding the theater with American troops and supplies from the United States, and their passage could be easily spotted by the swarm of Axis agents at the Straits of Gibraltar. Westbound convoys were generally ships which had already discharged their cargo. Would it not be more likely for U-boats or the Luftwaffe to attack cargo-laden ships about which they had received accurate

\(^\text{42}\) See 6 ETO 341.
\(^\text{43}\) 10 MORISON 365, Appendix I.
\(^\text{44}\) See, for example, id. at 264.
\(^\text{45}\) Id., at 76.
\(^\text{46}\) Id., at 337.
information in an attempt to relieve Kesselring's hard-pressed forces in Italy than to strike generally at usually empty vessels returning homeward without the benefit of intelligence from spies? Is it reasonable to assume that Grossadmiral Doenitz would have risked detection of his handful of submarines, or Air Marshall Goering would have sacrificed more of the waning Luftwaffe power in the Mediterranean, to send to the bottom vessels whose only cargo could have been presumed to be ballast? It seems fairly reasonable to assume that accused's route gave him further protection against peril.

Arrayed, then, against all of the above considerations, the board sustains the finding that accused's duty was hazardous based on the opinions of officers least likely to know, on second-guessing, speculation, conjecture, and surmise, on civilian authority considering entirely different questions, on loose language taken from other cases not considering the point, on a sweeping assumption which is not necessarily correct, and finally, to cover all other deficiencies in the evidence, on judicial notice of alleged facts which are not only not common knowledge, but probably are contrary to fact as well. The result is a completely haphazard method reaching highly untrustworthy conclusions.

But the crowning touch is added by comparing the above case to one arising in almost the identical geographical area, but through accident decided by a board in the Mediterranean Theater of Operations, which was undoubtedly more familiar with the area than the board in the European Theater. Referring to an absence without leave from June 30, 1943 to July 8, 1943, from accused's unit in Algeria preparing to embark for the invasion of Sicily, the board declared:

An "appropriate" specification alleging aggravated

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47 Cf. NATO 3215, Lynch, 5 NATO-MTO 1 (1944), which suffers from the same infirmities. The board there declared at 4:

The trial judge advocate requested the court to take judicial notice that on 6 and 13 March 1944 water transportation from the Naples area to the Anzio beachhead and service thereat might "be considered hazardous duty," ... Although the request as made may have involved an element of a conclusion as distinguished from a fact, the court could properly take judicial notice of conditions existing near Naples and the Anzio beachhead at the time in question and from such facts conclude the duty alleged was hazardous.
absence without leave violative of Article of War 96 and not charging the elements of desertion, . . . could of course have been drafted. One form of such a specification might have alleged mere absence without leave “with intent to avoid embarkation for a sea voyage,” a duty not necessarily hazardous or important of itself as thus charged. 48

Of course, unless a distinction can be made between some sea voyages and others in the same area, and this must be proved, if it is common knowledge that some sea voyages are perilous, then all must be equally risky. And by the same token, if some are not hazardous, others are equally safe, absent evidence to the contrary. Therefore, reading the two cases together, they hold that in June of 1943, right after the fall of Tunisia, voyages in the Mediterranean were not hazardous, but by November, after the Axis had lost vital air bases in Sicily, Sardinia, Corsica, and Southern Italy, after the Luftwaffe and U-boats had been materially reduced by Allied action, and after the Italian armistice had deprived Germany of the Duce’s fleet and air force, sea trips had become so much more perilous that it was common knowledge that they were all hazardous. With these events as a premise for increased German strength, not even Goebbels would have dared to make this claim.

D. Scientific Testing for Hazardous Duty

With the above case as a striking example of how not to determine whether a particular duty is hazardous, we turn now to examine more reliable tests. In doing so, we will use as a starting point another case from the same theater.

In Urban’s case 49 accused was a top-turret gunner of a bomber engaged in strategic bombing over the interior of Germany. On August 16, 1944, while on a mission to Leipzig, the plane encountered intensive flak and received direct hits. The mission was considered “rough” and “very severe” by the crew. On previous missions, the plane had been attacked by enemy fighters. Thereafter, accused went AWOL.

48 MTO 6543, Thacker, 7 NATO-MTO, 47, 54 (1945).

49 ETO 4138, Urban, 12 ETO 1 (1944).
The board declared:

Flying as a member of a combat crew on combat missions to targets in territory on the continent occupied by the enemy constitutes . . . hazardous duty. . . . The dangers attendant upon the performance of such duty are shown by the evidence and are so commonly known that judicial notice may be taken of them. (CM ETO 2368, Lybrand.)

While once again, citing the prior case of the sea voyage dissected above, the board takes judicial notice that the duty is hazardous, this time at least it refers to competent evidence in the record of specific dangers to which the accused had been subject. Certainly, evidence of perils in accused's particular duty is evidence that the duty is hazardous generally, just as evidence of lack of prior dangers is evidence of the converse. However, as pointed out above, neither is conclusive, for some will escape the most dangerous tasks unscathed, while others will be injured in the safest activities. The old saw about the veteran who goes through the whole war without a scratch only to slip on a banana peel in front of his home and break his bones is recognition of this truism. We turn then to a scientific method of proving that flying as a crew member of a combat aircraft is hazardous duty.

The reason, interestingly enough, why statistics are available to show that flying is hazardous has nothing to do with military justice, but rather stems from the desire of the service to retain flight pay. In urging on Congress the fact that flight pay is justified by the hazard of flying, resulting in a shortened life expectancy for pilots, and is not "just a bonus for flying," as many Congressmen had believed, the service representatives were not content with merely asking Congress to take judicial

50 Id., at 6. And see ETO 10363, Mangiapane, 22 ETO 235, 238 (1945); CM 270352, Uyechi, 45 BR 233, 235 (1945).
51 Hearings Before a Subcommittee of the Committee on Armed Services, House of Representatives, on H.R. 2553, Career Compensation for the Uniformed Forces, 81st Cong., 1st Sess. 1573 (1949):

ACTUARIAL STATISTICS ON FLYING PERSONNEL

The life expectancy of an individual who enters a flying career at age 22 is 12 years less than an individual of the same age who chooses a nonflying career. The flier can expect to live to age 58; the nonflier can expect to live to age 70.

Expressed another way, one out of four individuals who enter a flying career at age 22 will be dead before they reach age 40. The nonfliers will not suffer this attrition until they reach age 61.
notice of the flying hazards, or calling as a witness an infantry officer who had once been a passenger on a military plane. Rather, they responded to a request for actuarial statistics from one committee member,\textsuperscript{52} and figures were supplied. Thus, instead of haphazard proof based on speculation, suspicion, and surmise, there were introduced reliable figures concerning the hazard.

During World War II, the mean strength of Army Air Corps flying officers was 122,823 and the mean strength of enlisted crew members was 100,332. Of the officers 23,551 were killed in combat and 27,701 enlisted men were killed in combat. An additional 16,313 Air Corps officers and men were killed in noncombat airplane crashes.\textsuperscript{53} During this period, 90 Air Force general officers personally led their forces in combat, of whom 10 were killed.\textsuperscript{54}

A comparison of flying duty in wartime with other duty shows that all members of the Army are not equally exposed to hazard. The combat fatality rate for Army flying personnel between December 7, 1941 and December 31, 1945, per thousand per annum, was 49.9 for officers and 69.45 for enlisted men, total 58.24, for nonflying officers it was 5.62, for men 6.83, total 6.74.\textsuperscript{55} These figures, showing that the combat fatality rate of flying personnel was over nine times the rate of ground personnel, compare air crews with the rest of the Army as a whole, which includes service troops who were not particularly exposed to combat. The following table compares all combatant arms:\textsuperscript{56}

\textsuperscript{52} Id., at 1572.
\textsuperscript{53} Id., at 1623. Expressing this another way, 303 out of every thousand Air Corps flying personnel members were killed in combat or aircraft accidents. Id., at 1624.
\textsuperscript{54} Id., at 1632.
\textsuperscript{55} Id., at 1588.
\textsuperscript{56} Id., at 1633. See also the following at the same place:

Since the majority of Air Force flying personnel are officers, the World War II statistics on officer deaths and casualties, as published by the Adjutant General of the Army, are particularly pertinent. Over two-thirds of the officers of the Army, including Air Corps, who were killed in combat during World War II, were Air Force flying personnel. (Out of a total of 54,645 Army officer combat fatalities, 24,119 were Air Force flying officers.) Over half of the officer casualties in the entire Army were Air Force flying personnel, and over three-quarters of the officers captured or interned were Air Corps flying officers.
COMBAT FATALITIES BY COMBAT ARMS, U. S. ARMY
AND AIR CORPS, December 7, 1941 to July 31, 1945
[Combat death rate per 1,000 per annum]

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<th>Officers</th>
<th>Enlisted men</th>
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<td>69.0</td>
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In addition to combat fatalities expressed above, Air Corps crew members suffered a fatality rate, per thousand per annum, due to aircraft accidents alone, of 15.7, while the fatality rate, per thousand per annum, of the rest of the Army due to all non-combat causes, was only 2.4.\(^57\)

Nor is military flying devoid of risk even in time of peace.\(^58\) Increasing aircraft speeds have increased the ratio of fatalities to major aircraft accidents. While in 1930, there was an average of one fatality for each 13 accidents, the ratio became

\(^57\) Id., at 1587-8.

\(^58\) Id., at 1590, 1592. And see the following statement at 1631:

"The hazards of military flying are clear and demonstrable. Moreover, despite advances in aircraft design and vigorous safety measures, the hazards of military flying have not decreased. There are two main reasons for this sustained level of risk in military flying. First, to design, develop, and employ aircraft of maximum combat capability must be our primary objective. Unfortunately, combat performance and design safety factors do not go hand in hand. The aircraft with highest combat performance is generally the most dangerous to fly. Second, is the necessary operation of these new and higher performance aircraft types under more extreme conditions of altitude, speed, and weather, which imposes greater physical and psychological stresses upon the pilot and crew. These factors are in exact opposition to safety and the repetitious route flying of commercial air lines."

There is a general tendency to assume that all aviation is becoming safer. By 1946, the rate of passenger fatalities in commercial aviation had decreased to approximately one-sixth of what it had been 10 years before.

Data of the CAA and the Actuarial Society of America indicate that, on a comparable basis, the death rate of military pilots is over 20 times that of commercial airline pilots. For each 100,000 airplane hours flown in the military services, 9.6 pilots were killed. For each 100,000 hours of commercial airplane flying, 0.4 pilots were killed.
1 to 8 in 1947, 1 to 6 in 1951, and 1 to 5 in 1954. The jet fatality rate for all services is 16 per hundred thousand flying hours, as against 8 for conventional aircraft. Thus, notwithstanding a cut in the major accident rate into a quarter of its former size in twenty years, the fatality rate has not declined. Jet flying "has been termed by the President of the United States and by insurance companies as the most hazardous major occupation in the United States today."

Wartime submarine service is almost equally hazardous. Out of every thousand American submariners, 245 lost their lives, as compared to the surface vessel fatality rate of 38. There have been almost no casualties during peacetime;

While the safety of civil aviation has increased, it appears that military flying is more dangerous now than it was prior to World War II. During the 11 years preceding the war the death rate of Regular Army (Air Corps) pilots was 9.6 per thousand per year, as compared with a 2-year postwar death rate of 12 per thousand, an increase of 25 percent.

A brief review of present trends shows that no decrease in military flying fatalities can be expected in the foreseeable future. Supersonic speed with jet propulsion, rocket propulsion with its problems of compressibility, methods of escape through ejection and the effects of accelerative and decelerative gravity forces as they approach human limits, are an integral part of current and future military flying. These contributing factors to the hazards of military aviation are in addition to those we have always had, such as non-scheduled, off-airways navigation, arctic, formation, and bad-weather flying, dive-bombing, strafing, and other operational training activities.

The magnitude of the aircraft accident fatality rate is illustrated by the fact that month in and month out, since VJ-day, an average of between two and three aircrew members have been killed per day in aircraft accidents.

Nonflying Air Force or other military personnel are not exposed to sudden death as are flying personnel. In 1947, the rate of death of Air Force flying personnel, due to aircraft accidents alone, was over five times as great as the death rate due to all causes of Air Force nonfliers. (Deaths per 1,000 per year, Air Force flyers due to aircraft accidents alone, 10.3; deaths per 1,000 per year, Air Force nonfliers, all causes, 2.)
a fact which belies the assertion that "the hazard is always there," for without risk there can be no hazard. However, the injury rate runs 50 percent higher than on other vessels because of cramped quarters, and it has been predicted that the advent of atomic submarines will enhance the risk.

The above pattern of statistics constitutes an exact and scientific method for determining hazard, as well as comparative hazard. In place of guesswork, conjecture, and all-embracing, but equally unreliable, "judicial notice," the use of statistics showing casualty rates substitutes mathematically accurate data by which the degree of hazard can be uniformly measured for all military duties. Such information is far more desirable than any other way of determining danger. Casualty and fatality rates, having a universality of application and being easily compared, constitute the standard criteria which ought to be used in determining whether a particular activity is or is not dangerous duty.

E. Conclusion

The concept of hazardous duty in short desertion consists, upon close analysis, of three parts, viz.:

(1) The casualty or fatality rate for those engaged in the duty. This is a purely statistical inquiry.

(2) The number of personnel who will be deterred from performing that duty by such rate of injury or death. This is in part a statistical inquiry coupled with sociological and psychological considerations.

(3) Whether the defection rate stemming from the casualty rate is sufficiently high to warrant imposition of the special short desertion penalty. This is primarily a value-judgment based on personnel policy and duty-requirements considerations.

It can thus be seen that the concept of "hazardous duty" is not a static factor. It is neither undeviatingly tied to any

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66 Ibid. See also p. 174.
67 Ibid.
68 Id., at 34, 68, 174.
particular type of duty, even combat duty, especially where the enemy has been rendered impotent, nor is it invariably tied to a particular casualty rate at all times. Rather, it is a concept flexible enough to meet the need for which it was created, to keep military personnel performing their duties even when risk became great. As such, it constitutes the sum total of an evaluation of all of the aforementioned factors in relation to each other. Only by so applying the short desertion statute can the law be kept uniform in application and rational in result.

The analysis herein, by pointing the way to a more reliable test for “hazardous duty,” will, it is believed, provide in addition through an exhibition of the approach to be used, a guide for the more rational formulation of military law concepts generally. This methodology in turn will result in more satisfactory military law principles, ones which at once define standards of conduct with understandable yardsticks, and deter only derelictions which require it.