Incidents and accidents are frequently ascribed to “operator” or “human error.” Until recently accident investigators have focused more on the immediate or proximate causes of incidents and accidents than on such underlying or contextual factors as production imperatives, conditioning, expectation, peer pressure, ergonomics or the quality and currency of rules, procedures and training. Some theorists, however, have attempted to sensitize accident investigators to the potential impact on human perception and behavior of contextual factors. As a consequence of the work of Job (1996), Reason (1995; 1997), Snook (2000) and others accident investigators now have the opportunity to apply a systems approach to accident investigation. The primary purpose of this paper is to illustrate and then test the systems or “context” approach with reference to a major incident with significant outcomes. To this end the work of Job, Reason, Snook and others is used to frame, analyze and draw conclusions from a major incident—the clash between US and North Vietnamese naval forces in the Gulf of Tonkin during the early stages of the Vietnam War. The paper’s secondary purpose is to deconstruct, illuminate and explain the incident with a view to adding to (if not correcting a part of) the historical record of the Vietnam War. 2004 marks the 40th anniversary of the Tonkin Gulf incident, described by Wise (1968) as “The Pearl Harbor of the Vietnam War.” Following the alleged second attack on US naval forces by North Vietnamese warships President Johnson ordered a major escalation of the war against the Viet Cong. Today most analysts
agree that the second attack never took place. Given the significance and outcomes of the “phantom attack” (for example the loss of 58,000 American and over three million Vietnamese lives) it is important that we understand how and why the attack came to be imagined—for at least two reasons. First because some blamed the escalation of the Vietnam War on the “incompetence” of the sailors of the USS Maddox and USS C. Turner Joy. This misunderstanding has persisted for four decades. Secondly, because consequential military errors still occur—as with the accidental shoot-down of an Iranian Airbus by an American warship in 1988 that some believe led to the Lockerbie bombing.

Having applied the “context” approach to the Tonkin Gulf incident it is suggested that such factors as the sailors’ knowledge of the political and diplomatic background to their situation, their duty to protect their ship and very recent encounter with the North Vietnamese led them to “construct” (perceive) a second incident. It is concluded that, as in the 1988 Vincennes incident, knowledges, experiences and expectations bore down upon the sailors to create a threat that existed only in their collective consciousness. In short, the macro impacted the micro experience to the point where judgment was degraded.

Vietnam at the end of 1963 was the obvious challenge: both to US foreign policy and to its continuity. Anthony Short (1989, p. 279)

... evidence is now overwhelming that human error on the part of an inexperienced sonarman on the Maddox set in motion a series of events that led to America’s official entry into the Vietnam War. Eric Alterman (1999, p.11)

Hell ... those dumb, stupid sailors were just shooting at flying fish. Lyndon Baines Johnson (cited in US News & World Report 1984, p. 66)

**Introduction and discourses**

Disasters are often blamed on “human error” (Reason 1995, p. 193). In commercial aviation, for example, pilots are frequently blamed for incidents and accidents. According to Job (1996, p. 8) one aviation software designer attributes 80% of accidents to pilots. According to Weir
(1999, p. 140) the aviation industry believes “… pilot error [to be] the primary factor in over 70 percent of all crashes. …” Writing in 1999 Campbell and Bagshaw observed: “In the last 20 years the proportion of [air] accidents ascribed to human error has remained constant in the order of 70%” (1999, p. 6). Bennett (2001a, p. vii) talks of “the habitual blaming of pilots.” According to Maurino et al. blamism results from the fact that society judges the human and technical components of a system against qualitatively different criteria. As they explain:

When technical components fail, we rarely do more than to record the failure. … However, when human performance fails … we tend to judge that performance against an anticipated … standard of behavior. We often apportion responsibility and blame for the outcome. … We tend to make judgments of a qualitatively different kind than when considering failures of inert technical components. (1998, p. 32)

Under such conditions “explanation” “… can … amount to little more than a superficial restatement of the relevant events, ending with some residual and trivial category of human failure. The historical epithet “pilot error” comes to mind in this context. Few … will need reminding that such retrospective explanatory assignations have rarely contributed much to the prevention of subsequent accidents” (Maurino et al. 1998, p. 32). In his book Human Error—by Design? Bennett provides several examples where flight crew have been blamed for situations and outcomes over which (according to subsequent detailed and objective systems analysis) they had little or no influence. For example in the early 1950s the captain of a BOAC Comet was roundly criticized by de Havilland for crashing the aircraft on take off. While Captain Gort admitted an active error by raising the nose too steeply (thereby increasing the aircraft’s drag beyond tolerances) it was subsequently shown that latent errors or “resident pathogens” played a part in the accident. These included having to maintain a very precise angle of attack on take off (due to the Comet’s wing shape and available thrust). Gort had to meet such testing requirements under difficult meteorological conditions: it was dark and raining. Consequently he had no visible horizon. Having been held culpable Gort was demoted from the Comet fleet. Later, in a tacit admission that they had erred, the aviation authorities legislated larger tolerances for the critical take off phase. As Faith (1996, p. 54) explains:
As a result of these crashes De Havilland changed the shape of the leading edge of the wing. … Every single transport aeroplane since then has had to … demonstrate that it can put its tail on the ground and continue to fly off even with an engine failure … a major development in aircraft safety …

Blamism is an unsavoury but not uncommon feature of post-accident commentary. It is also counter-productive. Bennett (2001a, p. vii) observes: “[T]o the extent that “blamism” obscures the underlying causes of error [it is] dysfunctional in the matter of accident prevention.”

As Vette (cited in Job 1996), Reason (1995; 1997), Bennett (2000; 2001a; 2001b) and Snook (2000) explain, while the proximate cause may lie in operator error, incidents and accidents may originate in decisions and/or actions taken by actors removed in time and space from the event. Vette (cited in Job 1996, p. 5) talks of the need to “[look] beyond so-called “pilot error” to search for systemic and latent problems within organizations as a whole. … [T]he pathogens within a system … can combine to expose even the proudest safety record holders to failure.” Referring to the shooting down of an Iranian commercial aircraft by the USS Vincennes Bennett (2000, p. 49) observes: “[I]f such tragedies are to be prevented, it is important that we … understand how and why they occur. Technology is fallible. It may fail or be poorly designed. Human beings are fallible. Their performance may diminish under pressure. Their expectations may be shaped by history. Their perceptions may be influenced by precedent. Their discretion may be limited by edict. Given these and other considerations, it is unsurprising that human beings may generate erroneous constructions of the world about them.” In his discourse on “causal chains” Reason (1995, pp. 188-189) explains how coterminosity and serendipity impact safety. “Any catastrophic event arises from the adverse conjunction of several distinct causal chains” he says. According to Reason disasters may have their origins in “a combinatorial explosion of possible root causes.” Like Bennett and Reason, Snook (2000, pp. 23-24) is convinced that, in the matter of understanding human error, we need to focus on circumstance and precedent: “[M]y premise [is] that context is important … I emphasize the benefits of approaching … complex events from a … perspective … that emphasizes the importance of looking across levels of analysis and time—not in search of the cause, but rather in search of a broader set of conditions that increases the likelihood of such tragedies occurring.”

While offering an explanation for disaster such analyses are less convincing in the matter of indicating how disasters can be prevented.
The most profound problem is knowing a) which factors might combine to cause disaster and b) which of those factors can reasonably be modified or eliminated, given organizational, political, financial, time and other practical constraints. A second difficulty lies in knowing the degree to which one should regress one’s analysis. While precedent and context may indeed impact human decision-making, the question arises as to how far back one should look to explain contemporary decisions and outcomes (Reason 1995, p. 189).

Despite such uncertainties this paper will analyze the Tonkin Gulf incident of 1964 using the same approach as that used by Bennett (2001b) in his paper “Not Context—Contexts: An “Outside-in” Approach to Understanding the Vincennes Shoot-down.” The justification for this re-examination lies in the kind of analysis produced by Lyndon Johnson (above). If one accepts that errors can be induced by factors beyond the control of human operators (like historical precedent, political context, technical limitation, poor design, inexperience, fatigue, exigencies of the natural environment and overly-prescriptive standard operating procedures and rules of engagement), it follows that Johnson’s analysis of the origins of the Tonkin Gulf incident cannot be left unquestioned. Analyses that simply repeat what Snook (2000, p. 205) calls the “fundamental attribution error” must be subjected to objective, rational critique—not least because some of those “dumb, stupid sailors” are still alive. To this end Bennett’s (2001b) “Outside-in” approach to understanding the etiology of disaster will be employed. The first level of analysis (the “Distant Context”) will take in macro political factors like the intense Cold War rivalry between the United States, the Soviet Union and China. The second level of analysis (the “Proximate Context”) will cover issues pertaining to American ambitions in Southeast Asia and the “mission creep” that saw the United States sucked in to the political, economic and military quagmire that was South Vietnam in the 1950s and 1960s. The final level (the “Immediate Context”) will deconstruct the actions of the sailors aboard the two vessels at the center of the Gulf of Tonkin incident—the USS Maddox and USS C. Turner Joy. The emphasis on context—distant, proximate and immediate—may be justified with reference to Reason. As he puts it: “[H]uman error is a consequence not a cause. Errors ... are shaped and provoked by upstream ... factors. Identifying an error is merely the beginning of the search for causes. Only by understanding the context that provoked the error can we hope to limit its recurrence (my emphasis)” (Reason 1997, p. 126).

With respect to the final level of analysis Snook’s deconstruction of a “blue on blue” incident that saw the United States Air Force (USAF)
shoot down two of its own helicopters over Northern Iraq will be invoked. In *Friendly Fire: the accidental shoot-down of U.S. Black Hawks over Northern Iraq* Snook encourages us to focus not on operators’ errant decisions *per se*, but rather on how those operators came to ascribe a particular *meaning* to their situation. As he puts it: “Our pilots had to first determine “what’s going on,” before they could decide “what to do”” (Snook 2000, p. 75). Snook makes a strong case for the “constructionist approach” as a means of solving the puzzle of the shoot-down: “We are constantly engaged in a personal and collective struggle to make sense ... How TIGERS 01 and 02 [the USAF F-15 fighters] “interacted to flesh out hunches,” how they “made do with whatever they had,” how they “compared notes,” how they “made sense of what was up,” how they personally and collectively constructed reality ... is central to solving the mystery of misidentification” (Snook 2000, pp. 75-76). Snook (2000, p. 97) concludes that the F-15 pilots’ construction of the two USAF helicopters as Iraqi gunships (“Hinds”) had its origins in three factors. First, an “ambiguous stimulus.” According to Snook such factors as inadequate helicopter recognition training, a broad similarity between the plan-form of the US-manufactured Sikorsky UH-60 Black Hawk and Russian-manufactured Mil Mi-24 Hind, the angle, distance and speed of the F-15’s visual identification pass (VID) and “pilot anxiety” rendered the visual stimulus amenable to more than one interpretation (or as Snook puts it, such factors “rendered the objective stimulus ambiguous”). Secondly, the F-15 pilots’ “desire.” According to Snook such highly trained and motivated actors as F-15 pilots would have a natural desire to practice their craft—the aerial intercept. As he explains: “TIGER 02 was “excited” to have done what he was trained to do ... to have tested his mettle against a real enemy and won.” TIGER 01 expressed similar sentiments (Snook 2000, p. 95). Snook also highlights rivalry between F-15 and F-16 pilots and the F-15 pilots’ knowledge that they were to be followed into their area of operation by F-16s as factors that might have influenced their perceptions. “Any hesitation on the part of the F-15s ... might have resulted in the F-16s getting another kill—additional incentive for the F-15s to see what they wanted to see the first time around” says Snook (2000, p. 96). Thirdly, the F-15 pilots’ “expectation set.” As Snook (2000, pp. 80-81) explains, “[B]elieving is seeing. Expectations color reality ... People create their own environments which then constrain their actions.” According to Snook, the “personal environments” of the F-15 pilots were the product of three factors; “preflight context, actual mission events and social interaction.” The “preflight context” was one
of escalating threat. As TIGER 02 stated: “The baggage that I carried with me that day, we had Intel [intelligence] briefs, an article was in the paper ... that talked about Iraqis moving a hundred thousand troops into Northern Iraq ... [A] German journalist had been assassinated in Irbil ... [W]ord was coming through Intel channels that Saddam Hussein was very upset with the status of the UN sanctions ...” (cited in Snook 2000, p. 81). An important “mission event,” says Snook (2000, p. 82) was the “Drawing [of] personal sidearms with live rounds,” indicating that “this was no routine training flight over the Nevada desert.” Finally the pilots’ “social interaction” while executing their VIDs helped “fill in the gaps” in their knowledge. As Snook (2000, p. 92) puts it: “Individuals turn to others to collectively construct a shared sense of reality. Social interaction serves to refine and reinforce our ... confidence ... Together, TIGERS 01 and 02 ... worked hard to make sense of sketchy input. Together, the two of them ... unwittingly concluded in complex ways to socially construct two enemy Hind helicopters (my emphasis).” (It will be suggested that this process of the collective construction of reality may have occurred aboard the two US vessels involved in the Tonkin Gulf incident). Applying his own deconstructive methodology Snook (2000, p. 98) suggests an etiology: “Out of [a strong set of expectations], a strong desire to engage the enemy, and a relatively ambiguous stimulus, [the F-15 pilots] constructed their own sense of reality. They created two Hinds; then they shot them down.”

The fact that the paper has up to this point focused on commercial and military aviation incidents and accidents should not be taken to mean that the systems or context approach is applicable only in one socio-technical domain. It is universally applicable—as evinced by Mr Justice Sheen’s use of the context approach to underpin his analysis of the 1987 Herald of Free Enterprise disaster. Crewmembers’ failure to secure the vessel’s bow doors seemed to point to human error as the fundamental cause of the disaster. Significantly Mr Justice Sheen took a systemic or holistic view of events. His analysis took in numerous contextual factors, including production pressures.

The systems or context approach can also be used to deconstruct and explain incidents and accidents with small-scale (though no less tragic) outcomes—as with the death of a railway maintenance worker on October 28 2001 in the throat (approach) to Waterloo Station in London, England. Hit by a commuter train travelling at speed the worker (Mr Ralph Vlven) died. Railtrack Southern’s Formal Inquiry concluded that the train driver’s failure to slow down (due to his failure to understand his routing) and consequent high speed of the commuter
train led the maintenance worker to conclude that it would progress along the Up Windsor line (a fast approach into Waterloo). In fact the train had been routed off that line via a slow-speed (15 mph) turnout. The train traversed the turnout at some 40 mph, killing the worker.

Vilven’s conclusion that the train would enter Waterloo on the Up Windsor line was probably informed by his “mental model” of the Waterloo throat (he had worked on the dense and complex Clapham/Waterloo track system for over thirty years). According to the Inquiry Report “A number of … staff … stated that in the position in which [the worker] found himself, they would consider the approach speed of the train as being an important, if not the predominant indication of which route the train was going to take at the turnout in question” (Railtrack Southern 2002, p. 18). The Formal Inquiry concluded the first “underlying cause” of the fatality to be “The failure of the driver … to observe correctly the theatre route indicator … and accordingly to not reduce speed …” and the second to be “A failure on the part of [the worker] to recognize which route [the train] was taking … which in part was almost certainly influenced by the approach speed of the train” (Railtrack Southern 2002, p. 38). Fundamentally the track worker was not negligent. Rather he was “trapped” by circumstance and the experience-informed mental model he used to judge the intentions of train drivers.

It can be seen that the systems or context approach to incident and accident investigation is universally applicable. The context approach can be applied to any adverse socio-technical event, whatever its nature, scale and outcome. As mentioned above, the approach is gaining recognition and adherents. For example in the UK Formal Inquiry Reports into railway accidents routinely categorize causal factors in terms of “Primary Cause” and “Underlying Causes.” The latter category can include references to manpower resourcing, documentation and non-use or limited application of safety technologies.

Assumptions and method

The question of whether or not there was an attack by North Vietnamese forces upon the Maddox and C. Turner Joy on the night of August 4th, 1964 has been debated long and hard. Wirtz (1998, p. 145) reminds us, however, that “most observers agree that the 4 August attack never occurred.” Wintle (1991, p. 126) states: “The second [attack] is widely believed never to have happened.” It is not this paper’s purpose to further debate the question of the second attack. The majority view
is accepted. This allows the paper to focus on how and why the ratings and officers aboard the warships came to construct (perceive) a second attack. That is, what factors—historic and current, social and technical—led them to believe they were under attack by fast attack craft of the Democratic Republic of Vietnam (DRV).

The paper uses the deductive method. Theories pertaining to the etiology of disaster that use the systems approach are described. The case study is presented and then analyzed using the work of Reason, Bennett and especially Snook. The case study contains some primary data in the form of statements made by United States Navy (USN) personnel (both sailors and airmen)—although these are garnered from secondary sources (books and periodicals).

**Contexts**

**The Distant Context**

It could be argued that the Gulf of Tonkin incident had its origins in two quite separate geopolitical phenomena: first, the French retreat from Vietnam; secondly, America’s “Rise to Globalism” (Ambrose 1985, p. xvii). The French had colonized Vietnam between 1859 and 1883. After Japan’s surrender in 1945 the French attempted to reassert their influence. Following the defeat of its Expeditionary Force at Dien Bien Phu in 1954 France left Vietnam. The United States attempted to fill the resulting “vacuum” of Western influence, albeit through “tutelage” rather than the kind of classical imperialism practiced by countries like Britain, France and Belgium.

The Second World War had catapulted the United States to a position of global military and economic hegemony. While pre-war America had been both un-military and isolationist (Ambrose 1985, p. xiii), post-War America, galvanized by its wartime role as “the arsenal of democracy” sought to create a world in its own democratic and prosperous image. America’s geopolitical ambitions were articulated through the “Truman Doctrine.” As Messenger (1995, pp. 296-297) explains:

In ... 1947 President Truman ... announced a new doctrine ... The United States would give economic and military help to any nation threatened by another country ... [T]he Truman Doctrine was to be the cornerstone of American foreign policy, its culmination being the US involvement in Vietnam.
According to Ambrose (1985: p. xv) successive American administrations concluded that it was better to secure US interests on foreign fields than on the shores of their own continent. “Threats had to be met early and overseas” says Ambrose. The “domino theory,” which held that the fall of any one country to Communist influence could see the “progressive collapse” of other vulnerable states, dominated US foreign policy. It was articulated with clarity and commitment by President John F. Kennedy in his inaugural address:

Let every nation know, whether it wishes us well or ill, that we shall pay any price, bear any burden, meet any hardship, support any friend, oppose any foe to assure the survival and the success of liberty. (Kennedy cited in Hess 1990, p. 71)

Concern for South Vietnam’s capacity to resist both Viet Cong insurgency and North Vietnamese pressure led to America’s “mission creep” in Southeast Asia. Whereas there had been just 685 advisors under Eisenhower, at the end of 1962 there were almost 10,000. At the end of 1963 there were 15,000 (Ambrose 1985, p. 208). Kennedy, and his replacement Lyndon B. Johnson, were determined to resist what they believed to be a global Communist conspiracy prosecuted by both China and the Soviet Union. Both were also determined that America’s standing in the eyes of the world should recover from setbacks like the Bay of Pigs invasion (where American-sponsored Cuban exiles sent to re-take Cuba were repelled by Castro) and Sputnik, the first artificial satellite. Kennedy’s response to the Soviet Sputnik was illuminating: he committed the USA to putting a man on the moon and returning him safely to earth by the end of the 1960s. Given the quality of America’s space program at the time this was a staggering ambition. That Kennedy could make such a promise was indicative of America’s innate self-confidence. As the journalist David Halberstam has put it: “A remarkable hubris permeated this entire time” (Halberstam cited in Hess 1990, p. 72).

Kennedy was assassinated in Dallas in November 1963—as committed to South Vietnam as ever. According to Olson and Roberts (1996, pp. 108-109) his successor “tended to view life in a highly macho way.” As they explain:

[Johnson’s] macho ethos extended to nations. No country could afford to be unmanly, especially in the face of a bully. Remembering Munich—and considering its “lesson” as a universal truth—Johnson remarked, “If you let a bully come
into your front yard one day, the next day he will be up on your porch and the day after that he will rape your wife in your own bed ... ”

According to Olson and Roberts, in 1964 “few questioned the basic mind-set ... the prevailing American consensus about power, virtue, technology and the domino theory.” Johnson was consumed by geopolitical calculation. So strong was Johnson’s commitment to South Vietnam that he was prepared to forego his dream of building The Great Society (an American “welfare state”) in his native land. As Johnson put it: “Losing the Great Society was a terrible thought ... but not so terrible as the thought of being responsible for America’s losing a war to the Communists. Nothing was worse than that” (Johnson cited in Young 1991, p. 106). Johnson’s views were shared by the new Chairman of the Joint Chiefs of Staff, for whom South Vietnam was the acid test of America’s will to resist communist “coercion” (Short 1989, p. 281).

Thus the macro-political context was one of a grim determination on the part of the United States government to defeat the Viet Cong and establish a prosperous democracy in Southeast Asia. Given the ineptitude of the ARVN (The Army of the Republic of Vietnam, South Vietnam’s land force) this was no small objective. At the Battle of Ap Bac in January 1963 a 2,000-strong ARVN unit surrounded 400 Viet Cong. The Viet Cong escaped for the loss of twelve men. According to Hess (1990, pp. 73-75) “The total number of communist forces increased steadily from about 7,000 in 1960 to 100,000 by 1963.” The DRV was determined to force reunification (Short 1989, p. 294). The United States was determined to pursue its policy of “containment”: communist “intimidation” was to be resisted, initially through peaceful means. (A similar situation pertained in 2002/3 where the US pursued a policy of “tailored containment” on the Korean Peninsula (Buncombe 2002, p. 1)). Clearly as 1964 loomed America faced a difficult task and difficult choices in Southeast Asia.

The Proximate Context

Two dynamics characterize the proximate context to the events of August 1964. First, South Vietnam was disintegrating politically, economically and militarily (Short 1989, p. 281; Moise 1996, pp. 1-2). Given Johnson’s commitment to preserving the integrity of South Vietnam this disintegration rang alarm bells in Washington. Secondly, American policy on the ground was characterized by incoherence and
“mission creep.” Despite the administration’s preference for long-term planning, what emerged from Washington were reactive and fundamentally short-term actions. As Moise (1996, p. 2) explains: “Long-term plans ... were ... drawn up, but what actually happened, each month, was whatever looked a good idea at the time ... [P]olicymakers ... did surprisingly little actual preparation to get their forces ready to carry out the plans that were being drawn up.” Such incoherence should have been anathema to a “numbers man” like McNamara—the textbook technocrat (Ambrose 1985, p. 184). In practice (and on his own admission) no-one engaged in strategic thinking:

We tilted gradually—almost imperceptibly—toward approving the direct application of U.S. military force ... But we never carefully debated what U.S. force would ultimately be required ... basic questions went unexamined (McNamara cited in Moise 1996, p. 2).

Such “thoughtlessness” in a man known for his “dazzling intelligence” and “passion for numbers” (US News and World Report 1984, p. 58) is puzzling.

Inadequate strategizing and poor co-ordination led to potentially catastrophic tensions in the field, such as those between covert sea-borne raids (known to the military as OPlan 34-A) and the US Navy’s more conventional intelligence gathering effort (known as DeSoto). The OPlan 34-A raids had their origins in Central Intelligence Agency-sponsored actions of the mid-1950s when “The idea was to disrupt and harass communications and conduct economic sabotage” (Beckett 1985, p. 68). According to US News and World Report (1984, p. 58) OPlan 34-A consisted of more than 2,000 operations. These ranged deep into enemy territory and included “kidnapping”—tactics guaranteed to generate alienation and hostility. Sheehan (1990, pp. 376-377) describes the campaign thus:

The strikes began on February 1, 1964, using ... mercenaries. As the attacks unfolded, fast PT boats bombarded ... coastal installations, commandos were landed ... and teams of saboteurs were parachuted to try to destroy targets farther inland. Groups of Vietnamese trained in psychological warfare were also dropped ... Northern fishing boats were seized. The civilian fishermen were kidnapped ... interrogated ... and then released off the coast of the North again.
According to Beckett (1985, pp. 68-70) OPlan 34-A also involved “... bombing targets in the North with a fleet of some thirty old bombers repainted with Laotian markings and flown by CIA-recruited Laotian, Thai, Vietnamese, and Nationalist Chinese pilots from a secret base in Laos.”

If the OPlan raids were unconventional, the US Navy’s DeSoto patrols were very much in the tradition of Cold War intelligence-gathering—operating conventional deep-water US Navy vessels near enemy radio and radar installations to pick up and decode transmissions and evaluate the effectiveness of early-warning systems (Wise 1968, pp. 123-124). Where OPlan operations sometimes employed Norwegian-built Nasty fast patrol craft, DeSoto patrols involved easily-recognisable US destroyers carrying a “communications van” (“comvan”). According to US News and World Report (1984, p. 58) the DeSoto patrols commenced just after the launch of OPlan 34-A, the first warship to be used being the USS Craig. Such scheduling may have been deliberate. Military signallers who know they are being spied upon can scale-down or cease operations. Radars may be powered down, thereby rendering electronic intelligence-gathering (ELINT) missions like those of the USS Maddox and USS C. Turner Joy unproductive. However, defenders who—on the basis of recent experience and information from their own agents—expect attack, might decide that defending road and rail links is more important than protecting radio and radar protocols. The coterminosity of OPlan and DeSoto operations would have magnified the risks faced by warships operating in the area, because it is doubtful whether coastal defenders would have discriminated between weapon-firing and commando-deploying Nasty boats and “passive” US Navy warships conducting ELINT missions. Given that OPlan personnel indulged in both kidnapping and killing there is no doubt that the North Vietnamese would have welcomed the opportunity to damage any US vessel.

The sailors of the USS Maddox and USS C. Turner Joy were aware of this risk. It is known that the US Navy’s attempts to obtain full disclosure of Military Assistance Command Vietnam’s (MACV’s) OPlan 34-A operations were less than successful. According to Moise (1996, p. 59) one Admiral attempted to obtain a schedule of OPlan operations. He failed. Moise (1996, p. 60) asserts that MACV knew more about DeSoto than the US Navy knew about OPlan. Herrick and Ogier (the Maddox’s two most senior officers) knew nothing of the dates and locations of OPlan raids. The Maddox’s crew suspected their ship was being used either to provoke a reaction from the North Vietnamese or to record
reaction to an OPlan 34-A destructive raid. CIA Deputy Director Ray S. Cline held a similar view (Moise 1996, pp. 55-60).

In terms of military actions proximate to the events of August 2nd and August 4th, there were (at least) four raids. According to Moise (1996, pp. 60-61) on July 29th a Special Operations Group (SOG) action saw commandos being dropped about ten kilometers from the Laotian border. On the night of July 30/31 two North Vietnamese islands, Hon Ngu and Hon Me, were shelled in an effort to destroy radar and other military installations. (The Maddox, scheduled to begin her DeSoto patrol on the night of July 31/August 1, passed the four raiders as they headed south back to Danang). According to the North Vietnamese, on August 1st and August 2nd US-made warplanes (T-28s) coming from the direction of Laos attacked a border post. Finally on the night of August 3/4th OPlan small boats shelled the North Vietnamese mainland. In summary, offensive actions were either about to begin or were in progress on July 29th, July 30th, July 31st, August 1st, August 2nd, August 3rd and August 4th. It is reasonable to assume that tensions in the region were high (Moise 1996, p. 56).

Tensions would not have been eased, particularly amongst the officers, by confusion over territorial waters. At the time of the Maddox’s patrol no-one knew what territorial limit was being claimed by North Vietnam. As Baldwin observed in 1964: “Communist countries, experts on maritime law note, have frequently attempted to assert their sovereignty over gulfs, bays or seas partly enclosed by their land areas ...” While the United States suspected North Vietnam might claim a twelve-mile limit, Washington recognized only a three-mile limit (Wintle 1991, p. 127). At the time of the Tonkin Gulf incident operational orders allowed US Navy ships to approach to within eight miles of the mainland, and to within four miles of offshore islands. In the opinion of US News and World Report (1984, p. 58) “The instruction ... had a provocative edge.”

Another factor that might have impacted the outlook of the North Vietnamese (and possibly also of the crews of the USS Maddox and USS C. Turner Joy) was the fact that the attacks mounted on July 30/31 and on August 3/4 saw direct shelling of DRV targets (the boats used in the raids carried 57-mm guns). According to Moise (1996, pp. 55-60) this was the first time MACV had launched a bombardment from the sea. Consequently, just as the Maddox entered the Gulf of Tonkin, unsure as to how much of her operational area was claimed by North Vietnam, MACV changed the complexion of the conflict.

In terms of how US Navy personnel might have constructed the military balance of power in Southeast Asia and their own prospects, the fact
that the US enjoyed an overwhelming technological and logistical advantage may have colored opinion. The navy of North Vietnam had 3 patrol vessels, each of 120 tons, 16 motor torpedo boats and 30 motor gunboats. In 1963 North Vietnam's navy had 2,200 personnel (Jane's 1963, pp. 440-442). In 1963-1964 the US Navy could muster 3,250 vessels including “... 26 attack and support aircraft carriers ... 4 battleships ... 21 heavy cruisers, 19 cruisers ... 358 destroyers ... 31 nuclear powered submarines, 144 [conventionally powered] submarines ... [and] 243 minesweepers” (Jane's 1963, pp. v-vi). At the same time, however, it is possible that some aboard the Maddox (DD-731) would have been aware that, as an old vessel of 3,300 tons and 376 feet in length, she would have been less maneuverable than a motor torpedo boat. In terms of living and working conditions, it is reasonable to assume that the Maddox, launched in March 1944, would not have offered the same level of comfort as more modern vessels. Lastly, the Maddox had a different sonar fit to the C. Turner Joy.

To summarize, the Maddox and C. Turner Joy were in some jeopardy during their DeSoto patrol. First, because OPlan attacks had augmented simmering tensions between North Vietnam and the US. Secondly, because the US Navy had to conduct sensitive operations on the basis of imperfect knowledge: the Navy knew little about OPlan missions. Furthermore the Navy was uncertain as to the littoral claims of the country whose radio and radar sites it was required to monitor. Overall America's military effort in the field lacked co-ordination and strategic direction. It was Balkanized. Reliance upon a variety of tactics operationalized by a number of services and agencies (for example, the CIA, MACV, SOG and the US Navy) created a situation where one operation could jeopardize another. This focus on the tactical at the expense of the strategic created a situation of some risk for the Maddox and C. Turner Joy in early August 1964.

The Immediate Context

Physical details. The Gulf of Tonkin is bounded on the west and north west by North Vietnam, and on the north and east by China. The widest channel into the Gulf runs south to north, although access is also possible via the relatively narrow channel that separates Hainan Island from China. The Gulf itself is crescent-shaped, having a width of roughly 150 nautical miles for most of its length.

Operational details. MACV's OPlan attacks presaged the “attacks” on the Maddox and C. Turner Joy. This led to speculation
(known in the US Navy as “scuttlebutt”) that the Maddox was being used to record the reaction of the North Vietnamese to aggressive (that is, destructive) OPlan 34-A actions. The first OPlan raid occurred on the night of July 30/31. The second on the night of August 3/4. (July 31 was a Friday and August 1st a Saturday). The Maddox entered the Gulf of Tonkin a few hours after the first raid, having been tasked, according to US News & World Report (1984, p. 58) to “locate and identify radar transmitters, collect navigational information and conduct electronic surveillance along the North Vietnamese shoreline.”

During her DeSoto patrol the Maddox carried two senior officers. Normally captained by Herbert Ogier, a 41-year-old Annapolis graduate, the Maddox was also carrying Captain John Herrick, the 44-year-old commander of the Seventh Fleet’s Destroyer Division 192. According to US News & World Report (1984, p. 58) “Herrick later speculated that the Navy “put a four-striper [himself] aboard for a little more mature judgment.”” Herrick, who had completed one previous and uneventful DeSoto patrol along the coast of Communist China, was not expecting trouble. According to US News & World Report (1984, p. 58) “... he [had] learned that five months earlier the USS Craig had patrolled along the North Vietnamese coast without incident. “We were told ... it was like a Sunday cruise,” Herrick recalled.” There was, however, one crucial difference between the two DeSoto patrols. As Moise (1996, p. 59) explains: “In January, when the Craig’s DeSoto patrol had been planned, CINCPAC [Commander-in-Chief Pacific Fleet—Admiral Harry Felt] had thought that the best way to avoid interference between 34-A and DeSoto was to postpone the DeSoto patrol until a time when no 34-A raids were occurring. A different approach ... was taken when plans were made for the Maddox’s DeSoto patrol.” The Craig’s ELINT patrol had been compromised when the North Vietnamese had powered-down their coastal radars, preventing the Craig from monitoring electromagnetic emissions.

While US Navy standing orders required warships to stand off eight miles from North Vietnam’s mainland and four miles from its islands, MACV’s boats went in very close. On the night of July 30/31 two North Vietnamese islands, Hon Ngu and Hon Me, were shelled in an effort to destroy radar and other military installations. The Maddox, scheduled to begin her DeSoto patrol on the night of July 31/August 1, passed the four gun-armed raiders as they returned to base. The Maddox was steaming north.

According to Davidson (1988, pp. 317-322) on the night of the first 34-A raid the Maddox was up to 130 miles away from the two islands.
Saturday, August 1st was uneventful. However, on Sunday August 2nd the *Maddox* found herself under torpedo and small arms attack. On Sunday, according to Captain Herrick, the ship had picked up intelligence “by normal means” of a planned attack by North Vietnamese gunboats. This seemed to confirm an intercept made on the night of August 1st by Lieutenant Moore and his men in the comvan indicating that the North Vietnamese intended to mount an attack. Said Moore: “It burned in your memory ... It indicated that the [North] Vietnamese had decided to attack, imminently, that night.” A second intercept confirmed the intention to attack. As the *Maddox* steamed northwards Herrick had the ship darkened and one third of her weapons manned. Near the port of Vinh “hundreds of junks, some with visible radio antennas, massed ahead [of the ship].” One of the two islands attacked by the 34-A craft, Hon Ngu, was just four kilometers east of Vinh. There may have been some connection between the “massing” of the junks and the recent shelling of the island. Herrick held the opinion that “The North Vietnamese had some kind of paramilitary control over those junks—they’d just appear and disappear as if by magic.” Somewhat ominously a third intercept seemed to suggest that the *Maddox* was to be either rammed or mined before daybreak. The night dragged on. At about 03:00 hours on Sunday general quarters was sounded. Herrick sent a cable to the Seventh Fleet: “Consider continuance of patrol an unacceptable risk” (*US News & World Report* 1984, p. 59).

According to Radarman Stankevitz, by Sunday the crew sensed that “something was coming up in the area” (Stankevitz cited in Wise 1968, p. 124). At one point, says Stankevitz, Ogier “stuck his head in Combat [the Combat Information Center (CIC)—the *Maddox*’s intelligence-gathering and battle-control room] and told us to keep a tight watch on the scope for P.T. boats.” As for the person in overall control of the *Maddox*’s destiny, Captain Herrick was extremely concerned for the safety of his ship and for the operational efficiency of his crew. Herrick, a combat veteran, “realized that the *Maddox* crew had never before been in combat” (Ford 1997, p. 4). According to Ford (1997, p. 3) in Herrick’s opinion “*Maddox* personnel were extremely concerned that the 34-Alpha operations were putting their ship in harm’s way.” Says Ford: “Herrick’s assessment [was] that this concern may have resulted in an overly nervous crew and unreliable reporting about the second attack in the gulf (my emphasis).” The wearing of side arms by officers and confiscation of cameras may have augmented crew anxiety.

Despite the tension, Herrick secured from general quarters and “allowed the crew to get into the usual Sunday holiday routine” (*US
News & World Report 1984, p. 59). At about 11:30 hours the Maddox sighted five DRV patrol boats heading towards Hon Me. At this time a further intercept was made. The message ordered that the Maddox be attacked. At about 12:30 hours the Maddox picked up three Soviet-built P-4 motor torpedo boats (MTBs) “at extreme range” heading towards the ship. According to the US Department of Defence (DoD) chronology “The Maddox at this point was about thirty miles from the coast” (DoD cited in Wise 1968, p. 124). At about 14:00 hours three P-4s “pulled away from a junk fleet” in an apparent effort to intercept the Maddox (US News & World Report 1984, p. 59). The P-4s were about thirty miles away at this point. Radarman Stankevitz described what happened: “As soon as we sighted them we turned tail ... We didn’t want any trouble with them. We turned southeast after the sighting. They kept coming ... ” (Stankevitz cited in Wise 1968, p. 124).

In terms of the threat posed by the P-4s, the Navy believed them to carry four 25 mm cannon and two 18-inch torpedoes. Moise, however, insists that they carried just a pair of large-caliber (14.5 mm) machine guns. The P-4’s torpedoes were much shorter-ranged than the six five-inch (125 mm) guns carried by the Maddox. The Maddox’s guns had a range of approximately 18,000 yards. P-4 crews were instructed to fire their torpedoes at a range of not more than 1,000 yards. A P-4 could muster roughly twice the speed of the Maddox.

As the P-4s pressed their attack Ogier asked Herrick for permission to commence firing. Ogier waited until the boats had closed to about 8,000 yards before firing “warning shots.” (At this range, the chances of a P-4 being able to damage the Maddox with gun-fire were negligible). According to Wise (1968, p. 124) the Maddox’s Weapons Officer, Lieutenant Connell later admitted that they were, in fact, aiming to hit the DRV vessels. The first salvo was followed by “... a withering hail of continuous fire. In all, the Maddox fired 250 or more 3-inch and 5-inch shells” (US News & World Report 1984, p. 59). According to the DoD two P-4s managed to get to within 5,000 yards of the Maddox—close enough, in fact, for one of them to release her two torpedoes, which “ran hot, straight and normal” (Ogier cited in Wise 1968, p. 124). The Maddox took avoiding action. The encounter saw much maneuvering for position. During the fire-fight one P-4 closed to within 2,000 yards before being hit. It was this vessel that managed to inflict the only damage on the Maddox—a single machine-gun strike. At the time of the attack the Navy carrier USS Ticonderoga was on exercise to the south. Four supersonic Vought F-8E Crusader fighters diverted to support the Maddox. Captain Herrick ordered the aircraft to “attack and destroy” the DRV craft. The air attacks were frenetic.
Despite the very limited damage suffered by the *Maddox* not everyone was happy with Ogier’s performance. As Sweeney (1986, p. 214) explains: “Interviewed in December 1980, [Admiral] Johnson [Commander of the Seventh Fleet] still seemed rankled by Ogier’s inability to display decisive leadership without specific directions. Johnson felt that “any skipper should know with certainty that you are entitled to, and actually required to, defend yourself when attacked.” Ogier did eventually return fire ... but further disenchanted his fleet commander by heading south at flank speed, leaving his patrol area. Johnson sent another message ordering him to reverse course, to get on station and keep on station.”

The few days between the first and second incidents saw much political and diplomatic activity. Secretary of State Dean Rusk warned: “The other side got a sting out of this [the hits on the P-4s] ... If they do it again, they’ll get another sting” (Rusk cited in Wise 1968, p. 125). Johnson’s response was unambiguous: “United States ships have traditionally operated freely on the high seas in accordance with the rights guaranteed by international law ... They will continue to do so ... and will take whatever measures are appropriate for their defense.” The President warned the Democratic Republic of Vietnam about “[T]he grave consequences which would inevitably result from any further unprovoked military action against United States forces” (Johnson cited in Uhlig 1986, p. 17). Johnson told newsmen that the patrols would continue and that attackers would be destroyed. The DeSoto patrols would now be executed by two warships, the *Maddox* and the newer and more powerful *USS C. Turner Joy*. Following an August 3rd meeting with Johnson and others, Rusk sent a Department of State telegram to Saigon for the attention of the US Ambassador: “We believe that present OPlan 34-A activities are beginning to rattle Hanoi and *Maddox* incident is directly related to their effort to resist these activities. We have no intention [of] yielding to pressure” it read (Rusk cited in *US News & World Report* 1984, p. 60).

On the night of August 3/4th small craft shelled the North Vietnamese mainland. As with the earlier raid, the DeSoto vessels played no part in the operation. As dusk approached on August 4th a further intercept was made: the DRV had ordered its navy to prepare for combat. The DeSoto patrol took both ships on a southerly route parallel to the coast of North Vietnam. Captain Herrick, in overall command of the flotilla, was to avoid any pursuit that took his vessels closer than 11 miles to shore. Herrick, aware that some of his crew were “nervous and inexperienced” (Ford 1997, p. 3) asked for continuous air cover. This was not forthcoming.
At about 17:20 hours both destroyers secured from General Quarters (a high state of alert). Moise (1996, p. 110) asserts that after about six hours of General Quarters “One may assume that there was a certain amount of fatigue on both destroyers.” As the C. Turner Joy secured from General Quarters at least one radarman—sitting in CIC—was optimistic there would be no trouble. After all, they were “well out to sea.” The ships were also sailing eastwards to the same “night-steaming” area they had used the previous day, putting them even further away from land. While there was relief there was also disappointment at the prospect of there being no further action. As one sailor put it: “[E]veryone was sorely disappointed. Without being able to fathom the element of danger ... we felt we had been cheated of all the anticipated fun (action)” (cited in Moise 1996, p. 110). As night fell visibility became an issue. According to Moise (1996, p. 106) “The night was very dark and most of those involved say that the weather was poor, from drizzle to thunderstorms ... ” Captain Barnhart of the C. Turner Joy commented: “Usually you could see the silhouette of the other ship ... It was so black that night I couldn’t see the Maddox in front of me.” Radarman Stankevitz observed: “[The night was] darker than the hubs of hell. It was black out there. You couldn’t see the hand in front of your face” (Barnhart and Stankevitz cited in Wise 1968, p. 125). At 19:15 hours a National Security Agency (NSA) communication convinced Herrick that (according to US News & World Report) an attack was “imminent.” At about 20:00 hours Lieutenant John Barry took the watch on the C. Turner Joy. At this time, according to Barry, everyone was relaxed. Some of the ship’s company were watching a film (Moise 1996, p. 114).

According to Barnhart about 30 minutes after the NSA report the Maddox picked up the first radar contacts with the “unknown” craft. They were some thirty-two miles away. The fact that the Maddox was able to detect contacts at this extreme range has been attributed to the “ducting” effect of low cloud, which bounced the radar beam over the horizon. Normally radar emissions dissipate at a distance of between twenty to twenty-five miles. Later, Radarman Stankevitz confirmed that his ship’s radar had been ducting. As Wise (1968, p. 125) explains:

In the Combat Information Center of the Maddox, Stankevitz said he could see “contacts on the scope. They were definitely contacts and moving fast.” But he, too, said the radar was “ducting” and playing tricks that night. “You’d have beautiful pips for a while and then they’d disappear,” he said.
Transient and confusing contacts were not unknown in the Gulf of Tonkin. According to one US Navy commander, in certain weather conditions it was possible for aircraft to be mistaken for surface contacts. There was also “Tonkin Spook” where weather features generated radar images “much smaller and more clearly defined” than images normally generated by weather. Some have theorized that transient contacts may be generated by flocks of birds or by rough water (Moise 1996, pp. 106-108). In January 1973 the Weapons Officer of another US warship convinced himself that small craft were closing on his ship. He wanted to open fire, but was stopped by the Captain. There were no contacts. The Captain of the USS Blakely later commented:

From conversations I later had with other ship captains, I am convinced that the Blakely’s experience was far from unique. The Tonkin Gulf ghosts most often were attributed to freak weather conditions or “ducting” of electromagnetic waves (Schreadley cited in Moise 1996, pp. 108-109).

After picking up the initial radar contacts both destroyers steamed at maximum speed to the south east, bringing them closer to the Ticonderoga and her aircraft. In Herrick’s opinion the distribution of the contacts seemed to indicate an attempt to ensnare the vessels: “We had night-steamed in the same area the night before, so they probably suspected that that’s where we’d go this time ... They seemed to be setting up a sort of three-cornered trap for us” (Herrick cited in US News & World Report 1984, p. 62). Ogier, too, expected trouble. As Wise (1968, p. 62) explains: “From all the interviews, somehow one remembers best the words of Captain Herbert Ogier ... explaining that he believed there were P.T. boats attacking on the night of August 4th, in part “because there was no question about their being there on the second of August, and we knew they had torpedo boats, but conclusive evidence of my own knowledge I can’t give ... (my emphasis).”” According to Moise (1996, p. 119) even before the contacts appeared on the radar scopes “Officers on the destroyers ... had been more than half expecting another attack ... ”

At about 20:00 hours, after yet more radar contacts, Ticonderoga was asked to provide reconnaissance and air support. The aircraft found nothing. Despite this negative, the radar tracks were still considered “skunks” (enemy craft). As Uhlig (1986, p. 17) explains: “Because of the high closure rate, and a similarity to the 2 August attack, the “blips” were evaluated [by the ships’ crews] as probable torpedo boats (my
emphasis).” At about 21:40 hours the C. Turner Joy opened fire. At about the same time the Maddox’s sonarman identified a torpedo in the water. The data was immediately transmitted to the C. Turner Joy and both vessels turned hard to starboard. On the C. Turner Joy Lieutenant John Barry and three other crewmen were convinced they saw the wake of a torpedo moving from aft of their vessel forward. A second torpedo was reported. At this juncture Herrick began issuing (according to US News & World Report) “a frantic stream of “flash” cables”: “Am under continuous torpedo attack ...; Torpedoes missed. Another fired at us. Four torpedoes in water. And five torpedoes in water ...; Have ... successfully avoided at least six torpedoes” (Herrick cited in US News & World Report 1984, p. 62). Given the subsequent numerous reports of torpedoes, the initial report takes on an even greater significance—if only because of inconsistencies in the testimony of the C. Turner Joy’s sailors. As Wise (1968, p. 126) explains:

[The] first reported torpedo is important because it is the only one that anyone actually claims to have seen during the four-hour action ... “It was one of the extremely dark nights when the water is very fluorescent” [recalls Barry]. “I looked down off our port side and I saw like a white streak, just coming right through the water, right at us, and fortunately we had started to turn. I grabbed the man next to me to show it to him. I just wanted to make sure I wasn’t seeing things, and he verified it immediately ...”

The seaman grabbed by Barry was sure that he had seen a torpedo: “Mr Barry saw it and pointed down and yelled, “Look, there’s a torpedo.” ... There definitely was ... He [Barry] asked me if I saw it and I said yes I did ... It was two hundred to four hundred feet from the ship, about two or three feet below the water.” According to Barry, however, the torpedo was “no more than a hundred feet away.” (Wise 1968, p. 126).

During the “action” the sonarman on the Maddox, twenty-three-year-old David Mallow, reported twenty-one torpedoes. None were reported by the C. Turner Joy. When the action commenced Mallow was asleep. Mallow was under the direct command of Lieutenant John Leeman. According to Leeman, Mallow was reporting not torpedoes but “noise spokes.” Noise spokes can be caused either by torpedoes or by the movement of the vessel through the water at high speed, especially when the rudder is being used to effect a rapid turn. According to Leeman, Mallow “... would say noise spoke bearing umptiump [sic].
He’d say it to me and into the P.A. system, and the P.A. system would
go right to the bridge and the Captain would make his decision accord-
ingly” (Leeman cited in Wise 1968, p. 126). The Maddox’s weapons
officer, Lieutenant Connell, was sure that Mallow “... never reported
torpedoes: he said “hydrophone effects”” (Connell cited in Wise 1968,
p. 126). On the bridge, however, Mallow’s communications were taken
as confirmations of torpedoes in the water. Later Captain Herrick
asserted that he thought he could hear “torpedo noises” over the inter-
com link with Mallow. As Moise (1996, p. 126) explains, Herrick’s
“construction” of these background noises “... would completely have
nullified the effect of Mallow’s caution in not using the word “torpedo”
when he reported sonar noises.” Moise also comments on the difficulty
of discriminating “torpedo noises” from other sounds, like Mallow’s
voice and the voices of others on the Maddox’s bridge. Lieutenant
Connell noted a correlation between tight “torpedo-evasion” turns, and
hydrophone detections:

We’d throw that rudder over ... and sure enough, we’d get a report
from sonar—hydrophone effects. This might have been it.
That’s what we concluded on the bridge. After that we just
steadied up and kept a straight course. The hydrophone effects

As for the man in overall command, Captain Herrick was of the
view that some of the noises emanated from the two vessels: “I’m cer-
tain some of them were both ships’ propeller beats [or] our own wakes.
I think we were picking up some of our own noises” (Herrick cited in
Wise 1968, p. 126). Ogier was more specific, asserting that the first
two reports of torpedoes were correct, but that the rest “... resulted from
our putting our rudder over. ... It was our propeller. The ship has two
rudders, each rudder is behind a propeller and if you put the rudder over
this provides a surface to echo reflect your own screw beats back toward
the front of your ship where the sonar is ... we were maneuvering and
we were getting this effect from our own rudder” (Ogier cited in Wise
1968, p. 126). (After the engagement Herrick and Ogier experimented
with the Maddox, putting her through numerous high-speed turns. Their
sonarman reported torpedoes. Herrick concluded from this that on the
night of August 4th “Most ... if not all of the Maddox’s reports were
probably false (my emphasis)” (Herrick cited in US News & World
Report 1984, p. 63)). Thus there was every possibility that the events
of August 4th existed only in the minds of the crews of the Maddox and
Certainly the crews were under pressure. According to *US News & World Report* (1984, p. 62) “For 2 hours, the destroyers had weaved, dodged and zigzagged at 30 knots.” During the encounter they had fired 400 rounds, dropped depth charges and attempted to ram the attackers. Herrick stated: “It got pretty tiresome after a while ... It was just getting a little ridiculous to believe” (Herrick cited in *US News & World Report* 1984, p. 62). Judging from one sailor’s report the “encounter” generated both psychological and physiological tension: “Since I was now cooped up inside CIC, I no longer carried this “fish in the barrel” feeling—unless it was that the shoe had reversed feet [sic] ... Once again, sweat started to trickle down my body” (Smith cited in Moise 1996, p. 119).

As far as the Navy’s pilots were concerned, the destroyer crews had little to fear. There were very few sightings. Although the Skyraider component of the air patrol sent by the *Ticonderoga* “sighted a “snakey” high speed wake one and one-half miles ahead of the *Maddox*” (Uhlig 1986, p. 19), other pilots failed to see much at all. (The Douglas Skyraider was a propeller-driven, relatively slow-flying aircraft). The pilots of fast jets like the Douglas Skyhawk were bemused by messages from the destroyers. As Commander Wesley McDonald put it: “[The destroyers] were calling out where they thought the torpedo boats were ... But I could never find the damn torpedo boats” (McDonald cited in *US News & World Report* 1984, p. 62). Photographic reconnaissance failed to shed any light on the mystery. No targets were spotted. Of course it could be argued that any targets would have been obscured by cloud. But Commander McDonald made a point of “getting under the weather.” He descended to 7,000 feet. Still he saw nothing: “It was dark as hell ... We saw the destroyers ... by flare light and by their wakes. I never saw any other wakes” (McDonald cited in Wise 1996, p. 127). Another flyer, Lieutenant Commander Donald Hegrat, saw destroyer wakes, but no sign of fast attack craft. Yet another pilot, Jim Stockdale, flying a Crusader failed to find any DRV boats: “I had the best seat in the house from which to detect boats—if there were any ... Time and again I flew right over the *Maddox* and the *Joy*, throttled back, lights out ... at a 250-knot loiter speed. ... The edges of the black hole I was flying in were still periodically lit by flashes of lightning—but no wakes or dark shapes other than those of the destroyers were ever visible to me” (Stockdale cited in Stockdale and Stockdale 1984, p. 19). (Such accounts have been challenged. Regarding Stockdale’s testimony, Admiral Moorer, himself a Navy flyer has said that no F-8 pilot flying at 250 knots (287 mph) in complete darkness could have absolute confidence in his observations (Sweeney 1986, p. 215)).
According to Moise, several pilots noted the apparent confusion aboard the two destroyers. One Skyhawk pilot, Lieutenant Everett Alvarez, commented:

When we switched over to the destroyers’ frequencies I was startled to hear so much bedlam and confusion. There were bursts of frantic commands and shouted reports from both ships as they desperately gave ranges, courses and torpedo bearings. ... [T]hree or four people on the ships were shouting simultaneously: “Torpedo bearing ....,” “Turning hard to port,” “Sonar bearing ....,” “Radar contact! Radar contact!” (Alvarez cited in Moise 1996, pp. 141-142)

The testimony of another Skyhawk pilot would seem to confirm a state of confusion aboard the vessels. Lieutenant Commander John Nicholson recalled being told by one of the CICs that the two wakes he could see from his aircraft heading due south (180 degrees) were being made by DRV boats. He was told (by the CIC) that the destroyers were heading “000” degrees (due north). The Skyhawks turned in to attack. Suddenly they were instructed to “Hold fire.” Those CIC personnel who had ordered the attack had realized that their vessel was actually heading due south (180 degrees) and that, consequently, they had called in an attack on themselves. Nicholson later commented: “From that point on, I lost total faith in who the hell was controlling down there” (Nicholson cited in Moise 1996, p. 142).

Herrick, too, began to lose faith in his performance during the “attack” of August 4th. At 00:30 hours on August 5th he warned his superiors: “Review of action makes many reported contacts and torpedoes fired appear doubtful ... Suggest complete evaluation before any further action taken.” At 00:50 hours he radioed: “Entire action leaves many doubts except for apparent attempted ambush at the beginning (my emphasis)” (Herrick cited in US News & World Report 1984, p. 63).

**Analysis**

This paper examines the proposition that perceptions, decisions and actions may be shaped by factors (both endogenous and exogenous) that are, in varying degrees, beyond our control. The way people frame and behave in risk-bearing situations (or situations that are believed to be risk-bearing) may be influenced by self-perception, prejudice, precedent, physical and/or mental state, competence, experience, training,
technological limitation and operational edict (Bennett 2000; Bennett 2001a; Bennett 2001b).

The “possible root causes” of the August 4th incident, where an imagined attack led to the dramatic escalation of the Vietnam War may include some or all of the following:

1 America’s “mission.” In the post-Second World War world America engaged the “communist hydra” by operationalizing the domino theory and Truman Doctrine. America sought to defeat communism and hegemonize liberal democracy and free market economics. This was its “destiny.” French withdrawal set the stage for American tutelage in Southeast Asia. America’s vast Navy roamed the globe securing freedom of passage and opportunities for unhindered commercial exchange. The seas around China and Vietnam received close attention.

2 America’s “self belief.” It could be argued that America’s self-confidence bordered on arrogance. Brogan has commented: “[P]robably the only people who have the historical sense of inevitable victory are the Americans” (Brogan cited in Hess 1990, p. 72). “Grand designs” are a commonplace amongst US Presidents. Nixon sought a “cure for cancer.” Through his Strategic Defense Initiative Reagan sought to defend the USA from nuclear missiles. George W. Bush carried on this work while striving to defeat international terrorism. For their part Kennedy and Johnson pledged that the US would prevail in Southeast Asia. Given that Kennedy had chased Soviet missiles out of Cuba this seemed achievable. The US Navy (including the crews of the Maddox and C. Turner Joy) operated within this “can do” mind-set.

3 The character of Johnson’s presidency. If Olson and Roberts are correct Johnson found it difficult to conduct himself in an emotionally detached way. His “obsession with personal honor and bravery” (Olson and Roberts 1996, pp. 108-109) led him to frame complex problems in simplistic terms. It is possible that others, including those in the armed forces were influenced by their President’s macho tendencies.

4 America’s technological advantage. While the Soviets led the Americans in space technology, America outshone the Soviets in both the cleverness and quality of its military hardware. In 1964 the US Navy enjoyed a huge numeric and quality advantage over the naval forces of North Vietnam. US Navy personnel would have been very much aware of this “lead.”

5 The commitment of America’s political and military establishment. Most politicians were committed to the defense of South Vietnam. The Joint Chiefs of Staff saw Vietnam as the acid test. Given its destruction of the Japanese empire the military had little reason to
doubt that it could resist and eventually banish the communists. The *Maddox* and *C. Turner Joy* were two agents of resistance.

6 Curious operational conjunctures. The conjuncture of “irregular” destructive operations like the OPlan and T-28 raids with conventional passive operations like DeSoto placed US Navy personnel in jeopardy. The crewmen of the *Maddox* and *C. Turner Joy* believed they were being used to elicit a violent response from DRV forces. Having been attacked it is doubtful whether DRV forces would have discriminated between South Vietnamese raiders and US naval forces. The suspicion that they were being sent into a “trap” could only have heightened tensions amongst crewmembers. Given that there were daily operations between July 29th and August 4th inclusive it can be assumed that tensions generally were high.

7 Strategic Balkanization and short-termism. The denial of information on OPlan raids to senior US Navy personnel and ships’ captains might have generated uncertainty and tension amongst officers. Certainly in practice the short-termism referred to earlier may have created a situation where some types of operation were jeopardized by other types of operation—as with OPlan and DeSoto. It was this lack of a coherent strategy (noted even by McNamara) that, in August 1964, placed two US warships “in the line of fire.” It was the American administration’s “actioning of whatever looked a good idea at the time” that created the circumstances of the August incidents and the potential for error.

8 Jurisdictional uncertainties. There was confusion over North Vietnam’s littoral claims. In light of Wintle’s (1991, p. 127) assertion that the North claimed a twelve-mile limit, allowing US warships to approach to within eight miles was provocative. The resulting uncertainty could only have increased tensions on board ship.

9 Inexperience. While Herrick was a combat veteran, his crew “had never before been in combat.” This lack of battle experience may have impacted performance under pressure. One US Navy pilot talked about the “bedlam and confusion” within the CICs. Another recalled that crewmen aboard one destroyer gave the wrong heading (almost causing the US Navy to strafe its own warship in a “blue on blue” incident). Even the experienced Herrick issued “a frantic stream of ‘flash’ cables.” Later a circumspect Herrick requested a “complete evaluation” before any retaliatory action.

10 Technological characteristics and limitations. Herrick and Ogier proved that rapid turns generated sonar signatures that could be mistaken for torpedoes. Also, under certain atmospheric conditions
radar sets could not discriminate between flocks of birds, water disturbed by schools of fish, warplanes and sea-going craft. The two destroyers “weaved, dodged and zigzagged” at 30 knots for some two hours (US News and World Report 1984, p. 62). Working in a cramped and noisy CIC under such conditions would have been physically and psychologically draining. One sailor confessed to feeling “like a fish in a barrel.” The mental effort required by those in CIC and on the bridge to plan and action the firing of 400 rounds, the dropping of depth charges and the attempted ramming of the “attackers” would have stressed both officers and men. Effort would also have been required to avoid firing across, upon or ramming the other US Navy warship.

11 Environmental factors. The night was so dark that visual identification was extremely difficult. A “very fluorescent” sea meant that naturally-produced “tracks” could be mistaken for those produced by human-made objects. Visual confirmation would have been problematical. The low cloud meant that radar sets were “ducting.” Ducting could produce vacuum tube images that resembled those produced by warships. These images could persist for several minutes. Given the frantic high-speed maneuvering of both US warships, not being able to visually identify and track the other destroyer would have put crews under more stress (although radar tracking would have substituted).

12 Expectation. At least one man, Captain Ogier framed August 4th in terms of the attack of August 2nd. Ogier believed there were P.T. boats attacking on the night of August 4th in part “because there was no question about their being there on the second of August ...” Herrick, too, framed the events of August 4th, but in a more specific manner. According to two witnesses the Maddox’s sonarman only ever reported “noise spokes” or “hydrophone effects.” However, on the bridge of the Maddox these communications were interpreted as torpedo contacts. Moreover Herrick believed he could hear “torpedo noises” over the voice link with his sonar operator—despite the “bedlam, confusion, frantic commands and shouted reports” within the CIC.

Regarding the C. Turner Joy’s “sighting” of a torpedo it could be argued that Lieutenant Barry framed his question in such a way that the sailor to whom he spoke could only answer that he, too, could see a torpedo. Barry states he “grabbed” a sailor standing next to him “to make sure he wasn’t seeing things.” According to this sailor Barry then said “Look, there’s a torpedo.” Barry gives the impression that he was seeking a second opinion, whereas (if the sailor’s recollection is correct) Barry was trying to persuade the sailor that the fluorescent trail in the water was caused by a torpedo. In short, Barry was not asking the sea-
man to exercise his judgment. Rather he was requiring the seaman to confirm his assumption. If Barry had wanted to "make sure he wasn’t seeing things" he would have asked an open question, like "Is that a torpedo?" or "What do you think is making that trail?" or even "Do you see anything down there?"

Generally the crew of at least one warship, the Maddox, was expecting trouble. They understood the danger of mounting 34-A and ELINT patrols almost simultaneously. According to Ford Herrick’s evaluation of his crew’s mental state “was that this concern may have resulted in an overly nervous crew and unreliable reporting about the second attack in the gulf.”

The actions taken by the Maddox and C. Turner Joy on August 4 lay at the end of a long “causal chain” of mutually reinforcing factors and events. It is important to note that most of these causative elements were outside the crews’ sphere of influence. Most factors and events, like Johnson’s personality, the domino theory and Truman Doctrine, strategic Balkanization, tactical disjuncture, technological limitations and freak weather conditions were—so far as the *in situ* actors were concerned—immutable. Only Ogier, Herrick and Barry’s assumptions and rationalizations were amenable to modification (although, given their circumstances and mind-sets at the time, the capacity of Ogier, Herrick and Barry to confront and modify their assumptions is unclear). The immutability of causal factors may prove to be a common feature of the “context” approach to accident investigation. So far as this case study is concerned, while each of the factors in some way “shaped and provoked” the crews’ errors, only a few could have been modified in the short term. After all, a presidency runs for years. National characteristics are embedded in mores and institutions. Getting combat experience takes time, as does refining a technology. Admirals are not known for willingly giving up power.

**Conclusions**

Reason asserts that “Any catastrophic event arises from the adverse conjunction of several distinct causal chains.” Given that the August 4th incident led to the escalation of a war that claimed the lives of 58,000 Americans and 3,200,000 Vietnamese (McNamara cited in Associated Press 1995) Tonkin Gulf was *the* watershed event in that long conflict. Of course, the Tonkin Gulf incident itself lay at the conjunction of several distinct causal chains. These included the waning of European imperialism, the post-War “rise to globalism” of the United States, that country’s reification of its political and economic ambitions through the Truman
Doctrine, domino theory and tutelage, the increasingly hegemonic ambitions of China and the Soviet Union, the promulgation of “wars of liberation” by those countries, the supply of monies and arms (like North Vietnam’s P-4s) for the purpose of conducting wars of liberation and the determination of many conquered peoples to regain their political and cultural independence. These and other tendencies may be described as the “long causal chains” of the Tonkin Gulf incident. Without these and other geopolitical innovations there would have been no August 4th “phantom attack.” If there had been no European imperialism with its tendency to spawn independence movements, no ideological confrontation between east and west, no desire on the part of the North Vietnamese to “liberate” South Vietnam and no desire on the part of the South Vietnamese to rid their country of corruption and political oppression in all probability the Maddox and C. Turner Joy would not have been engaged on ELINT missions off the coast of North Vietnam in August 1964.

The August 4th “phantom attack” also originated in what might be called “short causal chains.” These include events and factors like:

1. The confirmed attack of August 2nd. This raised expectations of further attacks. (A similar dynamic obtained when the USS Vincennes was attacked by Iranian fast attack craft in the Persian Gulf in 1988. Having fired 72 rounds at the craft during a frantic 17-minute engagement the Vincennes mistook a commercial aircraft for a warplane and shot it down).

2. The technical limitations of contemporary US sonar and radar fits. These limitations generated “false positives” on sonar and radar sets.

3. The general inexperience of the Maddox’s crew.

4. The prolonged and violent maneuvering, weapon aiming and firing of the Maddox and C. Turner Joy and consequent physiological and psychological stresses placed upon sailors. (A similar dynamic obtained aboard the Vincennes which maneuvered so violently and at such a high speed in its encounter with Iranian Boghammar fast attack boats that it heeled at angles of up to 32 degrees from the vertical).

5. The apparent lack of objectivity on the part of at least one officer (Lieutenant Barry) when seeking a second opinion on a “sighting.” Closed questions illicit non-objective responses. Only open questions permit judgment to be exercised.

6. The apparent chaos that obtained in the warships’ CICs that led, on one occasion, to a CIC team almost calling in an air attack on its own ship.
In terms of understanding how and why CIC personnel misinterpreted sonar and radar plots Snook’s discourse is especially helpful. Snook asserts that “believing is seeing” and that “expectations color reality.” It was undoubtedly the case that the August 2nd attack colored Ogier’s subsequent perceptions. It is reasonable to assume that Ogier was not the only sailor whose perceptions were “preconfigured.” Many years later the same dynamic obtained within the Vincennes’s CIC when the encounter with Iranian Boghammars led to the development of a “defensive mind-set,” one consequence of which was the misidentification of a commercial airliner as a combat aircraft. Preconceptions can be reinforced by standing orders. The Vincennes’s Captain knew that he was obliged to defend his ship “from attack or from threat of imminent attack” (US Department of Defense cited in Fogarty 1988, Supra note 1, para.III.A.3.(a)(2)). Like the Vincennes’s Captain William Rogers III, Herrick, as flotilla commander would have operated under the same “duty of care”: his prime responsibility was the defense of US Navy assets. As a consequence of immediate precedent (the August 2nd attack), expectation and overarching duty Herrick, Ogier and their charges constructed “ambiguous stimuli” (sonar and radar “hits”) as the enemy. They did this in much the same way as the F-15 pilots constructed Iraqi Hinds out of the ambiguous stimuli generated by the Allied Black Hawks. Like the F-15 pilots, the officers and men of the Maddox and C. Turner Joy knew they were operating in a potentially hostile environment. Where the F-15 pilots’ expectations were shaped by intelligence briefings and media reporting, the expectations of Herrick, Ogier and their men were shaped by the knowledge that destructive OPlan missions were being conducted almost at the same time as “passive” ELINT patrols, by the “massing” of junks and by communications intercepts. Herrick was so confident of trouble that he recommended his DeSoto patrol be aborted. Having said this, while there was trepidation there was also a desire to “get some action.” Indeed, as far as one sailor was concerned, there was disappointment at the thought that there would be no further action after August 2nd. As he put it “everyone was sorely disappointed ... we felt we had been cheated of all the anticipated fun.” The same “gung-ho” spirit was in evidence during the shoot-down incident: both pilots wished to “test their mettle” and score an F-15 victory before they were replaced that day by F-16s.

Snook’s comments on “social interaction” can also be applied to the “phantom attack” with regard to the exchange between Lieutenant Barry and the sailor he “grabbed.” Snook asserts that “individuals turn
to others to collectively construct a shared sense of reality.” This was Barry’s motivation in asking the sailor whether he could see a torpedo (although there was little negotiation on the part of Barry in the process of “collective construction”). It is likely that Snook’s “social interaction” dynamic also manifested in the ships’ CICs, with personnel “collectively constructing a shared sense of reality.” This was perhaps unavoidable given that personnel were “shouting out” reports.

Snook says of the shoot-down (in paraphrase): “Out of a strong set of expectations, a strong desire to engage the enemy, and a relatively ambiguous stimulus the F-15 pilots created two Hinds, then they shot them down.” It can be suggested that the same dynamics obtained during the “phantom attack,” in that out of expectation, a desire to see action and technologically-produced ambiguity the officers and men of the USS Maddox and USS C. Turner Joy created or constructed a North Vietnamese motor torpedo boat attack. It could be argued that, given the same set of circumstances, any group would have behaved as they did. Certainly in 1988 the officers and men of the USS Vincennes, under similar circumstances, pressures, obligations and technological constraints created an attack out of the innocent passage of a civilian airliner. Some years later two competent and highly trained USAF pilots working under similar duress created two enemy helicopters out of two “friendlies.” If, as Reason asserts “errors are shaped and provoked by upstream factors,” then neither the officers and men of the USS Vincennes, the two USAF F-15 pilots nor the officers and men of the USS Maddox and USS C. Turner Joy (nor, for that matter, Captain Gort, Ralph Vilven or the crew of the Herald) should be required to bear the entire burden of responsibility for their errors of judgment and consequent acts of omission or commission. A measure of responsibility lies also with the numerous actors—removed in time and space from the event—who shaped the circumstances of the Iranian Airbus and Black Hawk shoot-downs and August 4th Tonkin Gulf “incident.” The sailors of the Maddox and C. Turner Joy were neither dumb nor stupid. Rather, their perceptions and actions were shaped by factors over which they had no control, but for which they were publicly held to account by their President. Johnson, like so many others who seek to answer complex puzzles with simple algorithms, committed the “fundamental attribution error.”

References


