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USE OF NAVAL FORCE IN CRISES:  
A THEORY OF STRATIFIED CRISIS INTERACTION

VOLUME III

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by

Joseph Frederick Bouchard

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CHAPTER VIII  
PEACETIME ATTACKS ON NAVY SHIPS

One of the most difficult missions assigned the Navy is operations in the immediate vicinity of potentially hostile forces during an international crisis or armed conflict. The political importance and potential dangers of such missions are generally recognized. Not as well understood, however, is that routine naval missions viewed as non-political or ordered for peacetime military objectives rather than for political purposes almost always have important political undertones and can generate significant international political repercussions if an unanticipated incident were to occur during the mission. For this reason certain "non-political" missions, such as intelligence collection or surveillance near a potentially hostile country or the scene of fighting, need to be viewed as political in nature even though not ordered for political purposes.

This chapter presents the third phase of the research design, a structured focused comparison of four cases in which a U.S. Navy ship was attacked during peacetime or crisis operations. The purpose of this chapter is to

further develop and refine contingent generalizations on the corollaries to the theory of stratified interaction. The focus will be on how the military and naval chain of command reacted to the attacks.

The incidents that will be examined are the August 1964 Tonkin Gulf Incidents, the June 8, 1967 Israeli attack on the intelligence collection ship USS Liberty (AGTR 5), the January 22, 1968 North Korean seizure of the intelligence collection ship USS Pueblo (AGER 2), and the May 10, 1987 Iraqi attack on the guided missile frigate USS Stark (FFG 31). Four of the eight questions asked in the previous chapter will again be asked in these cases. The four questions address decoupling of stratified interactions, stratified escalation dynamics, misperceptions, and political-military tensions.

The first question is did interactions at the tactical and political levels become decoupled during or after the attack on the Navy ship? The theory of stratified interaction states that under certain conditions crisis interactions are stratified into three levels: political (between national leaders), strategic (between major military commands), and tactical (between on-scene forces). The previous chapter showed that the conditions necessary for stratified interactions are usually present in crises. Decoupling of stratified interactions occurs to the extent that operational decisions on the employment of military



forces made at the strategic and tactical levels differ from the decisions that political-level authorities would have made to coordinate military actions with their political-military objectives in the crisis. Decoupling simply means that national leaders lose control over tactical-level military interaction.

There are seven potential causes of decoupled interactions: communications and information flow problems, impairment of political-level decisionmaking, a fast-paced tactical environment, ambiguous or ambivalent orders, tactically inappropriate orders, inappropriate guidance in mechanisms of indirect control, and deliberate unauthorized actions by military commanders. To establish that tactical-level interactions became decoupled requires two findings: first, that at least one of the causes listed above was present, and, second, that operational decisions made by tactical-level commanders diverged from the political-military objectives of political-level leaders.

The second question is, when stratified interactions become decoupled, what factors inhibit escalation dynamics from occurring at the tactical level and being transmitted upward to the strategic and political levels of interaction? This question addresses the third corollary to the theory of stratified interaction, that in a crisis escalation dynamics can be stratified--arising at the tactical level of interaction while national leaders are still

attempting to resolve the crisis peacefully. The focus will be on identifying escalation-inhibiting features and the conditions that can cause the escalation-inhibiting factors to break down.

The third question is did actions taken with naval forces send inadvertent political signals to adversaries or allies, and did inadvertent military incidents occur that affected efforts to manage the crisis? This question addresses two of the crisis management problems that can arise when military forces are employed in a crisis: misperceptions and inadvertent military incidents.

The fourth question is did any of the three tensions between political and military considerations arise during the response to the attack on a U.S. ship? Three tensions between political and military considerations can arise in crises: tension between political considerations and the needs of diplomatic bargaining, on the one hand, and military considerations and the needs of military operations, on the other; tension between the need for direct top-level control of military operations, and the need for tactical flexibility and instantaneous decisionmaking at the scene of the crisis; and tension between performance of crisis missions and maintaining readiness to perform wartime missions. All three tensions arise from the operational requirements of crisis management, the essence of which is placing political restrictions on military operations.

### The 1964 Tonkin Gulf Incident

USS Maddox, commissioned June 2, 1944, was 376 feet in length, displaced about 3200 tons, and had a top speed of around 31 knots. Armament consisted of three 5-inch/38 calibre twin mounts controlled by a MK 37 director, two 3-inch/50 calibre twin mounts controlled by a MK 56 director, two MK 32 ASW torpedo tube mounts, and two fixed Hedgehog ASW launchers. The crew consisted of 11 officers and about 322 men, including a detachment of specialists manning an electronic intelligence collection van mounted on deck. Although an old ship, Maddox was a good choice for intelligence collection duties off the coast of a potentially hostile nation due to its weapons, speed and maneuverability.

The North Vietnamese-backed Viet Cong guerilla war against the South Vietnamese Government and the Communist insurgencies in Cambodia and Laos dominated the international situation in Southeast Asia in August 1964. The political and military situation in the Republic of Vietnam (RVN) had been deteriorating for years due to chronically unstable and ineffective governments. Seeking to exploit the deterioration in the South, the Democratic Republic of Vietnam (DRV) in December 1963 ordered the Viet Cong to take the offensive and in 1964 sharply increased the infiltration of regular army troops into South Vietnam.<sup>1</sup>

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<sup>1</sup>George McT. Kahin and John W. Lewis, The United States in Vietnam, Revised Edition (New York: Dell, 1969),

The U.S. Government viewed the deteriorating situation in South Vietnam with grave concern. The Cold War had not yet been thawed by detente and the Communist insurgencies in Indochina were viewed by the Johnson Administration as a crucial battle in a global struggle between East and West. Military and economic aid to South Vietnam increased significantly during the first half of 1964 as the U.S. sought to shore up the faltering Saigon regime.<sup>2</sup>

A program of covert South Vietnamese military operations against North Vietnam, known as Operation Plan (OPLAN) 34A, was approved in January 1964 in an attempt to coerce the North Vietnamese into halting support for the insurgency in the South. As part of OPLAN 34A the U.S. Navy provided South Vietnam with eight fast patrol boats (PTFs) and other small craft, and trained their crews and naval commandoes for raids on North Vietnam. The first successful attacks were conducted in May 1964.<sup>3</sup>

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pp. 153-4; Bruce Palmer, Jr., The 25-Year War: America's Military Role in Vietnam (New York: Simon and Schuster, 1984), pp. 23, 37; George McT. Kahin, Intervention: How America Became Involved in Vietnam (Garden City, NY: Anchor Press/Doubleday, 1987), pp. 207-11; Guenter Lewy, America in Vietnam (New York: Oxford University Press, 1978), pp. 25-31; Stanley Karnow, Vietnam: A History (New York: Viking Press, 1983), pp. 63-4.

<sup>2</sup>Anthony Austin, The President's War (New York: Lippincott, 1972), pp. 35-6, 43-5, 227-33; Palmer, pp. 33-5; Kahin, pp. 208-12; Karnow, pp. 323-6.

<sup>3</sup>Edward J. Marolda and Oscar P. Fitzgerald, The United States Navy and the Vietnam Conflict, Volume II: From

The possibility of the U.S. striking directly at North Vietnam had been raised as early as 1961, but it was not until early 1964 that retaliatory bombing of the North received serious consideration. Contingency plans were drawn up and target lists prepared by June 1964. The desirability of a Congressional resolution authorizing the President to take military action in Indochina was also recognized and a proposed resolution was drafted in May 1964. Thus, by the summer of 1964 the United States had completed military and political planning for some types of direct U.S. military action against North Vietnam.<sup>4</sup>

In April 1962 the U.S. Navy had initiated a series of patrols by destroyers in international waters off the coasts of China, the Soviet Union and North Korea. Although the primary mission of these patrols, code named "Desoto," was

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Military Assistance to Combat, 1959-1965 (Washington, DC: U.S. Government Printing Office, 1986), pp. 334-8; U.S. Congress, Senate Committee on Foreign Relations, The Gulf of Tonkin, The 1964 Incidents, Hearings, 90th Congress, Second Session (Washington, DC: U.S. Government Printing Office, 1968), pp. 13-14, 20-21 (Cited hereafter as Tonkin Gulf Hearings); Lyndon Baines Johnson, The Vantage Point (New York: Holt, Rinehart and Winston, 1971), p. 113; Admiral Roy L. Johnson, "Reminiscences of Admiral Roy L. Johnson, U.S. Navy (Retired)," (Annapolis, MD: U.S. Naval Institute, Oral History Program, April 1982), pp. 235-36. Also see John Galloway, The Gulf of Tonkin Resolution (Rutherford, NJ: Farleigh Dickinson University Press, 1970), pp. 37-42; Joseph C. Goulden, Truth Is the First Casualty (Chicago: Rand McNally, 1969), p. 95; Karnow, pp. 364-7.

<sup>4</sup> Johnson, Vantage Point, p. 119; Palmer, pp. 33-5; Kahin, pp. 217-9; Lewy, pp. 21, 29-31; Karnow, pp. 344-5, 358-62; Austin, pp. 233-8.

intelligence collection, establishing a U.S. naval presence near the target countries and asserting freedom of the seas in international waters off their coasts were recognized by senior Navy officers and civilian officials as being political advantages of the patrols.<sup>5</sup>

The first Desoto patrol off the coast of North Vietnam was conducted in December 1962. DRV Navy vessels shadowed subsequent patrols, but did not interfere with them. There were no joint operations involving RVN OPLAN 34A forces and U.S. Navy Desoto destroyers. Although the value of intelligence collected by the Desoto patrols to the South Vietnamese operations was recognized, coordination between the two programs sought to prevent Desoto patrols from interfering with OPLAN 34A missions. In 1964 minimum distances of the Desoto patrols from North Vietnam were eight miles from the mainland and four miles from islands, reflecting the assumption that only a three mile territorial limit was claimed by North Vietnam.<sup>6</sup>

Maddox was assigned the July-August 1964 Desoto patrol in the Tonkin Gulf. Special communications channels and reporting procedures were in effect to link the ship to key commands, and USS Ticonderoga (CVA-14) was tasked to

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<sup>5</sup> Admiral Johnson, "Reminiscences," p. 235; Eugene G. Windchy, Tonkin Gulf (Garden City, NY: Doubleday, 1971), pp. 54-70; Marolda and Fitzgerald, pp. 393-4; Austin, pp. 240-1.

<sup>6</sup> Tonkin Gulf Hearings, pp. 12, 25-27; Marolda and Fitzgerald, pp. 394-405; Austin, 231-3; Galloway, p. 50.

provide air cover. Maddox arrived off the coast of North Vietnam the afternoon of July 31 and the next afternoon was operating in the vicinity of two islands attacked thirty-six hours earlier by RVN Navy boats on an OPLAN 34A mission. Early in the morning of August 2 DRV Navy headquarters ordered preparations for battle that night. Maddox, warned of the danger of attack, cleared the area by moving out into the Gulf, but was ordered to resume the patrol and had done so by 10:45 A.M.<sup>7</sup>

At 3:00 P.M. on August 2 Maddox detected three DRV P-4 class torpedo (PT) boats on radar closing at high speed. Maddox, which was about twenty-eight miles off the coast, increased speed to twenty-five knots and set a course to the south-east to move away from the coast. At 3:30 P.M. Maddox set general quarters, reported the approaching contacts, and requested air support. Four F-8 Crusaders and the destroyer USS Turner Joy (DD 951) were immediately dispatched to assist Maddox. The first shots of the engagement were fired by Maddox, invoking the principle of anticipatory self-defense against forces showing hostile intent. Maddox fired an initial three shots at 4:05 P.M. as a warning and to get the range to the PT boats, and opened fire on them three

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<sup>7</sup> Admiral U.S. Grant Sharp, "Reminiscences of Admiral U.S. Grant Sharp, U.S. Navy (Retired)," Volume I (Annapolis, MD: U.S. Naval Institute, Oral History Program, March 1976), pp. 214-17; Marolda and Fitzgerald, pp. 405-14. Also see Karnow, pp. 366-68; Windchy, pp. 113-30.

minutes later at a range of 9,000 yards. The DRV PT boats fired four torpedoes at Maddox, all of which missed. Maddox fired 283 rounds from its 5-inch and 3-inch guns, scoring hits on at least two of the boats and killing the commander of one of them.<sup>8</sup>

About twenty minutes after Maddox opened fire, the torpedo boats broke off the attack. Maddox briefly attempted to pursue but could not close the range. At 4:28 P.M. the F-8s from Ticonderoga attacked the DRV boats, scoring hits on one of them. Commander Seventh Fleet ordered a halt to the action after the air attack. One DRV torpedo boat was sunk, a second heavily damaged and the third slightly damaged. Maddox was struck by one machine gun bullet that caused minor damage and no casualties. One F-8 was struck by gunfire but landed safely in Danang.<sup>9</sup>

The U.S. Government reaction to the incident was restrained. Although intelligence assessments concluded that the attack on Maddox reflected growing North Vietnamese sensitivity to incursions and readiness to take aggressive action when threatened, U.S. leaders concluded that the attack may have been an unauthorized action by a local commander. President Johnson told aides to play down the incident. Johnson used the Soviet-American "hot line" to

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<sup>8</sup> Ibid.

<sup>9</sup> Ibid.



pass a message to Premier Khrushchev expressing hope that North Vietnam would not make further attacks on U.S. vessels in international waters. A diplomatic protest was also passed to North Vietnam warning that "grave consequences" would result from further attacks on U.S. forces. The President ruled out reprisals against North Vietnam, but in a public statement warned that U.S. Navy ships and aircraft would "attack any force that attacks them."<sup>10</sup>

The Navy chain of command in the Pacific--Commander Seventh Fleet (COMSEVENTHFLT), Commander in chief U.S. Pacific Fleet (CINCPACFLT), and Commander in Chief Pacific (CINCPAC)--regarded the North Vietnamese attack on Maddox as a direct challenge to the United States, and believed that the Desoto patrol should be resumed immediately. Vice Admiral Roy L. Johnson, COMSEVENTHFLT, immediately ordered Maddox to "Reverse course, get on station, and remain on station."<sup>11</sup> Admiral U.S.G. Sharp, CINCPAC, stated his view at the time clearly in his oral history: "My chief reaction was that we would, at the very least, continue the patrol. The thing we couldn't do was pull the patrol out of the Gulf and not go back in, because that would indicate to the Communists that they had been able to back us down, and we

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<sup>10</sup> Johnson, Vantage Point, p. 113; Marolda and Fitzgerald, pp. 419-22; Galloway, pp. 52-53; Goulden, pp. 134-37; Karnow, pp. 368-69; Austin, pp. 22-29.

<sup>11</sup> Admiral Johnson, "Reminiscences," p. 184.

couldn't have that happen."<sup>12</sup> Admiral Thomas H. Moorer, CINCPACFLT, provides insight on Admiral Sharp's view, noting that there had been an earlier incident off the coast of the Soviet Union: "Once, a destroyer off Petropavlovsk had run when he was threatened. This infuriated Admiral Sharp. He didn't want that to happen again."<sup>13</sup> Admiral Sharp approved a recommendation from Admiral Moorer to resume the patrol, and an order was sent to COMSEVENTHFLT for Maddox to do so-- an action that Vice Admiral Johnson had already taken.<sup>14</sup>

President Johnson quickly ordered the Desoto patrol resumed by Maddox and Turner Joy to show American determination to exercise the right of freedom of the seas. The manner in which the decision was made in Washington to continue the patrol illustrates the mood among top civilian officials at the time. According to Floyd D. Kennedy, Jr., the Navy duty officer at the Defense Intelligence Agency, a Lieutenant Commander Winston Cornelius, was called upon to brief JCS Chairman General Earle G. Wheeler, Acting Secretary of Defense Cyrus R. Vance, Secretary of State Dean Rusk, and President Johnson even before he was able to notify the CNO's duty officer of the incident:

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<sup>12</sup>Admiral Sharp, "Reminiscences," p. 218.

<sup>13</sup>Admiral Thomas H. Moorer, interview by author, February 9, 1988.

<sup>14</sup>Admiral Johnson, "Reminiscences," p. 184; Admiral Sharp, "Reminiscences," pp. 221-26. Also see Windchy, pp. 173-75; Goulden, p. 137.

Before briefing Johnson, Cornelius, on his own initiative, prepared a message ordering the Maddox back into the Gulf of Tonkin to reassert the doctrine of freedom of the seas. When Johnson asked for his recommendation, Cornelius showed him the message, which Johnson immediately approved. After leaving the White House, Cornelius finally was able to talk with the Navy's duty captain, and informed him of the president's decision. The message was sent to the Commander in Chief of the Pacific Fleet, who ordered the Maddox, accompanied by the Turner Joy, to return to the Gulf.<sup>15</sup>

This fateful decision was thus made with little deliberation and no input from the CNO. The President's action did not raise any opposition because the Navy chain of command agreed with the decision and had already ordered Maddox to resume the patrol. The minimum distance from the North Vietnamese mainland was increased to twelve miles and at night the ships were to move out into the Gulf for safety. The two destroyers were told that DRV forces should be "treated as belligerents from first detection" and were ordered to destroy any vessels that attacked them.<sup>16</sup>

Maddox and Turner Joy resumed the Tonkin Gulf Desoto patrol the morning of August 3. The night of August 3-4 the RVN Navy conducted two OPLAN 34A missions, attacking DRV shore defenses. Late in the afternoon of August 4, DRV Navy headquarters ordered two Swatow-class sub chasers to prepare

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<sup>15</sup> Floyd D. Kennedy, Jr., "David Lamar McDonald," in Robert W. Love, Jr., ed., The Chiefs of Naval Operations (Annapolis, MD: Naval Institute Press, 1980), pp. 347-48.

<sup>16</sup> Admiral Sharp, "Reminiscences," pp. 221-26; Johnson, Vantage Point, pp. 113-14; Marolda and Fitzgerald, pp. 419-22; Goulden, pp. 122-60; Windchy, pp. 178-210.

for military operations that night, prompting the two destroyers move out into the Gulf that evening. Maddox and Turner Joy were over sixty miles from the coast of North Vietnam that night when they gained high-speed radar contacts at short range, locked on with fire control radars, and opened fire. For the next four hours the two ships engaged at least five possible contacts at close range while evading several torpedoes detected on sonar. Numerous radar and visual indications of hits on patrol boats were reported. Sixteen U.S. Navy aircraft participated in the engagement, attempting to locate and attack contacts reported by the destroyers.<sup>17</sup>

Doubts soon arose over what exactly happened in the Tonkin Gulf the night of August 4. It had been a dark and overcast night, with unusual radar propagation conditions that easily could have generated numerous false contacts. Only two pilots reported sighting possible contacts, and their reports were uncertain. The two destroyers did not hold the same contacts at the same time on radar and several other inconsistencies in the engagement were also noted.<sup>18</sup>

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<sup>17</sup>Goulden, pp. 122-60; Marolda and Fitzgerald, pp. 422-36; Karnow, 369-70; Windchy, 178-210; Galloway pp. 53-66.

<sup>18</sup>Admiral Sharp, "Reminiscences," p. 229; James B. Stockdale and Sybil Stockdale, In Love and War (New York: Harper and Row, 1984), pp. 3-36. Also see Associated Press dispatch, "Tonkin Gulf," January 24, 1967, reprinted in Galloway, pp. 490-96; "The 'Phantom Battle' that Led to War," U.S. News and World Report, July 23, 1984, pp. 56-67; Windchy, p. 208; Galloway, pp. 57-63.

At 1:27 A.M., about an hour after the incident, the on-scene commander, Captain John J. Herrick, sent a message stating his uncertainty over exactly what had happened:

Review of action makes many reported contacts and torpedoes fired appear doubtful. Freak weather effects on radar and overeager sonarmen may have accounted for many reports. No actual visual sightings by Maddox. Suggest complete evaluation before any further action taken.<sup>19</sup>

About half an hour later Captain Herrick sent a second message summarizing the immediately available evidence of an attack, but warned that the "entire action leaves many doubts except for apparent ambush at beginning."<sup>20</sup> The chain of command was thus warned of the ambiguous tactical picture and that further investigation was warranted.

As soon as the incident was over, Admiral Sharp recommended to JCS that "authority be granted for immediate punitive air strikes against North Vietnam."<sup>20</sup> This was

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<sup>19</sup> Commander Task Group 72.1 message, CTG 72.1 041727Z AUG 64, August 4, 1964 (Tonkin Gulf Incident files, Operational Archives, Naval Historical Center, Washington, DC). Reproduced or quoted in Tonkin Gulf Hearings, p. 54; Marolda and Fitzgerald, p. 440; Goulden, pp. 151-52; Galloway, p. 62; Windchy, p. 210.

<sup>20</sup> Commander Task Group 72.1 message, CTG 72.1 041754Z AUG 64, August 4, 1964 (Tonkin Gulf Incident files, Operational Archives, Naval Historical Center, Washington, DC). Based on my professional judgement (twelve years experience in destroyers, a month at sea in Maddox in 1974, and operational experience in the Tonkin Gulf), this is the best assessment of the incident. There appear to have been two North Vietnamese patrol boats in the vicinity of Maddox and Turner Joy at the start of the incident, but they did not pursue the U.S. ships after they opened fire. For the next four hours the two destroyers engaged false contacts.

shortly after noon, Washington time. Although President Johnson and his advisors were predisposed to retaliate, they wisely insisted on confirmation that there had been a North Vietnamese attack. Vice Admiral Blouin, then Director of the Far East Region in the Office of the Assistant Secretary of Defense for International Security Affairs (OASD/ISA), has described the pressure for confirmation:

[The] Big question was whether there had been an attack. White House put tremendous pressure on Sec Def, later on OASD/ISA (thus me), on CNO, on CINCPAC. Later, Adm Sharp met in Hawaii--communications were difficult--with Adm Moorer, CINCPACFLT, trying to get answers from Tonkin [Gulf]. President LBJ wanted a decision so he could announce it on prime time TV news. About 2315 all agreed there had been an attack.<sup>22</sup>

Admiral Sharp has described the White House pressure for confirmation from his perspective as CINCPAC:

Well, I was on the phone both with General Wheeler and with Secretary McNamara. McNamara was trying to confirm in his own mind that an attack occurred. Of course, that's exactly what we were trying to do also. My staff was working to try and correlate all the reports that would come in and CINCPACFLT staff was doing the same thing. Admiral Moorer, CINCPACFLT, and I decided that there was enough information available to indicate that an attack had occurred. I told Secretary McNamara that, but we also asked the Maddox to confirm absolutely that the ships were attacked and told them to get word to us as quickly as possible. We got a report from

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<sup>21</sup> Sharp, "Reminiscences," p. 229. Also see Marolda and Fitzgerald, p. 438.

<sup>22</sup> Vice Admiral Francis J. Blouin, letter to author, February 29, 1988. Also see Tonkin Gulf Hearings, pp. 11, 58-59; Johnson, Vantage Point, pp. 114-15; Marolda and Fitzgerald, pp. 436-44; Windchy, pp. 213-18; Galloway, pp. 63-65; Goulden, pp. 147-57.

the ships which neither absolutely confirmed or denied that they'd been under attack, but the weight of the evidence still was that an attack had occurred, so I told Mr. McNamara that. We also had some radio intercept intelligence which tended to confirm the attack. So we had various conversations back and forth with Admiral Moorer and I in Honolulu and General Wheeler in Washington, Secretary McNamara in Washington, and finally we received an order to attack the next day, attack North Vietnamese patrol craft bases. In the meantime we were still receiving amplifying messages from the Maddox, Turner Joy, and Captain Herrick. Generally speaking, they seemed to still indicate that the attack occurred. Turner Joy said that crew members saw torpedoes and that a target burned when hit, and her men saw black smoke. So while we were getting the planes ready aboard the Ticonderoga and the Constellation, we were still going back and forth about the attack in the Tonkin Gulf.<sup>23</sup>

Vice Admiral Johnson, COMSEVENTHFLT, also provides a vivid description of the pressure to immediately confirm that there had been a North Vietnamese attack, and, like Admiral Sharp, suggests that the decision to retaliate was made before the on-scene commanders had completed their assessment of the incident:

Then began to arrive all this flood of inquiries from Tom Moorer, Chick Clary [CINCPACFLT Chief of Staff], Oley Sharp, and McNamara, "Confirm, confirm." You have to validate the fact that you were actually under attack because this is the thing that will decide whether a retaliatory attack is ordered. So, of course, I told Maddox, "You've got to report immediately what the hell happened." well, unfortunately, on the Maddox they didn't have any automatic [encryption] equipment, they had to do it hand-encrypted, and it took hours and hours. . . .

And all the time the guys [CINCPACFLT and CINCPAC] were driving me nuts. Every hour they were calling, "What happened? What actually happened?" I gave them what information I could. I said: "Now that's all I have, and I can't tell you whether in my

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<sup>23</sup>Admiral Sharp, "Reminiscences," pp. 229-30.

opinion an attack occurred tonight or not. All I can tell you is that one did occur last night [sic]. that's all I can tell you that's certain and as soon as I get other information, I'll tell you."

Apparently Moorer and Sharp decided on their own that there had been an attack and that's what they told McNamara, and that's when President Johnson ordered the retaliatory attack.<sup>24</sup>

The statements by Vice Admiral Blouin, Admiral Sharp, and Vice Admiral Johnson reveal intense pressure from the President and the Secretary of Defense for the Navy chain of command to make an instant assessment as to whether or not an attack had occurred. Furthermore, their comments suggest that the decision to retaliate against North Vietnam was based on a hurried and tentative evaluation of incomplete and ambiguous information. Not even the on-scene commander was certain what actually had happened, but tentative indications that there may have been an attack were viewed as sufficient cause for ordering retaliation.

As early as 3:10 P.M., Eastern Daylight Time--well before the Navy chain of command had reached a firm conclusion about whether or not there had been an attack on the destroyers--President Johnson gave McNamara tentative authorization to conduct retaliatory air strikes against North Vietnam. At 5:19 P.M., about five hours after the incident ended, President Johnson approved plans for air strikes against DRV naval vessels in or near five North Vietnamese ports, and against a fuel depot ashore. At about

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<sup>24</sup>Admiral Johnson, "Reminiscences," p. 239.



6:00 P.M. the President gave final authorization for the air strike based on Admiral Sharp's assessment that there had been an attack, and at 6:07 P.M. McNamara issued the order for the strikes. At 6:45 P.M. the President briefed Congressional leaders on the incident and his intent to retaliate.<sup>25</sup> At 11:36 P.M. President Johnson announced on television and radio that there had been an attack on U.S. vessels and that "Air action is now in execution against gunboats and certain supporting facilities in North Viet-Nam which have been used in these hostile operations."<sup>26</sup> At the time the President made this announcement, U.S. ships and planes had been searching the Tonkin Gulf for debris from the previous night's engagement for two hours without finding anything (No physical evidence would ever be found).

The first wave of Navy planes attacked at 1:30 A.M. (Washington time), nearly two hours after the President's speech. They destroyed seven DRV vessels, heavily damaged ten, and slightly damaged sixteen others--almost all of the major vessels in the DRV Navy at the time. The fuel depot was estimated to be 90 percent destroyed. Out of the sixty-seven Navy aircraft that participated in the strikes, two

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<sup>25</sup> Tonkin Gulf Hearings, pp. 58-59, 63; Johnson, Vantage Point, pp. 114-15; Marolda and Fitzgerald, pp. 437-46; Goulden, pp. 147-57; Windchy, pp. 213-20.

<sup>26</sup> Public Papers of the Presidents of the United States: Lyndon B. Johnson, 1963-1964, Volume II (Washington, DC: U.S. Government printing Office, 1965), p. 927.

were lost and another two damaged. One pilot was killed and another captured by the North Vietnamese. Maddox and Turner Joy resumed the Desoto patrol off North Vietnam from August 5 to August 8, with no further incidents.<sup>27</sup>

The most important U.S. response to the incident was Congressional passage of the Tonkin Gulf Resolution on August 7. This resolution, based on the draft resolution prepared in May, stated that the security of Southeast Asia was a vital U.S. interest and authorized the President "to take all necessary measures to repel any armed attack against the forces of the United States and to prevent further aggression." The stage was thus set for the 1965 escalation of the U.S. role in the Vietnam War. North Vietnam and the Viet Cong were not cowed by the U.S. resolution or the retaliatory air strikes and conducted further attacks on Americans in South Vietnam.<sup>28</sup>

Two final points need to be made concerning the second incident, involving Maddox and Turner Joy the night of August 4. First, a decision by the President to delay the decision on whether or not to retaliate against North

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<sup>27</sup> Admiral Johnson, "Reminiscences," pp. 239-40; Admiral Sharp, "Reminiscences," pp. 229-32; Marolda and Fitzgerald, pp. 444-49. Also see Galloway, pp. 67-70; Goulden, pp. 147-57; Karnow, pp. 371-77; Kahin, pp. 224-5; Austin, pp. 29-30, 38-48.

<sup>28</sup> Marolda and Fitzgerald, pp. 451-52; Galloway, pp. 70-98; Palmer, pp. 35-36; Karnow, pp. 374-6; Austin, pp. 53-105; Lewy, pp. 33-36; Goulden, pp. 23-78.

Vietnam while the Navy investigated incident probably would not have resulted in a conclusion that there had not been an attack and a decision that retaliation was not warranted. Captain Alex A. Kerr, assigned by Vice Admiral Johnson to investigate the incident, concluded on August 6 that there had indeed been a North Vietnamese attack on Maddox and Turner Joy.<sup>29</sup> Even if the President had delayed the retaliation decision, this investigation probably would have convinced him to proceed with air strikes against North Vietnam.

The second point is that there was a similar incident in the Tonkin Gulf a month after the August 4 incident. USS Morton (DD 948) and USS Richard S. Edwards (DD 950) commenced a Desoto patrol off the coast of North Vietnam on September 13, 1964, remaining at least twenty miles from the coast. At 7:29 P.M. on September 18 the two destroyers detected two radar contacts closing them at high speed, set general quarters, and requested air support. At 8:16 P.M. they fired warning shots and at 8:22 P.M. opened fire on the contacts. Over the next two hours the two destroyers engaged at least four radar contacts, firing 299 shells while they maneuvered to avoid torpedoes. The JCS decided

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<sup>29</sup> Captain Alex A. Kerr, "The Reminiscences of Captain Alex A. Kerr, U.S. Navy (Retired)," (Annapolis, MD: U.S. Naval Institute, Oral History Program, 1984), pp. 459-60. Also see Tonkin Gulf Hearings, pp. 15-19, 63-64; Marolda and Fitzgerald, pp. 441-43.

not to retaliate for this alleged attack due to lack of intelligence confirmation of North Vietnamese involvement. A Navy investigation later concluded that a North Vietnamese patrol boat probably was in the vicinity of the ships at the beginning of the incident, but there were no attacks on the destroyers. The radar contacts they engaged and the torpedoes they detected on sonar were evaluated as false.<sup>30</sup>

The September 18 incident has two implications. First, it suggests that essentially the same thing may have happened in the August 4 incident--North Vietnamese patrol craft were detected at the beginning of the incident, but there were no attacks on the U.S. destroyers and the targets they engaged were all false. Second, in contrast to the August 4 incident, the chain of command reacted to the September 18 incident with restraint and skepticism. On August 4 the chain of command from the President to CINCPACFLT was predisposed to believe that there had been a North Vietnamese attack and paid little heed to the on-scene commander's doubts. On September 18 the JCS initially recommended retaliatory air strikes, but reversed itself due to lack of evidence that there had been an attack on the destroyers. The chain of command may well have learned a lesson in dealing with ambiguous circumstances from the August 4 incident, but there is no direct evidence of this.

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<sup>30</sup>Marolda and Fitzgerald, pp. 453-62; Galloway, pp. 60-61.

## Findings

This section will review the 1964 Tonkin Gulf Incident to answer the four research questions. The first question is did interactions at the tactical and political levels become decoupled during or after the attack on the U.S. Navy ship? At least two of the potential causes of decoupled interactions were present during the August 2 and 4 incidents: communications and information flow problems, and a fast-paced tactical environment. Although the technical capacity to do so may have existed, the Defense Department and Navy communication systems were not configured to enable Washington to speak directly to ships at sea in the Far East (this would become a routine operational capability over the next few years). Officials in Washington spent hours bombarding Navy commanders in the Pacific with demands for more information on the second incident before they felt they had sufficient information on which to base the decision to retaliate. The President and the Secretary of Defense were thus unable to control U.S. Navy operations in the Tonkin Gulf while the incidents were in progress.

Although conditions for decoupling were present, the operational decisions made by tactical-level commanders did not diverge from the political-military objectives of political-level leaders. Captain Herrick acted with caution to avoid encounters with North Vietnamese forces while conducting his surveillance mission, and Vice Admiral

Johnson ordered the engagements on August 2 and 4 halted as soon as it appeared the U.S. ships were out of danger. Military commanders and political leaders were in agreement that North Vietnamese attacks on U.S. ships warranted retaliatory air strikes, and that the Desoto patrol should be resumed after the incidents in order to assert freedom of the seas. Interestingly, the on-scene commander, Captain Herrick, had the greatest doubt that there had been a North Vietnamese attack on August 4 and cautioned against a hasty reaction. Thus, although national leaders temporarily lost control over events in the Tonkin Gulf during the incidents, this did not result in uncontrollable escalation of the confrontations.

The pattern in the two incidents is one of momentary decoupling followed by immediate disengagement. On-scene commanders, acting on their own authority under guidance contained in the rules of engagement, used limited force in response to apparent imminent attacks. They were not required to request--and did not seek--permission from higher authority to use force in self-defense. Once the immediate threat had been countered and the destroyers were out of danger, the on-scene commanders halted the engagements--again on their own authority and without guidance from higher in the chain of command.

The second question is, when stratified interactions become decoupled, what factors inhibit escalation dynamics

from occurring at the tactical level and being transmitted upward to the strategic and political levels of interaction? Three escalation-inhibiting factors appear to have been important in the Tonkin Gulf incidents. The first might be called military prudence: on-scene commanders did not want to fight under tactically unfavorable circumstances. A single torpedo could seriously damage or even sink a destroyer, multiple PT boats are a difficult threat for a single destroyer to counter (as in the August 2 incident), and darkness makes countering PT boats even more difficult (as in the August 4 incident). Air support arrived after the PT boats were driven off by Maddox in the first incident, and was ineffective due to darkness and low cloud cover in the second incident. It may well be the case that when U.S. forces are the victim of an unanticipated attack, tactical military considerations lead military commanders toward the same general course of action that political considerations lead national leaders toward. In the Tonkin Gulf incidents, military considerations tended to make tactical-level commanders more cautious than political-level leaders.

The second escalation-inhibiting factor was compliance by on-scene commanders with the guidance contained in mechanisms of indirect control. Under the peacetime rules of engagement in effect in 1964, Maddox, Turner Joy, and the aircraft supporting them were authorized to use force in self-defense and in anticipatory self-defense when attack

appeared to be imminent. Hot pursuit of the attacking force in international waters was authorized and was used on August 2 when Navy planes attacked the PT boats after they had disengaged. On the other hand, retaliation against targets in North Vietnam was not authorized unless specifically approved by the President.<sup>32</sup> These provisions allowed force to be used without further permission from higher authority, but also resulted in the engagements halting quickly rather than escalating.

The third escalation-inhibiting factor was the emphasis that the President and Secretary of Defense McNamara placed on confirming that there actually had been a North Vietnamese attack the night of August 4. They did not accept initial reports from the Tonkin Gulf at face value; they insisted on knowing the basis for the conclusion that there had been an attack on the destroyers. As former Assistant Secretary of Defense for Public Affairs Phil G. Goulding points out, there is inherent skepticism toward initial reports: "A cardinal rule in an establishment as large as the Department of Defense is to assume that first reports are always wrong, no matter what their security classification, no matter to whom they are addressed."<sup>33</sup>

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<sup>32</sup>See Marolda and Fitzgerald, pp. 422, 459.

<sup>33</sup>Phil G. Goulding, Confirm or Deny: Informing the People on National Security (New York: Harper and Row, 1970), p. 103.



Double-checking the accuracy of initial reports is important for avoiding unwarranted escalation of a confrontation-- particularly when there may not have been a confrontation at all.<sup>34</sup>

The August 4 incident in the Tonkin Gulf suggests three conditions that can cause the escalation-inhibiting factors to break down. The first condition is long-term frustration and animosity toward the other side in a crisis or incident. U.S. leaders had for years been growing increasingly belligerent toward North Vietnam due to its support for the Viet Cong, and had been preparing contingency plans for direct military action against the North. This created an atmosphere in which an apparent North Vietnamese attack on U.S. forces would be likely to provoke a strong U.S. response. The second condition is the immediate prior occurrence of a confirmed provocation by the other side, particularly when the U.S. response to the prior incident was restrained and the other side was warned against further incidents. The U.S. reacted with notable restraint to the confirmed August 2 North Vietnamese attack on Maddox, merely warning against further attacks. But the August 4

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<sup>34</sup>Verifying the accuracy of initial reports can also have negative consequences: tying up communications channels with requests for further information and detailed descriptions of past events, slowing the flow of current reports and orders, and diverting the attention on military commanders from the tactical situation to handling inquiries from Washington. For example, see Marolda and Fitzgerald, p. 457.

incident provoked U.S. retaliation against the North even though the circumstances of the incident were not clear.

The third condition is for all levels in the military chain of command, from the President to the on-scene commander, to hold similar views toward the adversary and toward the need for immediate retaliation. A strong unity of views can suppress the skepticism that normally greets ambiguous initial reports of a military incident, or lead to hasty assessment of the incident in the rush to launch retaliatory attacks. This appears to have occurred in the U.S. decision to retaliate after the August 4 incident--McNamara sought confirmation that there had been an attack, but the President decided to retaliate before a complete assessment of the evidence had been made.

The third question is did actions taken with naval forces send inadvertent political signals to adversaries or allies, and did inadvertent military incidents occur that affected efforts to manage the crisis? The U.S. responses to the incidents did not send any serious inadvertent political signals or result in any serious inadvertent military incidents. However, the Desoto patrols apparently were misperceived by North Vietnam. Some U.S. intelligence analysts and military officers, including Captain Herrick, suspected that the North Vietnamese misperceived the Desoto patrol destroyers as participating in or directly supporting OPLAN 34A attacks on North Vietnam. Although McNamara would

later adamantly insist that there were no grounds for the North Vietnamese to have confused the Desoto and OPLAN 34A operations, such a misperception provides a plausible explanation for the August 2 North Vietnamese attack on Maddox.<sup>35</sup>

The fourth question is did any of the three tensions between political and military considerations arise during the U.S. response to the August 2 and 4 incidents? None of the three tensions was serious because the U.S. responses were limited and all levels of the chain of command held generally similar views toward the need to retaliate. The only aspect of the incidents that generated tension was the demand for confirmation that there had been a North Vietnamese attack in the second incident. McNamara's efforts to confirm that there had been an attack somewhat annoyed Admirals Sharp and Moorer, both of whom had immediately recommended retaliation. Tension generated by the demand for confirmation is an example of the tension that can arise between political considerations and military considerations: Confirmation was necessary so that retaliation could be justified politically. But confirmation required time to assess the evidence, which could delay the retaliatory strikes--losing the advantage of surprise and giving the adversary more time to ready his defenses.

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<sup>35</sup> See Marolda and Fitzgerald, pp. 420-22.

### The 1967 Attack on the Liberty

USS Liberty was launched in 1945, mothballed in 1958, began extensive conversion for its new duties in 1963, and recommissioned in late 1964. Liberty's mission was collection of electronic and communications intelligence, though for important reasons the Navy cloaked this mission under the cover of electromagnetic propagation research. The ship was 455 feet in length and had a displacement of about 10,000 tons. At the time of the attack the crew consisted of sixteen officers, 285 enlisted men, and three civilian technicians. Armament was four .50-caliber machine guns--leaving the ship defenseless against any attack with weapons heavier than small arms. Liberty's maximum speed was eighteen knots. Although a superb platform for peacetime intelligence collection, Liberty was extremely vulnerable when operating in close proximity to hostilities.

Liberty was ordered to the Eastern Mediterranean as Arab-Israeli tensions reached the crisis point in late May.<sup>36</sup> The ship was to patrol just outside territorial waters (twelve miles) off the coast of the Sinai Peninsula, monitoring the progress of Israeli-Egyptian fighting as well as conducting general surveillance of the region. Specific forces were not designated to defend Liberty because the

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<sup>36</sup>See Chapter VII for a description of the background to the 1967 war, U.S. policy during the crisis, and Sixth Fleet operations during the crisis.

U.S. was officially neutral in the conflict and the ship was operating in international waters. Just before Liberty commenced its patrol, at least five messages were sent increasing the ship's standoff range from the coasts of the belligerents--apparently in response to Arab claims that the U.S. Navy was aiding Israel, and warnings from Egypt and Israel that the seas off their coasts were war zones. Due to misrouting of the messages to communications stations that were not handling traffic to Liberty, the ship did not receive these crucial messages.<sup>37</sup> Rear Admiral J.C. Wylie, Deputy Commander in Chief U.S. Naval Forces Europe in 1967, has stated that "This whole prelude to the attack on Liberty was the most appalling communications snafu [failure] that the U.S. Navy ever had."<sup>38</sup> Commander Sixth Fleet gained operational control of Liberty shortly before the ship commenced its mission, but did not have snips or aircraft alerted to provide support for Liberty in the event of an attack on the ship.<sup>39</sup>

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<sup>37</sup> James M. Ennes, Jr., Assault on the Liberty (New York: Random House, 1979; Ivy Books Edition, 1987), pp. 51-4, 65; Goulding, pp. 130-2. On the communications problems, see U.S. Congress, House Committee on Armed services, Review of Department of Defense Worldwide Communications, Phase I, Hearings, 92nd Congress, First Session (Washington, DC: Government Printing Office, 1971), pp. 6-17; "Order Didn't Get to USS Liberty," New York Times, June 9, 1967, p. 1; Ennes, pp. 291-300.

<sup>38</sup> Rear Admiral J.C. Wylie, letter to author, March 28, 1988.

<sup>39</sup> Ibid.

Israeli aircraft spotted Liberty as soon as it arrived in its patrol area the morning of 8 June, identified Liberty as a U.S. Navy ship, and repeatedly flew by the ship throughout the morning. At 2:00 P.M. two Israeli Mirage jet fighters attacked Liberty with rockets and cannon fire, followed by Mystere jet fighters attacking with rockets, napalm, and cannon fire. At 2:35 P.M. three Israeli torpedo boats attacked, launching at least five torpedoes, one of which struck Liberty in its intelligence space. The Israeli boats also raked the ship with machine guns, firing at topside personnel and life rafts in the water before breaking off the attack at 3:15 P.M. Liberty was severely damaged, thirty-four men were killed and 171 were wounded. As the torpedo boats retired, two Israeli assault helicopters arrived, but did not attack (U.S. sources claim they were carrying troops, Israeli sources claim they were sent to assist and evacuate wounded). An hour later the torpedo boats returned to offer assistance, which was refused by Liberty. The ship was able to clear the area under its own power and rendezvoused with U.S. Navy ships the next day.<sup>40</sup>

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<sup>40</sup>Ennes, pp. 70-124; Goulding, pp. 93-113; "Israelis, in Error, Attack U.S. Navy Ship," New York Times, June 9, 1967, p. 1; "U.S. Investigating Attack on Vessel," New York Times, June 10, 1967, p. 15; Richard K. Smith, "The Violation of the Liberty," U.S. Naval Institute Proceedings 104 (June 1978): 64-8. For the Israeli version of the attack, see Israeli Defense Forces, "Preliminary Inquiry," Decision of Examining Judge Sgan Alux Y. Yerulshalmi,

Liberty was in communication with the Sixth Fleet and communications stations ashore via high frequency radio-teletype and high frequency single sideband voice radio (the CINCUSNAVEUR "High Frequency Command Net," commonly referred to as "HICOM"). Except during periods when her radios were out of commission due to Israeli attacks, Liberty was able to report that she was under attack directly to the Sixth Fleet's carriers. Liberty apparently was unable to communicate with the Sixth Fleet during the first half hour of the attack (2:00 P.M. to about 2:30 P.M.) due to power outages and damage to radio antennas and transmitters. Ennes has claimed that the Israelis jammed Liberty's radios, but this cannot be substantiated and could well have been electromagnetic interference rather than deliberate jamming.<sup>41</sup>

USS Saratoga (CVA 60), steaming southwest of Crete, first received a voice report from Liberty at about 2:30 P.M., stating "I am under attack. My posit [position] 31-23N, 33-25E. I have been hit. Request immed [immediate]

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Preliminary Inquiry File 1/67, July 21, 1967; Captain Yaakov Nitzan, Israeli Navy, "Comment and Discussion," U.S. Naval Institute Proceedings 104 (November 1978): 111-12; Hirsh Goodman and Zeev Schiff, "The Attack on the Liberty," The Atlantic Monthly, September 1984, pp. 78-84.

<sup>41</sup>Ennes, pp. 89-92, 118-19. There were no reports from Sixth Fleet units of communications jamming during the attack on Liberty. What Liberty's radiomen detected was probably Israeli electronic countermeasures (ECM) intended to jam air search and fire control radars, which would have been normal if the Israeli pilots thought they were attacking an armed warship.

assistance."<sup>42</sup> Saratoga requested authentication of this report (Prudent and required, but much to the annoyance of Liberty), then relayed it to Commander Sixth Fleet (COMSIXTHFLT) and Commander in Chief U.S. Naval Forces Europe (CINCUSNAVEUR). About five minutes later Saratoga received and immediately relayed a second voice report from Liberty, stating "Three unidentified gunboats approaching, vessels now . . ." <sup>43</sup> Liberty did not finish the transmission, probably due to the Israeli attack. At about 2:43 P.M., in the midst of the Israeli torpedo boat attack, Saratoga received and relayed a third voice report from Liberty, stating "Under attack and hit badly."<sup>44</sup> At 2:53 P.M. Saratoga received and relayed a fourth voice report from Liberty, stating "Hit by torpedo starboard side. Listing badly. Need assistance immediately."<sup>45</sup> These are

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<sup>42</sup>USS Saratoga (CVA 60) message, USS SARATOGA 081235Z JUN 67, June 8, 1967 (Unclassified. Liberty incident file, Operational Archives, Naval Historical Center, Washington, DC). Saratoga was relaying over radioteletype a report received over HF/SSB voice radio. Saratoga probably preceded the radioteletype message with a voice radio report to CTF 60 (the Carrier Strike Force commander) or COMSIXTHFLT.

<sup>43</sup>USS Saratoga message, USS SARATOGA 081237Z JUN 67, June 8, 1967 (Unclassified. Liberty incident file, Operational Archives, Naval Historical Center, Washington, DC).

<sup>44</sup>USS Saratoga message, USS SARATOGA 081245Z JUN 67, June 8, 1967 (Unclassified. Liberty incident file, Operational Archives, Naval Historical Center, Washington, DC).

<sup>45</sup>USS Saratoga message, USS SARATOGA 081254Z JUN 67, June 8, 1967 (Unclassified. Liberty incident file, Operational Archives, Naval Historical Center, Washington, DC).



the reports on which COMSIXTHFLT and the chain of command up to the President based their initial decisions on how to respond. An important point is that none of these reports give the identity of the attackers. COMSIXTHFLT did not know the identity of the attackers until after he had ordered initial actions in support of Liberty.

Vice Admiral Martin, COMSIXTHFLT, acting on his own authority, responded to Liberty's reports that she was under attack by immediately ordering Saratoga and USS America (CVA 66) to launch aircraft to defend Liberty against further attacks.<sup>46</sup> This order apparently was first given over voice radio at about 2:40 P.M., then followed with a message order at 2:50 P.M.:

America launch four armed A-4's to proceed to 31-23N 33-25E to defend USS Liberty who is now under attack by gunboats. Provide fighter cover and tankers. Relieve on station. Saratoga launch four<sup>47</sup> armed A-1's ASAP [as soon as possible] same mission.

Commander Task Force 60 (CTF 60), the Carrier Strike Force,

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<sup>46</sup>Rear Admiral Wylie, letter to author, March 28, 1988. There was no question that Vice Admiral Martin had authority to use force to defend Liberty. Admiral Horacio Rivero, Vice Chief of Naval Operations in 1967, has stated, in reference to the Liberty incident, that "No commander needs permission to defend himself, his forces, or other U.S. forces under attack when he can assist. Any commander who asks permission to do so, instead of acting first, should be relieved." Admiral Horacio Rivero, Jr., letter to author, March 10, 1988.

<sup>47</sup>Commander Sixth Fleet message, COMSIXTHFLT 081250Z JUN 67, June 8, 1967 (Declassified 1979. Liberty incident file, Operational Archives, Naval Historical Center, Washington, DC).

later specified that America was to launch four armed F-4s as fighter cover for the attack aircraft. Because the carriers did not have planes on alert to support Liberty, the A-4s and A-1s had to be fueled and armed and their pilots briefed, which would take about an hour. The estimated launch times were 3:45 P.M. for America's A-4s and 4:00 P.M. for Saratoga's A-1s. The first planes were estimated to arrive over Liberty at 5:15 P.M. Vice Admiral Martin also ordered Task Force 60 to close Liberty's position, and ordered the destroyers USS George F. Davis (DD 937) and USS Massey (DD 778) to rendezvous with Liberty at best speed.<sup>48</sup> COMSIXTHFLT told Liberty over voice radio

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<sup>48</sup>Commander Sixth Fleet message, COMSIXTHFLT 081320Z JUN 67, June 8, 1967 (Unclassified. Liberty incident file, Operational Archives, Naval Historical Center, Washington, DC). The planes launched at 3:45 P.M. and 4:00 P.M. were the first launched specifically to defend Liberty. Ennes claims that prior to this America launched nuclear-armed alert aircraft to defend Liberty, but that they were recalled when higher authorities learned of it. See Ennes, pp. 89-90. This is undoubtedly false. America was conducting routine flight operations for training at the time Liberty was attacked, so the earlier launches described by Ennes were probably training missions. It is likely, however, that the carriers did launch their alert aircraft, but not to defend Liberty. It would have been routine for the carriers to have armed fighters on alert for air defense in the event of a surprise air attack. Additionally, it would have been routine in 1967 for the carriers to have nuclear-armed strike aircraft on alert for general war contingencies. Launching these alert fighters and strike aircraft would have been a normal response to an attack on a U.S. Navy ship: the fighters to defend the carriers (which were far more valuable than Liberty) and the strike aircraft to circle in a safe holding area (ensuring availability for wartime tasking). But none of these planes would have been sent to defend Liberty.

that help was on the way and sent Liberty a message stating "Your flash traffic received. Sending aircraft to cover you. Surface units on the way. Keep SITREPs [situation reports] coming."<sup>49</sup>

The actions that Vice Admiral Martin did not take were as important as those he did take. He did not order attacks on Soviet forces in the Mediterranean or retaliation against Egyptian forces or airfields. The actions he ordered were strictly limited to the defense of Liberty. The rules of engagement he issued (described below) were carefully crafted to avoid further incidents. The restraint and prudence shown by Vice Admiral Martin made a substantial contribution to preventing the Liberty incident from escalating to a superpower confrontation.

At 3:15 P.M. COMSIXTHFLT made an initial voice report to CINCUSNAVEUR and Commander in Chief U.S. Forces Europe (USCINCEUR) stating that Liberty was under attack and that he was taking action to defend her. At 3:30 P.M. COMSIXTHFLT sent a message situation report (SITREP) describing in greater detail the actions he had ordered and informing USCINCEUR that he had declared the forces attacking Liberty hostile.<sup>50</sup> This illustrates the exercise

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<sup>49</sup>Commander Sixth Fleet message, COMSIXTHFLT 081305Z JUN 67, June 8, 1967 (Unclassified. Liberty incident file, Operational Archives, Naval Historical Center, Washington, DC); Ennes, pp. 89-90.

<sup>50</sup>COMSIXTHFLT 081320Z JUN 67.

of delegated authority within the U.S. command system: the on-scene commander initiates action, then immediately informs his superiors of the actions he ordered. COMSIXTHFLT informed USCINCEUR of his actions before the planes were launched, allowing USCINCEUR to exercise control by negation should it have been necessary. None of Vice Admiral Martin's orders were countermanded by higher authorities.

Vice Admiral Martin used his authority to declare a threatening force hostile in response to reports from Liberty that she was under attack. After ordering aircraft launched to defend Liberty, COMSIXTHFLT at 3:39 P.M. sent the following rules of engagement to the carriers:

1. IAW [In accordance with] CINCUSNAVEUR INST [Instruction] P03120.5B forces attacking Liberty are declared hostile.
2. You are authorized to use force including destruction as necessary to control the situation. Do not use more force than required. Do not pursue any unit toward land for reprisal purposes. Purpose of counterattack is to protect Liberty only.
3. Brief all pilots [on the] contents [of] this msg [message].
4. In addition brief pilots that Egyptian territorial limit [is] only 12 miles and Liberty [is] right on edge. Do not fly between Liberty and shoreline except as required to carry out provisions [of] para [paragraph] 2 above. Brief fighter cover that any attacks on attack aircraft, Liberty, or they themselves is hostile act and para two above applies.<sup>51</sup>

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<sup>51</sup> Commander Sixth Fleet message, COMSIXTHFLT 081339Z JUN 67, June 8, 1967 (Declassified 1979. Liberty incident file, Operational Archives, Naval Historical Center, Washington, DC)

In a separate message COMSIXTHFLT emphasized "Ensure pilots do not repeat do not fly over land."<sup>52</sup> Vice Admiral Martin thus took precautions to avoid incidents involving the aircraft sent to defend Liberty.

Saratoga and America launched their attack aircraft between 3:45 P.M. and 4:00 P.M. At 4:14 P.M. the U.S. Defense Attache Office (DAO) in Tel Aviv sent a message to COMSIXTHFLT and the chain of command reporting that Israel had informed the U.S. Naval Attache of an accidental attack on a U.S. ship off the Sinai. This was the first indication received as to the identity of the attackers. Shortly thereafter, at 4:22 P.M., Liberty reported that she had identified the attackers as Israeli. In response to these reports and a report from Liberty that the attacks had ended, COMSIXTHFLT at about 4:30 P.M. ordered the attack aircraft recalled. COMSIXTHFLT reported to CINCUSNAVEUR and USCINCEUR at 4:39 P.M. that he had recalled the aircraft sent to defend Liberty.<sup>53</sup> Thus, by about 4:30 P.M. the immediate crisis was over and there was little likelihood of further armed clashes involving U.S. forces.

Guidance from Washington lagged far behind the pace of events in the eastern Mediterranean. It was not until 4:16

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<sup>52</sup>Commander Sixth Fleet message, COMSIXTHFLT 081336Z JUN 67, June 8, 1967 (Unclassified. Liberty incident file, Operational Archives, Naval Historical Center, Washington, DC)

<sup>53</sup>Ennes, pp. 89-92, 118-19; Goulding, pp. 97-98.

P.M. that JCS sent a message authorizing use of force to defend Liberty, and not until 4:46 P.M. that authorization from the Secretary of Defense to use force was received and passed on by USCINCEUR. Both of these messages apparently were sent before Washington learned that Israel was responsible for the attack. Neither of the messages had any impact on actions taken by the Sixth Fleet. The JCS message would have been received by Vice Admiral Martin about the same time he received the DAO Tel Aviv message reporting Israeli responsibility for the attack. Secretary of Defense authorization to use force would have been received by Vice Admiral Martin about fifteen minutes after he ordered recall of the planes sent to defend Liberty.<sup>54</sup> At 5:29 P.M., almost an hour after Vice Admiral Martin had recalled his planes, JCS sent a message rescinding authorization to use force to defend Liberty.<sup>55</sup> Top-level civilian and military officials in Washington thus had no direct role in controlling tactical decisions in the Mediterranean after Liberty was attacked. Vice Admiral Martin acted entirely on his own authority, basing his decisions on CINCUSNAVEUR standing peacetime rules of engagement.

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<sup>54</sup>Under other tactical circumstances late arrival of such messages could seriously complicate crisis management efforts, prompting new fighting after initial disengagement.

<sup>55</sup>Vice Admiral Martin may have received verbal orders to recall his planes before the JCS message rescinding authorization to use force was sent, but the author could find no evidence of this.

COMSIXTHFLT directed the destroyers Davis and Massey to continue at best speed to rendezvous with Liberty, and provided them with air cover as they steamed eastward through the night. Task Force 60 also steamed eastward to rendezvous with Liberty. The destroyers rendezvoused with Liberty early on June 9, and later that morning helicopters from America began evacuating Liberty's wounded.<sup>56</sup>

In some respects tensions were greater in Washington than in the Mediterranean during the attack on Liberty. Secretary of Defense McNamara initially thought that Soviet forces had attacked Liberty:

In the case of the Liberty in the Mediterranean in June as an example, I thought the Liberty had been attacked by Soviet forces. Thank goodness, our carrier commanders did not launch immediately against the Soviet forces who were operating in the Mediterranean at the time. I then thought it had been attacked by Egyptian forces. Who else could have done it? Thank goodness, we did not launch against the Egyptians.<sup>57</sup> We took time to find out it was the Israelis.

In contrast to McNamara, the Navy chain of command was confident that the Soviets had not conducted the attack on

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<sup>56</sup>Ennes, pp. 141, 144-46; Goulding, pp. 97-98.

<sup>57</sup>"Secretary Rusk and Secretary of Defense McNamara Discuss Viet-Nam and Korea on 'Meet the Press'," Department of State Bulletin 58 (February 26, 1968): 271. Also see Goulding, p. 97; Authorization for Military Procurement, Research and Development, Fiscal Year 1969, and Reserve Strength, Hearings, 90th Congress, Second Session (Washington, DC: U.S. Government Printing Office, 1968), p. 47 (Cited hereafter as Authorization for Military Procurement, 1969); Jonathan T. Howe, Multicrises: Sea Power and Global Politics in the Missile Age (Cambridge, MA: MIT Press, 1971), p. 102.

Liberty. COMSIXTHFLT and CTF 60 took no actions against Soviet naval forces in the Mediterranean. Vice Admiral Donald D. Engen, Commanding Officer of America in 1967, states that the Sixth Fleet knew the Soviets could not have conducted the attack because there were no Soviet aircraft or naval vessels in the vicinity of Liberty. Rear Admiral Wylie states that there was no concern at CINCUSNAVEUR that the Soviets had conducted the attack, and Admiral Horacio Rivero states that there was no concern on the CNO's staff that the Soviets had conducted the attack.<sup>58</sup> It was thus the more accurate picture that on-scene commanders had of the local tactical situation and their compliance with standing rules of engagement that prevented a clash with Soviet or Egyptian forces. In retrospect, given McNamara's inaccurate suspicions as to who had attacked Liberty, it is perhaps fortunate that the Secretary of Defense was not able to directly control Sixth Fleet actions during the incident.

Officials in Washington made an important contribution to preventing the Liberty incident from escalating to a superpower confrontation by notifying the Soviet Union of the attack and the U.S. response to it. In his memoirs,

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<sup>58</sup> Vice Admiral Donald D. Engen, letter to author, March 21, 1988; Rear Admiral Wylie, letter to author, March 28, 1988; Admiral Rivero, letter to author, March 10, 1988. Also see Howe, p. 103; Anthony R. Wells, "The June 1967 Arab-Israeli War," in Bradford Dismukes and James McConnell, eds., Soviet Naval Diplomacy (New York: Pergamon Press, 1979), p. 167.



President Johnson describes his use of the "hot line" to inform the Soviets of the attack and that U.S. warplanes had been sent to the scene:

There was a possibility that the incident might lead to even greater misfortune, and it was precisely to avoid further confusion and tragedy that I sent a message to Chairman Kosygin on the hot line. I told him exactly what had happened and advised him that carrier aircraft were on their way to the scene to investigate. I wanted him to know, I said, that investigation was the sole purpose of these flights, and I hoped he would inform the proper parties. Kosygin replied that our message had been received and the information had been relayed immediately to the Egyptians.

President Johnson somewhat distorted the mission of the planes that had been sent to assist Liberty--they were fully armed and had been ordered to defend her, rather than just investigate. Portraying their mission as investigation was probably intended to allay Soviet and Egyptian concerns. The President's use of the hot line was important because Sixth Fleet actions in support of Liberty--flying attack planes and fighters into a war zone, close to Egyptian territory--could have been misperceived as imminent U.S. intervention in the war.

Israel officially claimed that it had "erroneously" attacked Liberty believing that it was an Egyptian vessel, and apologized for the attack. The U.S. Government did not officially accept the Israeli explanation that the attack

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<sup>59</sup> Johnson, Vantage Point, p. 301. Also see Hugh Sidey, "Over the Hot Line--the Middle East," Life, June 16, 1967, p. 24B.

was a mistake, but, by accepting the Israeli apology and not demanding a full accounting for the incident, tacitly accepted the accident explanation. After an initial burst of outrage, public opinion in the United States soon forgot about the attack--reflecting U.S. Government handling of the incident. In June 1968 Israel paid \$3.3 million to the families of those killed, in April 1969 paid \$3.5 million to the men wounded in the attack, and in December 1980 agreed to pay \$6 million for damage to the ship.<sup>60</sup>

### Findings

This section will review the 1967 attack on the Liberty to answer the four research questions. The first question is did interactions at the tactical and political levels become decoupled during or after the attack on the U.S. Navy ship? At least two of the potential causes of decoupled interactions were present during the incident: communications and information flow problems, and a fast-paced tactical environment. Although these factors prevented political-level leaders from exercising direct control over Sixth Fleet actions, decoupling did not occur. The actions ordered by Vice Admiral Martin were restrained and anticipated the desires of top-level officials in Washington. COMSIXTHFLT carefully spelled out rules of

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<sup>60</sup> Ennes, pp. 154-58, 171-72, 184-91; Goulding pp. 123-24, 134-35; Smith, pp. 69-70.

engagement intended to avoid unnecessary incidents while defending Liberty. Thus, although interactions were stratified during the incident--evolving independently at the political and tactical levels--they were not decoupled. The pattern was one of parallel stratified interactions: tactical-level military actions that support the crisis management objectives of national leaders even though not under the direct control of those leaders.

The second question is, when stratified interactions become decoupled, what factors inhibit escalation dynamics from occurring at the tactical level and being transmitted upward to the strategic and political levels of interaction? Although tactical-level interaction did not become decoupled in the Liberty incident, the case does shed light on three escalation-inhibiting factors. First, by fully complying with with the standing rules of engagement and limiting his actions to those necessary to defend Liberty, the on-scene commander contributed to avoiding an unnecessary clash with Soviet or Egyptian forces. Second, use of the hot line apparently helped prevent the Soviets and Egyptians from misperceiving the intent of actions taken by the on-scene commander (or apparently would have, if the planes had not been recalled before reaching Liberty). Third, rapid Israeli notification of the United States that it had inadvertently attacked a U.S. naval vessel cleared up confusion in Washington and resulted in Sixth Fleet planes

being recalled before they entered the war zone off the coast of Sinai. The last two factors emphasize the importance of communications among the parties to a crisis for avoiding misperception and escalation.

The third question is did actions taken with naval forces send inadvertent political signals to adversaries or allies, and did inadvertent military incidents occur that affected efforts to manage the crisis? Neither problem arose during the Liberty incident. Vice Admiral Martin carefully limited the Sixth Fleet response to the attack and the President used the hot line to prevent misperceptions from arising. The Israeli attack on Liberty was itself an inadvertent military incident, momentarily complicating U.S. crisis management efforts in the Middle East War, but no further incidents occurred during the Sixth Fleet's response to the attack.

The fourth question is did any of the three tensions between political and military considerations arise during the response to the attack on Liberty? None of the three tensions was serious during the Liberty incident. There was little tension between political and military considerations because the incident was over before significant diplomatic activity--other than hot line messages--could begin. The limitations that Vice Admiral Martin placed on his forces supported U.S. political objectives in the crisis. There was little tension between the need for top-level control

and the need for tactical-level flexibility and initiative because the incident evolved too rapidly for officials in Washington to play a direct role in controlling events. JCS and the Secretary of Defense could only reaffirm orders already given by COMSIXTHFLT. There was no tension between performance of crisis missions and maintaining readiness to perform wartime missions because the Sixth Fleet response to the attack was small-scale and of short duration.

#### The 1968 Seizure of the Pueblo

USS Pueblo was launched in 1944 as FP-344, a light cargo ship in service with the Army Transportation Corps, and was mothballed in 1954. The ship was delivered to the Navy in 1966, renamed Pueblo, underwent extensive conversion for its new duties, and was commissioned on May 13, 1967. Pueblo's primary mission, like that of Liberty, was collection of electronic and communications intelligence, although it was designated an environmental research ship (AGER) with the cover of conducting oceanographic and communications research. The ship was 179 feet in length, had a displacement of 970 tons, and a top speed of thirteen knots. The crew consisted of six officers, seventy-five enlisted men, and two civilian oceanographers. Armament was two .50-calibre machine guns--installed in the wake of the Liberty incident--which had little value for self-defense. Pueblo satisfied the requirement for an economical intelligence

collection platform, but was extremely vulnerable--the worst possible vessel to be operating near the coast of a country possessed by a fanatical and violent hostility to the United States.

In 1968 detente had not yet lessened Soviet-American Cold War tensions, the United States was deeply involved in the Vietnam War, and the protest movement against the war was rapidly gaining momentum. The international setting on the Korean Peninsula was dominated by North Korean hostility to the governments of South Korea and the United States. Although an uneasy truce had been in effect on the Peninsula since the armistice of July 1953, numerous armed clashes had occurred near the demilitarized zone (DMZ) and in South Korean waters due to North Korean efforts to infiltrate agents into the South. The number of DMZ incidents had increased sharply in 1967.

Political and military tensions had risen significantly on the Korean Peninsula in the two weeks before Pueblo arrived on station as the North Koreans renewed talk of uniting the Peninsula militarily. North Korea also stepped up its propaganda claims of South Korean and American provocations against the North, and warned that military action would be taken against incursions into its territorial waters. On January 21, 1968, a team of 31 North Korean troops infiltrated the DMZ to assassinate South Korean President Park Chung Hee, but were stopped just short

of the presidential residence in a bloody confrontation with South Korean police and troops. This incident further increased tensions on the Peninsula, bringing North and South Korea to the brink of a military confrontation.<sup>61</sup>

Pueblo's mission was authorized through normal channels. On December 17, 1967, Commander U.S. Naval Forces Japan (COMNAVFORJAPAN), Pueblo's operational commander, submitted a mission proposal with a threat assessment that the mission entailed "minimal risk." Commander Seventh Fleet (COMSEVENTHFLT), who commanded all U.S. Navy combat forces in the Western Pacific, did not participate in evaluating the mission proposal (but was informed of the mission after it was approved).<sup>62</sup> COMNAVFORJAPAN submitted the Pueblo mission proposal to Commander in Chief U.S. Pacific Fleet (CINCPACFLT), whose staff reviewed and endorsed the proposal and accompanying threat assessment. CINCPACFLT forwarded the proposal to Commander in Chief Pacific (CINCPAC), whose staff also reviewed and endorsed

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<sup>61</sup>Trevor Armbrister, A Matter of Accountability (New York: Cooward-McCann, 1970), pp. 27-33, 168-9; Lloyd M. Bucher, Bucher: My Story (Garden City, New York: Doubleday and Co., 1970), pp. 392-3; Edward R. Murphy, Jr., Second in Command (New York: Holt, Rinehart and Winston, 1971), pp. 117, 378; B.C. Koh, "The Pueblo Incident in Perspective," Asian Survey 9 (April 1969): 272-3.

<sup>62</sup>Admiral William F. Bringle, Commander Seventh Fleet in 1968, letter to author, March 23, 1988; Vice Admiral Joe P. Moorer, Assistant Chief of Staff for Operations on the staff of Commander Seventh Fleet in 1968, letter to author, March 15, 1988.

it. CINCPAC then forwarded the proposal to the Joint Reconnaissance Center.<sup>63</sup>

The Joint Reconnaissance Center (JRC) served JCS as the central coordination center for peacetime reconnaissance and surveillance missions. JRC passed the proposal to the Defense Intelligence Agency (DIA) for a final evaluation of the proposal and threat assessment. DIA concurred with the assessment of minimal risk and returned the proposal to JRC. JRC added Pueblo's mission proposal to hundreds of others in the "Monthly Reconnaissance Schedule, January 1968," which was reviewed by the military services, Central Intelligence Agency (CIA), National Security Agency (NSA), and the State Department's Bureau of Intelligence and Research. After this review, which generated no objections to the minimal risk assessment, the Monthly Reconnaissance Schedule was submitted to the Joint Chiefs. On this occasion the Operations Deputies, acting on behalf of the Chiefs, actually approved the schedule. The Monthly Reconnaissance Schedule was then submitted to Deputy Secretary of Defense Paul H. Nitze, acting on behalf of Secretary McNamara, and the Senior Interdepartmental Review

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<sup>63</sup> Admiral Sharp, "Reminiscences," pp. 567-68; Admiral John J. Hyland, Commander in Chief U.S. Pacific Fleet in 1968, letter to author, March 24, 1988; U.S. Congress, House Committee on Armed Services, Inquiry Into the USS Pueblo and EC-121 Plane Incidents, 91st Congress, First Session (Washington, DC: U.S. Government Printing Office, 1969), pp. 1636-46 (Cited hereafter as Pueblo Inquiry); Armbrister, pp. 187-95.



group, which handled routine intelligence matters and other policy issues on behalf of the National Security Council, for final approval. On December 29, 1967, Nitze approved the Monthly Reconnaissance Schedule, including Pueblo's apparently routine mission.<sup>64</sup>

The United States had previously conducted surveillance off the coast of North Korea with specially-equipped destroyers and the intelligence ship USS Banner (AGER 1), a vessel similar to Pueblo. Similar surveillance missions conducted off the coasts of the Soviet Union and China were often subjected to harassment, but had never been attacked. North Korea had not reacted to previous surveillance missions and had a very small navy, so the danger to Pueblo was assessed as minimal. United States military and intelligence officials believed that North Korea would not attack a U.S. vessel in international waters. A mission off the coast of North Korea was selected for Pueblo's first operation because it appeared to be a relatively safe way to train an inexperienced crew for more demanding and dangerous missions off China and the Soviet Union. Admiral John J. Hyland, then CINCPACFLT, has aptly described Pueblo's first mission as a "shakedown" voyage.<sup>65</sup>

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<sup>64</sup> Pueblo Inquiry, pp. 1636-46; Authorization for Military Procurement, 1969, pp. 42-43; Armbrister, pp. 187-95.

<sup>65</sup> Admiral Hyland, letter to Author, March 24, 1988. Also see Pueblo Inquiry, pp. 1636-40; Armbrister, pp. 185-90. For background on similar missions prior to Pueblo,

Because Pueblo's mission had been assessed as minimal risk, COMNAVFORJAPAN did not request that COMSEVENTHFLT or Commander Fifth Air Force designate specific naval or air forces for quick-reaction support of Pueblo in the event of an attack. Fifth Air Force had been alerted to provide contingency support for Banner on some previous missions (Seventh Fleet had not because almost all of its ships were committed to the Vietnam War). Additionally, there were no contingency plans for support of Pueblo in an emergency.<sup>66</sup>

On the morning of January 23, 1968, Pueblo was 15.5 miles from the nearest land, dead in the water off the North Korean port of Wonsan. A North Korean SO-1 patrol craft challenged Pueblo at about noon, demanding the ship's

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see Vice Admiral John L. Chew, Commander U.S. Naval Forces Japan (1964-1965), "Reminiscences of Vice Admiral John L. Chew, U.S. Navy (Retired)," (Annapolis, MD: U.S. Naval Institute Oral History Program, February 1979), pp. 381-85; Vice Admiral Edwin B. Hooper, Commander Service Force Pacific (Pueblo's administrative commander) in 1968, "Reminiscences of Vice Admiral Edwin B. Hooper, U.S. Navy (Retired)," (Annapolis, MD: U.S. Naval Institute, Oral History Program, 1978), pp. 431-34.

<sup>66</sup> Secretary of Defense Robert McNamara, quoted in Authorization for Military Procurement, 1969, p. 53; "Secretary Rusk and Secretary of Defense McNamara Discuss Viet-Nam and Korea on 'Meet the Press'," Department of State Bulletin 58 (February 26, 1968): 271; Vice Admiral Kent L. Lee, Commanding Officer of USS Enterprise (CVAN 65) in 1968, interview by author, February 5, 1988; Admiral Bringle, letter to author, March 23, 1988; Vice Admiral J.P. Moorer, letter to author, March 15, 1988; Pueblo Inquiry, pp. 1621-22. Also see Rear Admiral Daniel V. Gallery, The Pueblo Incident (New York: Doubleday, 1970), p. 27; Armbrister, pp. 64-66, 117-22, 185-90, 199-200; Bucher, pp. 107-8, 124-26; Murphy, pp. 84-85.

identity and ordering it to "Heave to or I will fire." The patrol boat was soon joined by three P-4 torpedo boats and Pueblo was overflown by North Korean Mig jet fighters. One of the torpedo boats had a boarding party at the ready. Pueblo started heading for sea, but at 1:27 P.M. was fired on by the SO-1 and the P-4's. Shortly thereafter Pueblo halted. In response to a signal to "Follow me" from the SO-1, Pueblo started into Wonsan harbor. After once attempting to stop, which drew a barrage of fire that caused the only death in the incident, Pueblo was ordered to halt and at 2:32 P.M. was boarded and seized by the North Koreans. At about 4:45 P.M. Pueblo entered Wonsan, and at 8:30 P.M. moored to a pier in the harbor.<sup>67</sup>

Pueblo was in communications with the U.S. Naval Communications Station at Kamiseya, Japan over high frequency encrypted radioteletype at the time of the attack. Voice communications normally were available directly with Navy commanders (at sea and ashore) and radio stations in Japan and Hawaii over the high frequency single sideband command net ("HICOM"). At the time of the attack, however, Pueblo was unable to use this circuit due to a frequency shift that was in progress, degrading the net.

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<sup>67</sup> Pueblo Inquiry, pp. 1657-61; Authorization for Military Procurement, 1969, pp. 40-41; Admiral Sharp, "Reminiscences," pp. 569-71; Bucher, pp. 167-212; Murphy, pp. 120-52; Goulding, pp. 267-72. Also see Armbrister, pp. 32-60, 69-78; "North Korea Seizes Navy Ship," New York Times, January 24, 1968, p. 1.

Prior to being boarded, Pueblo transmitted two standard operational reports by radioteletype to Kamiseya. These operational reports, designated "OPREP-3" reports in the joint operational reporting system, were both sent by Pueblo in the "PINNACLE" category--reserved for emergencies and other serious matters of "national level" interest. OPREP-3 PINNACLE reports were automatically sent to every level in a unit's operational chain of command, including the National Military Command Center, JCS, and the White House. Additionally, Pueblo's radiomen sent informal real-time status reports to Kamiseya over radioteletype until the ship was boarded. Such informal messages were known as "operator chatter" and had to be put into official messages by Kamiseya before commands not listening to Pueblo directly could receive them.<sup>68</sup>

Pueblo sent its first OPREP-3 PINNACLE at 12:52 P.M., local time in the Sea of Japan (10:52 P.M. on December 22 in Washington, D.C.). In this message Pueblo reported the presence of the North Korean naval vessels and their order to "Heave to or I will fire." The message was relayed by Kamiseya and received by the COMNAVFORJAPAN duty officer twenty-three minutes after it was sent. No action was taken on this message by the COMNAVFORJAPAN staff because it appeared to describe harassment much less severe than Banner

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<sup>68</sup>Pueblo Inquiry, pp. 1658-67; Armbrister, pp. 43-47, 64-68.

had experienced from the Soviets and Chinese on previous missions. Because Pueblo had assigned this message a relatively low transmission priority, it was placed in a queue behind other messages of higher priority awaiting transmission to commands outside Japan.<sup>69</sup>

Pueblo sent its second OPREP-3 PINNACLE at 1:18 P.M., local time in the Sea of Japan (11:18 P.M. on December 22 in Washington, D.C.). In this message Pueblo reported that the North Koreans had ordered the ship to follow them and were preparing to board Pueblo. Kamiseya immediately relayed this message to COMNAVFORJAPAN, where the duty officer received it only four minutes after it was sent by Pueblo. This was the message that served as a trigger--alerting the chain of command that there was a genuine emergency in the Sea of Japan. The COMNAVFORJAPAN staff began notifying other commands of the emergency. At 1:45 P.M., twenty-seven minutes after Pueblo sent the second OPREP-3 PINNACLE, Rear Admiral Frank L. Johnson, Commander U.S. Naval Forces Japan, was notified in Tokyo by telephone of the emergency. At 1:53 P.M., thirty-five minutes after Pueblo sent the second OPREP-3 PINNACLE, the duty officer at Fifth Air Force headquarters was notified via secure telephone of the emergency.<sup>70</sup>

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<sup>69</sup> Ibid.

<sup>70</sup> Ibid.

Kamiseya retransmitted Pueblo's second OPREP-3 PINNACLE to Commander Fifth Air Force, which received it at 2:23 P.M., and to USS Enterprise (CVAN 65), which received it at 2:38 P.M.--minutes after Pueblo was boarded by the North Koreans. Additionally, COMNAVFORJAPAN sent several "CRITIC" messages containing Pueblo's operator chatter describing the North Korean attack. At the time, CRITIC was the highest priority of message, reserved for strategic warning and the alerting of National Command Authority of attacks on U.S. forces.<sup>71</sup> As this chronology shows, the Navy communications system was able to maintain connectivity between Pueblo and the radio station at Kamiseya, but experienced serious delays in relaying time-critical messages to the commanders that needed them.

Kamiseya took two actions with with Pueblo's second OPREP-3 PINNACLE. First, Kamiseya immediately retransmitted

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<sup>71</sup>Ibid. Vice Admiral Lee has stated that Enterprise, then in the East China Sea about 550 nautical miles from Pueblo, monitored Pueblo's operator chatter directly. Vice Admiral Lee, interview by author, February 5, 1988. This is certainly plausible, and means that he would have received Pueblo's reports of the attack real-time. Admiral Bringle, then in the Tonkin Gulf on USS Kitty Hawk (CVA 63), has stated that his radiomen also monitored Pueblo's operator chatter, and that he ordered Enterprise into the Sea of Japan in response to Pueblo's operator chatter. Admiral Bringle, letter to author, March 24, 1988. This is less plausible due to the distance. Admiral Bringle was probably receiving COMNAVFORJAPAN's CRITIC messages relaying the operator chatter. Admiral Sharp, who was visiting Admiral Bringle on Kitty Hawk, has stated that shortly after 5:00 P.M. he and Admiral Bringle received the CRITIC messages forwarding Pueblo's operator chatter. See Admiral Sharp, "Reminiscences," p. 572.

it to the commands that would normally receive an OPREP-3 PINNACLE: COMSEVENTHFLT, CINCPACFLT, CINCPAC, and the National Military Command Center (NMCC, for JCS watch officers). For unexplained reasons this message was extremely slow in reaching some of the commands, particularly CINCPACFLT and CINCPAC. Second, about eighteen minutes after it was sent by Pueblo, Kamiseya retransmitted the second OPREP-3 PINNACLE as a CRITIC message to DIA, NSA, JCS and other commands. This CRITIC message was received by DIA and JCS at 11:57 P.M. (one hour and thirty-nine minutes after Pueblo sent it). JCS Chairman General Earle G. Wheeler was notified of the message at 12:03 A.M., and Secretary of Defense McNamara was notified about twenty minutes later. the White House received the CRITIC at 11:43 P.M. (earlier than JCS), and Situation Room watch officers began notifying National Security Advisor Walt W. Rostow and other top officials of the emergency. According to his memoirs, President Johnson was notified of the emergency at 2:24 A.M.<sup>72</sup> Meanwhile, Pueblo had been boarded and seized by the North Koreans at 11:35 P.M. (Washington time), and would enter Wonsan at 2:45 A.M. the significance of this chronology is that by the time top-level officials had been notified of the emergency, it was too late to take action to prevent seizure of the ship. If timely action was to be taken to

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<sup>72</sup> Pueblo Inquiry, pp. 1658-67; Armbrister, pp. 43-47; Johnson, Vantage Point, p. 533.

assist Pueblo, military commanders in the Far East would have to order it on their own authority.

U.S. forces in the Far East did not respond to Pueblo's calls for assistance in time to prevent the ship from being captured by North Korea. The Fifth Air Force had seven F-4 fighter-bombers on alert in South Korea, but were configured for nuclear weapons. Commander Fifth Air Force directed that they be reconfigured for conventional weapons to assist Pueblo, but that was a time-consuming process and Sidewinder air-to-air missiles were the only conventional ordnance immediately available (racks for conventional bombs and rockets had to be flown in from Japan). Commander Fifth Air Force also ordered planes dispatched from Okinawa, where there were eighteen fighter-bombers. Two F-105s, armed only with 20 millimeter cannon to save time, were launched at 4:11 P.M., but could not reach Pueblo before dark because they had to land and refuel in South Korea. There were sixteen Air Force and eight Marine Corps attack planes at U.S. bases in Japan--at most about one hour and twenty minutes flight time from Wonsan--but for unknown reasons none were launched.<sup>73</sup>

The attack carrier Enterprise, escorted by USS Truxton (DLGN 35), was steaming southwest in the East China Sea

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<sup>73</sup> Pueblo Inquiry, pp. 1622, 1668-73; Authorization for Military Procurement, 1969, p. 46; Armbrister, pp. 61-68, 210-41; "Tie-up of U.S. Jets Laid to Atom Role," New York Times, January 25, 1968, p. 15; Goulding, p. 270.



about 550 nautical miles from Pueblo at the time of the attack. Enterprise carried a total of fifty-nine fighter and attack aircraft (F-4B, A-4E, and A-6A), thirty-five of which were operational on January 23. Rear Admiral H.H. Epes, Commander Task Group 77.5 (the Enterprise task group), received Pueblo's first OPREP-3 PINNACLE at 2:30 P.M., and received Pueblo's second OPREP-3 PINNACLE and the initial CRITIC messages eight minutes later.<sup>74</sup> Rear Admiral Epes decided not to take immediate action in support of Pueblo, citing five considerations: (a) he had not received any requests to support Pueblo, (b) Pueblo apparently had already been boarded and seized, (c) Pueblo would be in North Korean territorial waters by the time his planes arrived, (d) it would be dark by the time his planes arrived, and (e) his planes would face alerted North Korean air defenses, including surface-to-air missile batteries around Wonsan and superior number of Mig fighters.<sup>75</sup>

Enterprise probably would not have been able to launch attack aircraft in time to prevent Pueblo from being seized. Vice Admiral Lee has stated that "we could have had twenty planes in the air in maybe an hour and a half."<sup>76</sup> Starting

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<sup>74</sup> Admiral Bringle, letter to author, March 23, 1988; Vice Admiral Lee, interview by author, February 5, 1988; Pueblo Inquiry, pp. 1668-73; Armbrister, pp. 61-68, 210-41.

<sup>75</sup> Pueblo Inquiry, pp. 1671-72; Armbrister, p. 219.

<sup>76</sup> Armbrister, p. 219. Also see Pueblo Inquiry, p. 1669.

the clock at 2:40 P.M., which was about the time rear Admiral Epes had sufficient information to understand the seriousness of Pueblo's situation, Enterprise could have had planes in the air by about 4:10 P.M., and the planes could have been over Pueblo at about 5:10 P.M. That is almost three hours after Pueblo was boarded and twenty-five minutes after it reached the mouth of Wonsan Harbor. This supports Vice Admiral Lee's position that "We could have sent an air strike, but it was too late by the time we received messages telling us to respond."<sup>77</sup> If COMNAVFORJAPAN had requested support from Enterprise as soon as Pueblo's first OPREP-3 PINNACLE was received at 1:21 P.M., Enterprise probably would have been able to place attack aircraft over Pueblo before the ship entered Wonsan.

At 3:06 P.M. Admiral Bringle ordered Enterprise and Truxton to proceed to a position in the Sea of Japan off the coast of South Korea at best speed.<sup>78</sup> He also directed, however, that "No Task Group 77.5 ship or aircraft take any overt action until further informed."<sup>79</sup> Enterprise and Truxton received and executed this message at 3:50 P.M.,

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<sup>77</sup>Vice Admiral Lee, interview by author, February 5, 1988. Also see Admiral Sharp, "Reminiscences," p. 576.

<sup>78</sup>Admiral Bringle, letter to author, March 23, 1988; Vice Admiral J.P. Moorer, letter to author, March 15, 1988; Admiral Sharp. "Reminiscences," pp. 571-72; Pueblo Inquiry, pp. 1669-72; Armbrister, pp. 219-29.

<sup>79</sup>Pueblo Inquiry, p. 1671. Also see Admiral Sharp, "Reminiscences," p. 572; Armbrister, p. 229.

shortly before Pueblo entered Wonsan. A U.S. navy destroyer was also ordered to the scene, but could not arrive until the next day, well after Pueblo was tied up in Wonsan. Thus, no actions were taken that could have prevented the North Koreans from seizing the Pueblo.<sup>80</sup>

There were three principle reasons for the lack of an effective response by U.S. forces in the Far East: First, there were no contingency plans to support Pueblo in the event of an attack, and no air or naval forces were designated to provide such support. Vice Admiral Lee had described the limitations this creates:

The Navy has forces all over the world. There's no way we can predict incidents in all the places we operate. There's no way you can respond unless you are prepared to. Unless you are on an alert basis, it is difficult to respond quickly. This applies to staffs, too: If<sup>81</sup> they are unprepared, they can't respond quickly.

U.S. forces were unprepared to provide quick-reaction support to Pueblo when she was attacked. Neither the Air force nor the Navy had aircraft on alert to support Pueblo. Aircraft that were not ready for a strike mission would have required one to two hours for fueling and arming and pilot briefings before they could even take off. The Navy did not

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<sup>80</sup>Admiral Bringle, letter to author, March 23, 1988; Vice Admiral Lee, interview by author, February 5, 1988; Pueblo Inquiry, pp. 1668-73; Armbrister, pp. 61-68, 210-41, 257-65; Goulding, pp. 269-90.

<sup>81</sup>Vice Admiral Lee, interview by author, February 5, 1988.

have any warships in the Sea of Japan covering the Pueblo mission. The nearest U.S. warships would have required at least eighteen hours to reach Pueblo.<sup>82</sup> According to Admiral Hyland, then CINCPACFLT, "At the time of the incident there wasn't anyone poised and ready to take action of any kind against North Korea. . . . It was all over before anyone except Pueblo herself could do anything."<sup>83</sup> The lack of contingency plans and alert forces thus severely limited the military options available to U.S. commanders in the Far East.

The second reason for the lack of an effective response was that Air Force and navy commanders in the Far East concluded that they would not be able to provide adequate forces to support Pueblo prior to the ship entering Wonsan Harbor, or prior to darkness, when providing air support would be extremely difficult.<sup>84</sup> According to JCS Chairman General Wheeler:

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<sup>82</sup>Admiral Hyland, letter to author, March 24, 1988; Admiral Bringle, letter to author, March 23, 1988; Admiral Sharp, "Reminiscences," pp. 573-74; Vice Admiral Lee, interview by author, February 5, 1988; Vice Admiral J.P. Moorer, letter to author, March 15, 1988; Pueblo Inquiry, pp. 1621-22, 1668-73. Also see Armbrister, pp. 61-68, 117-22, 185-90, 199-204.

<sup>83</sup>Admiral Hyland, letter to author, March 24, 1988.

<sup>84</sup>Admiral Bringle, letter to author, march 23, 1988; Admiral Sharp, "Reminiscences," pp. 573-74; Pueblo Inquiry, pp. 1668-73; Authorization for Military Procurement, 1969, pp. 47-48, 52-53; Johnson, Vantage Point, pp. 534; Armbrister, pp. 219-20, 230-31.

factors considered by all levels in the chain of command when the incident occurred were capabilities of friendly and enemy forces, time of day, weather, and probable hostile reaction. When these factors were assessed against actual times of events associated with the incident, time of receipt of the information that the ship was under attack, and force response time, it was apparent to all levels of command that the Pueblo could not be retrieved by any action prior to the time that the ship entered Wonsan Harbor.<sup>85</sup>

Some observers, notably rear Admiral Daniel V. Gallery and the Special Subcommittee that investigated the incident for the House Armed Services Committee, have argued that U.S. commanders in the Far East were wrong in concluding that they could not provide support to Pueblo in time to prevent her from being seized.<sup>86</sup> The important point for this study, however, is that U.S. commanders perceived--rightly or wrongly--that they could not provide effective support to Pueblo before the ship and crew were in North Korean hands.

The third factor that inhibited an immediate response was the presence of large numbers of North Korean air force Mig fighters and the close proximity of North Korean surface-to-air missile sites around Wonsan. There is unanimous agreement among military commanders that North Korea would have had superior numbers of fighters in the air over Pueblo: The ship had reported Migs overhead before being captured, indicating that the North Korean air force had been alerted to provide air cover. This did not preclude an

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<sup>85</sup> Pueblo Inquiry, p. 1668.

<sup>86</sup> Gallery, pp. 51-56; Pueblo Inquiry, pp. 1669-73.

effort to drive off the attackers, but did mean that U.S. attack aircraft would have to be provided with a strong fighter escort if they were to be effective. It might also have been necessary to strike North Korean surface-to-air missile sites in order to protect the attack aircraft and their fighter escort. Similarly, any Navy warships sent to rescue Pueblo would have required substantial air cover. U.S. military commanders thus believed that once Pueblo had been seized, any response would have to be relatively large-scale and include a strong fighter escort for the strike force. Their judgement was that the North Koreans would not be cowed by only a few attack aircraft, which would be relatively easy to shoot down.<sup>87</sup> The perception that a large-scale response was called for further increased the time required to mount a response, which in turn reinforced the view that there was not sufficient time to respond before Pueblo was tied up in Wonsan.

Rules of engagement and standing orders did not inhibit U.S. commanders from providing support to Pueblo prior to the ship entering Wonsan. Admiral Hyland, CINCPACFLT, Vice Admiral J.P. Moorer, COMSEVENTHFLT Operations Officer, and Vice Admiral Lee, Commanding Officer of Enterprise, have all stated that the rules of engagement

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<sup>87</sup> Admiral Bringle, letter to author, March 23, 1988; Vice Admiral Lee, interview by author, February 5, 1988; Admiral Sharp, "Reminiscences," pp. 573-74; Pueblo Inquiry, p. 1668; Armbrister, pp. 219-20, 230-31.

permitted Navy units to use force to defend Pueblo.<sup>88</sup>

Admiral Sharp, then CINCPAC, has confirmed this: "There was a standing order in the Pacific Command, as there is every place else in the Navy, that says that anyone in a position to help a ship under attack is to do so without any further orders."<sup>89</sup> Admiral Bringle, then COMSEVENTHFLT, has explained the authority of U.S. Navy commanders:

When an emergency arises which affects the safety of personnel, ships or aircraft, either civilian or military, Navy Commanders don't wait for specific orders from higher authority to tell them to react. They evaluate the situation quickly and react with the forces which are available to assist, if at all possible,<sup>90</sup> meanwhile keeping everyone involved fully informed.

According to JCS Chairman General Wheeler, U.S. commanders in the Far East had ample authority to assist Pueblo:

At the time of the attack by the North Korean naval units, the United States had the historic right--codified internationally by Article 51 of the United Nations Charter--to take any action in self-defense proportionate to the attack and necessary to protect the ship. Whatever military steps the United States could have taken within these limits from the air or on the sea to prevent the capture of the USS Pueblo would have been fully justified. There were no rules of engagement limiting going to the aid of Pueblo during this time.<sup>91</sup>

The statements by Admiral Bringle and General Wheeler are

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<sup>88</sup> Admiral Hyland, letter to author, March 24, 1988; Vice Admiral J.P. Moorer, letter to author, March 15, 1988; Vice Admiral Lee, interview by author, February 5, 1988.

<sup>89</sup> Admiral Sharp, "Reminiscences," p. 576.

<sup>90</sup> Admiral Bringle, letter to author, March 23, 1988.

<sup>91</sup> Quoted in Pueblo Inquiry, p. 1668.

fully consistent with the guidance contained in U.S. standing peacetime rules of engagement since the early 1950s.<sup>92</sup> Additionally, Secretary of Defense McNamara testified in 1968 that Commander U.S. Naval Forces Japan and Commander Fifth Air Force had authority to take military action without having to get permission from CINCPAC.<sup>93</sup>

While Pueblo remained in international waters, U.S. military commanders had broad authority to use force to defend or recover the ship. In 1955 President Eisenhower had approved a national Security Council staff proposal that a distinction be drawn between self-defense (including hot pursuit for self-defense) and reprisals. Military commanders were authorized to use force in self-defense, including hot pursuit into the airspace or territorial waters of other nations under certain circumstances. But only the President could order reprisals, generally considered to be any retaliatory attacks against the territory of another country.<sup>94</sup> Under this doctrine, U.S. forces were authorized to use force to defend or gain release of Pueblo so long as it did not entail attacks against North Korean territory, which would have been reprisals requiring Presidential approval.

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<sup>92</sup> See Chapter IV for a detailed discussion of U.S. peacetime rules of engagement.

<sup>93</sup> Authorization for Military Procurement, 1969, p. 60.

<sup>94</sup> See Chapter IV.



The peacetime rules of engagement in force in 1968 apparently did not permit hot pursuit into North Korean territorial waters in order to defend or recover Pueblo. Rear Admiral Epes stated that he could not take action in North Korean territorial waters, and General John D. Ryan, Commander in Chief Pacific Air Forces, directed Commander Fifth Air Force to keep his planes over international waters while supporting Pueblo.<sup>95</sup> Vice Admiral Lee has stated that under the rules of engagement "We could respond to defend a Navy ship in international waters."<sup>96</sup> Hot pursuit into North Korean territorial waters thus does not appear to have been authorized under the rules of engagement.

Once Pueblo entered Wonsan harbor, the rules of engagement placed severe restrictions on the use of force by U.S. military commanders. An effective rescue mission probably could not have been carried out without suppressing North Korean air and coastal defenses, and there would have been a high risk of weapons directed against North Korean naval vessels inadvertently impacting ashore. Admiral Sharp has stated that an attack on Wonsan would have been "an act of retaliation."<sup>97</sup> An attack on Wonsan Harbor thus fell in the category of reprisals and required approval by the

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<sup>95</sup> Armbrister, pp. 219-20.

<sup>96</sup> Vice Admiral Lee, interview by author, February 5, 1988.

<sup>97</sup> Admiral Sharp, "Reminiscences," p. 573.

President. According to Admiral Hyland, Admiral Bringle, and Vice Admiral J.P. Moorer, Navy commanders had to get authorization from higher authority before taking military action against North Korea.<sup>98</sup> The Navy report to the Special Subcommittee that investigated the incident states that "Combat action after Pueblo arrived in the harbor could be viewed as retaliatory in nature, requiring approval of higher authority."<sup>99</sup> Evidently, this was precisely the view held by Navy commanders in the Pacific.

General Wheeler testified that on the morning of January 23, he received a "hold" order from "higher authority," which could only be the Secretary of Defense and the President. This order directed that U.S. forces were to remain beyond eighty nautical miles from the coast of North Korea when operating north of the Korean DMZ. General Wheeler issued this order to CINCPAC by telephone at 10:25 A.M. Washington time (12:25 A.M. the next morning in the Sea of Japan, four hours after Pueblo tied up in Wonsan), and reiterated the verbal order with a message that evening.<sup>100</sup> This was the first restraint placed on U.S. commanders in the Far East by officials in Washington, and came well after

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<sup>98</sup> Admiral Hyland, letter to author, March 24, 1988; Admiral Bringle, letter to author, March 23, 1988; Vice Admiral J.P. Moorer, letter to author, March 15, 1988.

<sup>99</sup> Pueblo Inquiry, p. 1672.

<sup>100</sup> Pueblo Inquiry, p. 1668; Armbrister, p. 239; Admiral Bringle, letter to author, March 23, 1988.

commanders in the Far East had decided against taking immediate military action against North Korea.

After reviewing the orders that had been given on January 23, 1968, the Special Subcommittee concluded that U.S. military commanders in the Far East had authority to take military action in support of Pueblo:

Since higher authority in Washington had apparently not established a hold order on our forces until 0025 on the 24th of January, Korea time (10:25 Washington time on the 23rd), our operational commanders were apparently not precluded from exercising their own judgement in respect to providing some assistance to the Pueblo. Thus, it would appear that these operational commanders had both the authority and the opportunity to act if they had been able to do so immediately.<sup>101</sup>

The two qualifications that must be placed in this assessment are, first, that U.S. forces were not authorized to engage North Korean forces inside North Korean territorial waters, and, second, that military actions taken after Pueblo was inside the North Korean port of Wonsan would have constituted reprisals, thus requiring approval of the President. These restrictions essentially halted U.S. military action in support of Pueblo from 4:45 P.M. onward.

President Johnson and his advisors considered a wide range of military options, but quickly decided that none of them were feasible. COMSEVENTHFLT had a contingency plan for retaliatory air strikes against North Korea (reportedly code named "Fried Fish"), which was quickly updated for the

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<sup>101</sup> Pueblo Inquiry, p. 1673.

Pueblo emergency. The President elected not to carry out retaliatory air strikes. Navy commanders in the Far East also prepared a plan to send a destroyer into Wonsan and tow Pueblo out (which would have entailed large-scale combat operations to suppress North Korean defenses), but this plan was also disapproved by the President.<sup>102</sup> Admiral Thomas H. Moorer, then Chief of Naval Operations, states that the JCS recommended strong action: "The JCS recommended that the U.S. deliver an ultimatum to North Korea to return the ship, and to mass B-52s for an attack. Our recommendation was turned down. McNamara's excuse was 'We've already got one war, we don't need two'."<sup>103</sup> The President decided against presenting an ultimatum to North Korea.

President Johnson's primary concern was for the safe return of the crew, and he was also reluctant to become involved in a second conflict while deeply engaged in Vietnam. The President authorized two military actions: deployment of some 350 Air Force tactical aircraft to South Korea and a buildup of naval forces in the Sea of Japan. As a political gesture President Johnson ordered twenty-two Air Force reserve squadrons and six Navy reserve squadrons called up to active duty. All of these actions were

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<sup>102</sup>Admiral Hyland, letter to author, March 24, 1988; Admiral Bringle, letter to author, March 23, 1988; Vice Admiral J.P. Moorer, letter to author, March 15, 1988.

<sup>103</sup>Admiral Thomas H. Moorer, interview by author, February 9, 1988. Also see Johnson, Vantage Point, p. 535.

essentially symbolic, as the President had already decided that the United States would not take military action against North Korea.<sup>104</sup>

The U.S. naval buildup in the Sea of Japan lasted from January 23 to March 22, 1968. At the height of the buildup, the Navy had over eighteen warships in the Sea of Japan, including three aircraft carriers, two cruisers, and fourteen destroyers. This show of force had no apparent effect on the North Koreans, who kept their air and naval forces close to shore--well clear of the U.S. Seventh Fleet. The Soviet Union, on the other hand, reacted to the U.S. naval presence with vitriolic anti-American propaganda and harassment of the carrier task groups. Initially, five Soviet ships, including three destroyers, an intelligence collection ship (AGI), and an naval research ship, trailed the U.S. carriers. On February 4, Soviet Tu-16 Badger bombers began intense surveillance of the U.S. carriers and repeatedly buzzed them at low altitude. The Soviet Badgers, some carrying clearly visible anti-ship cruise missiles,

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<sup>104</sup> Admiral Hyland, letter to author, March 24, 1988; Vice Admiral J.P. Moorer, letter to author, March 15, 1988; Johnson, Vantage Point, pp. 535-36; Authorization for Military Procurement, 1969, p. 57; "North Korea Seizes Navy Ship," New York Times, January 24, 1968, p. 1; "U.S. Calls 14,787 Air Reservists," New York Times, January 26, 1968, p. 1; "More U.S. Planes Go to Korea," New York Times, January 28, 1968, p. 1. Also see Armbrister, pp. 237-39, 258-67; Abram Shulsky, "Coercive Diplomacy," in Bradford Dismukes and James McConnell, eds., Soviet Naval Diplomacy (New York: Pergamon Press, 1979), pp. 119-23.

also conducted simulated strikes against the U.S. carriers. This was the first instance of Soviet missile-armed aircraft conducting simulated strikes against U.S. warships during a period of international tension. On February 6 a Soviet anti-carrier group, consisting of two Kynda-class cruisers, (armed with SS-N-3 anti-ship cruise missiles) and four destroyers, took station in the Sea of Japan just north of the DMZ off the coast of North Korea--a clear signal that the Soviet Union would oppose U.S. military action against North Korea. On February 17 a Soviet destroyer and the research ship harassed the U.S. formation by conducting dangerous maneuvers violating the rules of the road.<sup>105</sup> Soviet simulated anti-carrier strikes and harassment significantly increased tensions in the Sea of Japan.

Interestingly, Soviet harassment of U.S. naval forces in the Sea of Japan commenced after the United States began discussion with North Korea in Panmunjon on Pueblo. This pattern would be seen again during the 1973 Middle East War,

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<sup>105</sup>Vice Admiral J.P. Moorer, letter to author, March 15, 1988; "A Soviet Trawler Trails enterprise," New York Times, January 26, 1968, p. 1; "Carrier Shifting from Korea Post," New York Times, February 7, 1968, p. 1; Shulsky, pp. 121-23; Armbrister, pp. 258-67. Admiral Hyland and Admiral Bringle state that there were no serious incidents between U.S. and Soviet naval forces in the Sea of Japan during this period. Admiral Hyland, letter to author, March 24, 1988; Admiral Bringle, letter to author, March 23, 1988. However, both COMSEVENTHFLT and CINCPACFLT were preoccupied with the Vietnam War--the Tet offensive was in progress at the time--and probably did not pay close attention to operations in the Sea of Japan.

when Soviet naval units commenced intense anti-carrier exercises against the Sixth Fleet in the Mediterranean after the Israeli-Egyptian ceasefire finally took hold (See Chapter VI for a further details). In both cases this pattern probably indicated a certain amount of caution by the Soviet Union: avoiding naval actions that could involve the Soviet Union in the conflicts, but, after tensions had started to ease, taking symbolic actions for political signaling purposes. It is not clear, however, exactly what the Soviets were attempting to signal. The most likely Soviet intentions in 1968 were to deter the United States from taking military action against North Korea, to neutralize U.S. coercive threats during the talks with North Korea, and to demonstrate opposition to the U.S. naval presence close to the Soviet Union in the Sea of Japan.

That in 1968 and 1973 the Soviets did not commence simulated anti-carrier attacks until after tensions had started to ease does not mean that such Soviet behavior is not dangerous from a crisis management perspective. Tensions at sea typically do not relax as quickly as they do in the political arena because U.S. naval forces are usually kept on station well after a crisis subsides, and because there normally is a lag in informing U.S. naval commanders of current political developments and future political intentions (if they are told at all). In 1968 and 1973 the Soviets initiated simulated strikes against U.S. naval

forces during the lag period before U.S. forces were directed to stand down and their commanders informed that military action was no longer contemplated. A tense and dangerous situation can thus develop at sea even while U.S. leaders perceive that the crisis has peaked and the danger of an armed clash has eased.

Other than the symbolic military actions described above, the United States limited its response to protests and negotiations for the release of Pueblo's crew. The crew was imprisoned near Pyongyang, where for eleven months they were exploited for anti-American propaganda and subjected to torture and brutal treatment. On December 23, 1968 the United States signed a confession that the Pueblo had intruded into North Korean waters--a confession it immediately repudiated verbally--and the crew of the Pueblo was released in Panmunjom. North Korea scored a propaganda victory over the United States and kept the ship and that portion of its classified equipment and publications that had not been destroyed.<sup>106</sup>

Political and military tensions on the Korean Peninsula remained acute throughout 1968 and into 1969. There were dozens of North Korean provocations and infiltration attempts along the DMZ, which resulted in seven

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<sup>106</sup>Ed Brandt, The Last Voyage of the Pueblo (New York: W.W. Norton and Co., 1969), pp. 227-33; Bucher, pp. 349-59; Murphy, pp. 307-17; Armbrister, pp. 333-44.



U.S. soldiers being killed.<sup>107</sup> There were also numerous North Korean provocations at sea. North Korea continued its harassment of the South Korean fishing fleet, seizing at least sixteen South Korean fishing boats in 1968. On June 22, 1968, North Korea claimed that it had sunk a U.S. spy ship in the Yellow sea, but the vessel did not belong to the United States and probably was a South Korean fishing boat.<sup>108</sup> North Korea struck at the United States again on April 14, 1969, shooting down an unarmed U.S. Navy EC-121 reconnaissance plane over the Sea of Japan, ninety miles from the North Korean coast.<sup>109</sup> North Korean seizure of the Pueblo thus was not an isolated incident, but rather one of scores of North Korean provocations and atrocities directed against South Korea and the United States during the 1968-1969 period.

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<sup>107</sup> "Korean Reds Kill 4 U.N. Soldiers," New York Times, April 15, 1968, p. 1; "North Koreans Fire on American Unit, Killing One Soldier," New York Times, April 22, 1968, p. 15; "Two U.S. Soldiers Killed in North Korean Buffer Clashes," New York Times, July 23, 1968, p. 14; "G.I. Killed in Clash with Korean Reds," New York Times, July 31, 1968, p. 3; "Rising War Peril Is Seen in Korea," New York Times, August 16, 1968, p. 3; "2 U.S. Soldiers Die in Clash with North Korean Intruders," New York Times, August 20, 1968, p. 13; "G.I. Killed in Clash in Korea," New York Times, October 7, 1968, p. 4.

<sup>108</sup> "Naval and Maritime Events, 1 July 1968-31 December 1969," U.S. Naval Institute Proceedings 96 (May 1970): 50, 52, 54; "North Korea Says It Sank 'Spy Ship'," New York Times, June 23, 1968, p. 1.

<sup>109</sup> Pueblo Inquiry, pp. 1675-81; "23-Ship U.S. Fleet Off Korean Coast to Guard Flights," New York Times, April 22, 1969, p. 1.

### Findings

This section will review the 1968 seizure of the Pueblo to answer the four research questions. The first question is did interactions at the tactical and political levels become decoupled during or after the attack on Pueblo? One of the potential causes of decoupled interactions was present and played an major role in how the incident developed: communications and information flow problems. Emergency messages from Pueblo required over an hour to reach Washington and U.S. military commanders in the Pacific. On the other hand, although U.S. military commanders had authority to take military action in support of Pueblo, they decided not to do so. President Johnson was not confronted with having to halt combat operations or approve them after the fact because none were initiated. U.S. commanders in the Far East had already come to the same conclusion that the President would reach: that there were no effective military actions that could be taken to rescue Pueblo without needlessly endangering the crew. Therefore, although the President did not have direct control over the initial response to the North Korean attack on Pueblo, U.S. forces acted essentially as he would have wanted them to act under the circumstances. This pattern is one of parallel stratified interactions: tactical level interactions that are not controlled by national leaders, but which support the political objectives of those leaders.

The second question is, when stratified interactions become decoupled, what factors inhibit escalation from occurring at the tactical level and being transmitted upward to the strategic and political level of interaction? Although decoupling did not occur in the Pueblo incident, two of the considerations that prevented decoupling can be viewed as escalation-inhibiting factors: military prudence and compliance with the guidance contained in mechanisms of indirect control. U.S. military commanders were reluctant to mount a response that would have been excessively vulnerable to North Korean attacks. Loss of U.S. aircraft sent to defend Pueblo almost certainly would have generated escalatory pressures, so in this instance military prudence led to tactical decisions that supported crisis management objectives. U.S. military commanders complied with the restrictions imposed on military operations by the standing peacetime rules of engagement, barring their forces from attacking North Korean forces inside North Korean territorial waters and airspace, and not ordering actions that would have constituted reprisals against North Korea. The guidance contained in the peacetime rules of engagement may or may not have been appropriate to the specific circumstances, but U.S. military commanders were careful to comply with that guidance.

The third question is did actions taken with naval forces send inadvertent political signals to adversaries or

allies, and did inadvertent military incidents occur that affected efforts to manage the crisis? Neither problem appears to have been arisen in the Pueblo incident, probably due to the relatively passive U.S. response to the North Korean provocation. North Korea succeeded in achieving a fait accompli, effectively limiting U.S. options to settling on North Korean terms. The passive U.S. response annoyed the South Koreans, but this arose from correct perceptions rather than from misperceptions. It apparently had little impact on long-term U.S. relations with South Korea.

The fourth question is did any of the three tensions between political and military considerations arise during the response to the North Korean seizure of Pueblo? None of the three tensions was serious during the incident. There were essentially no tensions between political and military considerations. All levels in the chain of command agreed that effective military action could not be taken before Pueblo entered Wonsan. There was disagreement between military and civilian officials over whether or not reprisals should be taken against North Korea, and over whether or not if an effort should be made to recover the ship by force. But these disagreements primarily revolved around the military feasibility of the options proposed by the military, rather than the political implications of the options (The Johnson Administration perceived both considerations as weighing against taking military action).

There was little tension between the need for direct top-level control and the need for tactical-level flexibility and initiative. U.S. military commanders in the Far East had ample authority to take military action without having to seek permission from higher authorities so long as Pueblo remained in international waters. The "hold" order issued to the military came well after commanders in the Far East had decided against taking immediate military action, and served only to avoid further incidents with North Korean forces while Washington weighed reprisal options. If U.S. commanders had ordered attacks on North Korean forces in international waters to prevent Pueblo from being taken into Wonsan, it is likely that the President would have supported the action (As he supported Vice Admiral Martin's dispatch of aircraft to defend Liberty in 1967).

There was some tension between performance of crisis missions and readiness to perform wartime missions. The limited time available for taking action meant that the initial response to the North Korean attack on Pueblo had to be made with U.S. forces in and around Japan and South Korea. The aircraft closest to Pueblo--Air Force planes on alert in South Korea--were configured for delivery of nuclear weapons (a wartime mission) and could not be rapidly reconfigured for conventional ordnance (for crisis missions). Commander Fifth Air Force did not hesitate to order these planes reconfigured for conventional ordnance.

Maintaining readiness for wartime missions had greater impact on the decision whether or not to retaliate against North Korea. The heavy commitment of U.S. forces in Vietnam limited the options available to U.S. military commanders and made the President and Secretary of Defense reluctant to take action against North Korea that could result in another military conflict.

#### The 1987 Attack on the Stark

USS Stark was launched in 1980 and commissioned in 1982. The ship is 445 feet in length, displaces about 3,700 tons, and has a top speed of over twenty-nine knots. Anti-aircraft armament consists of Standard SM-1(MR) 25-mile range missiles fired from a MK 13 launcher, a 76 millimeter MK 75 gun, and a 20 millimeter MK 16 close-in weapon system (CIWS) for defense against anti-ship missiles. With these weapons and the SPS-49 air search radar, naval tactical data system (NTDS), tactical data link, MK 92 fire control system, SLQ-32 electronic warfare system, and chaff launchers, Stark is well-armed for defense against air threats--particularly anti-ship cruise missiles. The crew consists of seventeen officers and 168 enlisted men. With its modern systems for surveillance and self-defense, Stark was a good choice for patrol duties in the Persian Gulf.

The Iran-Iraq War dominated the international situation in the Persian Gulf in May 1987. The war erupted

in September 1980 when Iraq invaded Iran, initially penetrating deep into Iranian territory. Iran repelled the Iraqi assault and the war stagnated along the Shatt al-Arab estuary. Iran and Iraq both frequently attacked oil facilities--including oil platforms and shipping terminals in the Persian Gulf--in an effort at crippling each other's economies.

During the first three years of the war, Iraq conducted sporadic attacks on shipping in the vicinity of Iranian ports and oil terminals. In retaliation for Iraqi attacks on oil facilities, Iran was stopping and boarding tankers entering the Persian Gulf to verify that their destination was not Iraq. The shipping war escalated in May 1984 with the first Iranian attacks on commercial shipping in the Persian Gulf. Iraq also escalated its attacks on shipping in 1984, conducting attacks more frequently and covering more of the Persian Gulf. Iraqi attacks were indiscriminate: Mirage fighters fired Exocet missiles at whatever contacts they picked up on radar without attempting to identify their nationality--hitting ships belonging to Iraq's allies on more than one occasion. Iran and Iraq further intensified their anti-shipping campaigns in 1986, conducting twice as many attacks as in 1985. Approximately 355 ships were attacked in the Persian Gulf from September 1980 to May 1987. In the nine months prior to the attack on the Stark Iraq flew over 330 anti-shipping flights and fired

90 French-made Exocet anti-ship missiles, hitting 40 ships with them.<sup>110</sup>

Soon after the Iran-Iraq War erupted in 1980 the United States expressed concern for the security of shipping in the Persian Gulf, particularly through the Strait of Hormuz. Iran was viewed as the primary threat due to its hostility to the U.S. and to Arab nations siding with Iraq. U.S. Navy ships began escorting American-flag merchant ships in the Persian Gulf after Iran began attacking shipping in 1984. In the spring of 1987 the United States, responding to a request from Kuwait for assistance in countering an Iranian campaign against Kuwaiti shipping, was making final plans for reflagging and escorting Kuwaiti tankers.<sup>111</sup>

Despite their escort duties, the ships of the U.S. Navy's Middle East Force were primarily serving political

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<sup>110</sup>"As Tension Rises in the Gulf, Role for U.S. Becomes Issue," New York Times, May 23, 1984, p. 1; "Stark Unaware It Was Target, Admiral Says," Los Angeles Times, May 20, 1987, p. 1; "U.S. Policy in Gulf Aimed at Halting Iran, Official Says," Los Angeles Times, May 22, 1987, p. 1; Ronald O'Rourke, "The Tanker War," U.S. Naval Institute Proceedings 114 (May 1988): 30-34.

<sup>111</sup>"Escalating Iran-Iraq Fighting Prompts U.S. to Study Its Available Options to Keep Strait of Hormuz Open," Wall Street Journal, September 24, 1980, p. 2; Warren Christopher, "Conflict in Iraq and Iran," Current Policy No. 234, U.S. Department of State, October 7, 1980; "Weinberger Pledges to Protect Gulf Shipping," Los Angeles Times, March 23, 1987, p. 1; "U.S. Tells Navy To Bolster Force At Persian Gulf," New York Times, April 5, 1987, p. 1; Michael H. Armacost, "U.S. Policy in the Persian Gulf and Kuwaiti Reflagging," Current Policy No. 978, U.S. Department of State, June 16, 1987.



purposes in the Persian Gulf. Their presence was intended to show the flag, demonstrating U.S. resolve to keep the sea lanes open and deterring Iran from attacking American shipping. Special precautions were in effect to prevent unwanted incidents. To avoid inadvertently shooting down any of the many friendly aircraft over the Gulf, the rules of engagement required Navy ships to radio warnings to approaching planes and carefully assess their actions for indications of hostile intent before firing. Prior to the Stark incident, those procedures had appeared sufficient to avert possible attacks on U.S. Navy ships while avoiding incidents with civilian aircraft.<sup>112</sup>

U.S. Navy ships were warned that the primary danger to them was inadvertent attacks, and were told that they were to regard all Iranian and Iraqi aircraft as potentially hostile. Stark had been briefed on the Persian Gulf rules of engagement on February 28, 1987, just prior to joining the Middle East Force. The report of the investigation into

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<sup>112</sup>Rear Admiral Grant Sharp, "Formal Investigation Into the Circumstances Surrounding the Attack on the USS Stark (FFG 31) on 17 May 1987," letter serial no. 00/S-0487, June 12, 1987 (Sanitized version released in 1988 by the Department of the Navy), pp. 12-13 (Cited hereafter as "Sharp Report"); U.S. Congress, House of Representatives, Committee on Armed Services, "Report on the Staff Investigation into the Iraqi Attack on the USS Stark," 14 June 1987, pp. 4-6 (hereafter referred to as "Staff Investigation"). Also see Michael Vlahos, "The Stark Report," U.S. Naval Institute Proceedings 114 (May 1988): 65. For an example of how these rules were used in the Gulf prior to the Stark incident, see "U.S. Confirms Naval Incidents in Strait of Hormuz," New York Times, February 29, 1984, p. A7.

the Stark incident conducted by Rear Admiral Grant Sharp states, referring to the February 28 briefing, "The ROE [rules of engagement] briefer highlighted that the probability of deliberate attack on U.S. warships was low, but that indiscriminate attack in the Persian Gulf was a significant danger."<sup>113</sup>

According to the Sharp Report, the Stark tragedy was not caused by ambiguous or overly restrictive rules of engagement:

The Rules of Engagement that were in existence on 17 May 1987 were sufficient to enable Stark to properly warn the Iraqi aircraft, in a timely manner, of the presence of a U.S. warship; and, if the warning was not heeded, the Rules of Engagement were sufficient to enable Stark to defend herself against hostile intent and imminent danger without absorbing the first hit.<sup>114</sup>

Stark was authorized to use force in anticipatory self-defense against any aircraft that demonstrated hostile intent by flying an apparent anti-ship attack profile and failing to respond to radio warnings to remain clear.

Iraqi aircraft were routinely detected on anti-shipping flights, but usually did not provoke a reaction by U.S. Navy ships because the Iraqis were regarded as non-hostile and their targets were inside the Iranian Exclusion Zone--well away from U.S. Navy patrol areas. Occasionally, however, Iraqi jets had to be warned away and at least one

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<sup>113</sup>Sharp Report, p. 6.

<sup>114</sup>Ibid., p. 32.

close call had occurred when a U.S. Navy warship had been close to the target of an Iraqi missile. Iraqi planes were a danger because they made no effort to identify their targets, firing blindly at radar contacts.<sup>115</sup> Commander Middle East Force had warned on May 14 and 16, 1987, that Iraqi planes were conducting anti-shipping strikes in the central Persian Gulf (the area in which Stark was operating), creating an increased danger of indiscriminate attacks. Stark had received these messages and was thus fully appraised of the threat.<sup>116</sup>

On May 17, 1987, Stark was patrolling the central Persian Gulf about eighty-five miles northeast of Bahrain, twelve miles outside the Iranian Exclusion Zone. Shortly after 8:00 P.M. Stark was informed that a U.S. Air Force AWACS radar plane had detected an Iraqi aircraft two hundred miles from the ship heading southeast along the coast of Saudi Arabia. Stark picked up the plane on air search radar when it was seventy miles away and detected the Mirage's radar in the search mode. At 9:08 P.M., when the Iraqi plane was thirteen miles away, Stark broadcast a warning identifying itself as a U.S. warship and requesting the

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<sup>115</sup>"2nd U.S. Warship Warned Off Iraqi Jets," Los Angeles Times, 21 May 1987, p. 14; "Staff Investigation," pp. 4-5. The near miss occurred in 1986 when an Iraqi missile struck a ship about six miles from the destroyer USS John Hancock. See "1985 Iraqi Attack on U.S. Ship Cited," New York Times, May 24, 1987, p. 13.

<sup>116</sup>Sharp Report, pp. 7-8.

plane's intentions. At 9:07 P.M. the Mirage launched an Exocet missile from a range of about twenty-two miles. A minute later the plane launched a second Exocet missile at a range of about fifteen miles. Stark was sending a second warning to the Iraqi plane when the second missile was launched. Stark's electronic warfare system detected the homing radars on the Exocet missiles, but they were misidentified as the Mirage's radar in a fire control mode. Stark did not detect the missiles on radar. The Tactical Action Officer (TAO) ordered initial defensive actions after the missiles were launched, but the response was too late to be effective. First detection of the missiles was a sighting by a lookout, who did not recognize them as missiles and sound a warning until seconds before they struck.<sup>117</sup>

At 9:09 P.M. the first missile impacted the port side of Stark, but failed to explode. About twenty seconds later the second missile struck the ship near where the first had struck, exploding just inside the ship. The blast tore a large hole in the port side and unexpended fuel from the missiles started an intense fire that required nearly a day to extinguish. Thirty-seven men died and several were wounded in the attack.<sup>118</sup>

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<sup>117</sup> Sharp Report, pp. 1-3, 8-14; "Staff Investigation," pp. 7-18; Vlahos, pp. 64-65.

<sup>118</sup> Sharp Report, pp. 14-15; "Staff Investigation," pp. 18-20; Vlahos, pp. 64-65.

Two Saudi F-15 fighters had scrambled as the Iraqi jet flew down their coast, but their ground controllers refused to let them pursue the Mirage after the attack. No U.S. ships or aircraft attempted to engage the Iraqi plane before the attack and none were able to engage it after the attack. Stark was towed into Bahrain harbor for temporary repairs by a U.S. Navy tender before beginning the long voyage back to the United States.<sup>119</sup>

The United States delivered a formal diplomatic protest to Iraq and demanded a full explanation for the attack. Reagan Administration spokesmen described the incident as an accident, a case of mistaken identity. The U.S. also stated that it expected an apology and compensation for the men who died and the damage to the ship. The Joint Chiefs of Staff revised the rules of engagement for Middle East Force ships, requiring radio warnings and defensive measures be taken at longer ranges, and emphasizing that all aircraft approaching U.S. Navy ships must be treated as potentially hostile.<sup>120</sup>

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<sup>119</sup>"Staff Investigation," pp. 20-22; "Saudis Balked at Intercepting Iraqi Attacker," New York Times, May 21, 1987, p. A1.

<sup>120</sup>Sharp Report, p. 7; "Staff Investigation," p. 6: "Iraqi Missile Hits U.S. Navy Frigate in Persian Gulf," New York Times, May 18, 1987, p. A1; "Iraqi Missile Hits U.S. Warship; 30 Missing, 3 Dead," Los Angeles Times, May 18, 1987, p. 1; "Missile Toll on Frigate is 28," New York Times, May 19, 1987, p. A1; "Ship Deaths at 28; Iraq, Iran Warned," Los Angeles Times, May 19, 1987, p. 1.

Iraq formally accepted responsibility for the attack, expressing "profound regret" and calling it an "unintentional incident," and presented a compensation proposal to the United States. Iraqi spokesmen stated that the pilot believed he was attacking an Iranian ship and had not heard the warnings broadcast by Stark. Iraq also claimed Stark had been ten miles inside the Iranian Exclusion Zone, a charge the U.S. refuted. Iraq and the U.S. later reached an agreement on measures to prevent inadvertent attacks on U.S. Navy ships, but incidents continued to occur in which U.S. ships had to warn off Iraqi aircraft. In some cases Iraqi planes veered away only seconds before they would have been shot down. Iraqi pilots did not cease their indiscriminate attacks on whatever ships they happened to detect on radar in the Persian Gulf.<sup>121</sup>

### Findings

This section will review the 1987 attack on Stark to answer the four research questions. The first question is did interactions at the tactical and political levels become decoupled during or after the attack on Stark? There was no decoupling in the Stark incident. The attack lasted only a

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<sup>121</sup>Sharp Report, p. 16; "Staff Investigation," pp. 8-9; "Missile Toll on Frigate is 28," New York Times, May 19, 1987, p. A1; "Ship Deaths at 28; Iran, Iraq Warned," Los Angeles Times, May 19, 1987, p. 1; "U.S. and Iraq Act to Prevent Raids," New York Times, May 30, 1987, p. 1; O'Rourke, p. 32.

few minutes and was over before any other units could employ their weapons in support of Stark. The identity of the attacking aircraft was known well before the attack, and military commanders at the scene quickly concluded that the attack had been inadvertent. No effort was made to shoot down the Iraqi plane because no U.S. forces were in a position to do so. The only sense in which actions at the tactical level failed to support national policy was that Stark failed to take defensive actions authorized under the rules of engagement.

The second question is, when stratified interactions become decoupled, what factors inhibit escalation from occurring at the tactical level and being transmitted upward to the strategic and political levels of interaction? The Stark incident illustrates an escalation-inhibiting factor: accurate intelligence on friendly and potentially hostile forces. Because the attacking aircraft was known to have been Iraqi, there was no question that Iran might have been responsible for the attack on Stark. Without such intelligence, U.S. commanders in the Persian Gulf probably would have suspected that Iran had conducted the attack. Circumstantial evidence pointing to Iranian complicity and lack of an Iraqi admission of responsibility could well have led to the President ordering retaliatory attacks on Iranian forces or bases. This situation is analogous to that described in the Liberty incident, when accurate information

on Soviet forces in the Mediterranean prevented U.S. military commanders from suspecting that the Soviets had attacked Liberty.

It appears that inadvertent escalation would be more likely when intelligence is incomplete and ambiguous, supporting worst-case assessments of the nature and implications of an attack on U.S. forces. For example, on-scene commanders could conclude that full-scale attacks on U.S. forces at the scene of the crisis will soon follow, placing a premium on preempting the expected enemy attack. Under certain circumstances on-scene commanders might have authority to preempt without having to seek permission from higher authority.

The third question is did actions taken with naval forces send inadvertent political signals to adversaries or allies, and did inadvertent military incidents occur that affected crisis management efforts? Neither of these problems arose after the attack on Stark, but the attack itself was an inadvertent military incident. The attack on Stark illustrates the danger of inadvertent military incidents when U.S. naval forces are operating in close proximity to hostilities.

The fourth question is did any of the three tensions between political and military considerations arise during the response to the attack on Stark? None of the three tensions was present because the incident was brief and the



attack was known to have been inadvertent. U.S. Navy ships in the Persian Gulf had ample authority under the rules of engagement to use force in self-defense or anticipatory self-defense. Nevertheless, Navy commanders in the Persian Gulf had been placed in a complex and dangerous tactical environment. There was great risk of U.S. ships being attacked inadvertently or deliberately, and equally great risk of political embarrassment to the United States if civilian or friendly military aircraft were shot down. Rules of engagement cannot eliminate the dangers and risks inherent in such an environment, they can, at best, reduce the likelihood of incidents with undesirable political or military consequences.

#### Circumstances and Motives

Comparing the circumstances in which the four incidents occurred and the possible motives of the attackers will shed further light on the nature of peacetime attacks on U.S. Navy ships.

#### Circumstances of Peacetime Attacks

There are important similarities in the international circumstances of the attacks. In all four cases some form of conflict, tensions, or rivalry among the major powers structured the environment and affected American interests sufficiently to compel limited U.S. involvement. In three

of the cases (Tonkin Gulf, Liberty, and Pueblo) Soviet-American cold war rivalry was a source of tension, and in one case (Stark) Soviet-American competition for influence in the Middle East was a major U.S. concern.

In all four cases some form of armed conflict was in progress. In three cases (Tonkin Gulf, Liberty, and Stark) a local armed conflict was being fought at the time of the incident. In the Pueblo case an intense ideological and political rivalry, held in check only by an uneasy military armistice, had recently escalated to a high level of tension--accompanied by a series of military clashes and a significant rise in casualties. In all of the cases U.S. Navy ships were sent on missions either in the midst of fighting (Stark), near the scene of fighting (Tonkin Gulf and (Liberty), or near the scene of severe tensions (Pueblo). Despite the danger inherent in such situations, U.S. leaders felt that the threat to the ships was not excessive because the U.S. was not a belligerent and was officially neutral in the conflict (Liberty and Stark), because the ship would be operating in international waters and the belligerents would respect international law (all four cases), or because belligerents hostile to the U.S. had political-military incentives to avoid incidents with the United States (Tonkin Gulf and Pueblo). As the case studies show, such factors are not always effective in preventing peacetime attacks on Navy ships.

The U.S. role in the conflicts varied considerably, but there are strong similarities among the cases. The United States was officially neutral in the conflict in two of the cases (Liberty and Stark), but in each case the U.S. Government and the American public were either sympathetic to one side (Israel in the Liberty case) or hostile to one side (Iran in the Stark case). In the other two cases (Tonkin Gulf and Pueblo) the U.S. was firmly committed to one side in the conflict, but at the time of the incidents the U.S. was not taking direct military action against the countries it opposed (North Vietnam and North Korea). The situation was politically and militarily complex in all four cases--the United States had interests compelling it to become involved in the conflicts, but other interests and political constraints restrained the U.S. from direct military intervention. Thus, naval forces were employed to pursue limited political-military objectives.

The missions being conducted by the U.S. Navy ships also varied considerably. In three of the cases the ships were on an intelligence collection mission (Tonkin Gulf, Liberty, and Pueblo), and in the remaining case (Stark) the ship was on a surveillance mission. In two of the cases (Liberty and Pueblo) the missions had no important political objectives and were ordered for military purposes. In the other two cases (Tonkin Gulf and Stark) the missions had the political purposes of establishing a visible U.S. presence

in an area of tensions, asserting freedom of the seas in international waters, and demonstrating U.S. resolve to protect its interests in the conflicts.

The political implications of the naval missions in the four cases also varied. Two of the missions (Liberty and Pueblo) were viewed as nominally non-political, but in fact had significant latent or inadvertent political impact. If one accepts the theory (assessed below) that the Israeli attack on Liberty was deliberate, then it is possible that the unannounced presence of Liberty off the Sinai sent an inadvertent signal of retrenchment to Israel--symbolizing opposition to unrestrained Israeli offensives against neighboring Arab countries, particularly new offensive action against Syria. However, there is no evidence to support this. Pueblo appears to have sent an inadvertent signal of hostility to North Korea, symbolizing support for South Korean offensive action against the North. Liberty and Pueblo also had the deterrent effect associated with overt surveillance missions: denying adversaries--and allies, in the case of Israel--the options of surprise attack, fait accompli, or a contrived pretext for an attack.

Two of the missions had definite political purposes in addition to important military functions. In the Tonkin Gulf Incident, Maddox and Turner Joy had the political purposes of demonstrating U.S. support for South Vietnam and

opposing North Vietnamese support for the guerrilla war in the South. Stark had the political purposes of demonstrating U.S. support for the Persian Gulf states opposed to Iran (detering attacks on them), and supporting the principle of freedom of navigation in the international waters of the Persian Gulf. These two cases clearly show the political-military nature of military actions taken during crises.

#### Motives for the Attacks

The motives of the perpetrators of the attacks in most cases cannot be ascertained with certainty, but sufficient evidence is available to postulate reasonably plausible motives. Two of the attacks (Tonkin Gulf and Pueblo) were motivated by self-defense, defense of territorial waters, or retaliation for hostile acts believed to have involved the ship that was attacked. However, in neither case had the ship committed the hostile acts of which it was accused. The other two attacks (Liberty and Stark) were portrayed as accidents that resulted from mistaken identity. Although allegations have been made to the contrary, none of these four cases can be conclusively established as having been deliberate unprovoked aggression against a warship known by the attacker to belong to the United States and to be on routine operations in international waters.

Two of the incidents (Tonkin Gulf and Pueblo) occurred under circumstances in which the perpetrator plausibly could

have perceived a military threat from the U.S. ship, and therefore have been motivated by self-defense, defense of territorial waters, or retaliation for hostile acts believed to have involved the ship. North Vietnam apparently perceived Maddox as having participated in or supported South Vietnamese raids that had taken place nearby immediately before the destroyer arrived. The first attack on Maddox was probably retaliation for those raids, intended to demonstrate a capability to defend against them and to coerce the U.S. and South Vietnam into ceasing the raids.<sup>122</sup> The attack would also have secondary political propaganda value, by showing defiance of American strength and portraying the U.S. as a "paper tiger" ineffective against North Vietnam.

Opinions vary widely as to North Korean motives for seizing Pueblo. President Johnson, Secretary of Defense McNamara, and Secretary of State Rusk believed that North Korea sought to divert U.S. and South Korean forces from Vietnam on the eve of the Tet offensive.<sup>123</sup> This explanation lacks plausibility: military coordination

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<sup>122</sup>Marolda and Fitzgerald, pp. 420-5; Lewy, pp. 32, 36; Karnow, pp. 366, 370; Kahin, pp. 220-5; Kahin and Lewis, pp. 156-7; Austin, pp. 201-8, 263, 334; Goulden, pp. 92-6, 79-81; Windchy, pp. 147-8, 153-4.

<sup>123</sup>Johnson, Vantage Point, p. 535; Authorization for Military Procurement, 1969, p. 65; "Secretary Rusk and Secretary of Defense McNamara Discuss Viet-Nam and Korea on 'Meet the Press'," Department of State Bulletin 58 (February 26, 1968): 262. Also see Howard H. Lentner, "The Pueblo Affair: Anatomy of a Crisis," Military Review 49 (July 1969): 57-59.

between North Vietnam and North Korea probably was not close enough to permit such coordination, and North Korea had no way of knowing that Pueblo would be off Wonsan just prior to the Tet offensive. Press reports, quoting Pentagon officials, speculated that North Korea seized the ship for intelligence purposes (perhaps on behalf of the Soviets), to capture Pueblo's sensitive electronic equipment.<sup>124</sup> This also lacks plausibility: Since it was Pueblo's first mission, North Korea probably had no way of knowing that Pueblo would be a lucrative target. James Cable has offered two alternative interpretations of the North Korean seizure of Pueblo: first, that it was an impulsive, reckless act, perhaps initiated by a relatively junior commander, or, second, that the act was premeditated, intended to halt the surveillance mission and to deter the United States from conducting such missions in the future.<sup>125</sup> Either of these interpretations is plausible than the previous explanations, but there is little evidence to support either view.

The political situation on the Korean Peninsula in early 1968 and the pattern of North Korean hostility toward the United States suggest that Pueblo's mission probably was perceived by the North Koreans. Pueblo, on a routine

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<sup>124</sup>"Intelligence Data Called a Goal of Ship Seizure," New York Times, January 26, 1968, p. 7.

<sup>125</sup>James Cable, Gunboat Diplomacy, 1919-1979, Second Edition (New York: St. Martin's Press, 1981), pp. 52-53.

intelligence mission in international waters, arrived off Wonsan in the midst of acute tensions on the Korean Peninsula. North Korea had been pursuing an aggressive campaign of provocations against the South, raising tensions nearly to the crisis level, and had been warning South Korea and the United States against violating North Korean territorial waters. The North Koreans were spoiling for a fight and were particularly sensitive about the presence of U.S. aircraft and vessels off its coast. North Korea may have misperceived Pueblo to be an immediate threat to North Korean territory or territorial waters (perhaps landing South Korean saboteurs or agents in retaliation for North Korean attacks on the South), or as a deliberate political provocation in response to the North Korean propaganda campaign. If North Korea indeed held such perception, then countering the perceived threat and deterring future such threats would have been the principle motives for seizing Pueblo.<sup>126</sup> An attack on a U.S. naval vessel would also have secondary political propaganda value: showing defiance of American strength and portraying the U.S. as a "paper tiger" ineffective against North Korea. Thus, although attacking and seizing a U.S. vessel off the coast of North Korea was premeditated, Pueblo was a target of opportunity rather than having been predesignated for seizure.

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<sup>126</sup>Armbrister, pp. 27-8, 187-95; Bucher, pp. 392-3; Goulding, pp. 295, 300; Koh, pp. 264-80.



Two of the incidents (Liberty and Stark) were portrayed as accidents, with the nations responsible for the attacks giving the official explanation that the attacks were the result of mistaken identity. Israel claimed Liberty was mistaken for the Egyptian transport El Quisir, and Iraq claimed Stark was mistaken for a civilian tanker headed for an Iranian port. The U.S. Government officially accepted the claims that the attacks were accidents, though it denied that there were grounds for mistaken identity to have occurred in any of the attacks.

The danger of U.S. ships accidentally being caught in the fighting was recognized in the Liberty and Stark cases, as evidenced by the precautions that were taken. In the Liberty case the threat of indiscriminate attacks--deliberate attacks launched without efforts to identify the target--appears to have been seriously underestimated, with the result that Liberty was inadequately protected against such a threat. In the Stark case the rules of engagement authorized measures to defend against indiscriminate attacks and Middle East Force ships had been warned of the danger of indiscriminate attacks. However, the daily contact that Middle East Force ships had with Iraqi planes apparently tended to make at least some of them complacent about the threat of being attacked by the Iraqis. Thus, the threat of indiscriminate attacks must be regarded as everpresent when U.S. ships must operate in the vicinity of hostilities.

Ironically, in both the Liberty and Stark cases the attacks were carried out by the side that the U.S. favored: Liberty by Israel and Stark by Iraq. This underscores the danger of accidental or indiscriminate attacks in peacetime, and warns against assuming that friendly nations can be relied upon to avoid U.S. ships or tacitly provide them a shield. These incidents also warn against reliance on the imaginary lines prominently displayed on charts--the limits of territorial waters, exclusion zones, or war zones--as providing protection against attacks. Precise navigation is a luxury often foregone, either deliberately or inadvertently, in the heat of battle.

Questions were raised in the aftermath of the attacks on Liberty and Stark about whether they were, in fact, accidental. The Liberty incident is by far the most controversial of the two. Former Liberty officer James M. Ennes claims Israel attacked Liberty to prevent it from monitoring Israeli preparations to attack the Golan Heights, a move the Israelis knew the United States opposed and would try to block.<sup>127</sup> From a purely military perspective the attack was a rational action, but the political rationale for a deliberate attack is weak. Israel has on several occasions shown a willingness to proceed as it sees fit

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<sup>127</sup> Ennes, pp. 172-4, 187-8, 191-2, 254-63. Also see Goulding, pp. 123-4, 136-7; Smith, p. 64; and Anthony Pearson, Conspiracy of Silence (London: Quartet Books, 1978), pp. 105, 116-118, 163.

regardless of U.S. pressure to the contrary. Why in this one instance it was necessary to attack a U.S. ship rather than to just ignore U.S. pressure is not clear.<sup>128</sup> The political illogic of a deliberate attack is compounded by the fact that the United States had begun a policy shift toward alignment with Israel, which would improve Israel's strategic position.

There is insufficient evidence to resolve the controversy over the Liberty incident. The Israelis insist to this day that the attack was an accident, and have given an elaborate scenario explaining how it occurred.<sup>129</sup> One need not believe this scenario to accept that the attack was indiscriminate: the forces sent out to find an Egyptian ship

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<sup>128</sup> Certain Israeli leaders, particularly Moshe Dayan (Chief of Staff of the Army in the 1956 war and Defense Minister in the 1967 war), may have had an attitude of "never again" toward giving in to U.S. pressure for them to abandon their military objectives or conquered territory after their experience in the 1956 war with Egypt. In 1956, photographs taken by U-2 reconnaissance planes had alerted President Eisenhower to British, French, and Israeli military and naval moves, enabling him to exert strong pressure on the three nations to abandon their plan to seize the Suez Canal early in the operation. Liberty could have been viewed by the Israelis as giving President Johnson the same advantage in 1967. On the role of U-2s in 1956, see Donald Neff, Warriors at Suez (New York: Simon and Schuster, 1981), pp. 333, 353; and Michael R. Breschloss, Mayday: Eisenhower, Khrushchev, and the U-2 Affair (New York: Harper and Row, 1986), pp. 136-139. In an interview with the author, Arthur C. Lundahl, Director of the CIA's National Photographic Intelligence Center in 1956, confirmed that U-2s had monitored the crisis.

<sup>129</sup> See Goodman and Schiff, pp. 78-84; Israeli Defense Forces, "Preliminary Inquiry."

attacked the first vessel they found without attempting to identify it.<sup>130</sup> The arguments given by Israel to support their claim of mistaken identity (Claims that Liberty was not flying a U.S. flag, did not have U.S. hull markings, and was moving at over thirty knots) can be dismissed as an effort to cover a poor showing by the Israeli Defense Forces.

The Stark incident appears to be a clear-cut case of indiscriminate attack, but allegations have been made that it too was deliberate. Former U.S. Air Force Middle East analyst Joseph Churba claims that Iraq deliberately attacked the ship to provoke increased U.S. involvement in the Persian Gulf.<sup>131</sup> Of the charges raised in the three incidents, this one is least plausible and least supported by evidence. Iraq made no attempt to make the attack appear to have been the work of Iran: the Mirage flew a flight path

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<sup>130</sup> In an incident strikingly similar to the Liberty incident, the Israeli Air Force on November 2, 1956 attacked the British frigate HMS Crane off of Sharm el Sheikh. At the time Israel and Britain were allies in the Suez Crisis, and Crane was on patrol as part of their campaign against Egypt. During the 1973 Yom Kippur War, Israeli Navy missile boats accidentally struck Greek, Japanese, and Soviet merchant ships with Gabriel anti-ship missiles while attempting to attack Syrian naval vessels. See Dupuy, pp. 210-211, 559. Thus, the Israelis launched indiscriminate attacks in the 1956, 1967, and 1973 wars, apparently due to permissive rules of engagement and lax identification requirements. In the 1956 and 1967 wars, the Israeli Air Force appeared to be poorly trained and organized for war at sea, particularly in the areas of ship recognition training for pilots and intelligence support for maritime operations.

<sup>131</sup> "Stark was attacked by two Iraqi jets, not one, experts say," San Diego Union, August 2, 1987, p. A14.

to intercept Iranian shipping in the central Persian Gulf, but released its missiles about thirty miles early. Iraqi leaders would have had to have been extremely ill-informed of U.S. domestic political opinion, which was sceptical of the Navy role in the Gulf to begin with, in order to think that such an attack--easily identified as Iraqi--would have provoked a greater role in the Gulf. If anything, the attack influenced the U.S. decision to delay the start of convoying of Kuwaiti tankers.

There are two sets of motives for the Liberty and Stark incidents: first, the motives for the attacks if they were accidents, and, second, the motives for the attacks if they were deliberate. The first set of motives, those for the attacks the perpetrators claimed they had thought they were launching, are all routine wartime reasons for attacking ships. If the Israeli attack had been on an Egyptian ship, rather than on Liberty, its purpose would have been military: countering a threat to army operations ashore. If the Iraqi attack had been on an Iranian tanker, rather than on Stark, its purpose would have been political-economic: interrupting Iranian tanker shipping as part of a campaign of economic coercion. As these two incidents show, indiscriminate attacks are motivated by common wartime political-military objectives.

The interesting question is why were the attacks launched indiscriminately, rather than after positive

identification of the target? The primary reason why indiscriminate attacks would be preferred is military: avoiding the risks inherent in making positive identification of a target before attacking. This appears to have been the motive for indiscriminate attacks in the Liberty and Stark incidents--neither Israel nor Iraq were motivated to identify their targets before striking. Indiscriminate attacks could also be preferred for political reasons: intimidation or coercion of the enemy and his supporters, or retaliation for unrestrained attacks made by the enemy. Given delegation of decisionmaking authority, these motives may come into play at low levels in the chain of command even when national policy is one of restraint and caution. Indiscriminate attacks are most likely when armed forces equipped with powerful modern weapons have only rudimentary tactical training, as in the case of Iraq, but can also occur when well-trained forces have permissive rules of engagement that emphasize military expediency, as in the case of Israel.

The second set of motives for the two attacks are those that would have prompted deliberate attacks on ships known to have been U.S. Navy. The attack on the Stark would have had a political motives: provoking the U.S. into greater military intervention against Iran in the Persian Gulf. The attack on the Liberty primarily would have had a military motive--preventing surveillance of Israeli military

activities--but could also have had the political motive of warning the United States not to restrain Israel from achieving its territorial objectives. Similar motives could well prompt deliberate attacks on U.S. naval vessels in future crises.

A wide range of military and political motives for attacking ships in wartime could create tactical circumstances in which U.S. Navy ships are indiscriminately or accidentally attacked. Indiscriminate attacks are the greatest danger. Belligerents in a local conflict could also have motives for deliberately attacking U.S. ships near the scene of fighting. The fact that the U.S. Government has readily accepted the accident explanation in the past makes it more likely that deliberate attacks under the guise of accidents could occur in the future.

#### Conclusion

This chapter presented the third phase of the research design, a structured focused comparison of four cases in which U.S. Navy ships were attacked during peacetime or crisis operations. The focus will be on how the military and naval chain of command reacted to the attacks. The incidents that were examined were the August 1964 Tonkin Gulf Incidents, the June 8, 1967 Israeli attack on the intelligence collection ship USS Liberty (AGTR 5), the January 22, 1968 North Korean seizure of the intelligence

collection ship USS Pueblo (AGER 2), and the May 10, 1987 Iraqi attack on the guided missile frigate USS Stark (FFG 31). Four research questions, addressing the decoupling of stratified interactions, stratified escalation dynamics, misperceptions, and political-military tensions, were asked in each of the cases.

This completes the third and final phase of the research design. The next chapter integrates the findings from all three phases of the research design and from them derives contingent generalizations on the theory of stratified interaction.



CHAPTER IX  
FINDINGS AND CONTINGENT GENERALIZATIONS

To provide diagnostic power of the kind needed by policymakers, an explanatory theory must be capable of providing explanations that discriminate among causal patterns. That is, it must be capable of offering differentiated explanations for a variety of crisis management and crisis stability problems. A differentiated explanatory theory is constructed by formulating contingent generalizations--regularities that occur only under certain specific conditions. The objective of this study has been to identify different causal patterns associated with variation in crisis military interaction. For this purpose an analytic-inductive procedure was used to analyze four historical cases of crisis naval operations and four cases of peacetime attacks on U.S. Navy ships. This yielded a typology of crisis management and crisis stability problems, each linked with a somewhat different causal pattern.

To develop the contingent generalizations, eight questions addressing specific aspects of the theory were applied to historical cases through the method of structured focused comparison. All eight questions were addressed in four case

studies of crisis naval operations: the 1958 Taiwan Straits Crisis, the 1962 Cuban Missile Crisis, the 1967 Middle East War, and the 1973 Middle East War. Four of the eight questions--those addressing decoupling of interactions, stratified escalation dynamics, misperceptions, and political-military tensions--were also addressed in four case studies of peacetime attacks on U.S. Navy ships: the 1964 Tonkin Gulf Incidents, the 1967 Israeli attack on the USS Liberty, the 1968 North Korean seizure of the USS Pueblo, and the 1987 Iraqi attack on the USS Stark.

The purposes of this chapter are to summarize the findings of the eight case studies and to derive from them contingent generalizations on crisis military interactions and crisis stability. The first section will present the findings on the theory of stratified interaction, including the corollary of decoupled interactions. The second section will present the findings on crisis stability, including the crisis security dilemma, escalation dynamics, and misperception. The third section will present the findings on the three political-military tensions and their impact on crisis management. The final section will present the contingent generalizations on crisis military interaction.

#### Stratified Interaction

The first three questions addressed the conditions necessary for stratified interaction to occur: delegated

control, tight coupling, and acute crisis. These questions were examined in the four case studies of crisis naval operations.

### Delegated Control

The first question is to what degree were interactions between the forces of the two sides at the scene of the crisis the result of actions taken in accordance with mechanisms of indirect control, rather than direct control by national leaders? Mechanisms of indirect control, rather than direct control by national leaders, played the major role in the 1958 Taiwan Straits crisis, but decisionmaking authority was delegated selectively. The Eisenhower Administration was concerned about the danger of events getting out of control in the Taiwan Straits. To control the risk of escalation, the President retained total control of nuclear weapons and delegated authority to retaliate with conventional weapons against mainland targets only under circumstances in which the Joint Chiefs did not have time to consult with the him prior to taking action.

Beyond this, however, United States communications capabilities in 1958 forced employment of delegated methods of control and heavy reliance on mechanisms of indirect control. U.S. Navy commanders in the Pacific had significant authority to conduct operations as they saw fit--within the policy limits set by the President and the JCS--and

exercised that authority to its limits. The only detailed instructions provided by the JCS concerned rules of engagement and the limit on how close ships could approach Quemoy and the mainland. Throughout the crisis Washington was ill-informed of the status of operations currently in progress, which precluded American leaders from exercising close control over the operations. The overall picture that emerges is of the Eisenhower Administration exploiting the flexibility of the U.S. command system for crisis management purposes.

In the 1962 Cuban Missile Crisis, the Kennedy Administration was clearly concerned about the danger of an incident with Soviet ships or submarines. The President and McNamara exercised a greater degree of control over U.S. Navy operations than had ever been attempted in the past. However, they primarily controlled naval operations through mechanisms of indirect control, particularly mission orders and rules of engagement, rather than through direct control. The President and McNamara retained authority certain crucial decisions, particularly retaliation against Cuban air defenses and the boarding of ships. Other than this, however, they exercised control by negation, rather than positive control, over Navy operations they felt were particularly sensitive. Less sensitive operations were not closely controlled, with methods of delegated control being used. Presidential orders were passed via the chain of

command and neither the President nor McNamara ever gave orders directly to ships at sea.

In the 1967 Arab-Israeli War, The Johnson Administration did not attempt to exercise direct control over the operations of the Sixth Fleet other than its movements in the Mediterranean. Nor did the President or McNamara make an effort to provide specialized guidance in mechanisms of indirect control, other than limitations on how close the fleet and its aircraft could approach the coasts of the belligerents. When the USS America experienced severe Soviet harassment on June 8 the on-scene commanders were guided by standing Navy policies for handling such situations, rather than by special instructions from the White House. There was thus significant delegation of authority to on-scene commanders and the guidance contained in Navy standing orders and standing rules of engagement played a crucial role in determining the nature of the tactical-level interactions that occurred.

In the 1973 Arab-Israeli War, the Nixon Administration did not attempt to exercise direct control over the operations of the Sixth Fleet other than its movements in the Mediterranean. Sixth Fleet movements, however, were closely controlled--much closer than in the 1967 Middle East War. Rather than giving the fleet boundaries on where it was permitted to operate, as in 1967, Washington told the fleet exactly where to operate. On the other hand, the

President and Schlesinger did not attempt to communicate directly with any level in the chain of command below the JCS; orders to the Sixth Fleet were passed via normal channels. Nor did they made an effort to provide specialized guidance in mechanisms of delegated control. As a result, the ships of the Sixth Fleet acted in accordance with Navy standing orders in responding to Soviet naval operations. There was thus significant delegation of authority to on-scene commanders and the guidance contained in Navy standing orders and standing rules of engagement played a crucial role in determining the nature of the tactical-level interactions that occurred.

In summary, the pattern observed in the four case studies of U.S. naval operations in crises was one of direct control being exercised selectively and to a limited degree. Heavy reliance was placed on mechanisms of indirect control in all four cases, although the guidance contained in those mechanisms was not always revised to reflect the specific circumstances of the crisis at hand. Tactical-level military interactions rarely were under the direct control of political-level leaders.

#### Tight Coupling

The second question is were the forces of the two sides at the scene of the crisis tightly coupled with each other? The forces of the two sides at the scene of the

crisis were tightly coupled with each other in the 1958 Taiwan Straits crisis, but their interactions were restrained by U.S. and Chinese efforts to avoid military clashes. Both sides appeared to have good intelligence concerning the other side's forces and operations. The pattern of Communist Chinese shelling suggested that they had good intelligence on the convoys and Chinese protests of alleged U.S. violations of their airspace and territorial waters suggest that they were able to keep close tabs on U.S. navy operations in the Straits. U.S. on-scene commanders had similarly good information on Communist military activities. The Taiwan Patrol Force maintained intensive patrol and surveillance of the mainland coast. However, detection of actions by the other side did not automatically generate tactical reactions. The United States and Communist China both took steps to prevent clashes between their forces and those measures largely prevented interactions from occurring. Thus, although the intelligence requirement for tight coupling of the two sides' forces was met, tactical interactions tended to be dampened by measures taken to avoid clashes.

In the 1962 Cuban Missile Crisis, the forces of the two sides at the scene of the crisis were tightly coupled with each other, but not as tight as might be expected given the seriousness of the crisis. The tightest coupling was between U.S. Navy ASW forces and Soviet submarines, followed

closely by coupling between the Quarantine force and Soviet merchant ships. In both cases, however, Khrushchev's decision not to challenge the quarantine dampened the interactions between the two sides. The Soviet submarines were not attempting to force their way through U.S. naval forces to get to Cuba, they were attempting to return home unmolested. The only Soviet ships that approached the quarantine line were those that the U.S. would have no reason to take into custody. Interactions between U.S. and Cuban forces were also dampened by the efforts that leaders on both sides made to avoid provocations. In this regard the Cuban Missile Crisis was similar to the 1958 Taiwan Strait Crisis: although significant U.S. forces were operating in close proximity to the adversary's forces, tactical-level interactions were dampened by the caution and restraint shown by both sides.

Soviet and American naval forces in the Mediterranean were tightly coupled during the 1967 Arab-Israeli War. Soviet tattletales closely monitored the Sixth Fleet, U.S. aircraft closely monitored the Soviet Mediterranean Squadron, and U.S. ships and planes searched for and trailed Soviet submarines. Each side reacted to actions taken by the other side.

Soviet tattletales and aircraft closely monitored the Sixth Fleet, and U.S. ships and aircraft closely monitored the Soviet Mediterranean Squadron during the 1973



Arab-Israeli War. The Soviets quickly responded to changes in Sixth Fleet operations, keeping every U.S. carrier in the eastern Mediterranean targeted with anti-ship missiles. Similarly, the Sixth Fleet quickly reacted to changes in Soviet naval operations, keeping Soviet ships that were an immediate threat to the carriers in the sights of U.S. ships or planes. Thus, Soviet and American forces were tightly coupled during the crisis--much more tightly than they had been in any previous Soviet-American crisis.

In summary, naval forces at the scene of the crisis were tightly coupled in all four of the crisis naval operations case studies. However, the tightness of coupling between the forces of the two sides can vary significantly from crisis to crisis and over time within a particular crisis. Tactical-level military commanders have independent access to intelligence and surveillance information on adversary forces, and thus are not dependent on political-level decisionmakers for information on the adversary. As would be expected under conditions of tight coupling, naval forces tend to react quickly to changes in the other side's operations, seeking to maintain or improve their tactical position in the event of hostilities. However, this tight action-reaction linkage can be dampened by measures intended to avoid incidents between the two side's forces, such as geographic separation and a deliberately low tempo of operations or pauses (periods of inaction).

### Political Use of Force

The third question is were the forces of the two sides being used by their national leaders to convey political signals in support of crisis bargaining? Both Communist China and the United States used their military forces for political purposes in the 1958 Taiwan Straits crisis. Communist China was conducting a limited probe of an ambiguous American commitment to the offshore islands, and exerting carefully controlled pressure on the Nationalists and the United States. The United States responded by accepting a test of capabilities under the ground rules established by the Chinese Communists, backed by a massive concentration of naval and air power in the Straits to convey a strong deterrent threat. Faced with a choice between escalating the confrontation or accepting an unfavorable outcome, the Chinese backed down and salvaged as much as they could politically.

In the 1962 Cuban Missile Crisis, the forces of the two sides were used by their national leaders as a political instrument. President Kennedy clearly was using the U.S. armed forces to convey political signals to Khrushchev during the crisis. The President and McNamara actively sought out ways to reinforce the signals being sent to the Soviets, such as by modifying Navy ASW procedures to support the political objectives of the quarantine. Khrushchev, on the other hand, may have used military forces for political

signalling, but did not do so as clearly as President Kennedy. Khrushchev was probably avoiding signals of hostile intent by not placing Soviet forces at full alert, recalling freighters carrying arms, and recalling the three submarines in the Atlantic. However, there is insufficient evidence to establish this conclusively. Shooting down an American U-2 over Cuba on October 27 certainly sent the wrong signal to the United States, but this action may not have been authorized in the Kremlin. Cuba placed its armed forces on alert, but avoided provocative actions during the crisis. This was probably intended to avoid giving the United States a pretext for invading the island. Thus, all three of the participants in the crisis used their military forces for political signalling.

The United States and the Soviet Union used their naval forces for political signalling in the 1967 Arab-Israeli War. The Johnson Administration used the Sixth Fleet to signal the U.S. intention not to intervene in the crisis, but also used the fleet to warn the Soviets against direct military intervention in the conflict. The Soviet Union also conveyed political signals by rapidly building up its Mediterranean Squadron, shadowing the Sixth Fleet, and keeping the bulk of the squadron well clear of the fighting and the Sixth Fleet. The 1967 Arab-Israeli War was the first crisis in which both superpowers actively used their navies for political signalling.

Both the United States and the Soviet Union used their naval forces as a political instrument during the 1973 Arab-Israeli War. It is clear that the United States used the Sixth Fleet for political signaling. That the Soviets received the signals being sent with the Sixth Fleet is indicated by the note the Soviets sent on October 12, 1973, protesting the movement of the U.S. fleet into the eastern Mediterranean. The Soviet Union used its Mediterranean Squadron for political signaling, and it is clear that U.S. leaders received the Soviet signals. The Soviet naval actions that sent the strongest signals were reinforcement of the Mediterranean Squadron, which almost doubled in numbers of ships and quadrupled in firepower, trailing of Sixth Fleet task groups, keeping the bulk of the Squadron well clear of the fighting ashore, and conducting an anti-carrier exercise from October 26 to November 3.

In summary, naval forces were used by both sides for political signalling or related political functions in all four of the case studies on crisis naval operations. Use of naval forces for political purposes can bring naval units of the two sides in a crisis into close proximity, creating a danger of military incidents.

#### Stratified Interaction

The answers to these first three questions suggest that conditions necessary for stratified interaction existed

in all four of the crises. In the 1958 Taiwan Straits Crisis, the United States relied on methods of delegated control, U.S. and Chinese Communist military forces were tightly coupled, and both sides used their forces as a political instrument under conditions of acute crisis. Interactions occurred at the tactical level that were not directly controlled by American leaders. The findings of this case suggest, however, that stratification is not an absolute concept--there can be degrees of stratification. Measures taken by both sides to prevent confrontations between their forces can greatly reduce opportunities for tactical-level interaction to occur.

Although the President sought to maintain close control of military operations 1962 Cuban Missile Crisis, he relied heavily on methods of delegated control and communications problems constrained his ability to effectively exercise direct control. In certain operations there was tight coupling between the forces of the two sides. Both sides used their forces as a political instrument under conditions of acute crisis. Interactions occurred at the tactical level that were not directly controlled by American leaders. The President did not directly control any of the anti-submarine warfare operations or the boarding of the Marucla (other than to order it to occur). Navy forces encountered Cuban air and naval forces on several occasions without the President or

McNamara controlling the interactions. The President's attention was focused on a very small portion of the overall operations that were in progress. The stratified interaction model offers a good description of Soviet-American interactions in the Cuban Missile Crisis.

In the 1967 Arab-Israeli War, the United States relied on methods of delegated control, U.S. and Soviet naval forces in the Mediterranean were tightly coupled, and both sides used their forces as a political instrument under conditions of conditions of acute crisis. Interactions occurred at the tactical level that were not directly controlled by American leaders. For example, President Johnson had no control over whether or not the Soviet harassment of America on June 8 would produce a clash between the U.S. and Soviet navies. The stratified interaction model of international crises, in which interactions evolve in separate, semi-independent sequences at the political, strategic, and tactical levels, offers a good description of Soviet-American interactions in the 1967 Arab-Israeli War.

In the 1973 Arab-Israeli War, the United States relied on methods of delegated control, U.S. and Soviet naval forces in the Mediterranean were tightly coupled, and both sides used their forces as political instruments under conditions of acute crisis. Significant and dangerous interactions occurred at the tactical level that were not

directly controlled by American leaders. For example, President Nixon had no direct control over Sixth Fleet counter-targeting of Soviet ships carrying anti-ship cruise missiles, and was probably unaware that this activity had inadvertently been set in motion by White House orders making the fleet an easy target for the Soviet Navy.

### Decoupled Interactions

The fourth question is did crisis interactions at the tactical level become decoupled from the strategy being pursued by national leaders? There are seven potential causes of decoupling: communications and information flow problems, impairment of political-level decisionmaking, a fast-paced tactical environment, ambiguous or ambivalent orders, tactically inappropriate orders, inappropriate guidance in mechanisms of indirect control, and deliberate unauthorized actions by military commanders. To establish that stratified interactions became decoupled in a crisis requires two findings: first, that one of the seven conditions just mentioned was present, creating conditions for decoupling, and, second, that operational decisions made by tactical-level decisionmakers differed from the decisions that political-level decisionmakers would have made in order to coordinate those actions with their political-diplomatic strategy for resolving the crisis. Decoupled interactions were examined in all eight case studies.

There were instances of tactical-level interactions becoming decoupled from the crisis management strategy being pursued by U.S. leaders in the 1958 Taiwan Straits crisis. Three of the potential causes of decoupling arose on the American side in the crisis: communications problems, a fast-paced tactical environment, and ambiguous orders. Communications between Washington and the Far East were slow and cumbersome. When the President suspended convoy escort operations on October 6 in response to the Communist unilateral ceasefire announcement, the order was not received by Commander Taiwan Patrol Force until after two more Nationalist convoys had been escorted on October 7. As it turned out, the extra day of escort operations did not adversely affect U.S. efforts to resolve the crisis, but it could have had a much more serious impact--the Chinese Communists had made the ceasefire contingent on the U.S. not escorting Nationalist convoys. This was the most serious instance of decoupling in the crisis.

The impact of a fast-paced tactical environment and ambiguous orders were most apparent on August 24, the first full day of the crisis. It would be August 26 before the on-scene commanders received the first JCS directive on the crisis, but they had to respond immediately to a Communist Chinese threat of unknown proportions. In the early hours of the crisis it was not clear whether the Communists intended to attack Taiwan, invade Quemoy or neighboring



islands, or just harass the offshore islands with artillery fire. The Nationalists were appealing for assistance to repel an invasion of one of the islands. Compounding the control problems created by this rapidly evolving situation was the ambiguous Eisenhower Administration policy toward defense of the offshore islands. U.S. military commanders in the Pacific had sought clarification on the offshore islands earlier in August as tensions rose in the Straits, but the President was unwilling to state a definitive policy until September 6. On-scene commanders had ample authority to take military action under the terms of the defense treaty with the Nationalists and the Formosa Resolution if Taiwan were threatened, but initially had no specific guidance on the offshore islands. Left to their own devices, the on-scene commanders took actions on August 24 and 25--sending U.S. destroyers to the assistance of Nationalist forces defending the offshore islands--that the President may not have authorized had he been able to make the decisions himself. This is another potential example of decoupling during the 1958 Taiwan Straits Crisis.

Despite the vast scale of operations that were conducted and the intensity of the interactions that took place during the 1962 Cuban Missile Crisis, decoupling was relatively rare. There were no serious instances of decoupling involving naval forces. The potential cause of decoupling that was most prominent in the crisis was

communications problems. Despite the advances that had been made in communications technology, the effort to exercise close control over large-scale operations seriously overloaded and degraded U.S. communications systems. These communications problems did not cause serious decoupling because only a very small portion of U.S. forces were in contact with adversary forces and because attention had been paid to the guidance contained mechanisms of indirect control, so that U.S. forces would act as the President desired when he could not control their actions.

The second potential cause of decoupling, a fast-paced tactical environment, was not a major problem during the Cuban Missile Crisis. There were no fast-paced engagements. Anti-submarine warfare operations--the most dangerous Soviet-American tactical interactions during the crisis--were particularly slow and tedious, providing ample opportunity for disengagement. Similarly, the intercept and boarding of merchant ships takes place at a leisurely pace and is relatively easy to control. Fast-paced engagements, such as air combat and sea battles fought with tactical aircraft and cruise missiles, never arose. This appears to have been a key factor in the success of the President's crisis management efforts--opening with operations that were inherently slow-paced. The President probably knew intuitively that this was an advantage of a blockade, but it was not an explicit consideration in the decision.

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In the Cuban Missile Crisis, President Kennedy and Secretary of Defense McNamara also sought to avoid three of the other potential causes of decoupling: ambiguous or ambivalent orders, tactically inappropriate orders, and inappropriate guidance in mechanisms of indirect control. This is a striking contrast with the 1958 Taiwan Strait Crisis, when the Navy did not have clear guidance on whether or not it could defend the off-shore islands when the crisis erupted. By tailoring certain key guidance contained in mission orders and rules of engagement to support the President's political objectives, the President and McNamara avoided the problem of inappropriate guidance in mechanisms of indirect control. McNamara did not attempt to rewrite Navy tactical doctrine, but did impose certain requirements and limitations on the Navy. The most important innovation, the special submarine surfacing signals, were devised in conjunction with the Navy. By not attempting to exercise positive direct control of operations while they were in progress, the President and McNamara largely avoided the problem of tactically inappropriate orders. The method of control they used--control by negation--only required that orders be given if a Navy commander embarked on a course of action that they opposed.

The final potential cause of decoupling--unauthorized actions by military commanders--did not occur during the Cuban Missile Crisis. President Kennedy was aware, at least

in general terms, of Navy anti-submarine warfare (ASW) operations. He had been briefed on and approved quarantine plans that directed the Navy to surface and identify Soviet submarines, and authorized use of force, if necessary, to prevent Soviet submarines from reaching Cuba without being inspected for offensive weapons. McNamara received detailed briefings on Navy operations, including ASW operations, at least once daily in Flag Plot and received frequent situation reports in between briefings. McNamara's knowledge of Navy ASW procedures was detailed enough to know that the Navy would need to develop special procedures for signalling submarines to surface for identification. Navy ASW forces strictly complied with the special submarine and surfacing procedures. No Soviet submarines were depth charged. No unauthorized actions occurred despite the resentment many senior Navy officers felt against the close attention that the President and McNamara paid to naval operations.

Two of the potential causes of decoupling--communications problems and a fast-paced tactical environment--were present in the 1967 Arab-Israeli War, but there were no serious instances of decoupling. The U.S. communications system did not permit the President to exercise real-time direct control over the Sixth Fleet. Due to geographic distance, President Johnson's ability to communicate directly with the Sixth Fleet in 1967 was less than President Kennedy's ability to communicate directly with the

Second Fleet in 1962. A second potential cause of decoupling--a fast-paced tactical environment--was also present during some periods of the crisis. In spite of these factors, divergence of tactical-level military operations from political-level objectives was not a serious problem during the crisis. Although on-scene commanders often made operational decisions on their own authority, their decisions generally supported the President's political objectives. The response of Navy on-scene commanders to Soviet harassment on June 8 may have been an instance of tactical-level military operations diverging from political-level objectives, but there is no evidence that the President disapproved of how they handled the situation. The overall pattern, therefore, was one of parallel stratified interactions: interactions the President did not control, but which supported his political objectives.

Four of the potential causes of decoupling were present in the 1973 Arab-Israeli War: communications and information flow problems, impairment of political-level decisionmaking, a fast-paced tactical environment, and tactically inappropriate orders. The U.S. communications system provided much faster and more reliable communications in 1973 than it had in 1967, but still did not permit the President to exercise real-time direct control over the Sixth Fleet. Impairment of political-level decisionmaking

was at least a minor factor in the crisis. President Nixon was in the midst of the Watergate scandal and the resignation of Vice President Spiro Agnew. Although President Nixon reportedly made key decisions himself and was kept informed of major developments in the crisis, he clearly did not exercise close, detailed control over U.S. actions in the crisis.

The tactical environment in the Mediterranean was fast-paced during the 1973 Arab-Israeli War. The White House did not directly control the actions of the Sixth Fleet and available accounts suggest that Nixon and Kissinger were unaware of the intensity of the naval interactions that were occurring. Sixth Fleet efforts to counter the Soviet anti-ship missile threat required frequent tactical decisions as Soviet ships maneuvered to keep the U.S. carriers targeted. This intense maneuvering for tactical advantage was too fast-paced for the White House to be able to effectively control it. The same situation could well have existed for the Soviet Mediterranean Squadron, which was constantly targeted at point blank range by U.S. warships and attack aircraft.

Tactically inappropriate orders were a major factor in the 1973 Arab-Israeli War and may have led to decoupling. To ensure that the Sixth Fleet sent only the desired political signals, the White House ordered the fleet to remain in small, fixed operating areas. This made the U.S. fleet extremely vulnerable to a Soviet preemptive strike.

The on-scene commanders--acting on their own initiative and well within their delegated authority--sought to reduce their vulnerability by counter-targeting the most threatening Soviet naval units. Tight direct control of Sixth Fleet movements by the White House thus generated tactically inappropriate orders.

The factors listed above may have led to decoupling of tactical-level interactions during the 1973 Arab-Israeli War. The Sixth Fleet was moved to south of Crete in order to demonstrate to the Soviet Union that the United States was prepared for any contingency, but had no aggressive intent and was not preparing to take an active part in the conflict. Sixth Fleet movements of October 25 were intended to deter escalation of the conflict--specifically, Soviet intervention in Egypt with airborne forces--but the fleet was restrained in order to avoid signalling excessive hostility or an intention to intervene directly in the conflict. Given these political signalling objectives, it is not clear that the White House would have viewed Sixth Fleet preparations for preemptive strikes against the Soviet navy--preparations the Soviets were well aware of--as supporting the U.S. strategy for managing the crisis or as sending the political signals it wanted sent to the Soviet Union. There may well have been tactical-level interactions between U.S. and Soviet naval forces that complicated management of the crisis.

At least two of the potential causes of decoupled interactions were present during the August 2 and 4, 1964, Tonkin Gulf Incidents: communications and information flow problems, and a fast-paced tactical environment. Although the technical capacity to do so may have existed, the Defense Department and Navy communication systems were not configured to enable Washington to speak directly to ships at sea in the Far East. Officials in Washington spent hours bombarding Navy commanders in the Pacific with demands for more information on the second incident before they felt they had sufficient information on which to base the decision to retaliate. The President and the Secretary of Defense were thus unable to control U.S. Navy operations in the Tonkin Gulf while the incidents were in progress.

Although conditions for decoupling were present in the 1964 Tonkin Gulf Incidents, the operational decisions made by tactical-level commanders did not diverge from the political-military objectives of political-level leaders. The on-scene commander acted with caution to avoid encounters with North Vietnamese forces while conducting the surveillance mission, and Commander Seventh Fleet ordered the engagements on August 2 and 4 halted as soon as the U.S. ships were out of danger. Military commanders and political leaders were in agreement that North Vietnamese attacks on U.S. ships warranted retaliatory air strikes, and that the Desoto patrol should be resumed after the incidents in order



to assert freedom of the seas. Interestingly, the on-scene commander had the greatest doubt that there had been a North Vietnamese attack on August 4 and cautioned against a hasty reaction. The pattern in the two incidents was one of momentary decoupling followed by tactical-level escalation and disengagement. On-scene commanders, acting on their own authority under guidance contained in the rules of engagement, used limited force in response to apparent imminent attacks. They were not required to request--and did not seek--permission from higher authority to use force in self-defense. Once the immediate threat had been countered and the destroyers were out of danger, the on-scene commanders halted the engagements--again on their own authority and without guidance from higher in the chain of command.

At least two of the potential causes of decoupled interactions were present during the Liberty incident: communications and information flow problems, and a fast-paced tactical environment. Although these factors prevented political-level leaders from exercising direct control over Sixth Fleet actions, decoupling did not occur. The actions ordered by Commander Sixth Fleet were restrained and anticipated the desires of top-level officials in Washington. Commander Sixth Fleet carefully spelled out rules of engagement intended to avoid unnecessary incidents while defending Liberty. Thus, although interactions were stratified during the incident--evolving independently at

the political and tactical levels--they were not decoupled. The pattern was one of parallel stratified interactions: tactical-level military actions that support the crisis management objectives of national leaders even though not under the direct control of those leaders.

One of the potential causes of decoupled interactions was present in the Pueblo incident and played an major role in how the incident developed: communications and information flow problems. Emergency messages from Pueblo required over an hour to reach Washington and U.S. military commanders in the Pacific. On the other hand, although U.S. military commanders had authority to take military action in support of Pueblo, they decided not to do so. President Johnson was not confronted with having to halt combat operations or approve them after the fact because none were initiated. U.S. commanders in the Far East had already come to the conclusion that there were no effective military actions that could be taken to rescue Pueblo without needlessly endangering the crew. Therefore, although the President did not have direct control over the initial response to the North Korean attack on Pueblo, U.S. forces acted essentially as he would have wanted them to act under the circumstances. This pattern is one of parallel stratified interactions: tactical level interactions that are not controlled by national leaders, but which support the political objectives of those leaders.

There was no decoupling of tactical-level interactions in the Stark incident. The attack lasted only a few minutes and was over before any other units could employ their weapons in support of Stark. The identity of the attacking aircraft was known well before the attack, and military commanders at the scene quickly concluded that the attack had been inadvertent. No U.S. forces were in a position to shoot down the Iraqi plane. The only sense in which actions at the tactical level failed to support national policy was that Stark failed to take defensive actions authorized under the rules of engagement.

In summary, various potential causes of decoupling were present in all eight of the cases examined in this study. The most common cause of decoupling was communications problems or properly functioning communications that are simply too slow to permit direct control of military operations. This was a factor in all eight of the cases. The second most common cause of decoupling was a fast-paced tactical environment. This was a factor in the 1958 Taiwan Straits Crisis, the 1964 Tonkin Gulf Incidents, the 1967 Arab-Israeli War, the 1967 Liberty incident, and the 1973 Arab-Israeli War. Ambiguous orders were a factor in the 1958 Taiwan Straits Crisis and tactically inappropriate orders were a factor in the 1973 Arab-Israeli War. Impairment of political-level decisionmaking was a factor in the 1973 Arab-Israeli War.

Three patterns of tactical-level interactions were seen in the eight cases. The most common pattern was parallel stratified interactions: tactical-level interactions that were not directly controlled by political-level leaders, but which generally supported their political objectives and crisis management strategy. Parallel stratified interactions were seen in the 1962 Cuban Missile Crisis, the 1967 Arab-Israeli War, the 1967 Liberty incident, the 1968 Pueblo incident, and the 1987 Stark incident.

The second pattern was momentary decoupling: tactical-level interaction that was not controlled by political-level leaders and did not support their political and crisis management objectives, followed by immediate disengagement (that is, without tactical-level escalation and often without shots being fired). The pattern between instances of momentary decoupling is parallel stratified interactions. Momentary decoupling was seen in the 1958 Taiwan Straits Crisis, and possibly in the 1973 Arab-Israeli War.

The third pattern was decoupling followed by disengagement. In this pattern, a tactical-level incident occurs that is not directly controlled by political-level leaders and does not support their political objectives. The incident leads to an armed clash, but then halts at the initiative of on-scene commanders without intervention by political-level authorities. Decoupling followed by disengagement occurred in the 1964 Tonkin Gulf Incidents.

### Crisis Stability

Crisis stability exists to the extent that neither side has an incentive to strike the first military blow. The crisis security dilemma is that, in a crisis, many of the actions a state takes to increase its security and improve its bargaining position decrease the security of the adversary. The stratified crisis security dilemma is that, in a crisis, the security dilemma is stratified, arising from the interaction processes occurring separately at each of the three levels, and affecting the likelihood of war separately at each level. This in turn leads to the concept of stratified escalation dynamics: in a crisis in which interaction between the two sides has become stratified and decoupled, the security dilemma, operating separately at each level of interaction, can trigger an escalatory spiral at the tactical level, which under certain circumstances can cause the crisis to escalate uncontrollably to war.

#### Stratified Crisis Stability.

The fifth question is did national leaders and on-scene commanders hold different perceptions of the vulnerability of on-scene forces to preemption and the need to strike first in the event of an armed clash? This question addresses the second corollary to the theory of stratified interaction, that the security dilemma can become stratified in crises. The implication of this is that decision-makers

at the political and tactical levels can hold different perceptions of the offense-defense balance, vulnerability to preemption, and the need to strike first.

National leaders and on-scene commanders holding different threat perceptions appears not to have been a serious problem in the 1958 Taiwan Straits crisis. The entire chain of command, from the President down to commanding officers at sea in the Straits, appear to have been aware of the danger of incidents with Communist Chinese forces. The emphasis in JCS operational directives was on avoiding clashes with the Communists, and on-scene commanders took similar measures on their own initiative. These actions largely prevented U.S. forces from operating in the sights of Communist guns, thus reducing their vulnerability to preemption by the Communists. Although some U.S. commanders in the Far East wanted to take more vigorous action against Communist China, they did not perceive a significantly greater threat to U.S. forces than did officials in Washington. Thus, the security dilemma was not stratified.

There were instances in the 1962 Cuban Missile Crisis of national leaders and on-scene commanders holding different threat perceptions, but this did not create serious crisis management problems. Although the JCS remained committed to the air strike option as its preferred course of action until Khrushchev agreed on October 28 to remove Soviet offensive missiles from Cuba, this does not

reflect differences in threat perceptions. Rather, it reflects differences of opinion over whether or not the quarantine would be sufficient to compel Khrushchev to remove the missiles that were already in Cuba. Even President Kennedy was skeptical that it would work, but decided to give it a try before resorting to force. The primary area in which there appear to have been stratified threat perceptions, that is, on-scene commanders at the tactical level holding threat perceptions different from those held by decisionmakers at the political level, was in the area of ASW. Navy commanders at sea were more concerned about the Soviet submarine threat than were senior military and civilian leaders in Washington. However, the differences were not extreme and the President and McNamara were also concerned about the Soviet submarine threat. There was recognition at all levels that for several reasons, including that fact that submarines were to be stopped and boarded under the quarantine, the Navy would have to conduct intense ASW operations.

The one other area in which threat perceptions were stratified was the Cuban air and naval threat to U.S. Navy ships. Navy commanders were particularly concerned about the threat from Cuban Komar missile boats. There is little mention of this threat in available EXCOMM records. Perceptions of the threat from Cuban aircraft were mixed, not following any pattern, and were not stratified.

In the 1967 Arab-Israeli War, threat perceptions were not acute at any level of the chain of command and officials in Washington appear to have been more concerned about the Soviet naval threat to the Sixth Fleet than were the on-scene commanders. Threat perceptions and the security dilemma thus were not stratified during the crisis.

During the first week of the 1973 Arab-Israeli War, U.S. Navy on-scene commanders were relatively unconcerned about the Soviet naval threat because the Soviet Mediterranean Squadron essentially continued normal peacetime operations. From October 14 onward, however, the tactical situation changed dramatically for the worse. U.S. Navy on-scene commanders in the Mediterranean were highly concerned about the threat of a Soviet preemptive attack due to the untenable tactical position in which the Sixth Fleet had been placed by White House restrictions on the fleet's movements. Soviet ships and submarines armed with anti-ship missiles were constantly within range of the U.S. carriers while they were in the eastern Mediterranean. On-scene commanders perceived the threat of preemptive attack to be particularly acute during the October 26-30 period due to intense Soviet anti-carrier exercises directed against the Sixth Fleet. The period of this Soviet exercise could well have been the closest that the Soviet Union and the United States have ever been to "hair trigger" readiness for war--at least at the tactical level.



Civilian officials appear to have held threat perceptions much different from those held by U.S. Navy officers during the 1973 Arab-Israeli War. Henry Kissinger, in particular, did not perceive a threat from the Soviet Navy during the crisis, and was either unaware of the Soviet anti-carrier exercise or did not understand the threat it represented to the Sixth Fleet. This suggests a divergence of threat perceptions between civilian and military officials: The Navy chain of command from the JCS Chairman down to the carrier Commanding Officers perceived a serious threat from Soviet anti-carrier operations, while civilian officials did not perceive a threat to the Sixth Fleet. Thus, stratified threat perceptions did arise between civilian and military officials at the top of the chain of command.

Part of the reason why civilian officials held much different threat perceptions than those held by military officials in the 1973 Arab-Israeli War was that the Navy chain of command was not kept informed of the political and diplomatic aspects of the crisis. The on-scene commander lacked important information on the political context of the crisis and had to interpret Soviet behavior on the basis of the military and naval moves being made by Soviet forces. It is not surprising, therefore, that Soviet naval operations in the Mediterranean appeared much more threatening to the Navy chain of command than they did to Kissinger.

The security dilemma appears to have been stratified during the 1973 Arab-Israeli War. At the political level of interaction, neither the United States nor the Soviet Union had an incentive to launch a preemptive first strike against the other. Both sides desired to prevent the crisis from escalating to war. Military and naval moves, including the U.S. DEFCON 3 alert, were taken primarily for political purposes. At the tactical level of interaction, however, U.S. and Soviet naval forces had strong incentives to strike first and were actively targeting each other. U.S. Navy on-scene commanders were seriously concerned about the threat of a Soviet preemptive attack due to Soviet anti-carrier operations. Soviet Navy commanders must have shared similar concerns due to U.S. counter-targeting of their major combatants. The security dilemma was thus stratified--mild at the political level, but acute at the tactical level.

In summary, threat perceptions were stratified in the 1962 Cuban Missile Crisis and the 1973 Arab-Israeli War. Stratified threat perceptions did not cause crisis management problems in the Cuban Missile Crisis, but did cause problems in the 1973 Arab-Israeli War. The crisis security dilemma was stratified in the in the 1973 Arab-Israeli War: at the political level of interaction there was little incentive for either side to launch a preemptive first strike, but at the tactical level naval forces had strong incentives to strike first and were actively

targeting each other. A number of incidents could have triggered an inadvertent naval battle in the Mediterranean that U.S. and Soviet leaders might not have been able to control until the initial engagements were over.

### Escalation Dynamics

The sixth question is, when tactical-level interactions become decoupled, what factors inhibit escalation dynamics from occurring at the tactical level and being transmitted upward to the strategic and political levels of interaction? This question addresses the third corollary to the theory of stratified interaction, that escalation dynamics can be stratified in a crisis. Although escalation dynamics cannot be addressed directly--none of the cases escalated to war--research was done to identify escalation-inhibiting factors and conditions that can cause those factors to break down.

When decoupling occurred in the 1958 Taiwan Straits Crisis, it did not produce tactical-level escalation. Instead, interactions remained at a relatively low intensity and when U.S. and Communist forces did come in contact, they quickly disengaged. There appear to have been two reasons for this. First, U.S. on-scene commanders exercised caution in the absence of guidance from higher authority. For example, Commander Taiwan Defense Command and Commander Taiwan Patrol Force initially ordered ships to remain twelve

miles from the mainland and aircraft to remain twenty miles from the mainland--a policy more restrictive than that approved by the President later. This tactical-level prudence compensated for lack of operational guidance when decoupling occurred, preventing escalation even when actions took place that the President had not ordered.

The second factor inhibiting escalation in the 1958 Taiwan straits Crisis was that both sides took steps to avoid military clashes and adhered to tacit ground rules for a test of capabilities between their forces. Those ground rules included no Communist attacks on U.S. forces, no U.S. attacks on Chinese forces except in self-defense (and defense of Nationalist forces in international airspace or waters), and no U.S. attacks on the Chinese mainland. By 1958 the United States and Communist China had evolved tacit rules of crisis behavior, and those rules contributed to preventing escalation.

Three escalation-inhibiting factors were present in the 1962 Cuban Missile Crisis. The first was caution and prudence on the part of U.S., Soviet, and Cuban leaders during the crisis. President Kennedy's decision to open with relatively slow-paced naval operations, Khrushchev's early decision not to challenge the quarantine, and Castro's decision not to provoke the United States were the factors that determined the nature of the tactical-level interactions. Escalation was avoided by the tactical environment

having been structured in such a manner as to prevent clashes from occurring. Although this was what President Kennedy had in mind when he selected the quarantine over other military options, the outcome was due to decisions made in Moscow and Havana as well as in Washington.

The second escalation-inhibiting factor in the Cuban Missile Crisis was compliance by on-scene military commanders with the guidance contained in mechanisms of indirect control. There was immediate disengagement in the one instance that weapons were fired at a U.S. Navy unit: When Cuban anti-aircraft guns fired at Navy reconnaissance jets on October 27, the unarmed Navy planes simply left the area. The fact that no effort was made by on-scene commanders to strike at Cuban air defenses marks compliance with the requirement that the President approve retaliatory attacks. Navy ASW forces trailed Soviet sub-marines for days without escalation by either side. The special ASW procedures specified by McNamara were used as he had intended. There were no instances of naval forces conducting unauthorized operations or using weapons in violation of the rules of engagement.

The third escalation-inhibiting factor in the Cuban Missile Crisis was communication between Soviet and American leaders. The need for communication between the two sides is well established in the crisis management literature. Formal and informal messages were used to clarify

intentions, express concern over incidents, and defuse situations that might otherwise have generated even greater tensions between the two sides. Military moves were not the only means of signalling intentions available to President Kennedy, he had several other channels for delivering formal and informal messages to Khrushchev. Because Kennedy and Khrushchev were exchanging communications frequently during the crisis, they could wait, send a protest, and assess the implications of an isolated incident, rather than immediately reacting to it. These communications were not perfect, but the availability of formal and informal communications channels between the two superpowers appears to have moderated the use of military forces for political signaling by allowing diplomatic rather than military responses to military incidents.

Although there were intense tactical-level interactions between U.S. and Soviet naval forces during the 1967 Arab-Israeli War, there were no cases of those interactions generating an escalation sequence that the President could not control. Four escalation-inhibiting factors appear to account for this. The first factor was caution on the part of U.S. leaders in the restrictions they placed on Sixth Fleet movements and caution on the part of U.S. naval commanders in the Mediterranean when potentially serious incidents did occur. The most dangerous interactions took place on June 7 and 8 during Soviet harassment of USS America and her

escorts. This interaction sequence did escalate, in the sense that a second Soviet ship joined the harassment on the second day, but did not escalate to violence. There were no collisions and no shots were fired. Although naval commanders on both sides were determined not to be intimidated, they were cautious to avoid collisions.

The second factor inhibiting escalation in the 1967 Arab-Israeli War was that the Soviet Mediterranean Squadron generally behaved in a cautious and circumspect manner. Soviet caution was an important factor in the lack of escalation during particularly intense interactions at sea. U.S. Navy commanders could tolerate a certain amount of indiscretion by individual Soviet ships because it clearly was not part of a pattern of harassment and did not appear to presage a Soviet preemptive attack. Thus, while Soviet efforts to show caution around the Sixth Fleet were not entirely successful in preventing tensions from arising, they did help to prevent serious incidents from occurring.

The third factor inhibiting escalation in the 1967 Arab-Israeli War was the tight coupling between U.S. and Soviet naval forces in the Mediterranean. Overall, this was beneficial for crisis management because the signal the United States and Soviet Union were sending with their fleets was one of non-involvement in the hostilities. Thus, although tight coupling is generally perceived as increasing the danger of escalation in crises, it can also reduce the

likelihood of escalation when both sides are attempting to avoid involvement in a local conflict.

The fourth factor inhibiting escalation in the 1967 Arab-Israeli War was use of the Soviet-American hot line. Both sides used the hot line to express concerns, give warnings, and avoid misperceptions. The hot line was thus used to dampen the potential negative effects of tight coupling between U.S. and Soviet naval forces in the Mediterranean. Ironically, while tight coupling of the naval forces in the Mediterranean increased the need for the hot line, it also increased the effectiveness of the hot line as a means for conveying political messages. Soviet and American leaders could verify the veracity of statements made by the other side by comparing them with reports on the other side's naval operations. The essential requirement for this synergistic relationship to exist was careful coordination of naval operations with political objectives and diplomatic initiatives. The United States and the Soviet Union were largely successful in achieving such coordination.

There were intense tactical-level interactions during the 1973 Arab-Israeli War, but no instances of the interactions generating an escalation sequence. The most dangerous inter-actions occurred during the Soviet anti-carrier exercise (October 25-30), but they did not escalate to violence. Although each side was constantly targeting



the other and both sides were ready to instantly launch preemptive attacks, no weapons were fired during the crisis. Three factors appear to have inhibited escalation during the crisis. First, neither the United States nor the Soviet Union wanted to intervene militarily in the war if they could possibly avoid it, largely out of concern for an armed clash with the other superpower. Therefore they both acted cautiously with their military and naval forces, avoiding situations that could inadvertently involve them in the fighting and, with one exception, avoiding actions that were unnecessarily provocative. The only exception to this pattern was the Soviet anti-carrier exercise that commenced on October 26--an action much different from Soviet behavior throughout the rest of the crisis. Thus, while the overall pattern of Soviet military behavior was one of restraint, the Soviets were willing to engage in certain highly provocative activities.

The second factor inhibiting escalation in the 1973 Arab-Israeli War was that the United States and the Soviet Union communicated with each other frequently during the crisis. This helped to prevent the problem of ambiguous political signals, which can cause intentions and objectives to be misperceived. Soviet warnings to the United States on October 24 that it was prepared to intervene unilaterally in the Middle East if Israel did not respect the U.N. ceasefire were particularly important for avoiding a clash between the

superpowers. Although that warning prompted the most intense superpower tensions of the crisis, including the U.S. worldwide DEFCON 3 alert, the situation could well have been much worse if the United States and the Soviet Union had not been in direct communication. The superpowers probably would have had great difficulty interpreting the political significance of each other's military moves on October 24 and 25 had they not been able to express their interests and concerns to each other.

The third factor inhibiting escalation in the 1973 Arab-Israeli War was caution and restraint on the part of U.S. Navy commanders in the Mediterranean. This was particularly important due to Soviet targeting of the Sixth Fleet with anti-ship missile platforms. On-scene commanders had to carefully balance the need to maintain a tactically viable situation against the danger of incidents with the Soviet Navy. This was particularly important for U.S. ships and aircraft assigned to monitor high-threat Soviet ships and destroy them if they attempted to launch anti-ship missiles. When the Soviets commenced their anti-carrier exercise, U.S. ships and planes counter-targeting the Soviets had to distinguish between preparations for simulated and actual attacks--an exceedingly difficult task. A single misjudgement could have produced a Soviet-American sea battle in the Mediterranean, which could well have escalated to general war.

Three escalation-inhibiting factors appear to have been important in the 1964 Tonkin Gulf Incidents. The first was military prudence: on-scene commanders did not want to fight under tactically unfavorable circumstances. It may well be the case that when U.S. forces are the victim of an unanticipated attack, tactical military considerations lead military commanders toward the same general course of action that political considerations lead national leaders toward. In the Tonkin Gulf Incidents, military considerations tended to make tactical-level commanders more cautious than political-level leaders.

The second escalation-inhibiting factor in the Tonkin Gulf Incidents was compliance by on-scene commanders with the guidance contained in mechanisms of indirect control. Under the peacetime rules of engagement in effect in 1964, U.S. forces were authorized to use force in self-defense and in anticipatory self-defense when attack appeared to be imminent. Hot pursuit of the attacking force was authorized in international waters and was used on August 2 when Navy planes attacked the PT boats after they had disengaged. On the other hand, retaliation against targets in North Vietnam was not authorized unless specifically approved by the President. On the one hand, these provisions allowed force to be used without further permission from higher authority, but on the other hand, they resulted in the engagements halting quickly rather than escalating.

The third escalation-inhibiting factor in the Tonkin Gulf Incidents was the emphasis that the President and Secretary of Defense McNamara placed on confirming that there actually had been a North Vietnamese attack the night of August 4. They did not accept initial reports from the Tonkin Gulf at face value; they insisted on knowing the basis for the conclusion that there had been an attack on the destroyers. Double-checking the accuracy of initial reports is important for avoiding unwarranted escalation of a confrontation--particularly when there may not have been a confrontation at all.

The August 4 incident in the Tonkin Gulf suggests three conditions that can cause the escalation-inhibiting factors to break down. The first condition is long-term frustration and animosity toward the other side in a crisis or incident. U.S. leaders had for years been growing increasingly belligerent toward North Vietnam due to its support for the Viet Cong, and had been preparing contingency plans for direct military action against the North. This created an atmosphere in which an apparent North Vietnamese attack on U.S. forces would be likely to provoke a strong U.S. response. The second condition is the immediate prior occurrence of a confirmed provocation by the other side, particularly when the U.S. response to the prior incident was retrained and the other side was warned against further incidents. The U.S. reacted with notable restraint

to the confirmed August 2 North Vietnamese attack on Maddox, merely warning against further attacks. But the August 4 incident provoked U.S. retaliation against the North even though the circumstances of the incident were not clear.

The third condition that can degrade the escalation-inhibiting factors is for all levels in the military chain of command, from the President to the on-scene commander, to hold similar views toward the adversary and toward the need for immediate retaliation. A strong unity of views can suppress the skepticism that normally greets ambiguous initial reports of a military incident, or lead to hasty assessment of the incident in the rush to launch retaliatory attacks. This appears to have occurred in the U.S. decision to retaliate after the August 4 incident--McNamara sought confirmation that there had been an attack, but the President decided to retaliate before a complete assessment of the evidence had been made.

The Liberty incident sheds light on three escalation-inhibiting factors. First, by fully complying with with the standing rules of engagement and limiting his actions to those necessary to defend Liberty, the on-scene commander contributed to avoiding an unnecessary clash with Soviet or Egyptian forces. Second, use of the hot line apparently helped prevent the Soviets and Egyptians from misperceiving the intent of actions taken by the on-scene commander. Third, rapid Israeli notification of the United States that

it had inadvertently attacked a U.S. naval vessel cleared up confusion in Washington and resulted in Sixth Fleet planes being recalled before they entered the war zone off the coast of Sinai. The last two factors emphasize the importance of communications among the parties to a crisis for avoiding misperception and escalation.

Although decoupling did not occur in the Pueblo incident, two of the considerations that prevented decoupling can be viewed as escalation-inhibiting factors: military prudence and compliance with the guidance contained in mechanisms of indirect control. U.S. military commanders were reluctant to mount a response that would have been excessively vulnerable to North Korean attacks. Loss of U.S. aircraft sent to defend Pueblo almost certainly would have generated escalatory pressures, so in this instance military prudence led to tactical decisions that supported crisis management objectives. U.S. military commanders complied with the restrictions imposed on military operations by the standing peacetime rules of engagement, barring their forces from attacking North Korean forces inside North Korean territorial waters and airspace, and not ordering actions that would have constituted reprisals against North Korea. The guidance contained in the peacetime rules of engagement may or may not have been appropriate to the specific circumstances, but U.S. military commanders were careful to comply with that guidance.

The Stark incident suggests an escalation-inhibiting factor: accurate intelligence on friendly and potentially hostile forces. Because the attacking aircraft was known to have been Iraqi, there was no question that Iran might have been responsible for the attack on Stark. Without such intelligence, U.S. commanders in the Persian Gulf probably would have suspected that Iran had conducted the attack. Circumstantial evidence pointing to Iranian complicity and lack of an Iraqi admission of responsibility could well have led to the President authorizing retaliatory attacks on Iranian forces or bases. This situation is analogous to that described in the Liberty incident, when accurate information on Soviet forces in the Mediterranean prevented U.S. military commanders from suspecting that the Soviets had attacked Liberty.

It appears that inadvertent escalation is more likely when intelligence is incomplete and ambiguous, supporting worst-case assessments of the nature and implications of an attack on U.S. forces. For example, on-scene commanders could conclude that full-scale attacks on U.S. forces at the scene of the crisis will soon follow, placing a premium on preempting the expected enemy attack. Under certain circumstances on-scene commanders might have authority to preempt without having to seek permission from higher authority.

In summary, six internal and two external escalation-inhibiting factors were identified in the case studies. The

internal factors function within the government and military chain of command of one nation. The internal factors are military prudence (avoiding threat of surprise attack and combat under unfavorable circumstances), caution and restraint on the part of on-scene commanders, compliance by on-scene commanders with the guidance contained in mechanisms of indirect control, national leaders structuring the tactical environment to dampen military interactions, accurate and timely tactical intelligence on friendly and potentially hostile forces, and national leaders and the military chain of command double-checking the accuracy of initial reports of military incidents. These factors tend moderate the intensity of tactical-level interactions, prevent armed clashes from occurring, and produce disengagement rather than escalation when clashes do occur.

External escalation-inhibiting factors function between the two sides in a crisis. There are two external factors: tacit rules of crisis behavior observed by the two sides and communications between the two sides in the crisis. Tacit rules of crisis behavior are best developed between the United States and the Soviet Union, but also contributed to avoiding escalation in the 1958 Taiwan Straits Crisis. The Soviet-American tacit rules are not without flaws. Soviet naval forces have engaged in exceedingly dangerous behavior--dangerous maneuvering at close quarters and simulated attacks on U.S. naval forces--



during international crises. The 1972 Soviet-American Incidents at Sea Agreement has only been partially successful in moderating such Soviet behavior. The most dangerous situation arises in confrontations with nations that the United States does not share tacit rules of crisis behavior, like Libya, Iran, and North Korea.

The findings of the eight case studies indicate that, contrary to what the escalation dynamics theory predicts, there is a tendency for naval tactical-level interaction to lose momentum and for the forces involved to disengage after an initial incident or armed clash. Pauses tend to occur naturally in naval operations due to the need to regroup and prepare for further action. Due to the risk of defeat in battle, naval commanders are reluctant to initiate or sustain combat operations under circumstances they cannot predict or control. Naval commanders quickly reach the limits of their authority and need permission from higher authority to initiate further combat operations. If do not have such permission, or anticipate that they will not be able get it, naval commanders normally will try to break off combat action as soon as it is safe to do so--rather than risk being left in an untenable tactical position. The operational requirements of crisis management, if being followed, tend to accentuate the tendency toward disengagement by denying on-scene commanders tactical options (such as surprise attack and concentration of

superior force) that can be crucial for successful combat operations.

The case studies identified three conditions that can cause the escalation-inhibiting factors to break down, allowing a crisis to escalate uncontrollably to war. The first condition is for national leaders and military commanders to be predisposed to take action against the adversary due to a long-term failures of diplomacy to resolve tensions, military and diplomatic frustration with the adversary. Sustained hostility, harassment, or a history of aggression by the adversary can generate a perception that the adversary's leaders are unreasonable, irresponsible, or uninterested in serious negotiations, reducing the incentive to pursue diplomatic initiatives toward the adversary. These expectations could be entirely correct, but could also result from insufficient or ambiguous intelligence on the adversary's objectives and intentions.

The second condition that can erode the escalation-inhibiting factors is the immediate prior occurrence of one or more hostile acts against United States forces, citizens, or vital interests. Prior attacks can create an expectation that further attacks will occur or that the adversary is likely to escalate the level of violence. As with long-term frustrations, short-term expectations of further violence could be entirely correct, but could also result from

insufficient or ambiguous intelligence on the adversary's objectives and intentions. The short-term effects of immediate prior hostile acts can reinforce the effects of long-term frustration with the adversary, appearing to confirm negative assessments of his intentions. Expectation of further attacks tends to predispose national leaders and military commanders toward broader military options toward the adversary.

The third condition that can erode the escalation-inhibiting factors is for all levels in the chain of command, from the President to the on-scene commander, to hold similar views toward the adversary and the need for immediate retaliation for provocations. A strong unity of views can suppress the skepticism that normally greets ambiguous initial reports on a military incident, or lead to hasty assessment of the incident in the rush to launch retaliatory attacks.

#### Misperceptions and Inadvertent Military Incidents

The seventh question is did actions taken with military forces send inadvertent signals to either adversaries or friends, and did inadvertent military incidents occur that affected efforts to manage the crisis? This question addresses crisis management problems that arise when military forces are employed in crises: the misperception dilemma and inadvertent military incidents.

Inadvertent political signals and inadvertent military incidents were not a serious problem in the 1958 Taiwan Straits Crisis. The military moves taken by each side were carefully designed to signal their intentions. The principle problem that the United States experienced arose from the ambiguity of the Eisenhower Administration's commitment to the defense of the offshore islands. U.S. leaders were caught between deterring an adversary and restraining an ally: too strong a commitment might encourage the Nationalists to be overly aggressive, while too weak a commitment might encourage the Communists to be overly aggressive. The Eisenhower Administration attempted to resolve this dilemma with a calculated policy of ambiguity, which only prompted the Communist probe of the American commitment and subsequent efforts by the Nationalists to use the crisis as grounds for striking back at the mainland. The problem was not that the Communists and Nationalists misperceived U.S. intentions, but rather that they correctly perceived the ambivalence in U.S. policy.

There were two instances of U.S. naval forces sending inadvertent signals of hostility during the Cuban Missile Crisis: the first was when a Soviet merchant ship captain mistook a Navy patrol plane's high-powered search light (flashed for photographs) for an attack on his ship, and the second was a Soviet merchant ship captain's complaint that he had been threatened by a Navy destroyer inspecting MRBMs

on his deck. Although the Soviet Government filed protests over these incidents, it did not interpret them as deliberate indications of hostile intentions on the part of the United States.

There was only one inadvertent military incident during the Cuban Missile Crisis serious enough to have affected the President's efforts to manage the crisis: the Air Force U-2 that strayed over the Soviet Union on October 27. This apparently annoyed Khrushchev, who complained about the incident to President Kennedy, but otherwise did not have a major impact on the crisis. There were no serious inadvertent military incidents involving naval forces. The lack of incidents is somewhat surprising, given the tremendous scope of United States military operations during the crisis, and may not be a reliable indicator of what to expect in future crises.

There do not appear to have been any instances of the Soviets seriously misperceiving the intent of Sixth Fleet operations during the 1967 Arab-Israeli War, largely due to close Soviet monitoring of the fleet and United States use of the hot line. Sixth Fleet and Middle East Force movements in May, intended to support the President's efforts to pressure Nasser into reopening the Strait of Tiran, may have sent an inadvertent signal of hostility to the Arab nations. The inadvertent hostile signal would lead Arab leaders to assume U.S. hostility after war broke out. It

thus complicated U.S. efforts to manage the crisis by lending credibility to Arab claims of American complicity in the Israeli attacks--claims that contributed to serious deterioration in U.S. relations with the Arab nations.

There were no inadvertent military incidents that seriously affected United States crisis management efforts in the 1967 Arab-Israeli War. The most serious incident of the crisis was the attack on the Liberty, but Israel quickly notified the United States that it had conducted the attack, thus defusing tensions over the incident. The second most serious incident of the crisis was the harassment of USS America by Soviet ships on June 7 and 8. But there were no collisions and no shots were fired. The absence of serious inadvertent incidents was largely due to the cautious manner in which the two superpowers conducted naval operations in the Mediterranean. The most important factor in avoiding incidents that could complicate crisis management was the decisions made by national leaders on the two sides that structured the tactical environment in such a manner as to moderate the tensions that would arise from tactical-level interactions.

There were no inadvertent military incidents serious enough to affect U.S. crisis management efforts during the 1973 Arab-Israeli War, but there appear to have been instances of U.S. leaders misperceiving the political signals being sent by Soviet naval movements. Kissinger

interpreted Soviet naval moves at the start of the war as demonstrating non-involvement in the conflict, but the actual pattern of Soviet naval operations suggests a higher degree of Soviet commitment to Syria and Egypt than Kissinger perceived. Kissinger also missed the point that Soviet naval movements demonstrated an intent to neutralize the Sixth Fleet if it were positioned to intervene.

Naval analysts and other observers have read political signals into several other U.S. and Soviet naval actions during the 1973 Arab-Israeli War. It is not clear, however, that any of those alleged signals were intentional or that the other side perceived the signals allegedly being sent. In every case the naval actions can be accounted for by motives or considerations other than political signalling, such as logistic requirements or improving tactical readiness. This further underscores the inherent ambiguity of naval movements as political signals, and the tendency for naval movements to be perceived as political signals even when undertaken for non-political purposes.

The U.S. response to the 1964 Tonkin Gulf Incidents did not send any serious inadvertent political signals or result in any serious inadvertent military incidents. However, the Desoto patrols apparently were misperceived by North Vietnam. Some U.S. intelligence analysts and military officers suspected that the North Vietnamese misperceived the Desoto patrol destroyers as participating in or directly

supporting OPLAN 34A attacks on North Vietnam. Although McNamara would later insist that there were no grounds for the North Vietnamese to have confused the Desoto and OPLAN 34A operations, such a misperception provides a plausible explanation for the August 2 attack on Maddox.

The U.S. response to the attack on the Liberty did not send any serious inadvertent political signals or result in any serious inadvertent military incidents. Commander Sixth Fleet carefully limited the fleet's response to the attack and the President used the hot line to prevent misperceptions from arising. The Israeli attack on Liberty was itself an inadvertent military incident, momentarily complicating U.S. crisis management efforts in the Middle East War, but no further incidents occurred during the Sixth Fleet's response to the attack.

The U.S. response to the North Korean seizure of the Pueblo did not send serious inadvertent political signals or result in serious inadvertent military incidents, probably due to the relatively passive U.S. response to the North Korean provocation. North Korea achieved a fait accompli, effectively limiting U.S. options to settling on North Korean terms. The passive U.S. response annoyed the South Koreans, but this arose from correct perceptions rather than from misperceptions.

The U.S. response to the attack on Stark did not send serious inadvertent political signals or result in serious



inadvertent military incidents, but the attack itself was an inadvertent military incident. The attack on Stark illustrates the danger of inadvertent military incidents when U.S. naval forces are operating in close proximity to hostilities.

In summary, inadvertent political signals may have been a factor in some of the crises, but inadvertent military incidents were not serious problems in the eight cases examined in this study. Misperceptions of U.S. intentions or the purposes of U.S. naval operations may have been a factor in the 1964 Tonkin Gulf Incidents, the 1967 Arab-Israeli War, and the 1968 Pueblo incident. U.S. naval operations in response to the four peacetime attacks on U.S. Navy ships appear not to have generated misperceptions.

There appear to be three reasons for the lack of inadvertent military incidents in crises. First, the military chain of command normally cancels most military exercises affecting forces committed to or on standby for the crisis, greatly reducing the possibility of international incidents arising from exercise-related accidents. The primary reason why exercises are cancelled is that the forces are needed for crisis operations, but exercises have also been cancelled to avoid potential political complications. The second reason is that the military chain of command usually advises on-scene commanders to act with caution and to avoid provocative actions. The third reason

for the lack of incidents in crises is best described as military prudence: on-scene commanders, motivated by self-preservation, generally avoid deliberately placing their forces in situations where they are extremely vulnerable to deliberate or inadvertent attacks. Military prudence is occasionally violated by top-level political officials ordering naval forces into dangerous waters, but on other occasions U.S. leaders have been careful to keep U.S. forces well clear of fighting in a local conflict. These three factors counteract other factors--increased tempo of operations and adversary forces in close proximity--that contribute to the occurrence of inadvertent military incidents.

#### Political-Military Tensions

The eighth question is did any of the three tensions between political and military considerations arise during the crisis? There are three tensions between political and military considerations that can arise when military forces are used as a political instrument in crises: tension between political considerations and the needs of diplomatic bargaining, on the one hand, and military considerations and the needs of military operations, on the other; tension between the need for top-level control of military options in a crisis, and the need for tactical flexibility and instantaneous decision-making at the scene of the crisis; and tension between performance of crisis political missions

and readiness to perform wartime combat missions. All three tensions arise from the requirements of crisis management, the essence of which is placing political constraints on military operations. Tensions between political and military considerations were examined in all eight case studies.

#### Political vs Military Considerations

In the 1958 Taiwan Strait crisis, tension between political considerations and military considerations arose in the restrictions placed on the support that could be provided for the Quemoy resupply effort. The most efficient way of resupplying the Nationalist garrison would have been to carry their supplies in U.S. amphibious ships escorted right up to the beach by U.S. warships. However, this would have been a serious provocation to the Communists, who might not have refrained from shelling the American vessels. That probably would have led to U.S. naval bombardment and air strikes against Communist shore batteries, air fields, and naval bases. The political restrictions on the resupply operation were thus prudent from a crisis management perspective, even if they required the U.S. and Nationalist navies to improvise ways to get supplies ashore under fire.

In the 1962 Cuban Missile Crisis, tensions between political considerations and military considerations primarily arose from the fundamental decision to impose a quarantine on offensive arms rather than immediately launch

an air strike against the Soviet missiles sites or invade Cuba. The JCS never wavered from its advocacy of the air strike option. There was also concern that the President's strategy of applying military force in graduated increments would increase the difficulty of carrying out the air strike or invasion options by alerting the Cubans--losing the tactical and strategic advantage of surprise. Further, tensions arose between the military consideration of protecting U.S. forces against a sudden attack by Cuban or Soviet forces, and the political consideration of avoiding military moves that appeared to threaten an immediate effort to achieve a military solution to the crisis. However, civilian leaders accommodated military commanders to a much greater degree than past accounts have acknowledged. President Kennedy and Secretary McNamara were sympathetic to the military's concern with protecting its men. The rules of engagement issued for the quarantine were not significantly different from normal peacetime rules and did not infringe upon a commander's right of self-defense. The only operational area in which the President deliberately denied the military any authority to take action in self-defense was in the case of Cuban air defenses firing on U.S. reconnaissance aircraft, but this was based on the well-established distinction between self-defense and retaliation.

There was moderate tension between political and military considerations during the 1967 Arab-Israeli War.

This arose primarily from the restrictions placed on movements of the Sixth Fleet carriers for purposes of political signalling. The carrier force commanders objected to restrictions on their mobility, which denied them one of the greatest advantages of carrier air power, and the publicity surrounding their movements, which they believed made it easier for the Soviets to target the carriers. On the other hand, the restrictions on the carriers did not impose unreasonable limitations on their ability to carry out their immediate mission. The restrictions were disregarded by the on-scene commander when it was necessary to respond to the attack on the Liberty. The President later authorized the actions that Commander Sixth Fleet had already initiated, which indicates that tensions between political and military considerations were not serious.

There was tension between political and military considerations during the 1973 Arab-Israeli War. The most serious tension was between Washington's need to control Sixth Fleet movements for political purposes and the on-scene commander's need for freedom to maneuver the fleet in order to reduce its vulnerability to Soviet preemptive attack. The White House restricted the movements of the Sixth Fleet lest the fleet's movements send a misleading signal of U.S. intentions to the Soviet Union. The Soviet tactic of keeping ships and submarines armed with anti-ship cruise missiles within striking range of the U.S. carriers

created serious operational problems for the Sixth Fleet. Soviet Navy doctrine placed heavy emphasis on the first strike, making it a central objective of strategy as well as tactics. U.S. Navy tactical doctrine for the defense of surface ship battle groups emphasized destruction of launch platforms before they can launch their missiles. The tactical doctrines of the superpower navies interacted, producing a war initiation scenario described in the U.S. Navy as the "D-day shootout." The side that gets off the first salvo in the D-day shootout is likely to accrue a significant tactical advantage that could determine the outcome of a war at sea. A restriction imposed on the fleet for political purposes (avoiding misperceptions of U.S. intentions) exacerbated the risks of a military confrontation and the danger that a minor incident could touch off an armed clash at sea between the superpowers.

None of the three political-military tensions was serious in the 1964 Tonkin Gulf Incidents because the U.S. responses were limited and all levels of the chain of command held generally similar views toward the need to retaliate. The only tension was that generated by the White House demand for confirmation that there had been a North Vietnamese attack in the second incident. This is an example of the tension that can arise between political considerations and military considerations: Confirmation was necessary so that retaliation could be justified

politically. But confirmation required time to assess the evidence, which could delay the retaliatory strikes-- alerting the adversary and losing the advantage of surprise.

There was little tension between political and military considerations in the Liberty incident because the incident was over before significant diplomatic activity-- other than hot line messages--could begin. The limitations that Commander Sixth Fleet placed on his forces supported U.S. political objectives in the crisis.

There were essentially no tensions between political and military considerations in the Pueblo incident. All levels in the chain of command agreed that effective military action could not be taken before Pueblo entered Wonsan. There was disagreement between military and civilian officials over whether or not reprisals should be taken against North Korea, and over whether or not if an effort should be made to recover the ship by force. But these disagreements primarily revolved around the military feasibility of the options proposed by the military, rather than the political implications of the options.

In summary, tension between political and military considerations were serious in the 1962 Cuban Missile Crisis and the 1973 Arab-Israeli War; moderate in the 1958 Taiwan Straits Crisis and the 1967 Arab-Israeli War; and minor in the 1964 Tonkin Gulf Incidents, the 1967 Liberty incident, and the 1968 Pueblo incident, and the 1987 Stark incident.

Level of Control

Tension arose between the need for top-level control and the need for on-scene flexibility and initiative in the 1958 Taiwan Straits crisis, but overall a workable balance appears to have been struck. The Chief of Naval Operations insisted on frequent and detailed reports from Navy commanders in the far East, but methods of delegated control were used and officials in Washington relied heavily on mechanisms of indirect control. This muted tension over centralization of control.

Tension arose during the 1962 Cuban Missile Crisis between the need for top-level control of military operations and the need for on-scene flexibility and initiative. This was the most severe political-military tension during the crisis. The Cuban Missile Crisis marked a turning point in American civil-military relations and in the evolution of U.S. command and control doctrine. The origin of the tension was a sudden attempt to impose radically new methods of direct control on a command system set up for delegated methods of control without prior planning, consideration of the implications, or even consultation with the military.

The Navy, with its tradition of granting autonomy to commanders at sea, reacted strongly to the Kennedy Administration's efforts at closely controlling military operations. Admiral Anderson, at the interface between



between civilian authorities and the Navy chain of command as Chief of Naval Operations and the JCS Executive Agent for Cuban operations, took the lead in preventing what he perceived to be unreasonable civilian interference in naval operations. Most senior Navy Officers deeply resented the new civilian attention to the details of naval operations, which they viewed as "micromanagement." There was a widespread attitude that McNamara was incompetent at controlling military operations. McNamara, the admirals felt, was trying to run naval operations the way he would manage a Ford assembly line, but without the experience necessary to do so and with no respect for those who did have the requisite experience. If McNamara was resented, his civilian aides were despised. Navy admirals commonly referred to them as "Junior Field Marshals" and a variety of less polite expressions. There was thus serious tension between the President's desire to maintain control over events and the Navy's desire to operate on the basis of its traditional philosophy of command, in which commanders at sea are delegated substantial authority.

Although there was widespread resentment toward McNamara, the admirals who ran the quarantine at sea did not feel unreasonably burdened by civilian authorities and understood the need for close control. The fact that Navy commanders who did not have to work directly with McNamara felt less resentment and better understood the President's

political objectives strongly suggests that much of the friction and anger visible in Washington was generated by the McNamara's personality, management style, and personal attitudes, rather than by the underlying policy conflicts.

Because of the emphasis on direct civilian control of military operations, civilian authorities did not keep military leaders adequately informed of the overall U.S. political-diplomatic strategy for resolving the crisis. By not informing the JCS of political-diplomatic efforts at resolving the crisis, the President risked defeating his efforts to ensure that military operations supported his political objectives. The Chiefs did not need to know the details of sensitive communications with the Soviets to understand the President's diplomatic objectives. Such an understanding might have helped them to anticipate operational problems that could have interfered with the President's crisis management strategy.

There was only moderate level of control tension in the 1967 Arab-Israeli War. Orders to the Sixth Fleet were passed via the chain of command and only the general location and movements of the fleet in the Mediterranean were closely controlled. On-scene commanders disliked this control of their operations, but it did not seriously interfere with their ability to carry out their mission.

Level of control tensions arose during the 1973 Arab-Israeli War. The tension over level of control was worse

than in the 1958 Taiwan Strait Crisis and the 1967 Arab-Israeli War, but not as bad as in the 1962 Cuban Missile Crisis. President Nixon and Schlesinger respected the military chain of command, using it to send orders to the Sixth Fleet rather than attempting to communicate directly with the fleet. Tensions arose primarily from the emphasis that President Nixon and Kissinger placed on using the Sixth fleet for political signalling, which required close White House control of the fleet's movements. Although some Navy commanders were irritated by White House control of Sixth Fleet movements, there was no deep resentment against perceived civilian interference as in the Cuban Missile Crisis.

There was little level of control tension in the Liberty incident because the incident evolved too rapidly for officials in Washington to play a direct role in controlling events. JCS and the Secretary of Defense could only reaffirm orders already given by Commander Sixth Fleet.

There was little level of control tension in the Pueblo incident. U.S. military commanders in the Far East had ample authority to take military action without having to seek permission from higher authorities so long as Pueblo remained in international waters. The "hold" order issued to the military came well after commanders in the Far East had decided against taking immediate military action, and served only to avoid further incidents with North Korean forces while Washington weighed reprisal options. If U.S.

commanders had ordered attacks on North Korean forces in international waters to prevent Pueblo from being taken into Wonsan, it is likely that the President would have supported the action (As he supported Vice Admiral Martin's dispatch of aircraft to defend Liberty in 1967).

In summary, level of control tensions were serious in the 1962 Cuban Missile Crisis and the 1973 Arab-Israeli War, moderate in the 1967 Arab-Israeli War, and minor in the 1958 Taiwan Straits Crisis, and the four cases of peacetime attacks on Navy ships. Level of control tensions appear to be directly proportional to the scale and duration of the crisis military operations being conducted, and more intense when national leaders perceive a danger of the crisis escalating to war (which prompts them to exercise close control over military operations).

#### Crisis vs Wartime Missions

Tensions arose between performance of crisis missions and readiness to perform wartime missions in the 1958 Taiwan Straits crisis. The CNO's staff was concerned that prolonged operations would erode U.S. capabilities for military operations in other parts of the world or for general war. CNO Admiral Arleigh Burke felt that U.S. naval forces were overextended during the crisis and would have been hard pressed to respond to an outbreak of fighting elsewhere while committed in the Taiwan Straits. Of the three types

of political-military tensions, tension between performance of crisis missions and readiness to perform wartime missions was the most serious in the 1958 Taiwan Straits crisis.

Tensions arose in the 1962 Cuban Missile Crisis between performance of crisis missions and readiness to perform wartime missions. Preparations for invasion of Cuba degraded the ability of the United States to respond to Soviet moves in Europe, particularly against Berlin. The only reason that this did not generate severe tensions was that the political-military situation in other theaters, including Europe was relatively quiet. Military men were not overly concerned about the negative consequences of the preparations for invasion of Cuba because there was no immediate need for the forces elsewhere. This situation would have changed drastically if the Soviets had moved against Berlin or Turkey in response to a U.S. move against Cuba, which justifies the President's concern for such a Soviet move.

There was very little tension between performance of crisis political missions and readiness to perform wartime combat missions during the 1967 Arab-Israeli War. Sixth Fleet operations during the crisis did not seriously detract from the fleet's readiness for wartime contingencies. The only feature of the crisis operations that the on-scene commanders did not like, even though they understood its purpose and importance, was the publicizing of the fleet's

movements. This is a crucial consideration in wartime operations, but one that directly conflicts with political crisis management considerations. Other than this, there was little tension between performance of crisis missions and readiness for wartime contingencies.

There was moderate tension between performance of crisis political missions and readiness to perform wartime combat missions in the 1973 Arab-Israeli War. There apparently was little concern that the Navy's response to the crisis would degrade its ability to respond to threats elsewhere. Wartime considerations as well as political considerations influenced the location of the Sixth Fleet in the Mediterranean, and the fleet's carriers did not experience a serious degradation of their readiness to perform wartime missions during the crisis. The greatest concern for U.S. wartime readiness arose from the transfer of large quantities of U.S. military equipment and munitions to Israel, which depleted U.S. war-reserve stocks and left some operational units without sufficient equipment and supplies to carry out wartime missions.

There was no tension between performance of crisis missions and maintaining readiness to perform wartime missions in the Liberty incident because the Sixth Fleet response to the attack was small-scale and of short duration.

There was some tension between performance of crisis missions and readiness to perform wartime missions in the

Pueblo incident. The limited time available for taking action meant that the initial response to the North Korean attack on Pueblo had to be made with U.S. forces in and around Japan and South Korea. The aircraft closest to Pueblo--Air Force planes on alert in South Korea--were configured for delivery of nuclear weapons (a wartime mission) and could not be rapidly reconfigured for conventional ordnance (for crisis missions). Commander Fifth Air Force did not hesitate to order these planes reconfigured for conventional ordnance. Maintaining readiness for wartime missions had greater impact on the decision whether or not to retaliate against North Korea. The heavy commitment of U.S. forces in Vietnam limited the options available to U.S. military commanders and made the President and Secretary of Defense reluctant to take action against North Korea that could result in another military conflict.

None of the three political-military tensions was present in the Stark incident because the incident was brief and the attack was known to have been inadvertent. U.S. Navy ships in the Persian Gulf had ample authority under the rules of engagement to use force in self-defense or anticipatory self-defense. Nevertheless, Navy commanders in the Persian Gulf had been placed in a complex and dangerous tactical environment. There was great risk of U.S. ships being attacked inadvertently or deliberately, and equally

great risk of political embarrassment to the United States if civilian or friendly military aircraft were shot down.

In summary, tensions between performance of crisis missions and readiness to perform wartime missions were serious in the 1958 Taiwan Straits Crisis and the 1962 Cuban Missile Crisis; moderate in the 1968 Pueblo incident and the 1973 Arab-Israeli War; and minor in the 1964 Tonkin gulf Incidents, the 1967 Arab-Israeli War, 1967 Liberty incident, and the 1987 Stark incident. Tensions between performance of crisis missions and readiness to perform wartime missions are directly proportional to the scale and duration of the crisis operations being conducted, and can be exacerbated by the geographic location of the crisis (a crisis located far from expected wartime battlegrounds generates more serious tension).

#### Contingent Generalizations

The dependent variable is the outcome of crisis interactions; specifically, whether or not tactical-level military interactions cause escalation of a crisis. The dependent variable is not dichotomous (either escalation or no escalation), a range of outcomes can occur (as will be described below). Inadvertent escalation originally was defined as any increase in the level or scope of violence in a crisis that was not directly ordered by national leaders or anticipated by them as being the likely result of their

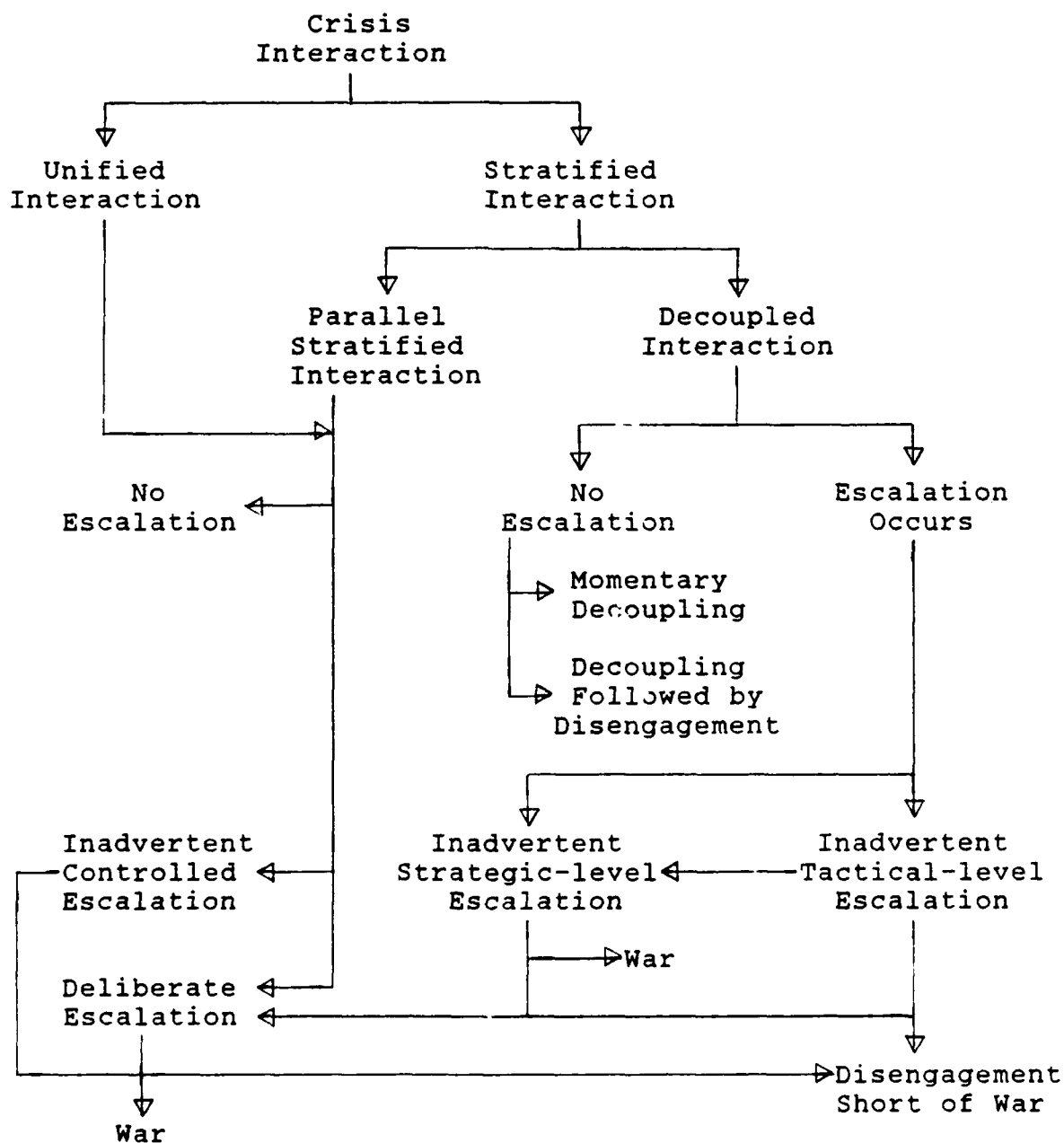


orders. This definition encompasses what will be called inadvertent controlled escalation: a military move ordered by national leaders (and executed as they desired) provokes unanticipated escalation by the adversary, which in turn provokes a deliberate escalatory response by the first side. Escalation of the crisis arises from deliberate decisions made by national leaders, rather than from uncontrolled tactical-level or strategic-level interactions. The escalation is inadvertent because national leaders did not intend to escalate the crisis and did not anticipate that their moves would provoke escalation by the adversary.

Variance in the dependent variable will be described in terms of six patterns of crisis military interactions: unified interaction, parallel stratified interaction, momentary decoupling of interactions, decoupled interactions followed by disengagement, inadvertent tactical-level escalation, and inadvertent strategic-level escalation. The first two patterns--unified interaction and parallel stratified interaction--can have three escalation outcomes: no escalation, inadvertent controlled escalation, or deliberate escalation. Inadvertent controlled escalation and deliberate escalation can halt short of war or continue on to war. In the third and fourth patterns--momentary decoupling of interactions and decoupled interactions followed by disengagement--tactical-level interaction halts without significant escalation. The fifth pattern--inadvertent

tactical level escalation--can have three outcomes: disengagement short of war, inadvertent strategic-level escalation, or deliberate escalation to war. The sixth pattern--inadvertent strategic-level escalation--can have three outcomes: disengagement short of war, inadvertent

Figure 2. Crisis Interaction Patterns



escalation to war, or deliberate escalation to war. The six patterns of crisis military interaction and their various outcomes are illustrated in Figure 2.

These six patterns constitute a typology of crisis military interaction and appear to cover the full range of interactions that could occur in a crisis. However, because they were identified through an analytical-inductive process, rather than deductively, no claim is made that the six patterns constitute the universe of possible crisis military interactions. Additional patterns could be identified through further empirical research.

More than one of the patterns of crisis military interaction can occur in a crisis. The first four patterns-- unified interaction, parallel stratified interaction, momentary decoupling of interaction, decoupled interactions followed by disengagement, and inadvertent tactical-level escalation--can occur in various sequences in a crisis. Changes in the seven independent variables affecting military interactions determine which pattern occurs. The causal patterns associated with each pattern of military interaction are not mutually exclusive: At any given moment in a crisis, some of the independent variables could have values allowing more than one of the five patterns to occur. Events that are inherently unpredictable, such as communications failures or military accidents, can determine which pattern arises. Assessments of the likelihood of

inadvertent escalation must therefore be made in probabilistic terms--that is, in terms of which patterns are more or less likely to occur.

Contingent generalizations will be formulated for the six patterns of crisis military interaction, offering a distinct causal pattern for each type of interaction. Each of the causal patterns is produced by specific variations in seven independent variables. These seven independent variables were identified in the case studies as significant in determining the outcome of crisis military interaction. The first step in formulating the contingent generalizations will be to define the seven independent variables and describe the range of variation of each variable. The six types of crisis military interaction and their causal patterns will then be described.

#### Independent Variables

There are seven independent variables that determine the nature of crisis military interaction and its effect on crisis stability: the degree of political-level control of tactical-level military interaction, the scale of military operations, the intensity of tactical-level military interactions, the perceived threat of attack at the tactical level, the relationship between political-level and tactical-level threat perceptions, the strength of escalation-inhibiting factors, and the impact of inadvertent military incidents.

These seven independent variables determine the degree to which crisis interactions to become stratified, whether or not stratified interactions become decoupled, and whether or not decoupled interactions result in an uncontrollable escalation sequence. The seven independent variables and terms that will be used to describe the range of variation of each variable are listed in Table 5.

Table 5  
Independent Variables

Independent Variables	Range of Variation		
	Low	Medium	High
Political-level control of tactical-level military interactions	loss	indirect	direct
Scale of military operations	local	theater	global
Intensity of tactical-level military interactions	routine	heightened	intense
Perceived threat of attack at the tactical-level	unlikely	possible	imminent
Relationship between tactical-level and political-level threat perceptions	convergent	similar	divergent
Factors inhibiting escalation	lacking	weak	strong
Impact of inadvertent military incidents	minor	moderate	significant

The first independent variable is political-level control over tactical-level military operations: the ability of national leaders to ensure, by whatever control methods

or mechanisms are used, that crisis military operations support their overall strategy for resolving the crisis. Political-level control of tactical-level military operations will be described as direct, indirect, or loss of control. Direct control means that national leaders can direct changes in military operations as necessary to support their strategy for managing a crisis. National leaders do not have to make every operational decision themselves in order to effectively exercise direct control, but they must have the capability to intervene in the conduct of military operations on a real-time basis when necessary for crisis management.

Indirect control means that national leaders are relying primarily on mechanisms of indirect control to coordinate the actions of military forces. Under indirect control, national leaders normally have some capability to direct changes in military operations in order to ensure that those operations support their crisis strategy. Communications or other constraints preclude constant, real-time, direct control of tactical-level military operations, forcing delegation of control and reliance on mechanisms of indirect control.

Loss of control means that national leaders are not able to direct changes in military operations in order to support their crisis strategy. Loss of control is caused by the sources of decoupling: communications and information

flow problems, impairment of political-level decisionmaking, a fast-paced tactical environment, ambiguous or ambivalent orders, tactically inappropriate orders, inappropriate guidance in mechanisms of indirect control, and deliberate unauthorized actions by military commanders. National leaders can experience loss of control even while in direct communication with the on-scene commander.

The second independent variable is the scale of crisis military operations being conducted by United States armed forces. The scale of military operations partially determines three other factors. First, it affects the ability of political-level officials to control tactical-level military operations. Generally, the larger the scale of operations the more difficult it is for national leaders to maintain direct control over all the operations being conducted and the more likely it is that decoupling will occur. Second, it affects the opportunity for military interactions with the other side's forces. Generally, the larger the scale of operations, the greater the number of tactical interactions between the forces of the two sides. Third, it affects the opportunity for inadvertent military incidents to occur. Generally, the larger the scale of operations, the greater the likelihood of inadvertent military incidents.

The scale of military operations will be described as local, theater, or global. Local operations cover a

relatively small, well defined geographic area, and involve relatively small forces--a single navy task force, army division, a single air force air task force, or joint task force of roughly equivalent size. The joint task force that invaded Grenada in 1983 represents the approximate maximum size of local-scale operations. Forces larger than this generally require theater-level control in order to coordinate operations. Theater operations involve a substantial portion of the conventional forces in a particular theater. The operations may not cover the entire theater, but require theater--level coordination. The forces that participated in operations against Cuba during the Missile Crisis (including preparations for air strike and invasion contingencies) represent the approximate maximum size of theater-scale operations. Global operations involve operations in two or more theaters. For example, placing United States forces at Defense Condition of Readiness (DEFCON) three, as was done during the Cuban Missile Crisis and the 1973 Middle East War, initiates global-scale operations.

The third independent variable is the intensity of tactical-level interactions between the military forces of the two sides in a crisis. This independent variable is separate from scale of operations because large scale operations do not necessarily result in intense interactions. The adversary may choose not to initiate



operations on a similar scale, or may take precautions to reduce contact with the other side's forces. The 1958 Taiwan Straits Crisis is an example of this. Although the United States Navy conducted extensive operations off the coast of the mainland, providing ample opportunities for interaction with Communist Chinese forces, the Communist Chinese did not exploit those opportunities and were careful to avoid incidents with us forces.

The intensity of tactical-level military interactions is also affected by geography, the operations being conducted, and the political signals being sent. Geography includes such factors as the presence of national boundaries to separate ground forces and the amount of sea room available for naval forces to maneuver. The nature of the operations being conducted can affect how close the forces are in proximity to each other and the threat they appear to present toward each other. For example, U.S. destroyers escorting convoys in the Persian Gulf are brought into more frequent contact Iranian forces than is a carrier battle group maintaining a presence in the Gulf of Oman. The nature of the political signals being sent with military forces also affects the frequency of contacts and apparent level of threat. Forces used to send a coercive threat for deterrence or compellence generally operate closer to the scene of a crisis, in greater strength, and can conduct more threatening operations (such as when a show of force is

conducted). On the other hand, forces used to signal reassurance and an intent not to resort to force tend to be moved away from the scene of the crisis and tend to conduct less threatening operations.

The intensity of interactions will be described as routine, heightened, or intense. Routine intensity of interaction is the level normally experienced in peacetime. It includes normal peacetime surveillance activities and, for naval forces, the normal level of peacetime contact among vessels at sea. Heightened intensity of interaction includes increased surveillance activity, closer proximity of forces, and tactical positioning of some forces for the possibility of combat. An example would be Soviet anti-carrier forces moving to within missile range of U.S. carrier battle groups. Severe intensity of interaction includes deliberate harassment, constant surveillance and targeting activities, and frequent maneuvering by both sides to maintain and improve their tactical positions.

The fourth independent variable is the perceived threat of attack held by tactical-level military commanders. Tactical-level commanders (also referred to as on-scene commanders) are those directly commanding forces at the scene of a crisis. For naval forces, tactical-level commanders include commanding officers of ships and commanders of task groups and task forces. Certain fleet commanders can also be tactical-level commanders if directly

controlling operations at the scene of a crisis (such as Commander Seventh Fleet during the 1953 Taiwan Strait Crisis, Commander Second Fleet during the 1962 Cuban Missile Crisis, and Commander Sixth Fleet during the 1967 and 1973 Arab-Israeli Wars).

Tactical-level commanders are constantly assessing the threat to their forces on the basis of their tactical situation relative to the adversary's forces. Because the on-scene commander must at all times be prepared for a sudden outbreak of fighting--either on orders from his superiors or instigated by the adversary--his assessment of the adversary's intentions is heavily influenced by the actions the adversary's forces are taking. This is a particular form of the military practice of assessing intentions on the basis of capabilities. On-scene commanders do not, of course, base their assessment of the adversary's intentions only on the basis of what adversary forces are capable of doing, but this factor plays a much larger role at the tactical level of interaction than it does at the political level of interaction.

The threat perceptions held by tactical-level military commanders can range from being entirely accurate to being acute misperceptions. The on-scene commander could accurately perceive that the adversary's forces are unlikely to attack, or that they are making final preparations for an imminent preemptive attack. But the on-scene commander

might also misperceive military actions taken by the adversary to send political signals or improve defensive capabilities as indicating an intent to attack. This is the crisis security dilemma in action at the tactical level. Many of the actions a state takes in a crisis in order to increase its security and improve its bargaining position decrease the security of its adversary. This dilemma is particularly acute in naval warfare, where the fragility of platforms relative to the destructiveness of weapons dictates tactical emphasis on shooting first. Many of the actions taken with naval forces in crises to increase a nation's security and improve its bargaining position inherently increase the vulnerability of the adversary's naval forces to a first strike.

Quite apart from the crisis security dilemma, another possibility is that the on-scene commander could be deceived into thinking that an attack is unlikely by adversary efforts to cover an imminent surprise attack with secrecy and deception. In this situation the on-scene commander misperceives the threat of attack as being unlikely, when in fact an attack is imminent. An on-scene commander also might not have sufficient information on the level of hostility being shown by the adversary outside the immediate vicinity, producing a misperception that the threat of attack is less than it actually is. Thus, the threat perceptions held by tactical-level military commanders can

range from highly accurate to acute misperceptions, and misperceptions can be of a threat that is either greater or lesser than the actual threat.

The perceived threat of attack held by tactical-level military commanders will be described as unlikely, possible, or imminent. These are terms commonly used by military forces to designate threat warning levels. The perception that threat of attack is unlikely means that the adversary is not expected to launch an attack, or does not have the capability to launch an attack, within a certain time frame (generally one or two days). The perception that threat of attack is possible means that the adversary has the capability to launch an attack in the near future, but there is not sufficient information to determine that it is in fact his intention to attack. The perception that threat of attack is imminent means that the adversary has the capability to launch an attack, and the apparent intention of launching an attack, in the immediate future.

The fifth independent variable is the relationship between political-level and tactical-level threat perceptions. Political-level authorities can hold threat perceptions much different from those held by tactical-level military commanders. The two groups of decisionmakers are making their assessments in much different environments and often on the basis of different information. National leaders focus primarily on the overall political and

strategic picture, including communications with the adversary. To national leaders the tactical situation at the scene of the crisis is but one element in constructing the overall picture. On-scene commanders, on the other hand, focus on their immediate tactical situation, particularly the behavior of the adversary's forces in the vicinity. On-scene commanders normally have only limited information on the overall political-military situation-- primarily intelligence reports on adversary military moves-- and use that information to assess the local picture. A military move that is only a political signal to the national leaders can be seen as a seriously threatening change in the tactical situation by the on-scene commander. Such differences in perceptions are what is meant by stratification of threat perceptions.

Such differences in political-level and tactical-level threat perceptions are important because they create the stratified crisis security dilemma. The stratified crisis security dilemma is that the security dilemma can arise independently at different levels of interaction, affecting the the likelihood of war separately at each level. For example, tactical level military commanders can perceive a severe threat of imminent attack while political level authorities perceive little likelihood of attack. Further, decisionmakers at one level may not be aware that decisionmakers at the other level hold much different threat

perceptions. Thus, the likelihood of serious fighting erupting and escalation occurring can be different at the different levels of crisis interaction.

The relationship between political-level and tactical-level threat perceptions will be described as convergent, similar, or divergent. Convergent threat perceptions occur when decisionmakers at the political and tactical levels of interaction hold essentially the same threat perceptions, even though their focus may be different. For example, threat perceptions would be convergent when national leaders perceive that the adversary has decided to resort to war and that war cannot be averted by further diplomatic efforts, while on-scene commanders perceive that attack by the adversary's forces at the scene of the crisis is imminent. Similar threat perceptions are not exactly the same, thus allowing for some differences, but are not extremely different. Divergent threat perceptions are significantly different at the political and tactical levels of interaction. Historically, the tendency is for tactical-level decisionmakers to perceive a greater threat of attack than do political-level decisionmakers.

The sixth independent variable is the strength of the factors inhibiting escalation. As was discussed earlier in this chapter, there are six internal and two external escalation-inhibiting factors. The internal factors are military prudence, caution and restraint on the part of

on-scene commanders, compliance by on-scene commanders with mechanisms of indirect control, national leaders structuring the tactical environment to dampen military interactions, accurate and timely tactical intelligence on friendly and potentially hostile forces, and national leaders and the chain of command double-checking the accuracy of initial reports of military incidents. The external factors are tacit rules of crisis behavior observed by the two sides and communications between the two sides in a crisis.

The strength of the factors inhibiting escalation will be described as strong, weak, or lacking. Strong inhibiting factors prevent escalation from occurring other than as the result of a deliberate decision by national leaders. Weak inhibiting factors allow escalation to occur when an engagement first breaks out, but prevent the military action from gaining sustained momentum. Lack of the inhibiting factors can allow escalation to arise from an inadvertent military incident and gain momentum, exceeding the ability of national leaders to control it.

The seventh independent variable is the impact of inadvertent military incidents on stratified interactions. Inadvertent military incidents include unanticipated authorized actions, military accidents, and unauthorized actions. Inadvertent military incidents can trigger decoupling of tactical-level military interactions from political-level crisis management objectives, and the start



of an escalation sequence at the tactical level of interaction. Decoupling and escalation are not inevitable consequences of inadvertent military incidents. Whether or not decoupling and escalation occur is a function of the ability of national leaders to exercise direct control over tactical-level military operations, the threat perceptions held by tactical-level military commanders, and the strength of the factors inhibiting escalation. Thus, the significance of inadvertent military incidents can vary widely, and they generally are not particularly dangerous.

The impact of inadvertent military incidents will be described as minor, moderate, or significant. Minor means that inadvertent military incidents have little effect on stratified interaction--they do not occur often, are not likely to cause decoupling when they do occur, and do not impede the re-establishment of control when decoupling does occur. Moderate means that the impact of inadvertent incidents can vary widely, depending on the circumstances in which they occur. The impact can range from momentary decoupling to an uncontrollable escalation sequence. Significant means that inadvertent military incidents tend to have a major impact on stratified interaction. Significant incidents tend to cause decoupling of tactical-level military interactions from political-level objectives, to prevent rapid re-establishment of political-level control, and to trigger escalation sequences.

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Unified Interaction

The first pattern of crisis military interaction is unified interaction. In this pattern, political-level leaders exercise direct control over tactical-level military operations. Unified interaction is the optimum pattern of crisis military interaction for crisis management: the pattern achieved when national leaders succeed in meeting the crisis management requirement that they maintain close control over military operations. There were no examples of this pattern of crisis military interaction in the case studies. The fact that the pattern was not actually observed suggests that its occurrence is improbable, particularly in a military establishment as large and complex as that of the United States.

Unified interactions can have three escalation outcomes: no escalation, inadvertent controlled escalation, or deliberate escalation. If the crisis escalates to war, it is through deliberate decisions by national leaders. This does not mean that national leaders preferred war to diplomatic efforts from the beginning of the crisis. They may--particularly in the age of nuclear weapons--opt for war with great reluctance and apprehension, out of desperation rather than hope for decisive gains. Escalatory pressures are primarily top-down rather than bottom-up. That is, the level of violence at the tactical level reflects the strategy being pursued at the political level.

The causal pattern for unified interaction is summarized in Table 6. Political-level control of tactical level military operations is the most significant independent variable determining whether this pattern occurs. Unified interaction occurs when political national leaders

Table 6  
Unified Interaction

Independent Variable	Value or Range
Political-level control of tactical-level military operations	Direct
Scale of military operations	Small-scale local
Intensity of tactical-level military interactions	Routine to heightened
Perceived threat of attack at the tactical level	Unlikely to Imminent
Relationship between political-level and tactical-level threat perceptions	Convergent
Factors inhibiting escalation	Strong
Impact of inadvertent military incidents	Minor impact

are exercising direct control of military operations, and have the capability to ensure that tactical-level interactions support their strategy for managing the crisis. Small-scale local military operations favor occurrence of the pattern because national leaders tend to shift from direct to indirect control as the scale of military operations increases. Declaring a worldwide alert (DEFCON 3 or higher) puts great pressure on direct control by setting

in motion a large range of military operations that can generate military interactions with the other side's forces.

Routine to heightened intensity of tactical-level interactions between the two sides eases the difficulty of exercising direct control over military operations. As the intensity of interactions increases, national leaders are increasingly left out of the tactical picture. On-scene commanders must increasingly make their own decisions to keep pace with rapidly-changing tactical circumstances.

Any level of tactical-level threat perceptions, whether unlikely, possible, or imminent, can cause unified interactions. The relationship between political-level and tactical-level threat perceptions is the more important independent variable: the threat perceptions held by political-level leaders and tactical-level military commanders are convergent. An example of convergent threat perceptions would be for national leaders to perceive that the adversary intends to resort to war while on-scene commanders perceive that an attack by the other side is imminent. This type of convergence would tend to generate escalatory pressures. Convergent threat perceptions would also occur when national leaders perceive that the adversary intends to seek a diplomatic solution to the crisis and on-scene commanders perceive that an attack is unlikely. Convergent threat perceptions tend to prevent tactical-level interactions from becoming decoupled from political-level

control. Unified interaction do not exclude the possibility of war resulting from misperception. When misperceptions occur, they are convergent--national leaders incorrectly perceive that the adversary intends to resort to war while on-scene commanders incorrectly perceive that attack is imminent.

If the factors inhibiting escalation are strong, they contribute to the occurrence of unified interactions; but such factors do not have a major causal role because the independent variables already mentioned tend to prevent escalation pressures from occurring. That is, tactical-level military commanders tend not to feel greater pressure to escalate than do political-level leaders. Internal factors are more important than external factors. The internal factors inhibiting escalation tend to prevent tactical-level interactions from generating bottom-up escalatory pressures. The external factors inhibiting escalation become important only when national leaders begin contemplating escalatory military options.

The impact of inadvertent incidents must be minor for the unified interaction pattern to occur. Inadvertent incidents do not trigger decoupling of tactical-level interactions; national leaders retain direct control. The most important independent variables causing unified interactions are thus direct political-level control of tactical-level military interactions and convergent threat perceptions.

### Parallel Stratified Interaction

The second pattern of crisis military interaction is parallel stratified interaction. In this pattern national leaders retain control over the escalation and de-escalation of conflict. The separate interaction sequences at the political and tactical levels evolve in parallel, in the sense of reflecting the same overall strategy toward the adversary. National leaders do not control every operational decision made at the tactical level, but the decisions made by on-scene commanders support the crisis management strategy of national leaders. Parallel stratified interaction is the second best pattern of military interaction from a crisis management perspective (second only to unified interaction). Like unified interactions, parallel

Table 7  
Parallel Stratified Interaction

Independent Variable	Value or Range
Political-level control of tactical-level military operations	Indirect
Scale of military operations	Local to theater
Intensity of tactical-level military interactions	Routine to heightened
Perceived threat of attack at the tactical level	Unlikely to Imminent
Relationship between political-level and tactical-level threat perceptions	Convergent
Factors inhibiting escalation	Strong
Impact of inadvertent military incidents	Minor impact

stratified interactions can have three escalation outcomes: no escalation, inadvertent controlled escalation, or deliberate escalation.

The causal pattern for parallel stratified interaction is summarized in Table 7. Political-level control of tactical-level military interaction is the most important independent variable in this pattern. Political-level control is indirect, rather than direct, as in the unified interaction pattern. National leaders rely primarily on mechanisms of indirect control for ensuring that tactical-level interactions support their strategy for managing the crisis. For this reason crisis interactions are stratified, rather than unified.

Local to theater scale of operations favor occurrence of the pattern because national leaders tend to have greater difficulty controlling tactical-level military operations as their scale increases. The likelihood of tactical-level interactions becoming decoupled from political-level objectives tends to increase as the scope of military operations increases. Smaller-scale operations thus contribute to stratified interactions being parallel.

Routine to heightened intensity of tactical-level interactions between the two sides makes the task of controlling tactical-level military operations feasible. As the intensity of interactions increases, national leaders are increasingly left out of the tactical picture and

on-scene commanders must make their own decisions to keep pace with rapidly-changing tactical circumstances. Intense tactical-level interactions tend to increase the likelihood of decoupling and inadvertent military incidents, causing one of other patterns of crisis military interaction.

Any level of tactical-level threat perceptions, whether unlikely, possible or imminent, can cause parallel stratified interactions. As in the unified interaction pattern, the more important independent variable causing the parallel stratified interaction pattern is that the threat perceptions held by political-level leaders and tactical-level military commanders are convergent. Convergent threat perceptions tend to keep tactical-level interactions parallel with political-level interactions when national leaders are not exercising direct control of military operations. When misperceptions occur, however, they are convergent--national leaders incorrectly perceive that the adversary intends to resort to war while on-scene commanders incorrectly perceive that attack is imminent.

If the factors inhibiting escalation are strong, they contribute to the occurrence of parallel stratified interactions; but such factors do not have a major causal role because the independent variables already mentioned tend to prevent stratified escalation pressures from occurring. Tactical-level commanders tend not to feel greater pressure to escalate than do political-level leaders.



Strong internal factors inhibiting escalation do not mean that parallel stratified interactions inevitably end in successful crisis resolution short of war. The internal factors serve only to prevent escalation of tactical-level interactions, they do not prevent escalatory pressures from arising separately at the political level of interaction. The most dangerous situation under conditions of parallel stratified interactions is for escalatory pressures to arise simultaneously at all three levels in the chain of command-- political, strategic, and tactical. This is a convergence of perceptions at the three levels that escalation of the conflict is the only course of action that can forestall unacceptable damage to vital national interests. This type of convergence is essentially what occurred in the 1964 Tonkin Gulf Incident, in which all levels in the chain of command perceived the North Vietnamese attacks as deliberate provocations warranting strong retaliation. Doubts about the circumstances of the attacks and whether retaliation was appropriate were not thoroughly explored due to a broad consensus supporting an escalatory response.

The impact of inadvertent military incidents must be minor for the parallel stratified interaction pattern to occur. The essential requirement is that if inadvertent incidents occur, they do not trigger decoupling (which causes other patterns of crisis military interaction to arise). That is, the responses made by on-scene commanders

to inadvertent incidents support the crisis management strategy being pursued by national leaders--the essence of parallel interactions. The most important independent variables in the parallel stratified interaction pattern are thus indirect political-level control of tactical-level military operations and convergent threat perceptions.

#### Momentary Decoupling

The third pattern of crisis military interaction is momentary decoupling of interaction. In this pattern national leaders temporarily lose control of military interactions, but are able to quickly re-establish control. However, there is a brief period in which national leaders are not controlling tactical-level military interactions. During that period, the actions taken by the on-scene commander do not support the crisis management efforts being pursued by national leaders. Those actions could well be authorized under guidance contained in the mechanisms of indirect control, but nevertheless complicate political and diplomatic efforts to resolve the crisis. This does not mean that the on-scene commander was "wrong" to take the actions. For example, he may have been compelled to use force in self-defense as authorized in his rules of engagement. The use of force could well have been necessary to avert an attack, appropriate to the tactical circumstances, and fully justified under international law,

but still have interfered with crisis management efforts. The key point is that tactical-level interactions not controlled by national leaders occur, and that those actions complicate or interfere with political-level crisis management efforts. Instances of momentary decoupling were observed in the 1958 Taiwan Straits Crisis, the 1962 Cuban Missile Crisis, the 1967 Arab-Israeli War, and the 1973 Arab-Israeli War.

The causal pattern for momentary decoupling of interactions is summarized in Table 8. Momentary loss of political-level control of tactical military operations is the key independent variable causing the pattern: National leaders lose effective direct or indirect control over military operations. This can result from several factors,

Table 8  
Momentary Decoupling

Independent Variable	Value or Range
Political-level control of tactical-level military operations	Loss of control
Scale of military operations	Local to theater
Intensity of tactical-level military interactions	Routine to heightened
Perceived threat of attack at the tactical level	Unlikely to Possible
Relationship between political-level and tactical-level threat perceptions	Convergent to similar
Factors inhibiting escalation	Strong
Impact of inadvertent military incidents	Significant

including communications and information flow problems, impairment of political-level decisionmaking, a fast-paced tactical environment, ambiguous or ambivalent orders, tactically inappropriate orders, inappropriate guidance in mechanisms of indirect control, and deliberate unauthorized actions by military commanders. The important feature is that whatever causes decoupling is not permanent; it does not prevent national leaders from quickly re-establishing control.

Local to theater scale of military operations favor the occurrence of momentary decoupling by increasing the likelihood that national leaders will be able to re-establish control over tactical-level military interaction. Global-scale operations make it more difficult for national leaders to re-establish control over tactical-level military interaction after decoupling occurs. When national leaders are managing global operations they have difficulty focusing their attention on an individual engagement, leading to one of the patterns in which decoupled interactions evolve on their own (toward escalation or disengagement).

The same is true of the intensity of tactical-level military interaction: routine to heightened interaction favors the occurrence of momentary decoupling. At the lower intensities, decoupled tactical-level interactions are less likely to gain a momentum of their own and national leaders have less difficulty keeping abreast of the tactical

situation--both of which facilitate the re-establishment of control over tactical-level military operations. Intense tactical-level interactions favor the occurrence of patterns that are not controlled by political-level authorities (the last three patterns of crisis military interaction, which are discussed below).

The tactical-level threat perception that favors the occurrence of momentary decoupling is that attack is unlikely or possible. Momentary decoupling can result from technical problems with communications systems even when the on-scene commander views an attack as unlikely. But momentary decoupling can also result from actions taken in response to a perception that attack is possible. The perception that attack is imminent tends not to be associated with momentary decoupling because it prompts more intense tactical interactions, which prevent national leaders from immediately re-establishing control.

A relationship between political-level and tactical-level threat perceptions that is convergent or similar favors the occurrence of momentary decoupling. Convergent or similar threat perceptions facilitate the ability of national leaders to re-establish control over tactical-level military operations. Divergent threat perceptions, on the other hand, tend to cause tactical-level interactions to maintain their own momentum, resisting control by national leaders.

Strong escalation-inhibiting factors cause decoupling to be momentary rather than leading to escalation sequences beyond the control of national leaders. Strong internal factors inhibiting escalation facilitate the ability of national leaders to re-establish control over tactical-level military operations. For example, on-scene commanders normally reach the limits of their authority under the mechanisms of indirect control early in an engagement, and turn to the chain of command for further guidance. This creates an opportunity for control to be re-established if communications channels are open and top-level officials have a grasp of the tactical situation. The external factors inhibiting escalation also facilitate re-establishment of control by slowing the pace of action and preventing tactical-level interaction from gaining momentum during the period in which control is lost.

When inadvertent military incidents have a significant impact on crisis military interactions, they tend to cause the initial decoupling of tactical-level military interactions from political-level objectives. The most common type of incident is for an unanticipated authorized action by an on-scene commander to produce an engagement with the other side. An example would be use of force in self-defense under the rules of engagement. The use of force is both necessary and authorized, but had not been directly ordered by national leaders and results in an engagement

over which they have no control. This situation has arisen several times in the Persian Gulf when Iranian forces threatened U.S. Navy ships or aircraft. In every incident the on-scene commanders halted the engagement when the immediate needs of self-defense were met and sought guidance from higher authority concerning retaliatory attacks. In some instances the President was able to issue order on retaliatory attacks within minutes of an engagement, a clear example of direct control being re-established after decoupling. Although accidents and unauthorized actions can also trigger momentary decoupling, there were no instances of this occurring in any of the case studies.

In summary, two of the independent variables cause decoupling to occur, while the other five cause the decoupling to be momentary. The independent variables that cause decoupling to occur are loss of political-level control over tactical-level military operations and inadvertent incidents with a significant impact on crisis military interaction. The independent variables that cause the decoupling to be momentary are local to theater scale of military operations, routine to heightened intensity of tactical-level military operations, unlikely to possible tactical-level threat perceptions, a convergent to similar relationship between political-level and tactical-level threat perceptions, and strong escalation-inhibiting factors. Momentary decoupling is the most common of the four crisis military interaction

patterns that are marked by decoupling of tactical-level military interaction from political-level objectives.

#### Decoupled Interactions Followed by Disengagement

The fourth pattern of crisis military interaction is decoupled interactions followed by disengagement. This pattern begins with decoupling of tactical-level interaction from political-level control. National leaders are not able to immediately re-establish control due to communications problems, decisionmaking overload, or a fast-paced tactical environment. But the initial tactical-level engagement between the two sides does not gain momentum and escalate, it loses momentum and the forces disengage. By the time national leaders re-establish control, the shooting has stopped. Tactical-level disengagement can be a requirement for political-level control to be re-established, particularly in a fast-paced tactical environment.

The Tonkin Gulf incidents of August 2 and 4, 1964 are examples of decoupling followed by disengagement. President Johnson and his advisors had not been paying close attention to the USS Maddox prior to the first North Vietnamese attack, and were not able to control the engagement once it started. Although the White House was paying much closer attention to events in the Tonkin Gulf at the time of the second incident, U.S. communications capabilities still did not permit top-level officials to control the engagement.



In both incidents, U.S. Navy commanders in the Tonkin Gulf acted on the authority delegated to them in mechanisms of indirect control. Neither of the incidents escalated after the initial engagements: U.S. naval forces disengaged as soon as the immediate threat of attack by North Vietnamese appeared to have been countered, rather than being ordered to disengage by national leaders. On-scene commanders consulted with higher authority on retaliation and President Johnson made the decision on further military operations against North Vietnam. Thus, although escalation occurred after the second Tonkin Gulf incident, it was deliberate (as opposed to inadvertent) escalation.

The causal pattern for decoupled interactions followed by disengagement is summarized in Table 9. The most

Table 9  
Decoupled Interactions Followed by Disengagement

Independent Variable	Value or Range
Political-level control of tactical-level military operations	Loss of control
Scale of military operations	Local to global
Intensity of tactical-level military interactions	Intense
Perceived threat of attack at the tactical level	Imminent
Relationship between political-level and tactical-level threat perceptions	Convergent to divergent
Factors inhibiting escalation	Strong
Impact of inadvertent military incidents	Significant

important independent variables causing this pattern of crisis military interaction to occur are loss of political-level control over tactical-level military interactions and strong escalation-inhibiting factors.

Loss of political-level control over tactical-level military interactions is most likely to arise from a fast-paced tactical environment, rather than communications or decisionmaking problems. National leaders tend to lose control because they are remote from the scene of action and the on-scene commander does not have time to consult with higher authority. Improved communications have not significantly alleviated this limitation over the period covered in this study (1958-1987): A fast paced-tactical environment precluded direct White House control over the engagements between U.S. Navy and Iranian forces in the Persian Gulf in 1987. On the other hand, improved communications contributed to the President being able to make speedy decisions on retaliation against Iranian forces, allowing retaliatory attacks to commence soon after Iranian provocations. The primary effect of improved communications thus has been to make it easier to re-establish control after an engagement begins, making the momentary decoupling pattern more likely than the decoupling followed by disengagement pattern.

The scale of military operations tends not to be a significant independent variable causing the decoupling

followed by disengagement pattern because loss of control is primarily caused by the nature of the local tactical environment. The pattern can occur during military operations of any scale when the local tactical environment is the cause of decoupling. Although no examples were found in the case studies, it is possible that this pattern of crisis military interaction could also be caused by communications or decisionmaking problems. Such problems are more likely to arise as the scale of operations increases to theater and global.

The intensity of tactical-level military interactions is a significant independent variable causing the decoupling followed by disengagement pattern. Intense tactical-level interactions are more prone to cause loss of control and an initial engagement than are routine intensity of interactions, and make it more difficult for national leaders to to re-establish control before the forces disengage.

Tactical-level threat perceptions that attack is imminent tend to cause decoupling and the initial engagement. A perception that attack is imminent can prompt the on-scene commander to use force without consulting with higher authority or without waiting for a top-level decision after reporting his intentions. The tactical-level perception of threat can range from being completely accurate, as in the first Tonkin Gulf Incident, to being an acute misperception of the adversary's intentions.

The relationship between political-level and tactical-level threat perceptions tends not to be a significant independent variable causing the decoupling followed by disengagement pattern, and therefore can range from convergent to divergent. Regardless of the threat perceptions they may hold, national leaders are not able to re-establish control over tactical-level interaction until the forces disengage.

Strong escalation-inhibiting factors favor occurrence of the decoupling followed by disengagement pattern, rather than the two patterns involving escalation. The internal factors are more important than the external factors. Internal factors prevent the tactical-level engagement from spreading upward, becoming a larger battle involving additional forces. The on-scene commander breaks off the engagement once the immediate threat to his forces is countered. The chain of command reacts with caution rather than over-reacting. External factors can also contribute to the forces of the two sides disengaging rather than escalating after the initial engagement. The most important external factor is adherence to tacit rules of crisis behavior. Even when the adversary instigates an incident with a deliberate provocation, he could well decide that escalation of the resulting engagement would not serve his interests. The adversary's leaders could also be decoupled from their forces, leaving the escalation decision to the

adversary's on-scene commander. In either case, observance of tacit rules of crisis behavior by the adversary contributes to disengagement rather than escalation being the result of an incident.

The occurrence of inadvertent military incidents with a significant impact on crisis military interaction favors occurrence of the decoupling followed by disengagement pattern. Inadvertent military incidents can trigger the decoupling of tactical-level inter-actions and the initial engagement between the forces of the two sides. The most common pattern is for an unanticipated authorized action by an on-scene commander to produce an engagement with the other side, as in use of force in self-defense under the rules of engagement. Military accidents or unauthorized actions could also trigger this pattern of decoupling, but no examples were found in the case studies.

In summary, four of the independent variables cause decoupling and the initial engagement to occur, one of the independent variables causes disengagement to occur without tactical-level escalation, and two of the independent variables are not significant causes of the pattern. The independent variables that cause decoupling and the initial engagement to occur are loss of political-level control over tactical-level military operations, intense tactical-level military operations, tactical-level threat perceptions that attack is imminent, and inadvertent incidents with a

significant impact on crisis military interaction. The independent variable that causes decoupled tactical-level interactions to disengage rather than escalate is strong escalation-inhibiting factors. The independent variables that have no significant role in causing the pattern to occur are the scale of military operations and the relationship between political-level and tactical-level threat perceptions. The decoupling followed by disengagement pattern occurs less often than the momentary decoupling pattern, but more often than the two decoupling patterns involving escalation.

#### Inadvertent Tactical-Level Escalation

The fifth pattern of crisis military interaction is inadvertent tactical-level escalation. This pattern begins with decoupling of tactical-level interaction from political-level crisis management objectives. National leaders are not able to immediately re-establish control due to communications problems, decisionmaking overload, or a fast-paced tactical environment. The initial tactical-level engagement gains momentum and escalates, increasing in violence and involving an increasing amount of each side's forces.

The inadvertent tactical-level escalation pattern can have three outcomes: disengagement short of war, inadvertent strategic-level escalation, or deliberate escalation by national leaders. The escalation sequence stops under one

of three circumstances: one side disengages after suffering catastrophic losses, both sides disengage from an inconclusive engagement due to exhaustion of ordnance and attrition of forces, or national leaders re-establish control and order disengagement. The third scenario--national leaders halting tactical-level escalation after losing control--is unlikely due to the extreme difficulty of maintaining direct control of forces once they are engaged in battle.

There were no examples of this crisis military interaction pattern in the case studies. The possibility of decoupled interactions being followed by tactical level escalation can be inferred from observed variation in the independent variables affecting military interaction.

Table 10  
Inadvertent Tactical-Level Escalation

Independent Variable	Value or Range
Political-level control of tactical-level military operations	Loss of control
Scale of military operations	Theater to global
Intensity of tactical-level military interactions	Intense
Perceived threat of attack at the tactical level	Imminent
Relationship between political-level and tactical-level threat perceptions	Divergent
Factors inhibiting escalation	Weak
Impact of inadvertent military incidents	Significant

However, the fact that the pattern was not actually observed suggests that its occurrence is improbable.

The causal pattern for decoupled interactions followed by tactical level escalation is summarized in Table 10. The most significant independent variables in the inadvertent tactical-level escalation pattern are loss of political-level control of tactical-level military interaction, divergent threat perceptions, and weak factors inhibiting escalation.

Loss of political-level control of tactical-level military interaction causes decoupling to occur and allows tactical-level escalation that is not controlled by national leaders to occur. Such loss of control can be caused by communications and information flow problems, impairment of political-level decisionmaking, a fast-paced tactical environment, ambiguous or ambivalent orders, tactically inappropriate orders, inappropriate guidance in mechanisms of indirect control, or unauthorized actions by military commanders. Inadvertent tactical-level escalation could even occur while national leaders are in direct communication with the on-scene commander if they are incapable of staying abreast of a rapidly changing tactical environment.

Theater to global scale of military operations are normally significant in causing the inadvertent tactical-level escalation pattern. Larger-scale operations can cause loss of control arising from communications and information



flow problems or impairment of political-level decision-making. Inadvertent tactical-level escalation can also occur during smaller-scale military operations when the cause of decoupling is a fast-paced tactical environment, ambiguous or ambivalent orders, tactically inappropriate orders, inappropriate guidance in mechanisms of indirect control, or unauthorized actions by military commanders.

Intense tactical-level military interaction contributes to causing the inadvertent tactical-level escalation pattern by causing loss of political-level control of tactical-level military interaction and making it more difficult for national leaders to re-establish control before significant tactical-level escalation occurs.

Tactical-level threat perceptions that attack is imminent tend to cause decoupling, the initial engagement, and the tactical-level escalation. A perception that attack is imminent can prompt the on-scene commander to use force without consulting with higher authority or without waiting for a top-level decision after reporting his intentions. The tactical-level perception of threat can range from being completely accurate to being an acute misperception of the adversary's intentions.

A divergent relationship between political-level and tactical-level threat perceptions is an important independent variable in the inadvertent tactical-level escalation pattern. Divergent threat perceptions inhibit the

re-establishment of political-level control over tactical-level interaction, but also help prevent tactical-level escalation from causing inadvertent strategic-level or deliberate political-level escalation. A divergent relationship between political-level and tactical-level threat perceptions thus contributes to escalation remaining limited to the tactical level of interaction.

Weak escalation-inhibiting factors favor occurrence of the inadvertent tactical-level escalation pattern. Neither internal nor external escalation-inhibiting factors are sufficient to prevent tactical-level escalation from occurring. On the other hand, the internal and external escalation-inhibiting factors prevent escalation from spreading upward to the strategic and political levels. Internally, strategic-level military commanders and political-level leaders react with caution to the tactical-level engagement. Externally, both sides adhere to tacit rules of crisis behavior that inhibit escalation, and communications between the two sides may be used to avoid escalation and hasten tactical disengagement. The escalation-inhibiting factors are thus too weak to prevent tactical-level escalation, but are strong enough to prevent inadvertent strategic-level escalation or deliberate political-level escalation.

The occurrence of inadvertent military incidents with a significant impact on crisis military interaction favors

the occurrence of the inadvertent tactical-level interaction pattern. Inadvertent military incidents can trigger the decoupling of tactical-level interactions and the initial engagement between the forces of the two sides. The most common pattern is for an unanticipated authorized action by an on-scene commander to produce an engagement with the other side, as in use of force in self-defense under the rules of engagement. Military accidents or unauthorized actions could also trigger this pattern of decoupling.

In summary, four of the independent variables cause decoupling and the initial engagement to occur, two of the independent variables cause tactical-level escalation to occur, and two of the independent variables allow tactical-level escalation to occur but prevent it from causing inadvertent strategic-level escalation or deliberate political-level escalation. The independent variables that cause decoupling and the initial engagement to occur are loss of political-level control over tactical-level military operations, intense tactical-level military operations, tactical-level threat perceptions that attack is imminent, and inadvertent incidents with a significant impact on crisis military interaction. The independent variables that cause decoupled tactical-level interactions to escalate are intense tactical-level military interaction, and a tactical-level threat perception that attack is imminent. The independent variables that allow tactical-level escalation

but prevent inadvertent strategic-level escalation or deliberate political-level escalation are a divergent relationship between political-level and tactical-level threat perceptions and weak escalation-inhibiting factors.

#### Inadvertent Strategic-Level Escalation

The sixth pattern of crisis military interaction is inadvertent strategic-level escalation. This pattern can arise via either of two paths: escalation at the strategic level arising from tactical-level escalation, or initiation of escalation at the strategic level without prior tactical-level escalation. Inadvertent strategic-level escalation arising from tactical-level escalation was the path examined in this study, which focused on tactical-level military interaction. Inadvertent strategic-level escalation without prior tactical-level escalation could arise from inadvertent military incidents (unanticipated authorized actions, military accidents, and unauthorized deliberate actions) involving strategic-level forces. Many of the factors affecting tactical-level interaction probably also affect strategic-level interaction, but such strategic level factors were not addressed in this study. The remainder of this discussion will address only inadvertent strategic-level escalation arising from tactical-level escalation.

Inadvertent strategic-level escalation arising from tactical-level escalation begins with tactical-level

interactions decoupling from political-level control. National leaders are unable to immediately re-establish control over tactical-level interaction due to communications problems, decisionmaking overload, or a fast-paced tactical environment. The initial tactical-level engagement gains momentum and escalates, increasing in violence and involving an increasing amount of each side's forces. The tactical-level escalation spiral generates escalatory pressures at the strategic level, reinforcing perceptions that the adversary is preparing for war and is not interested in a diplomatic solution to the crisis. The scope of fighting rapidly grows to the theater level and spreads to other theaters, possibly becoming global in scope. The spread of the escalatory spiral to the strategic level of interaction is through deliberate decisions made by strategic-level military commanders, but is considered to be inadvertent because it was not directly ordered by national leaders and did not support their efforts to manage the crisis.

The inadvertent strategic-level escalation pattern of crisis military interaction can have three outcomes: inadvertent escalation to war, deliberate escalation to war, or disengagement short of war. Inadvertent escalation to war occurs if strategic-level military commanders, acting on their own authority, order initiation of wartime military operations (that is, to execute contingency war plans). This could occur under three circumstances: First,

inadvertent escalation to war could occur when tactical-level and initial strategic-level escalation is misperceived as initiation of war by the adversary. Strategic-level military commanders then order wartime operations under the authority delegated to them to act in such situations. This would appear to be the most likely circumstances for inadvertent escalation to war. Second, inadvertent escalation to war could arise from strategic-level military commanders misperceiving that national leaders desire that wartime operations be initiated, but are for some reason (such as communications failure) incapable of issuing the order. Third, inadvertent escalation to war could arise from an unauthorized deliberate decision by a strategic level military commander to initiate wartime operations (that is, ordering such operations knowing that national leaders would oppose the decision). Based on the findings of this study, this would be the least likely path for inadvertent escalation to war.

Deliberate escalation to war occurs when inadvertent strategic-level escalation prompts national leaders to make a deliberate decision to initiate wartime operations. The final decision for war is a deliberate one made by national leaders. The decision for war could be based on an accurate assessment to that the adversary intends to initiate wartime military operations, or has already done so, but could also be based on a misperception of the adversary's intentions

and the causes of the tactical-level and strategic-level escalation being experienced in the crisis.

Disengagement short of war can occur under either of two circumstances: First, when national leaders are able to re-establish control over strategic-level military interaction and halt escalation of the conflict, or, second, when strategic-level military commanders halt escalation of military operations on their own authority (perhaps realizing that their original decision to commence strategic-level military operations was unwarranted).

There were no examples of the inadvertent strategic-level escalation pattern of crisis military interaction in the case studies. The possibility of decoupled interactions being followed by escalation spreading to the strategic level can be inferred from observed variation in the independent variables affecting military interaction. However, the fact that the pattern was not actually observed suggests that its occurrence is improbable.

The causal pattern for inadvertent strategic-level escalation is summarized in Table 11. The most important independent variables causing this pattern are loss of political-level control of tactical-level military interaction, convergent threat perceptions, and lack of escalation-inhibiting factors.

Loss of political-level control of tactical-level military interaction causes decoupling to occur and allows

Table 11  
Inadvertent Strategic-Level Escalation

Independent Variable	Value or Range
Political-level control of tactical-level military operations	Loss of control
Scale of military operations	Global
Intensity of tactical-level military interactions	Intense
Perceived threat of attack at the tactical level	Imminent
Relationship between political-level and tactical-level threat perceptions	Convergent
Factors inhibiting escalation	Lacking
Impact of inadvertent military incidents	Significant

tactical-level escalation that is not controlled by national leaders to occur. Such loss of control can be caused by communications and information flow problems, impairment of political-level decisionmaking, a fast-paced tactical environment, ambiguous or ambivalent orders, tactically inappropriate orders, inappropriate guidance in mechanisms of indirect control, or unauthorized actions by military commanders. Decoupling could occur while national leaders are in direct communication with the on-scene commander if they cannot stay abreast of a rapidly changing tactical environment.

Global-scale Military operations tend to favor the occurrence of the inadvertent strategic-level escalation



pattern. Larger-scale operations make loss of political-level control over tactical-level and strategic-level interactions more likely, and provide an opportunity for a tactical engagement to rapidly spread to theater and strategic forces. The most acute danger is when the military forces of both sides are at a high level of alert, maintaining readiness to commence combat operations on short notice.

Tactical-level threat perceptions that attack is imminent tend to cause decoupling, the initial tactical-level engagement, and tactical-level escalation. A perception that attack is imminent can prompt the on-scene commander to use force without consulting with higher authority or without waiting for a top-level decision after reporting his intentions. The tactical-level perception of threat can range from being completely accurate to being an acute misperception of the adversary's intentions.

A convergent relationship between strategic-level and tactical-level threat perceptions is an important independent variable in the inadvertent strategic-level escalation pattern. The spread of escalation to the strategic level results from strategic-level military commanders perceiving that war with the adversary is imminent and unavoidable. Further, a convergent relationship between political-level and strategic-level threat perceptions is important in causing deliberate escalation to war to result from inadvertent strategic-level escalation. National leaders make a

deliberate decision to initiate wartime military operations, rather than to halt strategic-level escalation, because previous tactical-level and strategic-level escalation appears to confirm their suspicions that the adversary is not interested in a diplomatic solution to the crisis. Convergence of threat perceptions is thus a significant independent variable in the inadvertent strategic-level escalation pattern of crisis military interaction.

A lack of escalation-inhibiting factors is also a significant independent variable in the inadvertent strategic-level escalation pattern. The internal factors that would ordinarily prevent escalatory pressures from spreading upward are nullified by convergent threat perceptions. On-scene commanders and the chain of command have little incentive to react with military and political caution because national leaders share their worst-case perceptions of the adversary's intentions. The external factors inhibiting escalation are also lacking. A lack of, or erosion of, tacit rules of crisis behavior cause the two sides to react to tactical-level escalation with strategic-level escalation, rather than restraint, and communications between the two sides are not used or not effective in preventing misperceptions of intentions and arresting the escalation spiral.

The occurrence of inadvertent military incidents with a significant impact on crisis military interaction favors

the occurrence of the inadvertent strategic-level interaction pattern. Inadvertent military incidents can trigger the decoupling of tactical-level interactions and the initial engagement between the forces of the two sides; and can also contribute to the spread of tactical-level escalation to the strategic level. For example, accidental launch of a strategic nuclear weapon in the midst of tactical-level escalation could well trigger strategic-level escalation by appearing to be preemption by the other side.

In summary, five of the independent variables cause decoupling and the initial engagement to occur, while five of the independent variables cause tactical-level escalation to result in inadvertent strategic-level escalation. The independent variables that cause decoupling and the initial engagement to occur are loss of political-level control over tactical-level military operations, global-scale military operations, intense tactical-level military interaction, tactical-level threat perceptions that attack is imminent, and inadvertent incidents with a significant impact on tactical-level military interaction. The independent variables that cause tactical-level escalation result in inadvertent strategic-level escalation are loss of political-level control over strategic-level military operations, global-scale military operations, a convergent relationship between strategic-level and tactical-level threat perceptions (and, in the case of deliberate escalation to war,

convergent political-level and strategic-level threat perceptions), a lack of escalation-inhibiting factors, and inadvertent incidents with a significant impact on strategic-level military interaction. The inadvertent strategic-level escalation pattern appears to be the crisis interaction pattern least likely to occur.

### Conclusion

The dependent variable in the theory of stratified interaction is the outcome of crisis military interaction; specifically, the degree to which and the manner in which tactical-level military interactions cause escalation of a crisis. Variance in the dependent variable is described in terms of six patterns of crisis military interaction: unified interaction, parallel stratified interaction, momentary decoupling, decoupled interactions followed by disengagement, inadvertent tactical-level escalation, and inadvertent strategic-level escalation. The first two patterns--unified interaction and parallel stratified interaction--can have three escalation outcomes: no escalation, inadvertent controlled escalation, or deliberate escalation. Inadvertent controlled escalation and deliberate escalation can halt short of war or continue on to war. In the third and fourth patterns--momentary decoupling of interactions and decoupled interactions followed by disengagement--tactical-level interaction halts without

significant escalation. The fifth pattern--inadvertent tactical level escalation--can have three outcomes: disengagement short of war, inadvertent strategic-level escalation, or deliberate escalation to war. The sixth pattern--inadvertent strategic-level escalation--can have three outcomes: disengagement short of war, inadvertent escalation to war, or deliberate escalation to war.

These six patterns constitute a typology of crisis military interaction and appear to cover the full range of interactions that could occur in a crisis. However, because they were identified through an analytical-inductive process, rather than deductively, additional patterns could be identified through further empirical research.

More than one of the patterns of crisis military interaction can occur in a crisis. The first four patterns--unified interaction, parallel stratified interaction, momentary decoupling of interaction, decoupled interactions followed by disengagement, and inadvertent tactical-level escalation--can occur in various sequences in a crisis.

Contingent generalizations were formulated for the six patterns of crisis military interaction, offering a distinct causal pattern for each type of interaction. Each of the causal patterns is produced by specific variations in seven independent variables that were identified in the case studies as significant in determining the outcome of crisis military interaction. The seven independent variables that

determine the nature of crisis military interaction and the likelihood of escalation are (a) the degree of political-level control over tactical-level military interaction, (b) the scale of military operations, (c) the intensity of tactical-level military interactions, (d) the perceived threat of attack at the tactical level, (e) the relationship between political-level and tactical-level threat perceptions, (f) the strength of escalation-inhibiting factors, and (g) the impact of inadvertent military incidents. The seven independent variables determine the degree to which crisis interactions to become stratified, whether or not

Table 12  
Comparison of Crisis Interaction Patterns

Ind Var	Unified Interaction	Parallel Stratified Interaction	Momentary Decoupling
(a)	direct	indirect	loss
(b)	local	local-theater	local-theater
(c)	routine-heightened	routine-heightened	routine-heightened
(d)	any*	any*	unlikely-possible
(e)	convergent	convergent	convergent-similar
(f)	strong	strong	strong
(g)	minor	minor	significant

\* Independent variable not significant in the pattern.

Note: Independent variables (Ind Var) are lettered in the sequence given at the top of this page.

Table 12 (Continued)  
Comparison of Crisis Interaction Patterns

Ind Var	Decoupled Interaction/ Disengagement	Inadvertent Tactical-level Escalation	Inadvertent Strategic-level Escalation
(a)	loss	loss	loss
(b)	any*	theater-global	global
(c)	intense	intense	intense
(d)	imminent	imminent	imminent
(e)	any*	divergent	convergent
(f)	strong	weak	lacking
(g)	significant	significant	significant

\*Independent variable not significant in the pattern.

Note: Independent variables (Ind Var) are lettered in the sequence given at the top of page 1090.

stratified interactions become decoupled, and the degree to which decoupled interactions result in escalation of a crisis. The values of the seven independent variables that cause or tend to favor each of the patterns of crisis military interaction are summarized in Table 12.

On the basis of the eight historical cases examined in this study, a ranking of the six patterns of crisis interaction--from most to least likely to occur when U.S. naval forces are employed in a crisis--would be as follows: parallel stratified interaction, momentary decoupling,

decoupled interactions followed by disengagement, inadvertent tactical-level interaction, inadvertent strategic-level interaction, and unified interaction. The independent variables that most affect this ranking are political-level control of tactical-level interaction and the strength of the escalation-inhibiting factors. Direct political-level control of tactical-level military operations is difficult for U.S. leaders due to the size and complexity of the U.S. armed forces, making the unified interaction pattern rare and providing ample opportunities for stratified crisis interactions to become decoupled. The escalation-inhibiting factors are generally quite strong, preventing escalation even when decoupling occurs--making momentary decoupling and decoupling followed by disengagement much more common than inadvertent tactical-level escalation or inadvertent strategic-level escalation.

Three issues remain to be addressed. First, what do these findings imply for the analytical value of the theory of stratified interaction. Second, what are the implications of these findings for the practice of crisis management. Third, to what degree can these findings be generalized to crises involving forces other than naval forces. These issues will be addressed in the next chapter, which will offer overall conclusions on the theory of stratified interaction, the implications of these findings for crisis management, and areas for further research.



CHAPTER X  
CONCLUSIONS

The theory of stratified interaction and the contingent generalizations derived from it provide a policy-relevant explanatory theory of crisis military interaction. The theory provides differentiated explanations for a variety of crisis military interactions, thus allowing policymakers to diagnose specific situations in which crisis management and crisis stability problems can arise.

Studies of international crises have repeatedly concluded that the success of crisis management is critically dependent upon top-level political authorities maintaining close control of the actions of their military forces. This essential requirement for crisis management has also been identified as a potentially serious problem area. But the existing literature on crises and crisis management by and large has not progressed beyond identifying general requirements for crisis management. Policymakers need an enhanced ability to diagnose specific situations in which particular crisis management and crisis stability problems can arise. Policymakers cannot operate effectively only on the basis of general requirements for

crisis management. Rather, they need the ability to judge how the general requirements of crisis management apply in the particular crises they face.<sup>1</sup>

Contemporary crisis management theory has poor diagnostic power when applied to a particular crisis situation. Scholars engaged in formulating crisis management theories generally have not attempted to develop a differentiated typology of situations in which crisis management and crisis stability problems can arise. Most scholars engaged in formulating crisis management theory have been insufficiently concerned with explanatory, as opposed to prescriptive, theory. What is needed is an explanatory theory that is policy-relevant without being prescriptive. Earlier studies have not succeeded in identifying theoretically relevant variation in crisis military interaction. Crisis management and crisis stability problems can arise in different ways, causing crisis management to fail for different reasons.

To acquire diagnostic power of the kind needed by policymakers, an explanatory theory must be capable of providing explanations that discriminate among causal

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<sup>1</sup>This discussion draws heavily from Alexander L. George and Richard Smoke, Deterrence in American Foreign Policy: Theory and Practice (New York: Columbia University Press, 1974), pp. 509-515; Alexander L. George, "Case Studies and Theory Development: The Method of Structured, Focused Comparison," in Paul Gordon, ed., Diplomacy: New Approaches in History, Theory, and Policy (New York: The Free Press, 1979), pp. 59-60.

patterns. That is, it must be capable of offering differentiated explanations for a variety of patterns of crisis military interaction. A differentiated explanatory theory is possible by formulating contingent generalizations, which identify regularities that occur only under certain specific conditions. The objective of this study was to identify different causal patterns associated with variation in crisis military interaction. For this purpose an analytical-inductive procedure was used to analyze four historical cases of crisis naval operations and four cases of peacetime attacks on U.S. Navy ships. This inductive procedure yielded a typology of crisis military interactions, each linked with a somewhat different causal pattern.

The dependent variable was whether or not inadvertent escalation occurs in an international crisis. For the purposes of this study, inadvertent escalation was defined as any increase in the level or scope of violence in a crisis that was not directly ordered by national leaders or anticipated by them as being the likely result of their orders. The specific phenomena explained in the study were the interaction of military forces in crises and the impact of such interactions on crisis stability. Empirical research on the use of United States naval forces in crises was used to develop a set of contingent generalizations explaining three aspects of the theory: (a) the conditions under which crisis interactions become stratified and decoupled, (b) the

conditions that prevent stratified escalation dynamics from occurring, and (c) the conditions under which tensions between political and diplomatic objectives arise and affect crisis decision-making in particular ways. The analysis defined discrete patterns of tactical-level crisis interaction, each associated with a particular causal pattern. Because the patterns of tactical-level interaction were arrived at empirically, the patterns identified in this study probably do not cover the universe of interaction patterns--additional patterns could well be identified through further empirical research.

The scope of the study was limited to international crises in which two fundamental conditions were present: The first was that both sides in a crisis sought to protect or advance vital national interests, or at least had vital interests at stake that they were unwilling to sacrifice for the purpose of avoiding war. Both sides thus took military actions intended to support crisis bargaining and to counter military moves by the other side. The second condition was that neither side desired war as the outcome of the crisis. National leaders on each side limited their objectives and restrained their military moves to avoid provoking a war. Both sides thus sought to avoid inadvertent escalation of the crisis while deterring escalation by the other side. When both of these conditions are met, the primary danger is of war arising from inadvertent escalation.

The nature of the phenomena being addressed dictated a focus on decisionmaking and the details of how crisis military operations are controlled. That, in turn, required a research design in which a small number of cases were examined using the method of structured focused comparison, rather than a research design using a large number of cases and statistical methods to identify significant causal variables explaining variance in outcomes.

Empirical data for the study came from two sets of case studies. The first set consisted of four cases in which United States naval forces were employed in crises: the 1958 Taiwan Straits Crisis, the 1962 Cuban Missile Crisis, the 1967 Middle East War, and the 1973 Middle East War. The second set of case studies consisted of four cases in which U.S. Navy ships were attacked in peacetime: the 1964 Tonkin Gulf Incidents, the 1967 Israeli attack on the USS Liberty, the 1968 North Korean seizure of the USS Pueblo, and the 1987 Iraqi attack on the USS Stark.

#### The Theory of Stratified Interaction

Previous studies of international crises implicitly viewed the various political and military interactions that occur between the two sides as a single interaction sequence. The flow of events in a crisis is viewed as a single sequence of actions and reactions. A consequence of this perspective is the implicit assumption that all the

actions taken by a nation during a crisis either are ordered by national leaders in pursuit of their policy objectives, or should not have occurred and therefore represent a loss of control over events. The single interaction sequence model does not accurately describe international crises. What actually occurs is multiple interaction sequences that only partially influence each other. Multiple interaction sequences, evolving simultaneously but semi-independently, arise when national leaders do not make all operational decisions themselves, but must delegate significant decision-making authority to subordinates.

#### Stratified Interaction

The theory of stratified interaction states that, given conditions of delegated control, tight horizontal coupling between the military forces of the two sides, and acute crisis, interactions between the two sides will be stratified in three levels: political, strategic and tactical. The first corollary to the theory is that tactical-level interactions can become decoupled from the political-military objectives of national leaders. The term decoupled is used to mean that vertical command and control links to operational military forces at the scene of a crisis are severed or otherwise fail to ensure that tactical-level decisionmaking supports the crisis management strategy of national leaders. Decoupling occurs to the extent that

operational decisions on the employment of military forces made at the strategic and tactical levels differ from the operational decisions political level decisionmakers would have made to coordinate those military actions with their political-diplomatic strategy for resolving the crisis. This is an inductive theory arrived at through empirical historical research into crisis interactions.

### Crisis Stability

Crisis stability exists to the extent that neither side has an incentive to strike the first military blow. The crisis security dilemma is that, in a crisis, many of the actions a state takes to increase its security and improve its bargaining position decrease the security of the adversary. The stratified crisis security dilemma is that, in a crisis, the security dilemma is stratified, arising from the interaction processes occurring separately at each of the three levels, and affecting the likelihood of war separately at each level. This in turn leads to the concept of stratified escalation dynamics: in a crisis in which interaction between the two sides has become stratified and decoupled, the security dilemma, operating separately at each level of interaction, can trigger an escalatory spiral at the strategic or tactical levels, which under certain circumstances can cause the crisis to escalate uncontrollably to war.

Among the various ways in which wars can arise, preemption and inadvertent escalation are particularly relevant to the study of how war can arise from a crisis. Preemption is motivated by perceptions and fears that the other side is about to strike first. An important implication of the stratified crisis security dilemma is that tactical-level military commanders can perceive incentives to preempt while political-level leaders do not. Tactical-level commanders can be delegated the authority to order certain types of preemption under the doctrine of anticipatory self-defense. Such tactical-level preemption could well set in motion an escalation sequence that is at least temporarily beyond the control of national leaders.

War can also arise inadvertently through an escalation process in which the two sides take increasingly threatening military and diplomatic moves in an effort at gaining leverage in crisis bargaining and improving their military positions. Accidents and other inadvertent military actions contribute to the escalation process. The escalation dynamic is driven by rising stakes in the outcome of a conflict, which increase the motivation of national leaders to prevail, and by an action-reaction process, in which an escalatory action by one side provokes an escalatory reaction by the other side in recurring cycles. This escalation dynamic increases tensions and hardens resolve until it results in a deliberate or preemptive decision for war.



Another aspect of crisis stability is the danger of misperception under conditions of stratified interaction. The concept of the misperception dilemma describes the inadvertent results that can occur when military forces are used for signalling in a crisis. When signalling adversaries, the dilemma is between inadvertent signals of hostility and inadvertent signals of acquiescence. When signalling an ally or friend, the misperception dilemma is between inadvertent signals of encouragement and inadvertent signals of retrenchment. Given stratified interactions, then perceptions of the adversary can also be stratified, with different perceptions being held at different levels of interaction. Misperceptions can arise at one level without other levels necessarily being aware of them, providing a mechanism by which stratified interactions can become decoupled.

#### Political-Military Tensions

The crisis management literature is based on an erroneous view of the manner in which military forces are controlled in crises. This apparently resulted from the frequently observed phenomenon of United States leaders exercising close control over military operations in crises, combined with a lack of familiarity with military command and control procedures. The crisis management literature typically describes the control of crisis military

operations as being highly centralized, with top-level civilian authorities exercising direct control--in contrast to routine peacetime operations, which are described as highly decentralized and having little involvement of civilian political authorities. Although this description is essentially correct, it fails to grasp the complexity of military command and control, and leads to inaccurate assessments of the crisis management problems arising from the employment of military forces in crises.

Even in crises, military commanders are delegated significant authority to make operational decisions on the employment of their forces--including decisions on the use of force. Under certain circumstances military commanders can use conventional weapons without seeking permission from higher authorities. The scope of their authority is spelled out in a variety of documents, which collectively will be referred to as mechanisms of indirect control. There are even provisions for commanders to act contrary to their written instructions when circumstances dictate. Although some scholars have recognized that these features exist in the United States military command and control system, the actual complexity of that system has not been reflected in the literature on crisis management.

The interaction of political and military considerations when military force is employed as a political instrument in crises generate tensions--actual and potential

conflicts between political and military considerations which force decision-makers, either knowingly or tacitly, to make trade-offs among individually important but mutually incompatible considerations. These political-military tensions, which can give rise to difficult policy dilemmas in a crisis, are inherent in the use of force as a political instrument under conditions of stratified interaction.

There are three political-military tensions. The first is tension between political considerations and the needs of diplomatic bargaining, on the one hand, and military considerations and the needs of military operations, on the other. The second is tension between the need for top-level control of military options in a crisis, and the need for tactical flexibility and instantaneous decision-making at the scene of the crisis. The third is tension between performance of peacetime political missions and readiness to perform wartime combat missions. These three tensions between political and military considerations affect the degree to which stratified interactions become decoupled in a crisis, thus having a significant impact on crisis decision-making and crisis stability.

#### Mechanisms of Indirect Control

Organization and management studies show that significant delegation of decisionmaking authority is common in large organizations. Delegation of decisionmaking is

driven by the limits on decisionmaking, which cause decisionmaking by top-level officials to deteriorate as the size and complexity of the organization increase. These observations apply particularly well to the military chain of command, which is founded on the principle of delegating control while retaining command. As organization theory predicts, delegation of control in the military command system is primarily due to constraints on the ability of top-level authorities to effectively control tactical operations.

Organization and management studies show that tension between autonomy and control is always present in public and business organizations, particularly those consisting of numerous independent operating units. As before, these findings apply particularly well to the U.S. military. Tension between delegation and control is always present in the military chain of command. Pressures toward centralized control are driven by the complexity of modern warfare, fear of nuclear war, and efforts to exploit the force multiplier effect. Pressures toward decentralized control are driven by severe constraints on the ability of top-level authorities to effectively control tactical operations, and by the advantages gained by granting the on-scene commander flexibility to exercise initiative.

Organization and management studies show that delegation of decisionmaking can range from being highly rule-governed, for standard, repetitive situations, to highly

discretionary, for situations that cannot be anticipated. This also applies to military command and control. The methods of exercising control cover a "tightness of control" spectrum ranging from very tight to very loose control. Toward the tight end of the spectrum are positive direct control, and direct control by negation. Toward the loose end of the spectrum are monitored delegated control and autonomous delegated control. The guidance contained in mechanisms of indirect control can also range from being detailed and specific (tight indirect control) to general and flexible (loose indirect control). In military command and control, as in public administration and business management, tighter forms of control are more appropriate for standard situations that are easily anticipated, while looser forms of control are more appropriate for an environment marked by uncertainty and ambiguity, in which specific decisionmaking situations are difficult to anticipate.

Organization and management studies show that three types of control mechanisms are used in various combinations: hierarchical (rules and procedures), collegial (professionalism), and nonhierarchical (organizational and societal norms and culture). All three methods are used in the military organizations. The mechanisms of indirect control--the alert system, standing orders, mission orders, contingency plans, and rules of engagement--are all hierarchical controls. They relieve higher authorities of

the burden of having to closely monitor the details of military operations--a burden that can quickly exceed their information processing and decisionmaking capabilities when large-scale operations are being conducted in a fast-paced political-military environment. Relieved of this burden, top-level authorities are better able to concentrate on monitoring the overall political-strategic situation, formulating and revising their strategy for dealing with the confrontation, and coordinating the overall execution of military operations so that they support that strategy. Hierarchical controls serve similar functions in public and business organizations.

Collegial and nonhierarchical controls are relied upon heavily in military organizations. Collegial control is provided by the professionalism of the officer corps, which is highly developed and stressed in the training of officers. Non-hierarchical controls--organizational norms and values--are also widely used in the military. They are most visible in elite military units, such as Army Special Forces and the Marine Corps. Members of these units are indoctrinated that their elite status requires that they meet superior standards of performance--typically discipline, endurance, aggressiveness, and fighting skill--unique to their organizations. Similar nonhierarchical controls are used throughout the armed forces to complement and reinforce military professionalism.

Collegial and nonhierarchical controls have a major impact on the effectiveness of delegated control and the mechanisms of indirect control. On the one hand, controls such as discipline, loyalty, and respect for the chain of command are essential for delegated control and mechanisms of indirect control to function at all. Similarly, professional experience and judgement can be crucial for correctly interpreting ambiguous orders and carrying out general guidance under rapidly changing circumstances. The ultimate test of professional experience and judgement is knowing when to disregard inappropriate orders in order to take action that better supports the national interest. On the other hand, collegial and nonhierarchical controls can generate commitment to particular operational doctrines or procedures, and resistance to operations custom-designed for crisis management purposes.

Studies of public administration and business management repeatedly show that in large organizations comprised of numerous independent operating units, optimum performance is achieved with decentralized decisionmaking combined with appropriate--primarily collegial and nonhierarchical--controls. The issue as to what degree of centralization or decentralization is optimum for military operations was not directly addressed in this review of the military command system. The strength and weaknesses of the methods of control and mechanisms of indirect control, and the arguments

for and against centralization of decision-making authority, were discussed, but the focus was on how military command and control function in principle. Many things can go wrong in the stress and confusion of crisis military operations, and there are inherent limits on the ability of any methods or mechanisms of control to ensure that decisions made at one level are those that are most appropriate for the situation at another level. The optimum degree of centralization or decentralization can vary widely depending on the nature of the military operation being conducted and the political-military context of the operation.

The United States armed forces rely on a flexible combination of direct and indirect control. The methods of control range from positive direct control and direct control by negation at the tight end of the "tightness of control" spectrum, to monitored delegated control and autonomous delegated control at the loose end. Certain of the methods of control can be used in conjunction, and forces can be rapidly shifted from one method to another as the situation warrants.

When a military commander delegates control of operational forces, he does not relinquish all control of those forces to his subordinate. In most cases, he retains a certain amount of direct control, which can vary widely in tightness. Additionally, the commander has at his disposal various mechanisms of indirect control. Mechanisms of



indirect control are orders, instructions, or detailed guidance issued to a commander prior to the start of a mission in order to ensure that the operational decisions he makes support the objectives and intentions of his superiors. Such instructions can range from being very detailed and specific to very general in nature. As the method of control being used moves across the "tightness of control" spectrum from tight to loose--that is, as the subordinate is granted increasing freedom from direct control--the importance of the mechanisms of indirect control increases. When a subordinate is operating under autonomous delegated control, with no direct communications links at all, the mechanisms of indirect control are the only means of control available. There are five mechanisms of indirect control: the alert system, standing orders, mission orders, contingency plans, and rules of engagement.

The U.S. alert system, which is based on five levels of Defense Readiness Condition (DEFCON), defines the overall framework for controlling the readiness of U.S. forces, providing a uniform system for all operational commands. Within this framework, following guidance from the Joint Chiefs of Staff (JCS), individual commands formulate alert procedures and readiness postures applicable to their forces. The system is highly flexible, allowing different major commands to be placed at different DEFCON levels as the world situation warrants. Much of the detailed guidance

for operational forces is included in standing orders and contingency plans activated as higher levels of DEFCON are declared. Certain military commanders are delegated authority to increase the readiness of their forces independent of the DEFCON set by the JCS. They must maintain the minimum readiness level set by JCS, but can place their forces at a higher condition of readiness if warranted by the particular threat facing their commands. They can also select from among various readiness postures--tailored for different types of threats--within a given DEFCON level. Lower level commanders (who do not have authority to order changes in DEFCON) can also increase the readiness of their forces independent of the worldwide or theater DEFCON level.

Standing orders are detailed guidance on operational procedures prepared on a routine basis during peacetime. Although they are revised periodically, the intent is that they provide stable guidance, thereby minimizing uncertainty over operational procedures and facilitating the exercise of delegated control. Standing orders fall into four general categories: doctrinal publications, operations orders, operations plans, and long-range schedules.

Mission orders include letters of intent (LOIs), operations plans or operations orders issued for a specific short-term operation, and various other types of orders used to initiate routine and non-routine operations. Mission

orders can range from being very detailed and specific to being very brief and general. At a minimum, a mission order includes the objective of the operation, the forces assigned to it, the identity of the commander, and the time frame for the operation. Mission orders serve as a mechanism of indirect control by relieving a commander of having to exercise direct control over the details of an operation's execution. An important function of mission orders is to define the scope of decisionmaking authority delegated to subordinate commanders. A mission order can specify which decisions must be referred to higher authority and which decisions the subordinate commander is authorized make himself.

Contingency plans are those operations plans (OPLANs) prepared in advance for execution in the circumstances specified in the plans. Contingency plans are commonly prepared for crisis and peacetime emergency scenarios, various limited war scenarios, and general war scenarios (the last two types are often collectively referred to as "war plans"). Contingency plans serve as a mechanism of indirect control by allowing a commander to rapidly issue a single order to execute an operation that he and his staff have had time to prepare in detail ahead of time. Contingency plans are distributed in advance, eliminating the burden of having to issue a large volume of orders when a decision is made to carry out the operation. The only

direct orders that are needed are last-minute revisions to the contingency plan and the mission order directing that it be executed as modified.

Rules of engagement are orders issued to define the circumstances in which the U.S. armed forces are authorized to use their weapons for defense against hostile forces in peacetime, and to specify the scope and level of violence of combat operations in wartime. Rules of engagement serve as a mechanism of indirect control by allowing top-level authorities to specify policies on the use of force prior to situations in which direct control of the decision to use force is not possible. The purpose of rules of engagement is to provide guidance to operating forces from National Command Authorities, via the Joint Chiefs of Staff and the operational chain of command, on how to respond to threat of attack in peacetime, and on limitations on fighting in wartime.

Wartime rules of engagement place limits on military action when U.S. forces are engaged in an armed conflict. Certain military options may be deemed undesirable in wartime due to escalation control, diplomatic, and humanitarian considerations. For example, an important escalation control function of wartime rules of engagement is to prevent incidents with the military forces of non-belligerents. Wartime rules of engagement can also be used to prevent geographic expansion of a conflict when it is politically

and diplomatically desirable to confine the fighting to a limited area. Wartime rules of engagement allow military action under such circumstances only for self-defense--the adversary is forced to make the decision to escalate or expand the conflict.

Peacetime rules of engagement are founded on the right of self-defense as defined under international law and in U.S. Department of Defense directives. The peacetime rules prohibit U.S. military commanders from using force in peacetime unless absolutely necessary for self-defense. The principle of anticipatory self-defense allows commanders to shoot first upon clear demonstration of hostile intent (i.e., when threatened with imminent attack). There are two categories of peacetime rules of engagement: standing and special. Standing rules of engagement are written for routine peacetime operations. They are in effect at all times for the forces they cover. Special rules of engagement are issued to cover particularly sensitive situations, such as operations near a country openly hostile to the U.S. and operations during an international crisis.

The operational requirement of crisis management that national leaders maintain close control over military operations can be exercised in a variety of ways. One approach is to shift from methods at the loose end of the tightness of control spectrum--autonomous delegated control monitored delegated control--to methods at the tight end of the

spectrum--direct control by negation and positive direct control. This is the approach commonly referred to in the crisis management literature. This type of direct control has its costs, and can even hinder effective crisis management. Unless the scope of military operations is very small and simple, direct control can quickly overload information processing and decisionmaking. National leaders typically focus on selected aspects of the operations, which may not be the most important or dangerous evolutions taking place. The need for close control thus needs be weighed against the constraints on the ability of national leaders to exercise effective direct control of military operations.

A second approach to maintaining close control of crisis military operations is through the mechanisms of indirect control. This entails shifting the guidance contained in mechanisms of indirect control from being general and flexible (loose indirect control), to being detailed and specific (tight indirect control). Close attention to the rules of engagement is particularly important in this regard. As was also true with methods of control, excessive tightness in the mechanisms of indirect control can be counterproductive--denying the on-scene commander the flexibility he needs to adapt to rapidly changing circumstances. The optimum tightness of control lies somewhere between absolute control and absolute autonomy. Establishing precisely where the optimum balance

between control and delegation lies is one of the inherent tensions in crisis management.

U.S. military command and control procedures allow ample opportunity for stratified interaction to occur in crises. The U.S. armed forces rely on a flexible combination of direct and delegated control that emphasizes delegation of authority and providing on-scene commanders with freedom of action. Monitored delegated control is the method of control preferred by military commanders, and when direct control is necessary, control by negation is preferred over positive control. Primary emphasis is placed on use of mechanisms of indirect control rather than on the exercise of direct control. These preferences are strongest in the Navy, which has a long tradition of operational autonomy and which accords substantial authority to commanding officers. Even in crises, when there is a tendency for high-level military commanders as well civilian authorities to centralize control over operations, on-scene commanders are delegated substantial decisionmaking authority.

#### Tactical-Level Military Interaction

Tactical-level interactions are divided, based on the perspective of political-level decisionmakers, into two major categories: deliberate military actions and inadvertent military incidents. Deliberate military actions are ordered by political-level decisionmakers. They can occur

under delegated as well as direct control, and can be ordered in mechanisms of indirect control as well as directly over real-time communications links. Inadvertent military incidents are military actions that may affect the development of a crisis, but which are not specifically ordered or anticipated by national leaders. There are three categories of inadvertent military incidents: unanticipated authorized actions, military accidents, and unauthorized deliberate actions. Inadvertent military incidents are troublesome because decisionmakers may fail to realize they are unauthorized and perceive them as a deliberate provocation, signal of hostile intent, or escalation of a crisis.

Unanticipated authorized actions are military actions taken by military commanders in compliance with guidance contained in mechanisms of indirect control, but not directly ordered or specifically approved by national leaders. Such actions are taken by on-scene commanders in response to events or tactical conditions that national leaders did not anticipate, are not aware of, or do not understand. Such actions are authorized, in that they are taken in compliance with guidance contained in one of the mechanisms of indirect control--the alert system, standing orders, mission orders, contingency plans, or rules of engagement. But they are unanticipated, in the sense that national leaders did not directly order the specific action or anticipate that the specific action would result from



guidance contained in mechanisms of delegated control. National leaders can only react to unanticipated authorized actions and try to manage their impact on the crisis.

The most common phenomenon appears to be that national leaders order a military operation without understanding the full range of specific military actions that military commanders have authority to take in order to carry out that operation. Ambiguous orders, operations initiated without specific military objectives to guide decisionmaking by on-scene commanders, and open-ended military operations (those that drag on without a definitive conclusion) are particularly prone to cause unanticipated authorized actions. Reliance on methods or delegated command and mechanisms of indirect control is the most important condition giving rise to the possibility of unanticipated authorized actions, but such actions can also occur when tighter methods of control are being exercised. National leaders exercising control by negation could tacitly approve a military action (by not vetoing it) without understanding what the action entails. This could also occur when positive direct control is being exercised, though in this case it is more accurate to describe the consequences of the action, rather than the action itself, as being unanticipated.

Misperceptions on the part of on-scene military commanders are another possible cause of unanticipated authorized actions. This could occur when a military commander

misperceives the political-military context of the local tactical situation. For example, he might misperceive aggressive enemy military moves as indicating that friendly forces are in imminent danger of attack, or even that war had started, and order military actions that would have been authorized in these situations. The possibility of such misperceptions underscores the danger inherent in simulating attacks on an adversary's forces during a crisis--such as the Soviet Navy conducted against the U.S. Sixth Fleet while U.S. forces were at DEFCON 3 in the 1973 Middle East War. In this instance U.S. Navy commanders in the Mediterranean either knew or presumed that the Soviets were only conducting an exercise and did not attack any Soviet ships. Under other circumstances, however, such forbearance could be much more difficult for on-scene commanders.

Contingency plans can be a source of unanticipated authorized actions if national leaders do not fully understand the operational implications of the plans or do not have the time or inclination to carefully review the content of a plan before ordering it executed. Although United States military contingency plans contain a broad range of options for the employment of military forces, civilian policy-makers tend to view most predefined military options as inappropriate because the options were designed for a crisis scenario different than the one at hand, or were defined to meet purely military objectives rather than the

requirements for employment of military forces in a crisis. In practice, top-level military and civilian officials jointly review and revise contingency plans to meet the needs of the specific crisis at hand prior to executing them. However, the possibility of a contingency plan setting in motion military operations that top-level political leaders had not anticipated cannot be excluded entirely.

The alert system can also be a source of unanticipated authorized actions. The President and his advisors--even the Secretary of Defense--may not be aware of the full range of actions that can result from setting a higher level of Defense Condition of Readiness (DEFCON). Further, they may not be informed that a particular action has been initiated until it is too late to halt it or until it has already had an unanticipated effect on the crisis.

The most important potential source of unanticipated authorized actions is operational decisions made by tactical level military commanders on the basis of guidance contained in standing orders, mission orders, or the rules of engagement. Even when under direct control by top-level political authorities, operational commanders usually have sufficient authority to take actions that could significantly affect the development of a crisis. Ambiguous or ambivalent orders greatly increase the likelihood of unanticipated authorized actions by leaving the on-scene commander uncertain as to

the objectives of his mission, the intentions of national leaders, and the actions he is authorized to take. Movement of forces outside the scene of a crisis into battle positions, employment of weapons in self-defense in accordance with the rules of engagement, and stepped up surveillance of sensitive targets are all actions the President might not anticipate as resulting from his decisions, but which could raise tensions in a crisis.

Military accidents are actions not ordered or deliberately initiated at any level in the chain of command. Military accidents are troublesome because decisionmakers may fail to realize they are unauthorized and perceive them as a deliberate provocation, signal of hostile intent, or escalation. This problem is compounded by modern communications systems, which in theory give national leaders in many countries the capability for detailed control of military operations and the ordering specific tactical actions. Since almost any military action could conceivably be the result of orders from national leaders, an adversary may assume that those leaders ordered an action, that was, in fact, an accident. Thus, virtually any military action can assume strategic importance if believed to have been conceived and personally supervised by national leaders.

In practice, national leaders and even military commanders attempt to distinguish accidents from deliberate provocations or attacks. Among the factors that are

considered when evaluating whether a particular incident was a provocation or an accident are (a) the international political climate (Did the adversary have political and military motives to make a deliberate provocation or attack?), (b) the overall pattern of military operations at the time of the incident (Was the incident isolated or one of several attacks?), and (c) whether the circumstances of the incident indicate that it was a deliberate action (Were appropriate combat tactics used?). However, when assessment of a military accident must be made in the fog of a crisis, with possibly incomplete and erroneous information coming in from the scene and decision makers attempting to sort out adversary intentions under great stress, the possibility of an accident being misperceived as a deliberate provocation or attack is heightened.

U.S. and Soviet leaders have used communications with each other to clarify whether incidents were accidents or provocations. One tactic is to assume (at least for diplomatic purposes) that an isolated incident was an accident, but warn that further such incidents would be viewed as deliberate provocations or attacks. Both of the superpowers have used the "hot line" to prevent incidents from becoming confrontations. Communications between the United States and the Soviet Union, particularly over the hot line, have thus proven valuable for sorting out accidents from provocations (and for preventing provocations from recurring

by warning against similar "accidents" in the future). Situations could arise, however, in which national leaders or on-scene military commanders on the side that was the victim of a military accident perceive that they do not have time for communications with the other side before taking a military response to an apparent deliberate attack.

Military accidents occur infrequently in international crises. There are three reasons for this. First, the military chain of command normally cancels most military exercises affecting forces committed to or on standby for the crisis, greatly reducing the possibility of international incidents arising from exercise-related accidents. The primary reason why exercises are cancelled is that the forces are needed for crisis operations, but exercises have also been cancelled to avoid potential political complications. The second reason for the rarity of accidents in crisis is that the military chain of command usually advises on-scene commanders to act with caution and to avoid provocative actions. The third reason for the lack of incidents in crises is military prudence: on-scene commanders, motivated by self-preservation, generally avoid deliberately placing their forces in situations where they are extremely vulnerable to deliberate or inadvertent attacks. Military prudence is occasionally violated by top-level political officials ordering naval forces into dangerous waters, but on other occasions U.S. leaders have

been careful to keep U.S. forces well clear of fighting in a local conflict. These three factors counteract other factors--increased tempo of operations and adversary forces in close proximity--that might otherwise contribute to the occurrence of inadvertent military incidents.

Unauthorized deliberate actions are ordered or executed by tactical-level military commanders in violation of orders issued directly by national leaders, or in violation of operational guidance contained in mechanisms of indirect control. One way in which an unauthorized deliberate action can occur is for a military commander to stretch the limits on the actions he is authorized to take--complying with a broad interpretation of the letter of his orders rather than with what he knows to be the spirit of those orders. This type of unauthorized action is especially likely when the orders given to military forces are vague or ambiguous, leaving ample room for an on-scene commander to rationalize his actions. Unauthorized deliberate actions incidents are exceedingly rare.

Not all unauthorized deliberate actions are harmful to crisis management efforts. An on-scene military commander with an appreciation of the political objectives being pursued by national leaders could well decide to ignore orders that are inappropriate for the local situation and pursue a course of action that better supports crisis management efforts. Two types of unauthorized deliberate actions can

be distinguished on the basis of the military commander's intentions: constructive and malicious.

A constructive unauthorized action is taken in the belief that actions called for in existing orders are inappropriate under the circumstances, and that the unauthorized action would better support the national objectives in the crisis. Whether or not the outcome is constructive is a different matter, and a well-intentioned action could seriously complicate crisis management efforts. The mark of a constructive unauthorized action is an effort to inform the chain of command as soon as possible of the action taken and the reasons for taking it.

A malicious unauthorized deliberate action is taken out of opposition to the objectives underlying specific orders, disrespect for the chain of command or the method of control being used, or frustration with particular orders felt to be unnecessarily endangering the men performing the mission. The mark of a malicious unauthorized action is an effort to conceal the action from higher authority.

Incidents at sea can be either deliberate or inadvertent. Incidents at sea include various forms of harassment and other dangerous interactions between Soviet and American naval forces. They may be initiated deliberately on direct or standing orders from national leaders (for military reasons or as a political signal), or may occur inadvertently--that is, without having been ordered by national



leaders. Inadvertent incidents at sea can fall into any of the three categories of inadvertent military incidents: unanticipated authorized actions, military accidents, and unauthorized deliberate actions.

#### Findings of the Case Studies

Eight questions addressing specific aspects of the theory of stratified interaction were addressed in the case studies. The first three questions address the conditions necessary for stratified interaction to occur: delegated control, tight coupling between the forces of the two sides, and conditions of acute crisis. The first question is to what degree were interactions between the forces of the two sides at the scene of the crisis the result of actions taken in accordance with mechanisms of indirect control, rather than direct control by national leaders? The pattern observed in the four case studies of U.S. naval operations in crises was one of direct control being exercised selectively and to a limited degree. Heavy reliance was placed on mechanisms of indirect control in all four cases, although the guidance contained in those mechanisms was not always revised to reflect the specific circumstances of the crisis at hand. Tactical-level military interactions rarely were under the direct control of political-level leaders.

The second question is were the forces of the two sides at the scene of the crisis tightly coupled with each

other? Naval forces at the scene of the crisis were tightly coupled in all four of the crisis naval operations case studies. However, the tightness of coupling between the forces of the two sides can vary significantly from crisis to crisis and over time within a particular crisis. Tactical-level military commanders have independent access to intelligence and surveillance information on adversary forces, and thus are not dependent on political-level decisionmakers for information on the adversary. As would be expected under conditions of tight coupling, naval forces tend to react quickly to changes in the other side's operations, seeking to maintain or improve their tactical position in the event of hostilities. However, this tight action-reaction linkage can be dampened by measures intended to avoid incidents between the two side's forces, such as geographic separation and a deliberately low tempo of operations or pauses (periods of inaction).

The third question is were the forces of the two sides being used by their national leaders to convey political signals in support of crisis bargaining? Naval forces were used by both sides for political signalling or related political functions in all four of the case studies on crisis naval operations. Use of naval forces for political purposes can bring naval units of the two sides in a crisis into close proximity, creating a danger of military incidents.

The answers to these first three questions suggest that conditions necessary for stratified interaction existed in all four of the crises. In the 1958 Taiwan Straits Crisis, the United States relied on methods of delegated control, U.S. and Chinese Communist military forces were tightly coupled, and both sides used their forces as a political instrument under conditions of acute crisis. Interactions occurred at the tactical level that were not directly controlled by American leaders. The findings of this case suggest, however, that stratification is not an absolute concept--there can be degrees of stratification. Measures taken by both sides to prevent confrontations between their forces can greatly reduce opportunities for tactical-level interaction to occur.

Although the President sought to maintain close control of military operations in the 1962 Cuban Missile Crisis, he relied heavily on methods of delegated control and communications problems constrained his ability to effectively exercise direct control. In certain operations there was tight coupling between the forces of the two sides. Both sides used their forces as a political instrument under conditions of acute crisis. Interactions occurred at the tactical level that were not directly controlled by American leaders. The President did not directly control any of the ASW operations or the boarding of the Marucla (other than to order it to occur). Navy

forces encountered Cuban air and naval forces on several occasions without the President or McNamara controlling the interactions. The President's attention was focused on a very small portion of the overall operations that were in progress. The stratified interaction model of international crises, in which interactions evolve in semi-independent sequences at the political, strategic and tactical levels, offers a good description of Soviet-American interactions in the Cuban Missile Crisis.

In the 1967 Arab-Israeli War, the United States relied on methods of delegated control, U.S. and Soviet naval forces in the Mediterranean were tightly coupled, and both sides used their forces as a political instrument under conditions of conditions of acute crisis. Interactions occurred at the tactical level that were not directly controlled by American leaders. For example, President Johnson had no control over whether or not the Soviet harassment of America on June 8 would produce a clash between the U.S. and Soviet navies. The stratified interaction model of international crises, in which interactions evolve in separate, semi-independent sequences at the political, strategic, and tactical levels, offers a good description of Soviet-American interactions in the 1967 Arab-Israeli War.

In the 1973 Arab-Israeli War, the United States relied on methods of delegated control. U.S. and Soviet naval

forces in the Mediterranean were tightly coupled, and both sides used their forces as political instruments under conditions of acute crisis. Significant and dangerous interactions occurred at the tactical level that were not directly controlled by American leaders. For example, President Nixon had no direct control over Sixth Fleet counter-targeting of Soviet ships carrying anti-ship cruise missiles, and was probably unaware that this activity had inadvertently been set in motion by White House orders making the fleet an easy target for the Soviet Navy.

The fourth question is did crisis interactions at the tactical level become decoupled from the strategy being pursued by national leaders? There are seven potential causes of decoupling: communications and information flow problems, impairment of political-level decisionmaking, a fast-paced tactical environment, ambiguous or ambivalent orders, tactically inappropriate orders, inappropriate guidance in mechanisms of indirect control, and deliberate unauthorized actions by military commanders. To establish that stratified interactions became decoupled in a crisis requires two findings: first, that one of the seven factors just mentioned was present, and, second, that operational decisions made by tactical-level decisionmakers differed from the decisions that political-level decisionmakers would have made in order to coordinate those actions with their political-diplomatic strategy for resolving the crisis.

Various potential causes of decoupling were present in all eight of the cases examined in this study. The most common cause of decoupling was communications problems or properly functioning communications that are simply too slow to permit direct control of military operations. This was a factor in all eight of the cases. The second most common cause of decoupling was a fast-paced tactical environment. This was a factor in the 1958 Taiwan Straits Crisis, the 1964 Tonkin Gulf Incidents, the 1967 Arab-Israeli War, the 1967 Liberty incident, and the 1973 Arab-Israeli War. Ambiguous orders were a factor in the 1958 Taiwan Straits Crisis and tactically inappropriate orders were a factor in the 1973 Arab-Israeli War. Impairment of political-level decisionmaking was a factor in the 1973 Arab-Israeli War.

Three patterns of tactical-level interactions were seen in the eight cases. The most common pattern was parallel stratified interactions: tactical-level interactions that were not directly controlled by political-level leaders, but which generally supported their political objectives and crisis management strategy. Parallel stratified interactions were seen in the 1962 Cuban Missile Crisis, the 1967 Arab-Israeli War, the 1967 Liberty incident, the 1968 Pueblo incident, and the 1987 Stark incident.

The second pattern was momentary decoupling: tactical-level interaction that was not controlled by political-level leaders and did not support their political and crisis

management objectives, followed by immediate disengagement (that is, without tactical-level escalation and often without shots being fired). The pattern between instances of momentary decoupling is parallel stratified interactions. Momentary decoupling was seen in the 1958 Taiwan Straits Crisis, and possibly in the 1973 Arab-Israeli War.

The third pattern was decoupling followed by disengagement. In this pattern, a tactical-level incident occurs that is not directly controlled by political-level leaders and does not support their objectives for the operation in progress. The incident leads to an armed clash, but then is halted by the on-scene commanders without intervention by political-level authorities. Decoupling followed by disengagement occurred in the 1964 Tonkin Gulf Incidents.

The fifth question is did national leaders and on-scene commanders hold different perceptions of the vulnerability of on-scene forces to preemption and the need to strike first in the event of an armed clash? This question addresses the second corollary to the theory of stratified interaction, that the security dilemma can become stratified in crises. The implication of this is that decision-makers at the political and tactical levels can hold different perceptions of the offense-defense balance, vulnerability to preemption, and the need to strike first.

Threat perceptions were stratified in the 1962 Cuban Missile Crisis and the 1973 Arab-Israeli War. Stratified

threat perceptions did not cause crisis management problems in the Cuban Missile Crisis, but did cause problems in the 1973 Arab-Israeli War. The crisis security dilemma was stratified in the in the 1973 Arab-Israeli War: at the political level of interaction there was little incentive for either side to launch a preemptive first strike, but at the tactical level naval forces had strong incentives to strike first and were actively targeting each other. A number of incidents could have triggered an inadvertent naval battle in the Mediterranean that U.S. and Soviet leaders might not have been able to control until the initial engagements were over.

The sixth question is, when tactical-level interactions become decoupled, what factors inhibit escalation dynamics from occurring at the tactical level and being transmitted upward to the strategic and political levels of interaction? This question addresses the third corollary to the theory of stratified interaction, that escalation dynamics can be stratified in a crisis. Although escalation dynamics cannot be addressed directly--none of the cases escalated to war--research was done to identify escalation-inhibiting factors and the conditions that can cause those factors to break down.

Six internal and two external escalation-inhibiting factors were identified in the case studies. The internal factors function within the government and military chain of



command of one nation. The internal factors are military prudence (avoiding threat of surprise attack and combat under unfavorable circumstances), caution and restraint on the part of on-scene commanders, compliance by on-scene commanders with the guidance contained in mechanisms of indirect control, national leaders structuring the tactical environment to dampen military interactions, accurate and timely tactical intelligence on friendly and potentially hostile forces, and national leaders and the military chain of command double-checking the accuracy of initial reports of military incidents. These factors tend to moderate the intensity of tactical-level interactions, prevent armed clashes from occurring, and produce disengagement rather than escalation when clashes do occur.

External escalation-inhibiting factors function between the two sides in a crisis. There are two external factors: tacit rules of crisis behavior observed by the two sides and communications between the two sides in the crisis. Tacit rules of crisis behavior are best developed between the United States and the Soviet Union, but also contributed to avoiding escalation in the 1958 Taiwan Straits Crisis. The Soviet-American tacit rules are not without flaws. Soviet naval forces have engaged in exceedingly dangerous behavior--dangerous maneuvering at close quarters and simulated attacks on U.S. naval forces--during international crises. The 1972 Soviet-American

Incidents at Sea Agreement has only been partially successful in moderating such Soviet behavior. The most dangerous situation arises in confrontations with nations that the United States does not share tacit rules of crisis behavior, like Libya, Iran, and North Korea.

The findings of the eight case studies indicate that, contrary to what the escalation dynamics theory predicts, there is a tendency for naval tactical-level interaction to lose momentum and for the forces involved to disengage after an initial incident or armed clash. Pauses tend to occur naturally in naval operations due to the need to regroup and prepare for further action. Naval commanders are reluctant to initiate or sustain combat operations under circumstances they cannot predict or control due to the risk of defeat in battle. Naval commanders quickly reach the limits of their authority and need permission from higher authority to initiate further combat operations. If they do not have such permission, or anticipate that they will not be able to get it, naval commanders normally will try to break off combat action as soon as it is safe to do so--rather than risk being left in an untenable tactical position. The operational requirements of crisis management, if being followed, tend to accentuate the tendency toward disengagement by denying on-scene commanders tactical options (such as surprise attack and concentration of superior force) that can be crucial for successful combat operations.

The case studies identified three conditions that can cause the escalation-inhibiting factors to break down, allowing a crisis to escalate uncontrollably to war. The first condition is for national leaders and military commanders to be predisposed to take action against the adversary due to a long-term failures of diplomacy to resolve tensions, military and diplomatic frustration with the adversary. Sustained hostility, harassment, or a history of aggression by the adversary can generate a perception that the adversary's leaders are unreasonable, irresponsible, or uninterested in serious negotiations, reducing the incentive to pursue diplomatic initiatives toward the adversary. These expectations could be entirely correct, but could also result from insufficient or ambiguous intelligence on the adversary's objectives and intentions.

The second condition is the immediate prior occurrence of one or more hostile acts against United States forces, citizens, or vital interests. Prior attacks can create an expectation that further attacks will occur or that the adversary is likely to escalate the level of violence. As with long-term frustrations, short-term expectations of further violence could be entirely correct, but could also result from insufficient or ambiguous intelligence on the adversary's objectives and intentions. The short-term effects of immediate prior hostile acts can reinforce the effects of long-term frustration with the adversary,

appearing to confirm negative assessments of his intentions. Expectation of further attacks tends to predispose national leaders and military commanders toward broader military options toward the adversary.

The third condition that can erode the escalation-inhibiting factors is for all levels in the chain of command, from the President to the on-scene commander, to hold similar views toward the adversary and the need for immediate retaliation for provocations. A strong unity of views can suppress the skepticism that normally greets ambiguous initial reports on a military incident, or lead to hasty assessment of the incident in the rush to launch retaliatory attacks.

The seventh question is did actions taken with military forces send inadvertent signals to either adversaries or friends, and did inadvertent military incidents occur that affected efforts to manage the crisis? This question addresses crisis management problems that arise when military forces are employed in crises: the misperception dilemma and inadvertent military incidents.

Inadvertent political signals may have been a factor in some of the crises, but inadvertent military incidents were not serious problems in the eight cases examined in this study. Misperceptions of U.S. intentions or the purposes of U.S. naval operations may have been a factor in the 1964 Tonkin Gulf Incidents, the 1967 Arab-Israeli War,

and the 1968 Pueblo incident. U.S. naval operations in response to the four peacetime attacks on U.S. Navy ships appear not to have generated misperceptions.

The eighth question is did any of the three tensions between political and military considerations arise during the crisis? There are three tensions between political and military considerations that can arise when military forces are used as a political instrument in crises: tension between political considerations and the needs of diplomatic bargaining, on the one hand, and military considerations and the needs of military operations, on the other; tension between the need for top-level control of military options in a crisis, and the need for tactical flexibility and instantaneous decision-making at the scene of the crisis; and tension between performance of crisis political missions and readiness to perform wartime combat missions.

Tension between political and military considerations were serious in the 1962 Cuban Missile Crisis and the 1973 Arab-Israeli War; moderate in the 1958 Taiwan Straits Crisis and the 1967 Arab-Israeli War; and minor in the 1964 Tonkin Gulf Incidents, the 1967 Liberty incident, and the 1968 Pueblo incident, and the 1987 Stark incident.

Level of control tensions were serious in the 1962 Cuban Missile Crisis and the 1973 Arab-Israeli War, moderate in the 1967 Arab-Israeli War, and minor in the 1958 Taiwan Straits Crisis, and the four cases of peacetime attacks on

Navy ships. Level of control tensions appear to be directly proportional to the scale and duration of the crisis military operations being conducted, and more intense when national leaders perceive a danger of the crisis escalating to war (which prompts them to exercise close control over military operations).

Tensions between performance of crisis missions and readiness to perform wartime missions were serious in the 1958 Taiwan Straits Crisis and the 1962 Cuban Missile Crisis; moderate in the 1968 Pueblo incident and the 1973 Arab-Israeli War; and minor in the 1964 Tonkin gulf Incidents, the 1967 Arab-Israeli War, 1967 Liberty incident, and the 1987 Stark incident. Tensions between performance of crisis missions and readiness to perform wartime missions are directly proportional to the scale and duration of the crisis operations being conducted, and can be exacerbated by the geographic location of the crisis (a crisis located far from expected wartime battlegrounds generates more serious tension).

#### Contingent Generalizations

The dependent variable in the theory of stratified interaction is the outcome of crisis military interaction; specifically, the degree to which and the manner in which tactical-level military interactions cause escalation of a crisis. Variance in the dependent variable is described in

terms of six patterns of crisis military interaction: unified interaction, parallel stratified interaction, momentary decoupling, decoupled interactions followed by disengagement, inadvertent tactical-level escalation, and inadvertent strategic-level escalation. The first two patterns--unified interaction and parallel stratified interaction--can have three escalation outcomes: no escalation, inadvertent controlled escalation, or deliberate escalation. Inadvertent controlled escalation and deliberate escalation can halt short of war or continue on to war. In the third and fourth patterns--momentary decoupling of interactions and decoupled interactions followed by disengagement--tactical-level interaction halts without significant escalation. The fifth pattern--inadvertent tactical level escalation--can have three outcomes: disengagement short of war, inadvertent strategic-level escalation, or deliberate escalation to war. The sixth pattern--inadvertent strategic-level escalation--can have three outcomes: disengagement short of war, inadvertent escalation to war, or deliberate escalation to war.

These six patterns constitute a typology of crisis military interaction and appear to cover the full range of interactions that could occur in a crisis. However, because they were identified through an analytical-inductive process, rather than deductively, additional patterns could be identified through further empirical research.

More than one of the patterns of crisis military interaction can occur in a crisis. The first four patterns-- unified interaction, parallel stratified interaction, momentary decoupling of interaction, decoupled interactions followed by disengagement, and inadvertent tactical-level escalation--can occur in various sequences in a crisis.

Contingent generalizations were formulated for the six patterns of crisis military interaction, offering a distinct causal pattern for each type of interaction. Each of the causal patterns is produced by specific variations in seven independent variables that were identified in the case studies as significant in determining the outcome of crisis military interaction. The seven independent variables that determine the nature of crisis military interaction and the likelihood of escalation are the degree of political-level control over tactical-level military interaction, the scale of military operations, the intensity of tactical-level military interactions, the perceived threat of attack at the tactical level, the relationship between political-level and tactical-level threat perceptions, the strength of escalation-inhibiting factors, and the impact of inadvertent military incidents. The seven independent variables determine the degree to which crisis interactions to become stratified, whether or not stratified interactions become decoupled, and the degree to which decoupled interactions result in escalation of a crisis.



The first pattern of crisis military interaction is unified interaction. In this pattern, political-level leaders exercise direct control over tactical-level military operations. Unified interaction is the optimum pattern of crisis military interaction for crisis management: the pattern achieved when national leaders succeed in meeting the crisis management requirement that they maintain close control over military operations. Unified interactions can have three escalation out-comes: no escalation, inadvertent controlled escalation, or deliberate escalation.

The causal pattern for unified interaction is direct political-level control of tactical-level military interaction, local scale of military operations, routine to heightened intensity of tactical-level military interaction, any tactical-level threat perceptions (not a significant variable in this pattern), a convergent relationship between political-level and tactical-level threat perceptions, strong factors inhibiting escalation, and inadvertent military incidents that have minor impact on crisis military interaction. There were no examples of the unified interaction pattern in the case studies. The fact that the pattern was not actually observed suggests that its occurrence is improbable, particularly in a military establishment as large and complex as that of the United States.

The second pattern of crisis military interaction is parallel stratified interaction. In this pattern national

leaders retain control over the escalation and de-escalation of conflict. The separate interaction sequences at the political and tactical levels evolve in parallel, in the sense of reflecting the same overall strategy toward the adversary. National leaders do not control every operational decision made at the tactical level, but the decisions made by on-scene commanders support the crisis management strategy of national leaders. Parallel stratified interaction is the second best pattern of military interaction from a crisis management perspective (second only to unified interaction). Parallel stratified interactions can have three escalation outcomes: no escalation, inadvertent controlled escalation, or deliberate escalation.

The causal pattern for parallel stratified interaction is indirect political-level control of tactical-level military interaction, local to theater scale of military operations, routine to heightened intensity of tactical-level military interaction, any tactical-level threat perceptions (not a significant variable in this pattern), a convergent relationship between political-level and tactical-level threat perceptions, strong factors inhibiting escalation, and inadvertent military incidents that have minor impact on crisis military interaction. The most important independent variables in the parallel stratified interaction pattern are indirect political-level control of tactical-level military operations and convergent threat perceptions.

The third pattern of crisis military interaction is momentary decoupling of interaction. In this pattern national leaders temporarily lose control of military interactions, but are able to quickly re-establish control. However, there is a brief period in which national leaders are not controlling tactical-level military interactions. During that period, the actions taken by the on-scene commander do not support the crisis management efforts being pursued by national leaders. Those actions could well be authorized under guidance contained in the mechanisms of indirect control, but nevertheless complicate political and diplomatic efforts to resolve the crisis. This does not mean that the on-scene commander was "wrong" to take the actions. For example, he may have been compelled to use force in self-defense as authorized in his rules of engagement. The use of force could well have been necessary to avert an attack, appropriate to the tactical circumstances, and fully justified under international law, but still have interfered with crisis management efforts. The key point is that tactical-level interactions not controlled by national leaders occur, and that those actions complicate or interfere with political-level crisis management efforts. Instances of momentary decoupling were observed in the 1958 Taiwan Straits Crisis, the 1962 Cuban Missile Crisis, the 1967 Arab-Israeli War, and the 1973 Arab-Israeli War.

In the causal pattern for momentary decoupling, two of the independent variables cause decoupling to occur, while the other five cause the decoupling to be momentary. The independent variables that cause decoupling to occur are loss of political-level control over tactical-level military operations and inadvertent incidents with a significant impact on crisis military interaction. The important feature is that whatever causes decoupling is not permanent; it does not prevent national leaders from quickly re-establishing control. The independent variables that cause the decoupling to be momentary are local to theater scale of military operations, routine to heightened intensity of tactical-level military operations, unlikely to possible tactical-level threat perceptions, a convergent to similar relationship between political-level and tactical-level threat perceptions, and strong escalation-inhibiting factors. Momentary decoupling is the most common of the four crisis military interaction patterns that are marked by decoupling of tactical-level military interaction from political-level objectives.

The fourth pattern of crisis military interaction is decoupled interactions followed by disengagement. This pattern begins with decoupling of tactical-level interaction from political-level control. National leaders are not able to immediately re-establish control due to communications problems, decisionmaking overload, or a fast-paced tactical

environment. But the initial tactical-level engagement between the two sides does not gain momentum and escalate, it loses momentum and the forces disengage. By the time national leaders re-establish control, the shooting has stopped. Tactical-level disengagement can be a requirement for political-level control to be re-established, particularly in a fast-paced tactical environment.

In the causal pattern for decoupling followed by disengagement, four of the independent variables cause decoupling and the initial engagement to occur, one of the independent variables causes disengagement to occur without tactical-level escalation, and two of the independent variables are not significant causes of the pattern. The independent variables that cause decoupling and the initial engagement to occur are loss of political-level control over tactical-level military operations, intense tactical-level military operations, tactical-level threat perceptions that attack is imminent, and inadvertent incidents with a significant impact on crisis military interaction. The independent variable that causes decoupled tactical-level interactions to disengage rather than escalate is strong escalation-inhibiting factors. The independent variables that have no significant role in causing the pattern to occur are the scale of military operations and the relationship between political-level and tactical-level threat perceptions. The decoupling followed by disengagement

pattern occurs less often than the momentary decoupling pattern, but more often than the two decoupling patterns involving escalation.

The fifth pattern of crisis military interaction is inadvertent tactical-level escalation. This pattern begins with decoupling of tactical-level interaction from political-level crisis management objectives. National leaders are not able to immediately re-establish control due to communications problems, decisionmaking overload, or a fast-paced tactical environment. The initial tactical-level engagement gains momentum and escalates, increasing in violence and involving an increasing amount of each side's forces. There were no examples of this crisis military interaction pattern in the case studies.

The inadvertent tactical-level escalation pattern can have three outcomes: disengagement short of war, inadvertent strategic-level escalation, or deliberate escalation by national leaders. The escalation sequence stops under one of three circumstances: one side disengages after suffering catastrophic losses, both sides disengage from an inconclusive engagement due to exhaustion of ordnance and attrition of forces, or national leaders re-establish control and order disengagement. The third scenario--national leaders halting tactical-level escalation after losing control--is unlikely due to the difficulty of maintaining direct control of forces once they are engaged in battle.

In the causal pattern for inadvertent tactical-level escalation, four of the independent variables cause decoupling and the initial engagement to occur, two of the independent variables cause tactical-level escalation to occur, and two of the independent variables allow tactical-level escalation to occur but prevent it from causing inadvertent strategic-level escalation or deliberate political-level escalation. The independent variables that cause decoupling and the initial engagement to occur are loss of political-level control over tactical-level military operations, intense tactical-level military operations, tactical-level threat perceptions that attack is imminent, and inadvertent incidents with a significant impact on crisis military interaction. The independent variables that cause decoupled tactical-level interactions to escalate are intense tactical-level military interaction, and a tactical-level threat perception that attack is imminent. The independent variables that allow tactical-level escalation but prevent inadvertent strategic-level escalation or deliberate political-level escalation are a divergent relationship between political-level and tactical-level threat perceptions and weak escalation-inhibiting factors.

The sixth pattern of crisis military interaction is inadvertent strategic-level escalation. This pattern can arise via either of two paths: escalation at the strategic level arising from tactical-level escalation, or initiation

of escalation at the strategic level without prior tactical-level escalation. Inadvertent strategic-level escalation arising from tactical-level escalation was the path examined in this study, which focused on tactical-level military interaction. Inadvertent strategic-level escalation without prior tactical-level escalation could arise from inadvertent military incidents (unanticipated authorized actions, military accidents, and unauthorized deliberate actions) involving strategic-level forces. Many of the factors affecting tactical-level interaction probably also affect strategic-level interaction, but such strategic level factors were not addressed in this study. There were no examples of this crisis military inter-action pattern in the case studies.

Inadvertent strategic-level escalation arising from tactical-level escalation begins with tactical-level interactions decoupling from political-level control. National leaders are unable to immediately re-establish control over tactical-level interaction due to communications problems, decisionmaking overload, or a fast-paced tactical environment. The initial tactical-level engagement gains momentum and escalates, increasing in violence and involving an increasing amount of each side's forces. The tactical-level escalation spiral generates escalatory pressures at the strategic level, reinforcing perceptions that the adversary is preparing for war and is not interested in a



diplomatic solution to the crisis. The scope of fighting rapidly grows to the theater level and spreads to other theaters, possibly becoming global in scope. The spread of the escalatory spiral to the strategic level of interaction is through deliberate decisions made by strategic-level military commanders, but is considered to be inadvertent because it was not directly ordered by national leaders and did not support their efforts to manage the crisis. The inadvertent strategic-level escalation pattern of crisis military interaction can have three outcomes: inadvertent escalation to war, deliberate escalation to war, or disengagement short of war.

In the causal pattern for inadvertent strategic-level escalation, five of the independent variables cause decoupling and the initial engagement to occur, while five of the independent variables cause tactical-level escalation to result in inadvertent strategic-level escalation. The independent variables that cause decoupling and the initial engagement are loss of political-level control over tactical-level military operations, global-scale military operations, intense tactical-level military interaction, tactical-level threat perceptions that attack is imminent, and inadvertent incidents with a significant impact on tactical-level military interaction. The independent variables that cause tactical-level escalation to result in inadvertent strategic-level escalation are loss of political-level control over

strategic-level military operations, global-scale military operations, a convergent relationship between strategic-level and tactical-level threat perceptions (and, in the case of deliberate escalation to war, convergent political-level and strategic-level threat perceptions), a lack of escalation-inhibiting factors, and inadvertent incidents with a significant impact on strategic-level military interaction. The inadvertent strategic-level escalation pattern appears to be the crisis interaction pattern least likely to occur.

On the basis of the eight historical cases examined in this study, a ranking of the six patterns of crisis interaction--from most to least likely to occur when U.S. naval forces are employed in a crisis--would be as follows: parallel stratified interaction, momentary decoupling, decoupled interactions followed by disengagement, inadvertent tactical-level interaction, inadvertent strategic-level interaction, and unified interaction. The independent variables that most affect this ranking are political-level control of tactical-level interaction and the strength of the escalation-inhibiting factors. Direct political-level control of tactical-level military operations is difficult for U.S. leaders due to the size and complexity of the U.S. armed forces, making the unified interaction pattern rare and providing ample opportunities for stratified crisis interactions to become decoupled. The escalation-inhibiting

factors are generally quite strong, preventing escalation even when decoupling occurs--making momentary decoupling and decoupling followed by disengagement much more common than inadvertent tactical-level escalation or inadvertent strategic-level escalation.

#### Generality of Findings

The generality of this study--that is, the applicability of the theory and findings to international crises other than cases that were studied--must be addressed because the cases studies all concerned crisis naval operations and peacetime attacks on Navy ships. As was explained in the introduction, there were four reasons for this focus. First, the Navy is the branch of the U.S. armed forces called upon most often to respond to crises. Second, American leaders and many analysts perceive naval forces as having important advantages over other types of forces for crisis response. Third, in spite of the frequency of use and perceived advantages of naval forces, the role of naval forces as a political instrument is not well understood. Fourth, in some respects naval forces have a greater escalatory potential than do other types of military force. These reasons for focusing on naval forces provide a starting point for assessing the generality of the findings.

The theory and contingent generalizations are applicable to a broad range of crisis naval operations. The

cases that were studied ranged from large-scale (the 1962 Cuban Missile Crisis and the 1958 Taiwan Straits Crisis), to moderate in scale (the 1967 and 1973 Middle East Wars), to relatively small in scale (the 1964 Tonkin Gulf Incidents, 1968 Pueblo Incident, and 1987 Stark Incident). Because naval forces are the type of force most commonly used by the United States in crises, the theory is thus directly applicable to most of the crises in which the United States has been involved over the past forty years.

The theory and contingent generalizations are also applicable to most other U.S. crisis operations with conventional forces, including amphibious operations, ground force operations, shore-based air operations, and operations with a combination of forces. The theory is applicable to other U.S. forces because central features of the U.S. command and control system--such as delegation of control and the mechanisms of indirect control (described in Chapter IV)--affect tactical-level interaction involving all types of U.S. forces. Additionally, the escalation-inhibiting factors and the conditions that can erode those factors are not unique to naval forces--they would affect the likelihood of escalation regardless of the type of force being employed in a crisis. All forms of tactical-level military interaction can thus be accommodated by the theory.

The key to applying the theory to military interactions other than those involving naval forces is to take

into account the specific command and control procedures used by other U.S. forces, and the differing warfare environments of other types of forces. For example, the likelihood of inadvertent incidents or initiation of uncontrollable tactical level escalation would appear to be less with ground forces than with naval forces: national boundaries normally separate the ground forces of the two sides, but on the high seas opposing naval forces are free to intermingle at close quarters. The technology of naval warfare has long placed a premium on striking first in battle (particularly in the age of anti-ship cruise missiles), but the offensive has enjoyed--or has been perceived as enjoying--a similar advantage in land warfare at various times. Naval battles tend to be intense but brief--ordnance is rapidly exhausted and losses of ships and planes mount quickly, forcing disengagement. On the other hand, once fighting among ground forces has started, it can be more difficult for national leaders to control and less likely to die out without escalation after the initial engagement. In short, relative to naval forces, ground forces are less likely to become engaged in fighting, but are more difficult to disengage after fighting starts. These differences are readily accommodated in the theory, which explicitly recognizes that they exist.

One area to which this study cannot be applied is the employment of strategic nuclear forces as a political

instrument in crises. Strategic nuclear forces are under command and control procedures significantly more centralized than those of general purpose forces. While there is, of necessity, significant delegation of authority concerning the details of strategic force operations, decisionmaking authority for employment of nuclear weapons is highly centralized--resting with National Command Authorities. The concepts that were developed in this study could be used to assess strategic level interaction in crises--interaction that can become a significant factor when forces are alerted in order to send political signals--but the contingent generalizations must be modified to account for the unique features of strategic nuclear command and control.

The theory can be applied to crises involving countries other than the United States, but again care must be taken to account for the different command and control methods and procedures used by other countries, the differing strategic environments they face, and the differing warfare environments their forces face. The forces of some countries, such as the Israeli and West German armies, emphasize freedom of action for and initiative on the part of lower-level commanders. In other countries, notably the Soviet Union, the emphasis is on centralized control of military operations. Differences in command and control philosophies, operational styles, and professional traditions can produce significant differences in the crisis

management and crisis stability problems facing different nations.

#### Implications for Crisis Management

The theory of stratified interaction and the findings of this study have several implications for crisis management. The most important is that effectively exercising close control of all crisis military operations can be exceedingly difficult in practice. This is an inherent problem that improved communication technology has affected only marginally. Several variables affect the ability of top-level political authorities to exercise direct, real-time control of military operations, including the scale of the operations, the nature of the missions, the intensity of interaction with the other side's forces, the pace at which the tactical situation evolves, and the speed and reliability of communications links.

As the scale of military operations and the intensity of interactions with the other side increase, there is a tendency for top-level officials to become overloaded and focus their attention on selected, narrow aspects of crisis operations. But tactical-level-military interactions are often too fast-paced for top-level officials to exercise direct control over even small-scale local operations. National leaders therefore generally delegate significant discretionary decisionmaking authority to military

commanders and rely heavily on mechanisms of indirect control to guide tactical-level decisionmaking. Significant reliance is placed on rules of engagement and the distinction between use of force in self-defense (which on-scene commanders can order) and retaliation (which only the President can order). The crisis management requirement that top-level political authorities maintain close control of the details of military operations thus can be difficult to meet in practice, and attempts to exercise such control can in fact be counterproductive--impeding effective crisis management.

Not only can national leaders be overly optimistic about their ability to closely control crisis military operations, they can also be overly optimistic about their ability to use military force--or the threat of military force--as a precision instrument for political signaling. In some circumstances, particularly when the scope and intensity of military operations are relatively small, national leaders can be highly discriminating in the manipulation of forces for signaling. But as the scope and intensity of operations increase, military forces become an increasingly unwieldy political instrument. In addition to the control problems mentioned above, this is caused by the scale, speed and complexity of modern combat.

If military operations are to be conducted effectively, whether their purpose is to send a political signal



or to achieve a military objective, they must be conducted in accordance with the operational principles on which their effectiveness depends. Those principles often have a great deal of flexibility, but attempting to bend them excessively in an effort at sophisticated political signaling can create serious problems for tactical-level military commanders--an example of the tension between political and military considerations. Such problems arose during the 1967 Arab-Israeli War, when the Sixth Fleet placed in a situation of grave vulnerability to preemption by Soviet naval forces in the Mediterranean--a situation created by White House efforts to use the fleet for political signalling. Efforts by U.S. on-scene commanders to cope with their vulnerability created a situation in which the naval forces of the two sides were constantly targeting each other at point blank range, and were at hair-trigger readiness to launch preemptive strikes against each other.

National leaders must expect that some things will go wrong when they employ military forces in crises. Inadvertent military incidents of various types occur in virtually all crisis military operations. The friction Clausewitz observed in war begins as soon as military forces are set in motion, and long before the first shot is fired. Although inadvertent military incidents are unavoidable, they generally are not particularly dangerous. The tendency is for inadvertent incidents to provoke highly cautious

reactions on the part of on-scene commanders. At least in naval operations, when engagements occur, they tend to end quickly rather than escalate. In fact, because on-scene commanders are almost always better informed on the local tactical situation, they are less likely to overreact or make worse case assumptions than are top-level authorities. There is normally a requirement that on-scene commanders consult with higher authority after taking initial defensive action, and a tendency for them to do so even when it is not required. The military chain of command tends to double-check the accuracy initial reports before ordering further military operations. Thus, the most important action that national leaders can take when an inadvertent military incident occurs is not to seize direct control of tactical decisions, but rather to focus on communicating with the other side in order to avoid misperceptions of the incident.

A further implication of the findings of this study for crisis management, one certainly not anticipated when the study was launched, is that the greatest danger of a crisis escalating to war may well arise from decisionmaking at the political level of interaction, rather than from decisionmaking at the tactical level of interaction. Parallel stratified interaction--tactical-level interaction that generally supports political objectives even though not directly controlled by national leaders--was found to be the most common pattern of crisis military interaction. When

tactical-level interactions become decoupled from political-level objectives, the most common patterns are momentary decoupling and decoupling followed by disengagement, rather than escalation. Tactical-level military engagements tend to lose momentum as on-scene commanders reach the limit of their authority and seek guidance from higher authority. The implication of these findings is that tactical-level military interaction normally will not escalate to war without a deliberate decision by national leaders to initiate wartime operations. The deliberate decision could well be based on misperceptions of the adversary's intentions--misperceptions that may have been heavily influenced by inadvertent tactical-level escalation (the inadvertent controlled escalation path to war)--but the decision for war is still a deliberate decision made by national leaders. The strategic, political, psychological, and cognitive factors that can cause national leaders to abandon diplomatic efforts and resort to war--whether reluctantly or eagerly--thus are probably the most important variables in crisis and escalation theory.

#### Further Research

The previous discussion of the generality of the theory of stratified interaction suggested that additional research would allow refinement of the theory to apply to a broader range of crisis military interactions. Additional

case studies of United States crisis naval operations would be useful for refining the theory in a broader range of crisis situations. Particularly valuable would be case studies on United States naval operations in the 1954 Quemoy-Matsu Crisis, 1956 Suez Crisis, 1970 Jordanian Crisis, 1971 Indo-Pakistani War, 1981 and 1986 Gulf of Sidra operations, and 1984-1988 Persian Gulf operations. These cases cover a broader range of crisis naval operations, including operations in a prolonged crisis (1984-1988 Persian Gulf operations), evacuation of civilians and allied forces (1954 Quemoy-Matsu Crisis and 1956 Suez Crisis), and incidents in which the United States was exercising the initiative, rather than reacting to events (1981 and 1986 Gulf of Sidra operations).

The theory would also benefit from, and provide useful analytical tools for, case studies of U.S. amphibious operations, such as the 1958 Lebanon Crisis, 1965 intervention in the Dominican Republic, and 1983 invasion of Grenada. Amphibious operations entail particularly complex command and control procedures, and involve a wide range of forces. Thus, there is potential for a much wider range of interaction with the forces of the other side. Case studies of amphibious operations allow the command procedures and warfare environments of diverse forces to be contrasted in the context of a single intervention. Additionally, case studies of these three operations would address the

particular problems of limiting and controlling the use of force by ground forces.

Additional areas for further research can also be identified. The command and control procedures and crisis operations of the other United States armed forces need to be investigated in the manner that the United States Navy was investigated in this study. There are differences among the services in the details of their command philosophies and the operational environments they face in crises. Certain types of military operations, such as covert missions by special forces, can raise particularly difficult command and control problems.

Strategic level interaction needs to be examined in the same manner that tactical level interaction was examined in this study. Particularly important would be case studies (and perhaps sophisticated simulations) of the interaction between United States and Soviet strategic nuclear forces when either or both sides begin using them to send political signals in crises. Although strategic nuclear command and control is highly centralized, there could be opportunities for decoupling and escalatory sequences to occur.

Crisis military interaction involving the forces of other countries needs to be examined in the same manner that interactions involving United States forces were examined in this study. Different countries can have different command and control philosophies, and face different strategic and

tactical environments in crises. Additional research in these areas would broaden the applicability of the theory of stratified interaction.

#### Closing Remarks

In summary, the theory of stratified interaction provides a policy-relevant explanatory theory of crisis military interaction. The contingent generalizations derived from the theory provide differentiated explanations for a variety of crisis military interactions, thus allowing policymakers to diagnose specific situations in which crisis management and crisis stability problems can arise. The theory thus advances the study of crisis management beyond identification of crisis management requirements to identify the manner in which those requirements apply in specific crisis situations. The method of structured focused comparison, which provides an inductive approach to theory formulation based on historical case studies, is a valuable methodology. It is particularly appropriate for the formulation of a differentiated theory cast in the form of contingent generalizations. Further studies using this method to examine crisis military operations would broaden and refine the theory of stratified interaction.

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Archives, Naval Historical Center, Liberty incident  
file.

USS Saratoga (CVA 60). USS SARATOGA 081254Z JUN 67, June 8,  
1967 (Unclassified). Washington, DC: Operational  
Archives, Naval Historical Center, Liberty incident  
file.

### Newspapers

Individual newspaper articles are not listed due to the  
large number that were cited in the study. Footnotes  
provided complete citations for all newspaper articles. The  
newspapers most frequently cited in this study are listed  
below.

Los Angeles Times

New York Times

The Times (London)

Wall Street Journal

Washington Post