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Misperception and Incidents at Sea: The *Deutschland* and *Leipzig* Crises, 1937

Willard C. Frank, Jr.

After the outbreak of the Spanish Civil War in July 1936, most of the major naval powers, along with a few lesser states, sent and kept warships in Spanish waters. Governments sent them into the war zone to evacuate endangered citizens, to maintain and defend embassies and consulates, to protect shipping, to safeguard economic and strategic interests, to gather intelligence, and to watch over each other.

Britain and France had hoped to contain that war by sponsoring a nonintervention agreement among the European powers, the essence of which was that no signatory power would send military aid to either side in Spain. The powers' ambassadors in London constituted the Non-Intervention Committee to oversee the agreement. In April 1937 the Committee inaugurated naval patrols. Warships of the four great European naval powers (Britain, France, Italy, and Germany) patrolled assigned sectors of the Spanish coast to report any violations of nonintervention. If one were confirmed, states were expected to apply appropriate legal or political remedies. To prevent them from being fired at in the war zone, patrolling warships wore broad three-color recognition stripes, according to their respective national colors, on turrets or gun shields, fore and aft.

The patrol scheme was a farce. Italy, Germany, and the Soviet Union, all signatories of the nonintervention agreement, continually sent arms to one side or the other in the conflict. All three states found loopholes in the agreement regarding categories of ships subject to control. Italy sent arms to the Nationalists in exempt "naval auxiliaries" and falsely flew the Spanish flag, also exempt, on Italian merchant ships. German arms ships flew the exempt Panamanian flag. Soviet arms for the Spanish Republic usually arrived

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in exempt Spanish-flag ships. So the stream of war materiel flowed unimpeded, and commanders of warships on nonintervention duty could observe only the letter of their instructions. The pretense was sufficient. "A monotonous and disheartening duty," one British Admiralty official described it.¹

Despite the tedium, Spanish waters were dangerous. From the beginning of the Spanish War, neutral warships and merchant ships came under attack, often due to mistaken identity. Late in 1936 the destroyer U.S.S. *Kane* was bombed by Nationalist aircraft, despite an American national ensign being displayed like an awning, while the big new gunboat, U.S.S. *Erie*, found itself in the way of Nationalist naval gunfire. Luckily, neither was hit. U.S. commanding officers were instructed to avoid all hostile encounters and, should their ship be attacked, to consider "the probability that the shot was fired as a result of mistaken identity or mistaken motives. Nothing in these remarks, however, shall be construed as precluding Commanding Officers from exercising the well known right of self-preservation when, in their opinion, the situation demands it."² U.S. warships never returned fire. Early in 1937 a Nationalist bomber dropped six bombs near the French destroyer *Maille Brézé*, to no effect. The crew did not return fire, even though the standing orders in the French Navy were to authorize the use of force to respond without delay to any attack on the French flag. In February the British destroyers *Havock* and *Gipsy* were similarly attacked, as was the *Gallant* in April; all these ships returned antiaircraft fire. In the same period the battleship HMS *Royal Oak* was the subject of two attacks. The Republican authorities admitted responsibility in both cases. In none of these incidents was there any significant damage.

The streak of luck ran out on 13 May. It was to be a bloody month. The destroyer HMS *Hunter*, on nonintervention patrol six miles off Almería, drifted into a German mine laid one week before. Six sailors were killed and 15 wounded. The destroyer's back was broken but the ship was towed to Gibraltar. This was the most serious incident to date. The Nationalist authorities denied responsibility, and when the German markings on mine fragments were reported, the German press denounced Britain for falsely provoking anti-German sentiment. The German naval high command, the *Oberkommando der Kriegsmarine* [OKM] in Berlin, knew better. The minefield was part of German clandestine naval aid to Franco. The British government claimed damages of the Nationalist government, while in practice let the matter drop.

British naval officers wondered if risking such high-value vessels as destroyers for Spanish patrol duty was worth it. Armed trawlers were suggested, but they would have had less ability than destroyers to defend themselves, and the destroyers remained.

In March the Republican navy gained the services of a Soviet bomber unit whose operations would escalate the incidents. The chief Soviet naval adviser in Spain, Captain First Rank N. G. Kuznetsov, persuaded the Soviet bomber commander, I. I. Proskurov, to use his newly arrived twin-engined SB-2 bombers to cooperate with the Republican fleet. The main targets were to be the Nationalist cruisers, three in number, that were menacing Republican supply lines. Proskurov's aircrews, however, were unable to recognize one warship from another. To preclude mistakes until proficiency in ship recognition improved, Soviet bombers were restricted to bombing ships only within Nationalist ports.³ Both sides had warned foreign vessels away from each other's harbors, but ships on nonintervention patrols off these harbors needed port periods for rest, refueling, and contact with their consulates. Despite the warnings, foreign warships of all flags were constantly found in Spanish military harbors.

The Nationalist naval port of Palma was crowded with foreign ships when the SB-2s made raids on 24 and 26 May. Their assigned targets were Nationalist warships, especially the cruiser *Baleares*. The aircrews could not single out Spanish from foreign vessels and dropped their bombs on ships at random, bombs landing as close as sixty yards from the German torpedo boat *Albatros*, which did not return fire. The *Baleares*, not attacked, left the harbor. The armored ship, or "pocket battleship," *Deutschland*, also headed for the open sea. Two days later the Soviet aircraft returned. Bombs again landed close to the *Albatros*, only twenty yards from the British destroyer *Hardy*, and hit the Italian auxiliary cruiser *Barletta*, demolishing the wardroom and killing six officers and wounding three. That day there were no Spanish Nationalist ships in port.

Rear Admiral Hermann von Fischel, the senior German naval officer in Spanish waters who wore his flag in the *Deutschland*, took action. He ordered the armored ship *Admiral Scheer* to Palma to give anti-aircraft protection to German vessels in port, with permission to open fire on any approaching Republican aircraft. The OKM, more wary, considered Republican raids on Palma to be legitimate military actions to be anticipated, and that specific targeting of German ships had not been proved. Fearing that the situation could get out of control, the OKM cancelled Fischel's orders and for the purpose of safety ordered German ships out of Palma. German warships were not to open fire except in a clear emergency requiring extreme measures of self-defense. Meanwhile Britain and Italy dispatched protests to the Republican government, and on 27 May Britain gained an agreement with Republican Defense Minister Indalecio Prieto for a safety zone for foreign ships in Palma harbor. After hearing a thorough denunciation of the Republican action by Italy on 28 May, the Non-Intervention Committee contented itself with passing a resolution deploring the incident.⁴

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Fischel was not satisfied with these measures. He wished to defend his ships and agreed with British naval officers in Palma that the 24 and 26 May attacks on foreign warships appeared to be deliberate. There had been other provocations. On 31 March, while the *Deutschland* patrolled off Valencia, a Republican destroyer, approaching at high speed, trained its guns and torpedo tubes on the German flagship. The German crew sprang to action stations, and the destroyer veered off. At other times Republican aircraft aroused his suspicions by maneuvering around the *Deutschland* at sea. On 29 May Fischel received permission from the OKM to demand from the Republican government an apology for the Palma raids and to warn that any repetition of the attack on German warships would lead to "countermeasures." The Republican Minister of State, José Giral, answered with a defense of the Republic's right to attack a rebel port notorious for its traffic in war materiel and with a warning that "the legitimate Spanish government" would "not restrain its action."⁵ Fischel then broke off the exchange of messages in a scathing reply. He was convinced that the attacks were deliberate attempts against German and Italian warships, carried out by Republican forces with the intelligence cooperation of French warships at Palma. There is no evidence of deliberate Republican targeting of foreign warships or of French complicity, but Admiral Fischel was wedded to these assumptions out of the ideological similarity between the French and Spanish Republican governments and German antagonism to both.

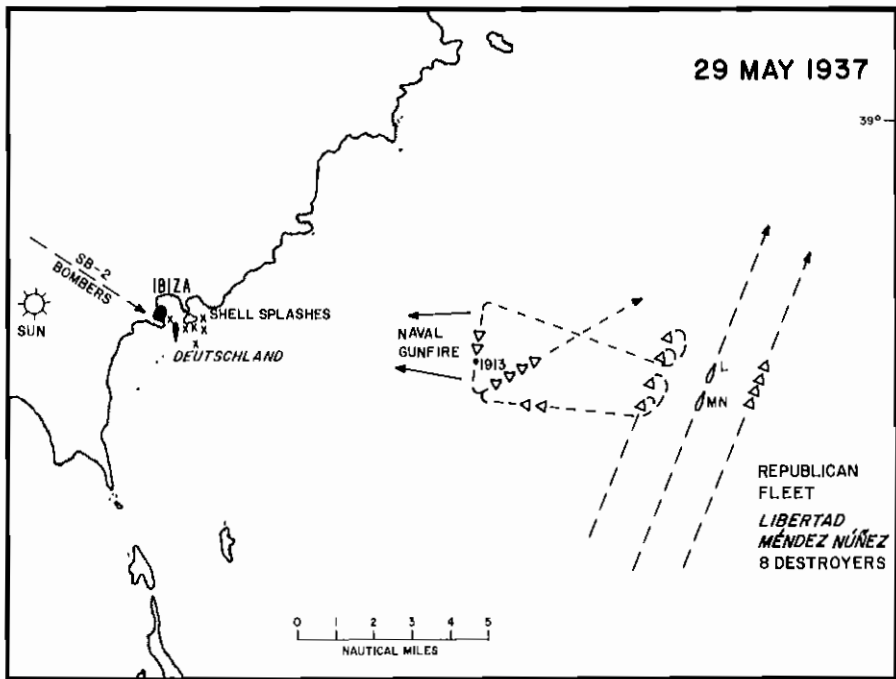
At 1830 on that same day, 29 May, Admiral Fischel's flagship, the *Deutschland*, anchored in the quiet roadstead of Ibiza to refuel. The oiler *Neptun* and the torpedo boat *Leopard* already lay in the inner harbor. It was the OKM's wish that German naval vessels not risk themselves in Palma, and Ibiza was not only quiet, but closer to the German nonintervention patrol zone. An OKM estimate concluded that it would be in the interest of the Republican government not to create an incident with the patrolling powers. Therefore the OKM had designated Ibiza as a safe roadstead for refueling German warships. The *Deutschland's* boats were put in the water and the crew was relaxing after supper. Only a limited lookout and anti-aircraft watch was maintained. It would be an hour or so before the *Neptun* was scheduled to come alongside the *Deutschland* for refueling. The ship's band started to perform a concert. Captain Paul Fanger entertained a group of dignitaries that had come out from the town, while Admiral Fischel settled in to take a warm bath. The sea was calm and visibility good. The red-white-black recognition stripes on the turrets shone brightly in the late afternoon sun.

This peaceful scene would change abruptly. By chance, at that very moment Ibiza became the focus of a diversionary operation by the Republican navy and its supporting squadron of Soviet SB-2 bombers. The large Spanish arms ship *Magallanes*, from a Soviet port, was expected off Algiers on 30 May and would make a run for Cartagena under escort of Republican warships.

Knowing that the ship was tracked by Nationalist intelligence, the Republican naval command decided to stage a raid on Ibiza on the evening of 29 May to shift Nationalist attention from the arriving arms ship. Warships and the bombers would attack the town from the sea and air. Then, under the cover of falling darkness, the warships would rendezvous with the *Magallanes* and escort this valuable supply ship safely into Cartagena. A specific hope was to attract the newest Nationalist cruiser, the *Baleares*, whose position was unknown, toward Ibiza and away from the convoy. Better yet would be for the bombers, in the execution of the Ibiza mission, to discover and attack the *Baleares*. At the moment that ship was the only Nationalist cruiser available for Mediterranean operations. Should the *Baleares* be discovered and put out of action, the security of Republican supply lines would be greatly strengthened. This was the dream of Soviet SB-2 aircrews.⁶

At 1850, only twenty minutes after anchoring, *Deutschland* lookouts clearly saw emblazoned by the setting sun two cruisers and eight destroyers maneuvering fifteen miles to the east. Four destroyers peeled off from the formation and rapidly approached the roadstead of Ibiza, reforming 20 minutes later as a firing line eight miles out. Captain Fanger apprehensively watched this looming threat to the east. He requested that his visitors return to shore, and put the ship on a ten-minute standby to get underway. At that moment, at 1912, an air lookout suddenly sighted in the opposite direction, out of the setting sun, two bombers approaching the ship at an altitude of about 7,000 feet. The glare of the sun made it impossible to distinguish their identity. A signalman sounded the alarm, but almost immediately the aircraft were passing over the starboard quarter at 5,000 feet and dropping four 50 kg. bombs. For a split second crewmen thought these were leaflets fluttering down, but they quickly learned better. One bomb penetrated the deck amidships and exploded below, starting a major fire fueled from a paint locker. A compartment where crewmen were waiting in line at the ship's canteen was quickly gutted. Another bomb exploded topside, spraying fragments everywhere and setting fire to the ship's seaplane, whose burning gasoline engulfed the upper deck amidships and poured down the ventilators to start fires below. A third bomb destroyed the captain's gig which lay at the boat boom. The fourth bomb missed. The aircraft sped away to the east before any anti-aircraft guns could be put into action. Captain Fanger could only concentrate on saving his ship and crew, at once ordering damage control parties into action and the watertight doors closed.

Immediately thereafter shells from the Republican destroyers splashed 1,000 yards to port of the damaged ship. The second salvo straddled the *Deutschland*. The closest shell fell perhaps fifty yards to port, while another landed to starboard in the wake of the boat with departing Spanish dignitaries. A third salvo landed close to the Botafach lighthouse off the port quarter. Fanger quickly responded to this new threat by ordering the *Deutschland's* 11-inch



main battery to open fire on the Republican ships. Meanwhile, in the few seconds since the first air alarm, Admiral Fischel had leapt from his bathtub and had run to a porthole, through which he observed the fire of the destroyers. He assumed at that moment that it was these destroyers that had damaged the ship and shouted to his orderly a message to that effect for Berlin.

In the event, the *Deutschland* never engaged the destroyers. Due to the closure of the watertight doors and the fire and smoke, the guns could not be manned quickly. Many of the crew of the fore turret were dead or wounded, and the gunner with the key to actuate the after turret was also among the dead. In any case, the destroyers soon ceased firing and turned away at high speed. With the ship at anchor, it would have been impossible to hit any of the Republican destroyers due to their rapidly increasing distance and the smoke that obscured vision. To get underway at that moment would have impeded the efforts to control the flames. Admiral Fischel therefore cancelled the captain's order to fire on the Republican ships.

Hurrying out from the inner port, the torpedo boat *Leopard* came alongside the *Deutschland* and helped fight the fire, which was brought under control at 1935. Captain Fanger then weighed anchor to move out of the target zone, but by that time the aircraft had long since headed back to base, and the Republican destroyers were nearly out of sight. Neither the *Deutschland* nor the *Leopard* ever opened fire. In these first moments, 23 sailors were killed

and of the 83 wounded, many were badly burned. Over the next days the toll mounted to 31 dead.⁷

All of this was furthest from the desires of the Republican political or naval leadership. In the approach to Ibiza, the Republican fleet commander, Admiral Miguel Buiza, and his Soviet advisor, Commander V. A. Alafuzov, had seen from the bridge of the cruiser *Libertad* the strange vessel lying in Ibiza roads. When they recognized it as the *Deutschland*, they signaled a recall to the destroyers that had been dispatched to the firing line. Neither the Spanish nor the Soviet officer had any wish to complicate the international situation, and the mission of attracting enemy attention to Ibiza had already been accomplished. But, as we have seen, the destroyers got a few shots off before they received the signal and broke off action. There was no way to communicate with the Soviet aircraft which were about to drop their bombs. As smoke rose from the damaged *Deutschland*, the Republican fleet sped out of the area toward its rendezvous with the arms ship off the African coast.⁸

Upon returning to base, the bomber aircrews climbed out of their SB-2s jubilantly shouting that they had bombed a Nationalist cruiser. Doubters queried if they were sure of their target, and were reassured that the ship had fired first. The Soviet pilots, new reliefs, admitted being unable to identify the target ship, but one Soviet bombardier was congratulated for his excellent marksmanship.⁹

The flow of information to Berlin was at first confused. Admiral Fischel's first report of 1920, that the *Deutschland* had been fired upon by the "red fleet," was corrected a few minutes later with his report that it had in fact been an air attack. Observers on board the pocket battleship variously reported the attackers as single, twin, and trimotor aircraft. No one saw any national insignia. Because Italy employed trimotor bombers in Spain, Fischel inquired of the Nationalists and the Italians if any of their aircraft had operated around Ibiza at that time, and notified OKM of his uncertainty at 2159. That evening, officers in Berlin receiving these messages could not reach the chief of the German Navy, Admiral Erich Raeder, and no orders were issued from Berlin.

Admiral Fischel became evermore convinced that the attack was a deliberate Republican provocation and on his own prepared to retaliate. He ordered the *Admiral Scheer*, and three torpedo boats under the command of Captain Otto Ciliax of the *Admiral Scheer*, to form off Cartagena and be ready to bombard the Republican naval base if the "reds" were found to be the guilty party and if he were given a green light from Berlin. Admiral Fischel and Captain Fanger wanted the *Deutschland* to participate in any act of revenge, but the condition of the badly burned sailors in the ship prompted Fischel instead to speed on to Gibraltar where the British authorities prepared the hospital for the worst cases. In the darkness of the early morning of 30 May, the returning Republican fleet, with the arms ship *Magallanes* in company, passed close by the darkened German squadron waiting to take

reprisal. The Republican ships went to general quarters for fear that they had stumbled upon a Nationalist force, but relaxed when the Germans turned their searchlights on their swastika ensigns.¹⁰ Republican sailors were unaware of what these ships were preparing for them.

In Berlin the next morning Admiral Raeder was informed of the attack, but as yet no responsibility had been fixed. The chief of the naval command office, Rear Admiral Günther Guse, suggested that if responsibility lay with the Republicans and if the political situation allowed, a reprisal bombardment should be exacted against either Valencia, Cartagena, or Almería. Raeder and Field Marshal Werner von Blomberg, the war minister, agreed that a reprisal would not be an appropriate response, for it could all too easily drag the German Navy into an unwanted shooting war.

Later in the afternoon the report came in that the Spanish Republicans had just admitted responsibility. The Republican government had announced that reconnaissance aircraft had bombed a warship at Ibiza that had "opened heavy anti-aircraft fire on our aircraft without any preceding aggressive action whatever on the part of the aircraft, either against the said vessel or against the city." The communique expressed no regret over the bombing.¹¹

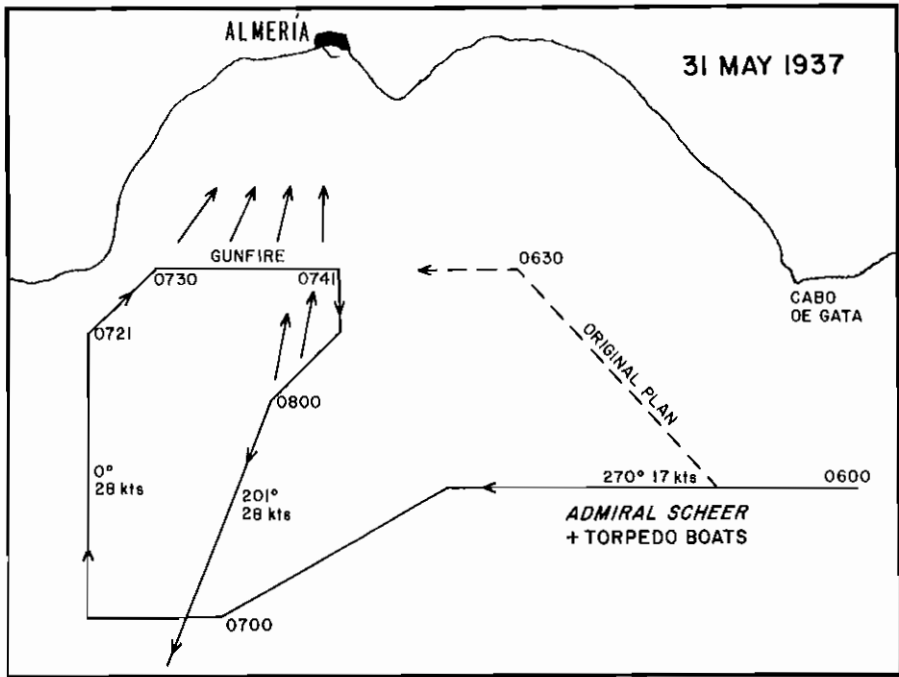
Flushed with rage, Hitler was ready for a massive military response and even considered declaring war. Joseph Goebbels and Hermann Göring agreed that it was time for the mailed fist. Hitler's foreign minister, Constantin Freiherr von Neurath, alone argued for a moderate approach that would gain international sympathy and minimize political risks. Regaining his composure through hours of debate, Hitler agreed to avoid such extreme measures that were likely to provoke others and tie down German policy in the Mediterranean. Hitler and the others met with the military chiefs at 1830. Hitler demanded at least a reprisal bombardment of Valencia, the Republican capital. Raeder warned that both Valencia and Cartagena were protected by minefields, and if a reprisal were required, a less risky target would be Almería, where the old Republican battleship *Jaime I*, with its undisciplined crew, was based. The argument continued for some time, with Hitler reluctantly giving in to Raeder's choice of Almería. The order went out at 2015 for the *Admiral Scheer*, the *Deutschland*, and the torpedo boats to bombard Almería the next dawn and also to destroy the battleship. Any interfering Republican naval or air forces would be destroyed. Further, Hitler was determined to leave the Non-Intervention Committee.

Berlin was not aware of all the facts. Admiral Fischel had to reply both that the *Deutschland* had just arrived at Gibraltar and was unavailable for the raid, and that the *Jaime I*, whose destruction Hitler especially emphasized, had left Almería for Cartagena. Admiral Fischel was eager for an effective reprisal focused against the Republican navy, not just a port. He was particularly angered by the Republican communiqué accusing the *Deutschland* of opening fire first, when he had to answer to Berlin why the ship had not

returned fire at all. So he recommended at 0400 that the pending bombardment of Almería be cancelled, and that the reprisal be shifted to Cartagena and its satisfying naval targets the following morning. Captain Ciliax's reprisal squadron had to wait off Almería beyond the scheduled bombardment hour for a final decision from Berlin. Without the battleship *Jaime I* as the primary target, Raeder was reluctant to go forward with a bombardment of only the town, certain that the world would brand the Germans as "babykillers," as they had been after Hipper's shelling of Scarborough and Hartlepool in December 1914. He preferred to follow Fischel's recommendation and bombard the military port of Cartagena the following morning. Blomberg, however, not wanting to confront Hitler with any delay, ordered the bombardment of Almería to go on as scheduled. Due to a coding error the order did not reach Ciliax until 0650 on 31 May, after dawn had removed the element of surprise.

Nevertheless, Captain Ciliax was ready. His ships had refueled and his captains had held a conference the preceding day. Remembering that the *Hunter* had been damaged by a mine in these very waters, he streamed paravanes as a precaution. Also remembering the damage caused by the burning float plane on the *Deutschland*, he sent off his float plane to remain out of the area during the reprisal operation. Ciliax then led his squadron on a non-suspicious course until he turned sharply toward the city and opened fire at 0730, eight miles out. Almería was blanketed in a low mist, but the German gunners were able to range on the tops of the larger buildings which were projecting above the mist. The few weak Republican batteries returned fire and themselves became targets. Republican fire was more accurate than Ciliax had expected, but the closest shell came no nearer than thirty yards. In thirty minutes German guns had showered 94 eleven-inch and 148 smaller shells onto the town, destroying 35 buildings. At first count 19 townspeople were killed outright and 55 wounded. As the ships steamed away from Almería they hoisted the Imperial war ensign at the topmast in commemoration of the twenty-first anniversary of the Battle of Jutland that very day. Now that German honor had been avenged, the government announced that the *Deutschland* case was closed.¹² The fallout, however, had just begun.

The Republican cabinet met the same day to decide what steps to take. Defense Minister Prieto proposed that Spanish forces seek out the raiding German squadron for combat. He sought to provoke a German declaration of war, which he hoped would lead to a full European conflict as the best circumstances for the survival of the Republic. Not ready for such a radical step, the cabinet instead adopted an appeal to world opinion and the League of Nations. A communiqué claimed Almería to be an "open city," and Raeder's fear of world censure came to pass. Even Hitler was agitated about the "open city" claim until a report arrived describing the return fire of the city's defensive batteries.¹³



Also on 31 May, the OKM ordered the German naval squadron in Spanish waters to be doubled in size. On the same day, Germany and Italy withdrew from the Non-Intervention Committee and its naval patrols until they should receive a positive guarantee that the *Deutschland* attack would not be repeated. Britain launched intensive diplomatic efforts to lure Hitler and Mussolini back. On 12 June agreement was reached that both Spanish parties be asked to guarantee the safety of foreign warships and to establish safety zones in Spanish ports. Should the Spaniards fail to agree, or should there be any interference, the four naval powers would consult on further measures to be taken. Germany and Italy returned to the Non-Intervention Committee and the naval patrols, but the OKM prepared draft retaliation measures against the Cartagena naval port and Republican naval forces, should the four-power efforts fail and there be another incident.¹⁴

Germans were on edge both in Berlin and in Spanish waters. They expected another incident and they found one. On the morning of 15 June the hydrophone operators of the German cruiser *Leipzig*, on patrol off Oran, thought they heard the sound of three torpedoes being fired. There was no other evidence and the cruiser's commanding officer, Captain Otto Schenk, considered the reports a false alarm and did not bother to report them. Then on 18 June the hydrophone operators again thought they heard the sounds of a torpedo, and sailors topside reported a turbulence in the sea surface that

might have been caused by the ejection of air from the discharge of a torpedo from a submarine torpedo tube. Days later, other sailors who had been on a lower deck at the time came forward with the story that they had heard an impact on the outside of the hull and a scraping sound as if the ship had been struck by some object. No bubble track or other evidence was noticed. This time Captain Schenk was certain that his ship had been attacked by one or two Republican submarines. Captain Scheuk, however, had no way of knowing that no Republican submarines were at sea on either day.¹⁵

On receiving Schenk's contact report, Admiral Fischel was ready with a plan for a deniable clandestine retaliation, unlike the earlier plans for a highly visible surface bombardment of a Republican port. He ordered submarines *U-28*, *U-33*, and *U-34*, which were operating in the Atlantic off the Strait of Gibraltar, to prepare to enter the Mediterranean and attack Republican warships and escorted merchant ships as they approached Cartagena. However, when Fischel requested Berlin to order the retaliation, he received no satisfaction from the OKM, which preferred to allow the four-power nonintervention consultation process to take effect.¹⁶

On 19 June Neurath informed the three other naval powers who were party to the 12 June agreement that four times on 15 and 18 June the *Leipzig* had been attacked by "Spanish-Bolshevist submarine pirates." In an emergency four-power meeting, Germany demanded the internment of all Republican submarines, "an immediate joint naval demonstration by the four powers off Valencia," and "a stern warning to the Valencia Government that any further attack would result in immediate military reprisals by the four powers." Neurath told the German representatives that if any of the other powers doubted the attacks had actually taken place, such doubts must be "sharply rejected even to the point of walking out of the conference."¹⁷

As Berlin reacted in bold certainty, Admiral Fischel, on reflection, became increasingly doubtful that there had been any attacks at all. He confided to British officers in Gibraltar that the supposed attack on the *Liepzig* might well have been caused by porpoises. German tests in these same waters later that summer showed that hydrophone indications of torpedoes often were actually machinery noises from one's own ship. Nevertheless, Admiral Fischel assured himself that, even if these were false alarms, the allegations could become the legal basis for any future reprisals, for "one has to expect the possibility of a submarine attack" sometime. He prepared an even more deniable retaliation plan for implementation whenever it might be ordered. The same three U-boats were to enter the Mediterranean secretly, paint over their boat numbers, flying false colors or none at all when on the surface, and use only electric torpedoes that left no bubble track. Their targets would be Republican submarines only.¹⁸

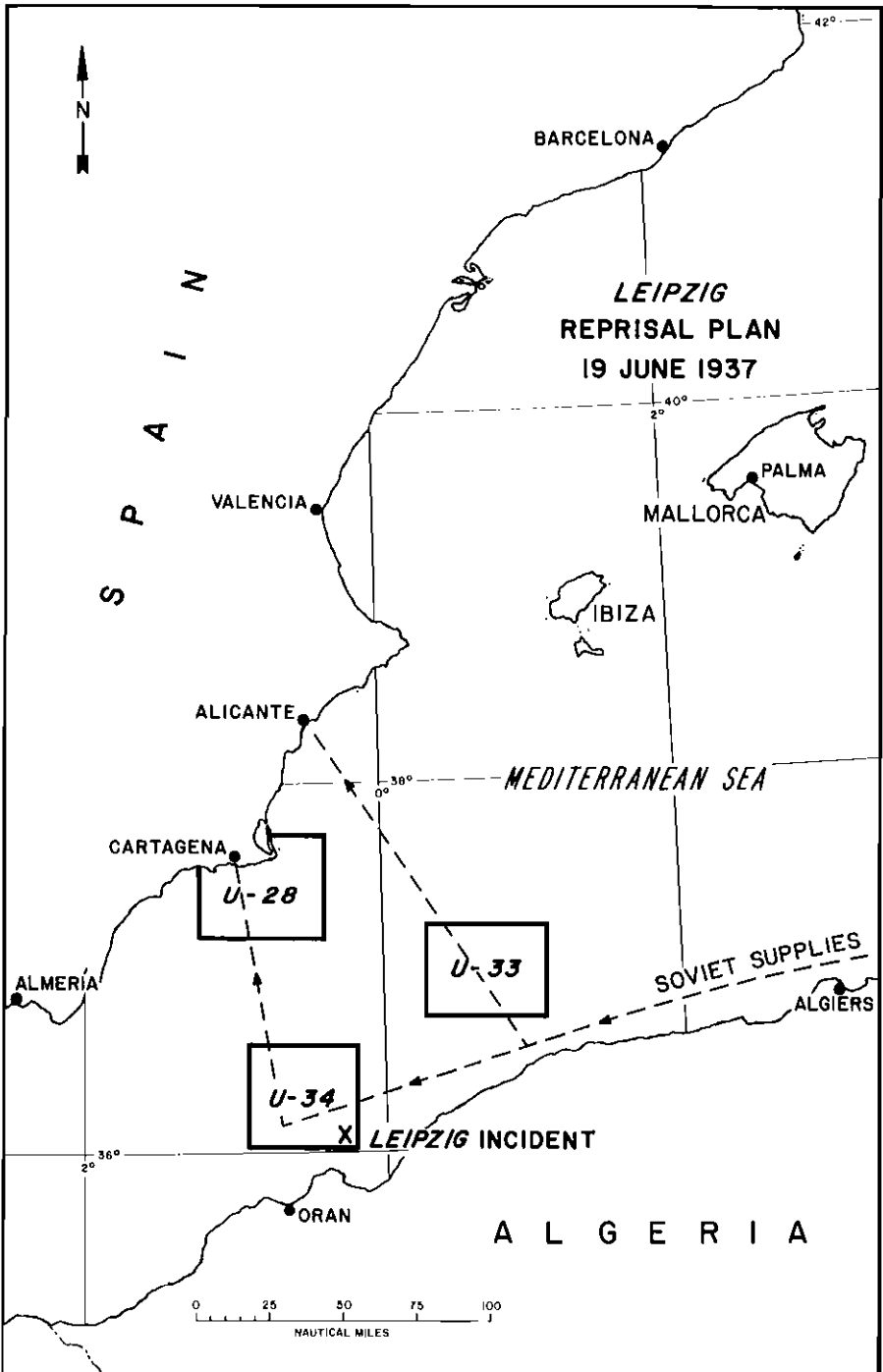
The Spanish Republic totally rejected the German allegations ("a flat denial to cut short a vile maneuver," was its language), and shifted the blame for

the crisis onto Germany.¹⁹ A Republican acceptance of the internment provision was clearly unlikely. Hitler, remaining in an agitated frame of mind, would accept no international measure short of a naval demonstration and a sharp waning to both sides. Hitler also abruptly cancelled a projected visit to London by Foreign Minister Neurath. The cancellation delighted Neurath's rival, German Ambassador Joachim von Ribbentrop in London, and frustrated and irritated the British who had placed hopes on direct conversations with Neurath on the broad range of issues which threatened the peace of Europe.

From 19 to 22 June a series of ambassadorial-level meetings of the Four Powers was held in London to consider the German demand for a joint naval demonstration off Valencia. The British and French governments would take no action prior to a thorough inquiry, while the German and Italian representatives demanded an immediate naval action. With the failure to reach an agreement, on 23 June Germany and Italy for the second time withdrew from the naval patrols. Hitler was surprised and "extremely wrought up" that Britain did not immediately accept the German proposals. The British ambassador in Berlin, Sir Nevile Henderson, who tried to look for the best in the German leadership, could not but express his profound frustration: "It is impossible to reason with Germans that action should come after but not before inquiry. No German wants more evidence of attack on the *Leipzig* than statements of their own sailors and press bureau. In British and all impartial eyes this is utterly unreasonable."²⁰ Henderson, at least, was relieved that Germany had not taken any retaliatory action.

No further incidents involving German warships in Spanish waters arose to become international crises, but the potential for a major incident remained. Since 23 June standing orders among German naval forces in Spanish waters considered any approach of Republican ships or aircraft to German ships or the movement of any submerged submarine in the vicinity of German ships to be a hostile act calling for the destruction of the Republican vessel or aircraft. The Republican navy was especially careful not to trigger a German retaliation. Yet on 25 June and 16 July 1937 the German cruiser *Nürnberg* reported hearing submarine and torpedo noises on its hydrophone. This time OKM was skeptical enough that no action was taken.

Nevertheless, the potential for a major incident remained. Before dawn on 30 June the *U-35* was on the surface off Santander when a convoy escorted by the Republican destroyers *José Luis Díez* and *Ciscar* came into view. At 0500 one of the destroyers spotted the U-boat, but not the recognition stripes painted on the conning tower. Amid a flurry of signals, one of the destroyers turned and sped directly toward the *U-35*. Following standing orders to react to such behavior as hostile intent, at 0510 the *U-35* submerged and tried to attack the approaching destroyer, but could not get into firing position. At 0625 the *U-35* left the area and at 0810 surfaced to an empty horizon. In reviewing this incident, Rear Admiral Hermann Boehm, who had relieved



Admiral Fischel in command of German ships in Spanish waters, remarked that the conduct of the destroyer was quite understandable, just as the reaction of the submarine was proper.²¹ Each vessel attempted to attack the other on the assumption of original hostile intent by the other. Yet the assumptions in both cases were wrong. Without the addition of insight and judgment, the rules of engagement could have led to unfortunate consequences.

On the basis of this set of experiences more than fifty years ago, one may put forward a few considerations as we face the possibility of further such incidents at sea in our own time.

- Decision makers must ask the basic questions. What is the policy objective? Are naval forces able to accomplish it? Are alternative means available? What are the benefits, costs, and limitations of each? Is the objective worth the risks?

- Keep cool. Edgy German crews in the *Leipzig* and the *Nürnberg* thought they detected a threat where none actually existed. They anticipated an incident, and so, in the case of the *Leipzig*, created one.

- Nevertheless, strive to expect the unexpected. The commanding officers of the *Kane*, *Erie*, *Hunter*, *Barletta*, *Albatros*, and *Deutschland* were all unprepared for the attacks that actually came. Admiral Fischel and the OKM thought they were ensuring the safety of their ships by assigning them an anchorage off Ibiza. (Similarly, the commanding officer of the U.S.S. *Panay* thought the same when he moved his river gunboat upstream of the fighting in China in December of that same year. He, too, was surprised when his ship was attacked.)

- Beware of assumptions. It is a corollary of the above point to be wary of jumping to conclusions. Admiral Fischel assumed that the attack on the *Deutschland* was deliberate, while Captain Schenk of the *Leipzig* assumed that he was being attacked by Republican submarines. The antagonism between Germany and the Spanish Republic made these assumptions appear logical, but they were wrong. Similarly, the Spanish destroyer skipper off Santander erroneously assumed the submarine on the horizon to be hostile solely because it was a submarine.

- Deploy the proper naval force for the circumstances. Ships that are easily confused with other vessels that some party sees as a direct threat invite trouble. The *U-35* was an inappropriate vessel to exercise presence in a convoy zone with a perceived submarine threat. Similarly, if ships are too weak they invite trouble. The proposal to replace British destroyers in Spanish waters with trawlers needed greater consideration of the ability of such vessels to defend themselves. In fact, a few months after the trawler proposal was aired, warplanes, with impunity, destroyed an unarmed French naval patrol vessel in these waters. Yet, too overbearing a force could provoke when it is intended

to deter, as did building the German High Seas Fleet prior to World War I and as did maintaining the U.S. battle force at Pearl Harbor in 1941.

- Evaluate carefully whether it is safer to advertise your movements or not. Germany did not want to draw Republican attention to the fact that German ships would be using Ibiza roads for an anchorage. Yet, since the Republic had sought a diversionary action free of risks, notice of ship movements would have saved the *Deutschland* from being attacked. Similarly, the *U-35* would have been safer by conspicuously advertising its identity and intentions. Yet announcing one's movements puts one's ship at risk of those who might wish to precipitate an incident.

- Do not think that telling commanding officers that they have the authority to defend their ships if threatened solves much. Judgment is needed to evaluate a possible threat in its political context. Such judgment is crucial but very difficult to make. Captains and governments are caught in a dilemma. If commanding officers are too cautious or complacent, and attacks occur, they will be held responsible for not properly defending their ships. Yet if they react prematurely or erroneously, they will be responsible for causing unsought crises that may ensue. Instructions that require a specific retaliatory response may trigger an unintended incident, such as between the *U-35* and the Republican destroyer. Leave room for judgment.

- If an incident occurs, leaders would do well to reflect before reacting. Hasty defensive verbal responses can be counterproductive and can escalate an incident into a crisis. After each event the Spanish Republic created more difficulty for itself by accusing the *Deutschland* of opening fire first, by claiming that Almería was an open city, and by accusing Germany of a plot over the *Leipzig* incident. The attempts of the Republican government to justify the attack on the *Deutschland* only exacerbated German hostility and led directly to the reprisal against Almería.

- Especially think long and hard before retaliating. If you decide to retaliate, first reduce to a minimum the political and military risks. Too much can go wrong. Ill-considered action could be costly with public opinion and provoke uncontrolled consequences. This was Neurath's argument with Hitler. The bombardment of Almería, Hitler's "moderate" response—both branded Germans as "babykillers," as Raeder feared, and led the Republican government to consider raising the stakes and force Germany into an unwanted shooting war.

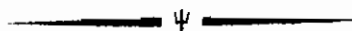
- Finally, ask "What have I forgotten to ask?" This is the hardest but most important question of all.

Notes

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10. BdP message file, RM 20/5036; KTB des BdP, RM 50/10, KTB *Admiral Scheer*, RM 92/5047, BA-MA; Bogdenko, p. 169. Both Captain Fanger and Admiral Fischel served their normal tours of duty in their respective commands and were relieved only at the time of normal rotation.
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In military emergencies it is impossible to have the storehouse of the mind too full of resources against all possible contingencies.

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A. T. Mahan (1911)

Little, Brown (1918), p. 343

Petroleum Transport System: No Longer a Legitimate Target

Major Kevin B. Jordan, U.S. Marine Corps

The names *Argo Merchant*, *Amoco Cadiz* and, most recently, *Exxon Valdez* evoke none of the nostalgic fascination often associated with the wreck of great ships. Instead, the mere mention of these hapless tankers induces an uneasiness that quickly builds to revulsion and then disgust when one considers the environmental implications of such mishaps. The recitation of the names of these unlucky vessels has a macabre ring evocative of a death knell.

The political impact of environmental disasters, particularly those that affect the sea, should not be ignored by military planners. The public is no longer willing to accept environmental desecration by industry, and should not be expected to tolerate it as a collateral effect of war if we hope to retain the popular support so crucial to military success.

Heightened environmental awareness has altered the political reality of what is and is not an acceptable military course of action in pursuit of operational goals. For example, the worldwide outcry over the environmental implications of the Chernobyl and Three Mile Island accidents renders the idea of attack against an enemy's nuclear utility plants unthinkable in conventional war. By the same logic, the use of a herbicide like Agent Orange on the tropical rain-forest sanctuary of a guerrilla force, though acceptable only a generation ago, would be politically inadvisable today. Public outrage at the sickening devastation to Prince William Sound as a result of the *Exxon Valdez* grounding suggests that attack on an enemy crude oil tanker would meet with resounding denunciation, regardless of the theater of operations in which the attack took place.

The environmental, and therefore political, costs of conducting attacks against an enemy's crude oil transport system are unacceptably high. Theater

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commanders must determine how best to achieve the operational goal of disrupting enemy fuel supplies without resorting to attack on the environmentally sensitive crude oil transport system. The desired result can be achieved with much less environmental risk by focusing interdiction efforts on the enemy's refinery capacity and distribution network for refined petroleum products.

The term "crude oil transport system" refers to that segment of the international oil industry concerned with the transport of crude oil from the wellhead to the refinery by ship or pipeline or, as is frequently the case, some combination of the two. Crude oil production and shipment to the refinery is referred to within the industry as the "upstream" stage, while the production and distribution of refined petroleum products is referred to as the "downstream" stage.¹

This distinction between the upstream and downstream stages of the industry is important from a military perspective because attack against the tankers, port facilities, drilling platforms, and pipelines of the upstream stage poses much greater environmental risks than attack against the refineries and small-volume carriers of the downstream stage. The difference in degree of risk is directly related to the volume of petroleum subject to leakage into environmentally sensitive areas as a result of attack.

Large concentrations of crude oil are moved through the upstream stage daily. It is estimated that as much as three billion barrels of crude, much of it concentrated in the fragile hulls of gigantic tankers, is moving through the transport system at any given time.² While the average tanker transporting crude oil in World War II displaced 12,000 deadweight tons (dwt), its modern counterpart displaces from 200,000 to 300,000 dwt with behemoths in excess of 500,000 dwt not uncommon.³ In comparison, a *Nimitz*-class carrier displaces approximately 90,000 displacement tons.⁴

The environmental effects of an attack which would result in the sinking of a modern tanker would be similar to those caused by the wreck of the *Amoco Cadiz* off the Brittany coast in 1978 in which 223,000 tons of crude oil were spilled. In addition to the fouling of hundreds of kilometers of pristine coastline, oyster fisheries were contaminated and growth defects noted in certain species of bottom fish as a result of petroleum pollution.⁵ Other more sinister long-term effects of catastrophic spills must also be considered in weighing the efficacy of such an attack. Researchers have found that phytoplankton, the plant life that forms the lowest level in the marine food chain, is highly intolerant of even very low levels of petroleum pollution.⁶ In addition, evidence gathered after the wreck of the *Argo Merchant* off New England in 1976 indicates that the eggs of commercially important species such as cod and pollack suffered a 50 percent mortality rate in waters affected by the spill.⁷

Attack against the offshore drilling platforms of the upstream stage of the enemy's petroleum industry would also pose grave environmental risks. The accidental blow-out of the Mexican offshore well Ixtoc 1, in the Gulf of Mexico in June 1979, provides a convenient example of what the outcome of such an attack might be. Despite the efforts of the Mexican government to bring the erupting well under control, it spewed oil continuously for almost nine months before it was successfully capped. The Ixtoc 1 disaster is the largest oil spill on record.⁸ The resulting environmental damage to fisheries and tourist industries along the Mexican and Texas coasts has embroiled the two governments in a bitter dispute over compensation.⁹

Yet in October 1987, the United States chose to conduct just such an attack. Naval vessels of the Middle East Joint Task Force shelled the Iranian oil platform *Rashadat* to demonstrate, in the words of President Reagan, a "prudent yet restrained response" to Iranian provocations in the Persian Gulf.¹⁰ The fact that the Iranians were using the platform as a surveillance and operations base did not make more acceptable the very serious environmental risks associated with destruction of an offshore well. One has to wonder if the theater commander and the National Command Authorities even considered the possible environmental crisis that might have resulted from this "prudent yet restrained response."

Perhaps the most convincing argument against further pollution of the sea as a consequence of the indiscriminate use of military force is the implication for world food supplies. If current birth rates continue, the present world population of 5.2 billion will almost double by 2025 and triple before the end of the next century.¹¹ The only hope of feeding such a multitude rests in expanding the annual harvest from the oceans. Scientists estimate that the haul from conventional fishing methods could yield up to four times the present catch, while anticipated developments in "aquaculture" could increase that yield considerably.¹² Wanton disregard for the environmental consequences of military action might well result in the loss of this vital protein source to future generations, precisely when it is needed most.

Attack against the crude oil pipelines of the upstream stage also poses significant environmental risks. The factors relating to potential environmental damage are line capacity and proximity of the target section to ecologically sensitive areas such as watersheds and arable land. The large volume capacity of many of the world's pipelines indicates the dimensions of the environmental crises that might result from such attacks. Approximately 50 percent of the oil exported from the Persian Gulf, or 4.7 million barrels per day (mbd), is transported by pipeline.¹³ The Iraqi pipelines terminating in Turkey and Syria each carry approximately .5 mbd.¹⁴ As a point of comparison, the Alyeska pipeline in Alaska has a capacity of 2 mbd.¹⁵

The greatest environmental risk in pipeline attack is the contamination of ground water supplies by the highly toxic water-soluble components of crude

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oil known as aromatic hydrocarbons.¹⁶ Studies of ground water systems or "aquifers" throughout the United States indicate that aromatic hydrocarbon contamination has already occurred in dangerous concentrations, particularly in oil-producing regions and areas where petroleum-based fertilizers and pesticides have been used extensively.¹⁷ The most disturbing aspect of the contamination threat posed by these highly toxic carcinogenic compounds is their alarming persistence. Once an aquifer has been contaminated by water-soluble organic chemicals, it can remain so for the indefinite future, possibly thousands of years.¹⁸

While attack on pipelines of the capacities described above might well result in lasting ecological damage, the military advantage to be gained would likely be temporary and of little strategic importance. Evidence from the Iran-Iraq War indicates that Iran was readily able to repair damage to its Kharg Island pipeline system despite frequent Iraqi air strikes.¹⁹

Interdiction of an enemy's fuel supply in the downstream stage of the petroleum industry allows the theater commander to employ more discriminate means of attack against targets that are not likely to generate unwanted environmental and political repercussions. The key to conducting environmentally less damaging attacks against this stage of the industry is to avoid large-volume targets such as the storage tanks and pipeline terminals associated with refinery installations.

Primary emphasis should be placed on attacking the refinery process plant in which crude oil is converted into numerous useful petroleum products.²⁰ Since the process plant can handle only a limited volume of petroleum at a given time, elimination of this facility would interrupt fuel production without serious environmental impact.

By adjusting the scope of an attack against an enemy's refinery process plant, the theater commander can choose either to completely disrupt fuel production or merely to prevent production of the more highly refined products such as gasoline and aviation fuels. The fundamental step in refining crude oil involves the separation of the naturally occurring hydrocarbons that comprise the resource into components or fractions. This separation is accomplished by heating the crude in a distillation column or tower. The lighter fractions, precursors of high-performance fuels, are bled off the top of the column while heavier fractions are extracted from the lower part of the column. The lighter fractions require further refinement to form gasolines and aviation fuels, while the heavier fractions can frequently be used without further processing as low-grade diesel, ship bunker fuel, boiler fuel for electric utility plants, and heating oils.²¹

The next step in the refinement of the lighter fractions involves heating them under pressure in the presence of catalysts that promote formation of new compounds. This process is called catalytic cracking and is accomplished in a facility called a catalytic reformer.²² By destroying the catalytic reformer,

the commander can disrupt the enemy's ability to produce gasoline, high-quality diesel and aviation fuels, without affecting enemy ability to produce the low-grade fuels which power industrial production. If interdiction of all fuel production is the commander's objective, attacks can be directed principally against the distillation towers, with secondary emphasis on the catalytic reformers.

This idea of precisely focusing an attack so as to achieve a desired limited result can be taken a step further. Through use of the broad range of intelligence capability available to the theater commander, the enemy's source for the discrete catalysts required for refined fuel production can be identified. A variety of means, not necessarily military, might then be employed to deny the enemy access to industrial chemicals vital to his ability to wage war.

A secondary means of interdicting an enemy's fuel supply in the downstream stage involves attacks designed to disrupt or destroy critical points in the lines of communication through which refined products must pass to reach consumers. Railroads, bridges, and port facilities that serve the refineries are the obvious targets. This category of attack would also include destruction of railroad tank cars and other small-volume carriers of petroleum products. A well-coordinated effort to eliminate small-volume carriers could have decisive results: 90 percent of the Soviet Union's refined petroleum products are transported via railroad tank cars.²³

Attacks against refinery capacity and the lines of communication for refined product distribution are ideally suited for employment of "surgical" weapons such as precision-guided munitions. These targets are also vulnerable to strikes by special operations forces who can be trained to knock out key nodes in the enemy's downstream petroleum industry with little risk of collateral environmental damage.

In order to avoid the unwanted environmental and political costs of interdicting enemy fuel supplies in the upstream stage of the oil industry, the following rules of engagement are proposed:

- Destructive attacks against offshore wells, crude oil tankers, and pipelines be prohibited.
- Destructive attack against crude oil and refined petroleum product storage facilities (tank farms) be prohibited.
- Tankers may be stopped, searched and, if found to be transporting war materials other than crude oil, seized.

The proposed rules of engagement are not intended to deny operational commanders the advantages to be gained from disrupting enemy fuel supplies. Rather, they would serve to focus interdiction efforts on the key nodes of the environmentally less risky downstream stage of the industry.

Rules of engagement designed to limit the collateral environmental damage resulting from military action offer only a partial solution to the larger problem of waging limited war in an ecologically fragile but heavily armed

world. The logical extension of this concept would be an international agreement to protect aspects of the environment vital to human survival by prohibiting attack against environmentally risky targets such as the upstream stage of the petroleum industry. Such an agreement would, in effect, be a form of arms control with emphasis not on reducing the number and type of weapons, but rather on limiting the categories of targets against which weapons could legitimately be employed. An arms control agreement of this nature would be effective only so long as states perceived their enduring interests to be served by the accord. However, protection of the ecological fabric that sustains life is arguably the most enduring interest of all.

Such an agreement would likely have broad political appeal both on a national and international level: Appeal on a national level, because it addresses environmental concerns of an increasingly more alert and informed populace; appeal on an international level, because it would extend the focus of arms control discussions from the present bipolar orientation to a multinational one in which all states could express an interest in an area of mutual concern. It is precisely this broad international support that would encourage states to abide by the restrictions of the agreement rather than endure international condemnation.

The exercise of restraint in war is not a concept born of the nuclear age. Warriors have, since ancient times, recognized the need for limits on the use of violence in furthering political aims. The olive branch as ancient symbol of peace, security, and the fecundity of nature takes root in this idea. Indeed, it was the longevity of the olive tree and its central role in Mediterranean culture that caused the ancients to regard its destruction in war as an act beyond moral justification; hence its enduring symbolic appeal.

As the weapons of war have grown more lethal, the environmental consequences of their injudicious use have become more costly. We must expand the concept of restraint to include the protection of those aspects of nature vital to human survival. Prohibition against attack on the upstream stage of the enemy's petroleum transport system is an example of restraint in the ancient tradition which recognizes that there will be generations to follow long after our war and its objectives have been forgotten.

Notes

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3. *Ibid.*, p. 58; Ferdinande E. Banks, "Oil Tankers: Some Basic Economics," *OPEC Bulletin*, no. 18, 1987, p. 10.

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17. David F. Burmaster and Robert H. Harris, "Synthetic Organic Chemicals Are Contaminating Groundwater in Many Parts of the Nation, Possibly Posing Unacceptable Risks to Human Health," *Technology Review*, no. 85, 1982, p. 52; Larry Freuhling, "Please Don't Drink the Water," *The Progressive*, no. 50, 1986, p. 31.
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19. Axelgard, p. 28.
20. Alan D. Plaistowe, "Key Developments in the Petrochemical Industry to the Year 2000," *OPEC Bulletin*, no. 18, 1987, p. 11.
21. *Basic Oil Industry Information*, (Vienna: Organization of Petroleum Exporting Countries, 1983), pp. 30-31.
22. *Ibid.*, pp. 31-33.
23. "USSR," *OPEC Bulletin*, no. 16, 1985, p. 69.



In the open field of the sea the most direct route is the most natural, and, other things being equal, the best; but many circumstances may influence the decision. Paramount among these is the strength of the navy as compared with that of the enemy,—a strength dependent not only upon aggregate tonnage or weight of metal, but also upon the manner in which those aggregates have been distributed among the various classes of vessels and upon the characteristics of each class in point of armament, armor, speed, and coal endurance. All these qualities are elements in strategic efficiency, sometimes mutually contradictory; and the adjustments of them among themselves may seriously affect strategic calculations. This illustrates that the composition of a national fleet is really a strategic question.

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