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Roger Stern

PEAK OIL, PROGRESSIVISM, AND JOSEPHUS DANIELS, 1913–21

Roger Stern

This article describes the management of an imaginary oil-scarcity crisis by Secretary of the Navy Josephus Daniels. The affair arose in response to "peak oil" claims by scientists of the U.S. Department of the Interior between 1908 and 1920. With increasing vehemence over those years, these scientists forecast—mistakenly—that a decline of domestic oil production was imminent, with total exhaustion to follow by the 1930s. Progressivism was the political ideology from which Interior's peak-oil science sprang, and Progressivism likewise guided Daniels's effort to protect the Navy from the ostensible peak-oil crisis.

Early-twentieth-century Progressivism was a movement for social and economic reform. Progressives of that era were alarmed over industrialization and urbanization and resented the power wielded by new, giant business organizations such as oil, automobile, and steel corporations. Progressives sought to reduce the great concentration of wealth that such new kinds of businesses had put into the hands of a few. They also resented the unfamiliar new workers in their midst: black laborers from the South and immigrants from Ireland and eastern and southern Europe.

Today, Progressivism is mainly an urban, racially diverse movement, but in Daniels's time it also was a rural one. Many Progressives were deeply racist; for southern Progressives especially, white racial supremacy was both a belief and a political objective. Josephus Daniels was one such Progressive. He grew up in a rural North Carolina still smarting from Confederate defeat in the Civil War. Daniels was deeply

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Naval War College Review, Autumn 2020, Vol. 73, No. 4

affronted by the indignity (to him) of life in a society in which blacks could vote and hold high office. All his life, Daniels nurtured hostility against blacks and their ostensible sponsors—northern Republicans. He became a newspaperman, and his business acumen was such that by the age of twenty-one he owned three newspapers. Later, as owner and publisher of the Raleigh *News & Observer,* he led North Carolina's white-power movement. Daniels's role in the triumphs of southern Progressivism brought national attention.[1]

Both political parties espoused Progressive ideals in the early twentieth century. Theodore Roosevelt was a Republican, yet his administration began the antitrust lawsuit that would lead to the breakup of Standard Oil of New Jersey in 1911. Roosevelt also set in motion an effort to use science as an instrument of politics. The idea of advancing civilization through scientific knowledge was an important tenet of Progressivism. Roosevelt believed that the conservation movement he did so much to advance should be guided by science. It was not simply that forests, wetlands, and wildlife were disappearing in an industrializing landscape; Americans, Roosevelt argued, would need these resources as the United States fought against other states for survival. In other words, to Progressives like Roosevelt, conservation was a national-security project.[2]

In 1908, Roosevelt proclaimed that domestic coal, oil, and iron ore were near exhaustion. The venue was a "Conference of Governors," which Roosevelt convened at the White House. The prestigious audience he gathered to his conference was a measure of the importance Roosevelt attached to conservation. In attendance were most of the nation's governors, most members of Congress and the Supreme Court, and top business and labor leaders. Such a powerful conclave of Americans never had met before and never has again.

Impending exhaustion of fossil fuels and iron ore, the president warned, was "the weightiest problem now before the nation," because "these resources are the final basis of national power and perpetuity." It was "ominously evident that these resources are in the course of rapid exhaustion."[3] Although Roosevelt cited no evidence for his extraordinary claims, they drew legitimacy from the environmental destruction that Americans could see all around them. If fish were dying and forests disappearing, it made sense that minerals could be disappearing too.

Roosevelt initiated a scientific megaproject to confirm his peak-mineral theories and advance other scientific efforts that he deemed critical to American survival. Interior's first peak-oil forecast appeared in the scientific publication resulting from this project, a gigantic three-volume tome that covered diverse societal problems and their ostensible solutions. Along with prescient public-health and biological-conservation recommendations, the report called for ghastly eugenic measures such as forced sterilization and state intervention in citizens' choice of marriage partners.[4] With respect to the oil problem, United States Geological Survey (USGS) geologist David Day asserted that since new oil fields were unlikely to be found, U.S. production probably would cease by the mid-1930s.[5]

However, several USGS geologists cautioned that British scientists had been predicting exhaustion of Britain's coal production—mistakenly—since 1866, and saw no reason to expect exhaustion of American coal or iron ore. They also pointed out how easy it was to overlook how new technology steadily uncovered previously unimaginable volumes of mineral resources.[6] The rest of government ignored these insights.

Although Woodrow Wilson did not share Roosevelt's enthusiasm for forests and wildlife, he was no less committed to the use of science as a tool of government. As a young Bryn Mawr College professor in 1887, he wrote a paper advocating that a "science of administration" could reform American governance. Scientists, Wilson argued, should govern almost all aspects of society, free from the messy business of democratic compromise, and applying best practices wherever found. "If I see a murderous fellow sharpening a knife cleverly, I can borrow his way of sharpening the knife without borrowing his probable intention to commit murder with it; and so, if I see a monarchist dyed in the wool managing a public bureau well, I can learn his business methods without changing one of my republican spots."[7] This was a formulation that depended on perfect behavior by administrative scientists; Wilson trusted that they never would abuse the great power he proposed they should have by putting personal or bureaucratic interests ahead of verifiable truths.

Elected president as a Democrat in 1912, Wilson granted this kind of great power to scientists to manage the imaginary problem of peak oil. He also granted great power to his executive departments to persecute labor unionists, anarchists, and, in the end, anyone who questioned government policy. He oversaw passage of coercive laws—the Sedition Act, the Espionage Act—that criminalized criticism of the war effort. Sanctioned by the Department of Justice, a vigilante force known as the American Protective League harassed labor unionists, pacifists, and immigrants.[8]

Ostensibly, science provided the rationale for a foreign adventure promoted by Wilson's Secretary of State, William Jennings Bryan, who contrived the first iteration of "oil-scarcity ideology"—the ostensible imperative to do something aggressive to avert a peak-oil crisis. When Mexico experienced an extended period of banditry and revolutionary violence in its oil fields, Bryan wrote to President Wilson on 9 April 1914 to argue that the instability threatened oil exports to the United States. Interior's peak-oil forecast bore directly on this problem. As Bryan explained to Wilson, peak oil made Mexican oil strategic: "These fields are furthermore regarded as the inevitable source from which, in the near future, the supply of oil for the United States Navy will largely be drawn."

Naval War College Review, Vol. 73 [2020], No. 4, Art. 9

Bryan recommended that Wilson intervene to control the oil-producing region around Veracruz.[9]

Wilson obliged, sending a USN flotilla to that city. On 21 April 1914, American naval infantrymen and Marines went ashore and subdued the port; they suffered few casualties, but over a hundred Mexican soldiers, naval cadets, and civilians died defending the city. Wilson had secondary motivations in invading, one of which was to restore the recognized Mexican president, José Venustiano Carranza, to office. However, occupation restored neither order to the region nor Carranza to office; rather, the presence of foreign troops on Mexican soil gave the warring factions the only thing they ever could agree on: that the American invaders should leave. Opposition to occupation even came from the Carrancista faction that Wilson sought to help.[10] After seven months, nineteen U.S. combat deaths, and at least two hundred Mexican combat deaths, American forces withdrew.[11] Thus peak oil, as imagined by Theodore Roosevelt and constructed by Interior, became the proximal rationale for America's first adventure to secure foreign oil. The subject of this article, however, is a more unusual instance of U.S. aggression rationalized by oil-scarcity ideology: aggression directed not against foreign oil-producing countries but against domestic oil firms, in a campaign directed by Josephus Daniels.

There has been relatively little scholarship on Daniels. When scholars do mention him, he sometimes is lauded as a Progressive hero for his battle to repatriate mineral patents adjoining Naval Oil Reserve lands.[12] A relatively recent biography gives a more balanced account of his life and times.[13] This article offers a novel assessment of Daniels via a study of how he procured fuel for the oil-powered Navy he helped bring into being.

Daniels's time in office can be understood as a response to two ideals: Progressivism; and peak oil, the great oil-related fear of the Wilson years. Expectation of peak oil moved Daniels to do all he could to avoid drawing down the Naval Oil Reserve, which, according to his plan, was to sustain the Navy after the rest of the world's oil fields ran dry. To preserve the Naval Oil Reserve, Daniels ultimately resorted to seizing oil, always at a below-market price and sometimes without compensation at all. As will be shown, the secretary's campaign to save the Navy from both peak oil and the ostensible predations of "big oil" would end in a lawless fiasco; during his last months in office, Daniels oversaw fuel-oil seizures from California refinery wharves, led by armed Marines.

Daniels saw the Navy not only as an instrument of war but also as a venue for moral improvement. He decried the depravity of the rich and famous of Newport, Rhode Island, whose bad example threatened the moral well-being of sailors stationed there.[14] Moral purpose also propelled Daniels's oil policy. Daniels had a straightforward attitude toward all Navy procurement terms—that they were unfair until proved otherwise—a view that reflected Democratic Party suspicions of war profiteering undimmed since the Civil War.[15] Daniels went to extraordinary lengths to contest perceived corporate exploitation of the government—a posture that would have a negative impact on the wartime oil supply.

Daniels generated controversy throughout his tenure as secretary. One manifestation was hearings in 1919 by the Senate Naval Affairs Committee, in which leading naval officers such as then–Vice Admiral William S. Sims aired their grievances against Daniels's unorthodox practices. A book by Lieutenant Tracy Barrett Kittredge, USN, a Sims aide and a historian, that summarizes the hearings declares that Daniels "was concerned solely with purely peace activities; with economy in expenditure, with semi-socialistic enterprises such as the establishment of industrial plants to manufacture armour, guns, clothing, etc.; with measures advertised as inspired by a desire to improve the lot of the enlisted men."[16] This behavior, Kittredge asserted, left the Navy unprepared for World War I.

Although this article also reaches negative conclusions about Daniels, some of his legacy is emphatically positive. He committed the Navy to oil propulsion sometime around 1913, catapulting the United States into the front rank of naval powers. Then, in 1920, he sent some of the new oil-powered warships to home ports on the Pacific coast. This made the Navy a truly two-ocean force for the first time since the advent of coal propulsion; previously, coal-burning warships would have remained confined during wartime to a relatively narrow sailing radius near the Pacific coast. The establishment of an oil-powered Pacific Fleet was a brilliant policy, yet Daniels's radicalism turned this triumph into a debacle of internal piracy.

PEAK OIL AND NAVAL PLANNING

Although oil was a superior fuel that would not require a network of far-flung coaling stations—which Britain had and America did not—the new oil-powered Navy still had a fueling problem, at least according to certain geologists of the Department of the Interior. U.S. oil production, they claimed, would be exhausted completely by about 1935, leaving the Navy to rely on imported oil to operate.[17] Because the United States produced the vast majority of world oil at the time (69 percent in 1918, for example), the prospect of descending from this position to a future of import reliance was a fearful one, especially in an era that prized autarchy.[18]

Daniels's activism over petroleum-product prices began after his decision to commit the Navy to oil propulsion in 1913.[19] Before committing the Navy to oil, Daniels consulted Interior about whether the oil supply from the federal lands that were planned as an oil reserve would be sufficient for the needs of the

Naval War College Review, Vol. 73 [2020], No. 4, Art. 9

oil-powered fleet in the future. Secretary of the Interior Franklin K. Lane assured Daniels that the Naval Oil Reserve then anticipated contained more than enough oil for all warships planned or under construction during their projected twenty-year life span. Lane cautioned, however, that the price would rise as oil ran out in the 1930s.[20] As Secretary Bryan had with respect to Mexico, Daniels took Interior's oil findings seriously. The prospect of peak oil would shape Daniels's decisions about the naval oil supply for his entire tenure in the administration.

Daniels's plan was to lock away the Naval Oil Reserve against the time when all other American fields were exhausted. A dwindling supply must mean higher oil prices, as Secretary Lane had warned, and higher prices already were worrying the Navy's General Board. The board's president was Admiral George Dewey, whose close brush with the bottom of his coal locker in the 1898 Battle of Manila Bay would seem a strong qualification for analyzing the Navy's fuel supply. Unfortunately, in 1911 Dewey accepted Interior's peak-oil dogma without question, as did some other flag officers. The chief of the Bureau of Steam Engineering, for example, anticipated "[t]he probability of an eventual demand for petroleum greatly exceeding the supply," recapitulating Interior's position on peak oil.[21] This perspective led the board to the worrying conclusion that if price increases continued "oil producers might not care to bid for naval contracts, or if they did their prices would be practically prohibitive." The board's report, entitled "A Supply of Oil at a Reasonable Price," asserted that only via establishment of the Naval Oil Reserve and refining operation could the Navy be protected from profiteers.[22]

Daniels enthusiastically adopted these recommendations, which, in addition to addressing peak oil, embodied suspicions regarding capitalism that were endemic to the era. Adding a tone of urgency to his advocacy for an oil operation of the Navy's own, he declared, "[T]o-day [in 1913] the United States Navy is paying over twice as much as it did for its oil in 1911. The only relief possible from what will be a staggering item in the expense account of the Navy in the future is the control of oil wells, and the refining of its own oil by the Navy department." Until the Navy had its own oil company, Daniels pleaded, government could not "escape the charge of willful waste of public money if it continues to purchase oil at prices which may fatten the pockets of a few oil companies."[23]

Of course, a rising price was also what would be expected under peak oil, as Secretary Lane had explained. This presented a paradox that Progressives such as Daniels never tried to reconcile; that is, as oil became scarcer during the peak-oil crisis that supposedly was already in progress, the price must increase, yet Progressives also were certain that any price increase must be the result of profiteering by greedy, monopolistic oil firms.

Uncomfortably for Daniels, a price collapse in 1915 forced him to redefine why, with oil now abundant, peak oil was still a threat and his campaign for Navy oil operations was still necessary. Daniels declared that the market was cyclical, then followed this unremarkable observation with a colossal non sequitur. "With the present methods of producing and marketing oil, there will be periods of overproduction, low price, and extended use of oil, and periods of shortage of oil production, high price, and limited use of oil, so that as a final result the oil resources of the country will be rapidly depleted."[24] Daniels offered no evidence for this remarkable idea—that market cyclicality induced resource exhaustion.

Daniels's proposal to Congress for a Naval Oil Reserve was equally astonishing. "[The reserve] would not be drawn upon when oil could be purchased on the open market at a fair price, but when the decreased production and increased price had shut off all other sources of oil for the Navy, then the reserves could be drawn upon and the United States Navy would have a supply of fuel for many years, whereas the navies of other nations that had not made a similar provision for a fuel oil supply would be forced to depend on coal as a fuel."[25] Implicit in this scenario was that peak oil would strike all over the world at the same moment, leaving the U.S. Navy with the last oil on earth, in the form of the Naval Oil Reserve. In scientific debates it sometimes is said that extraordinary claims require extraordinary evidence; Daniels offered none. Not even the peak-oil scientist-advocates at Interior had gone so far as to assert that peak oil would occur simultaneously throughout the world.

When the price began to rise again in 1916, Progressives were quick to call for intervention to rein in Standard Oil of New Jersey (SONJ, often referred to as "Jersey"), the world's largest oil firm, which they assumed must be responsible. Prohibition Party congressman Charles Randall offered a resolution to nationalize the oil industry.[26] Yet ultimately, Daniels found himself defending the idea of naval oil operations from opposition from within his own party. In March 1916, California senator James Phelan offered a bill to legalize patents within Naval Oil Reserve No. 2. Patents were legal rights to minerals on federal lands that were given to private claimants in the late nineteenth century or were granted to later claimants who promised to prospect for minerals. Phelan's goal in attempting to legalize the patents was to stimulate California oil-production growth, which had declined during a legal campaign by Daniels to repatriate the patents, because oil developers were enjoined from working patent claims. Daniels bitterly opposed Phelan's bill, claiming it would strip the Navy of the fuel it must have in the future, thus forcing a return to coal.[27] Since the Navy's other two reserves ostensibly held just five years of wartime supply, Daniels argued, the viability of the fleet was at stake if patents to Reserve No. 2 could not be obtained. Phelan dismissed Daniels's characterization of coming scarcity as absurd.[28] And history proved him right; when Reserve No. 2 was sold eight decades later, in 1998, it already had produced four times the amount Daniels believed it held, yet still brought $3.7 billion.[29]

Navy oil production was but one of Daniels's ambitious plans to defeat profiteering. He also sought government ownership of telephone, telegraph, radio,

Naval War College Review, Vol. 73 [2020], No. 4, Art. 9

coal, steel, and merchant-shipping industries.[30] After Germany's resumption of unrestricted submarine warfare in February 1917, however, Daniels's nationalization campaign took a back seat to war planning. As the country's mood shifted from isolationism to war, Congress passed and Wilson signed a declaration of war against Germany in April 1917.

DANIELS AT WAR

Daniels's proclivity for dramatic economic action intensified once the United States entered World War I. The Navy suddenly stopped paying for fuel oil, or at least stopped paying market price.[31] It is unclear whether Navy nonpayment began as a dispute over price or as an effort to overawe the large oil firms that Daniels saw as a threat to society.

It also is possible that Daniels anticipated passage of the Food and Fuel Control Act, known as the Lever Act, which would occur in the summer of 1917. This wartime law would give the president authority to requisition food or fuel for military use at a "fair" price. Daniels may have felt that he already knew the price of oil was unfair and, with President Wilson's recent reelection as a mandate, believed he could withhold payment while waiting for Lever to pass. As prices for commodities rose through the early summer of 1917 owing to war demand and war inflation, Daniels alerted Wilson that he had asked the arch-Progressive Federal Trade Commission (FTC) to determine a "reasonable price" for oil.[32] Wilson apparently endorsed Daniels's combative approach, as two days later the secretary "threw down the gauge of battle to the producers of commodities needed by the navy in the prosecution of the war." The Navy, Daniels announced, would collaborate with the FTC to determine the cost of coal, copper, cement, iron ore, and oil. "I am going to know what these things cost and give the producers liberal profits, but beyond that I am not going to pay."[33]

The Lever Act passed in August 1917. It warned vendors not to "exact excessive prices" and explicitly forbade "excessive profits," but it did not define *fair* or *excessive*. The act allowed government commandeering (as did wartime laws in many countries), but it stipulated that in disputes over price government agencies must pay what they believed fair, leaving the ultimate price to be adjudicated later.[34] Although Lever was meant to give the government leverage to procure war goods, it did not allow agencies to pay nothing for goods—which, as we will see, is what Daniels had the Navy do, in many cases.

The records of the Petroleum War Service Committee (PWSC), a voluntary body composed of industry executives whom the government had organized to support war logistics, chronicle an oil industry in submission to government coercion. In public, the oil industry kept silent on nonpayments for three years, perhaps for fear that complaints would revive calls for nationalization. From PWSC meeting minutes, we know that oil-industry executives mentioned the nonpayment problem only twice before late October 1918—almost the end of the war.

However, even before the problem appeared in official PWSC records a federal official named Mark L. Requa had begun to address it. Requa was director of the oil section of a wartime agency called the U.S. Fuel Administration. Requa engaged an engineering firm, Sanderson & Porter, to report on "the costs of and prices for petroleum refinery products in the United States and relating especially to the fair prices for fuel oil *taken by the United States Navy* for the 1917–1918 federal fiscal year."[35] This may be the earliest official record that a petroleum price dispute existed and that seizures were involved. How Requa became aware of the Navy's nonpayment habits is unclear, but he was in almost daily communication with PWSC leaders, who may have communicated the nonpayment problems informally. Whatever the case, Requa clearly grasped that under Daniels's leadership Navy commercial behavior might precipitate political or market crises. An independent price analysis, Requa may have thought, might resolve the problem quietly.

Daniels's nonpayment policy put the Navy on the wrong side of the law. Yet in the days just before passage of the Lever Act, the secretary had gone even further. In New York Harbor, Navy vessels seized two cargoes of fuel oil destined for the Public Service Gas Company of New Jersey.[36] The Navy's grounds, as reported to a USGS geologist with the U.S. Shipping Mission, were that "they could not get what they wanted in New York."[37] This probably was a reference to SONJ's refineries on the New Jersey side of New York Harbor.

The Navy's seizure of oil from a public utility was brazen, to say the least, and attracted the attention of Attorney General (AG) Thomas Gregory. The AG was alarmed enough to urge a public-relations campaign to convince Americans to see the petroleum industry more positively. As things stood, he worried, the public tended to regard oilmen as "slackers," usually a pejorative for anarchists and radical trade unionists viewed as lawless enemies of the state.[38] Gregory well understood how powerful such discourse could be; a decade before, he himself had used it skillfully in a legal assault against a Jersey subsidiary in Texas. Gregory's client at the time was the State of Texas, which successfully sought to exclude an SONJ subsidiary from operating there.[39]

Now that he was attorney general of the United States, Gregory seemed to fear that private citizens might follow the Navy's example, raiding property and making business more difficult for companies of all kinds. As AG, Gregory was the titular head of the American Protective League, whose 50,000–350,000 volunteers already were breaching the civil rights of Americans and immigrants; it might take very little for them to move on to trashing oil companies. Although he had been Jersey's archenemy in Texas, Gregory now grasped that the taint of

Naval War College Review, Vol. 73 [2020], No. 4, Art. 9

corruption, once focused only on Standard Oil, had come to apply to any firm and any person in the oil business. As two energy historians put it, "the onus so successfully attached to Standard Oil gradually extended to cover all large oil companies and, ultimately, the entire oil industry."[40] The Navy's action against the New Jersey utility cargo signaled that industry had become too easy a target, and Gregory feared where it all might lead. In a final indignity related to this seizure, the PWSC was asked to clean up Daniels's mess by finding replacement cargoes for the power company.[41]

The PWSC refrained from official discussion of Navy nonpayment for fuel oil until late June 1918, when its members finally agreed that "[a]s to the Navy fuel price question, someone should see Mr. Requa and go over the whole situation with him."[42] The PWSC seems to have been unaware that Requa already had engaged Sanderson & Porter to investigate a fair price. The consultant duly reported in late August 1918 that the oil firms were asking for generally fair market prices.[43]

But on 7 October 1918, Daniels rejected the consultant's report in a letter to Requa's boss, U.S. Fuel Administrator Harry A. Garfield, because, among other things, it did not account for large profits on crude oil by "big low-cost refiners and the general increase in refining profits over pre-war periods."[44] Daniels's rejection of the consultant's report finally moved the PWSC to a "very considerable discussion on the subject of unpaid bills for the United States Navy." Some bills, wrote SONJ chairman A. C. Bedford, "extend back to the time when the United States entered the War."[45] This was the first complaint from the PWSC during seventeen months of nonpayment, and it was made in private.

The Sanderson & Porter report on Navy fuel-oil prices mainly supported industry positions. Among its many criticisms of the Navy's approach, the most important concerned the pricing scheme the FTC had devised. Sanderson & Porter found flaws in FTC cost-accounting systems that tried to weight profits across all products or across all refineries. Using such methods to determine a fair price, so as to limit the profits of the most profitable firms, would have regressive effects, the consultant maintained. Less profitable refineries, already struggling to make unprofitable aviation gasoline, might be forced out of business if they had to accept a lower price devised from a weighted average skewed by larger profits of larger, more-efficient firms.[46]

Daniels's rejection of the Sanderson & Porter report came despite this warning from the consultant, apparently because the report did not sufficiently punish the most profitable firms for exceeding a "fair" price. Daniels's real objection, as he made clear to Fuel Administrator Garfield, was that no remedy besides government control would do; "the only satisfactory solution can be found in complete, uniform government control over both production and distribution of the commodity affected."[47] Daniels failed to recognize that his obsession with "fair price" was becoming a readiness issue. The U.S. oil industry was straining to keep up with war demand from Europe, rampant inflation, and a burgeoning market for oil at home. The loss of any smaller, less profitable refiners would have a debilitating effect on the entire Allied military, whose main oil supplier was the United States.

Daniels meanwhile continued to refuse to pay refiners, even after passage of the Lever Act obliged the Navy to pay at least the price it believed fair. Sanderson & Porter related that prior to July 1917 the Texas Company and Gulf Refining Corporation had been supplying most oil to the Navy on the Gulf Coast. Around this time it became apparent that these companies could not meet "their quotas for the fuel oil needs of the Navy and Allies owing to the heavy demands on the oil supplies and to the lack of ships for transportation." The Navy then asked other companies to bid, yet rejected all offers received because it deemed the proposed prices too high.[48] On this basis—because firms did not want the Navy's business at the low price Daniels was willing to pay—seizures continued as war raged.

The consultant also disclosed that from 1 July 1917 to 12 July 1918 the Navy had seized five million barrels of oil, which probably was about 1.5 percent of U.S. production during federal fiscal year 1918 (FY18).[49] However, the burden of Navy seizures was borne by just eighteen companies, which meant that their losses were considerably greater than 1.5 percent. For obvious reasons, the Navy targeted only large firms with refining, storage, and loading operations at tidewater. Conveniently for Josephus Daniels, the big firms at tidewater also were the ones he believed most in need of punishment for the capitalist misdeed of seeking market prices for their products. The brunt of the seizures thus was borne by SONJ and its affiliates, followed by the Texas Company, Gulf Refining Corporation, and Atlantic Refining Company. Seizures from the Texas Company are of interest in that this firm had very close ties to Texas Democrats in the cabinet—most notably AG Gregory and Postmaster General Albert S. Burleson, as well as Wilson's close adviser "Colonel" Edward M. House.[50] Daniels was a zealot, however; full payment was withheld from *all* the large oil firms, no matter their political connections.

The market value of the nonpayments was substantial. SONJ, for example, lost 1.54 million barrels to seizures in federal FY18, which was 5 percent of its refinery runs over the period.[51] The impact to gross earnings probably exceeded 10 percent.[52] Of interest is that two large second-tier firms with tidewater operations escaped seizures; these were Sinclair Oil and Mexican Petroleum, whose principals, Harry F. Sinclair and Edward L. Doheny, respectively, later were implicated, though not convicted, in the Teapot Dome scandal. After Mark Requa left government, he became a Sinclair executive. These circumstances suggest, but do not show, collusion, as does Doheny's strong support for Senator Phelan in California politics. Future historians may learn more.

THE PETROLEUM WAR SERVICE COMMITTEE GETS RESTLESS

During a PWSC meeting in late October 1918, the committee asked the federal fuel administrator, Mark Requa, to express his views on a fair price, now that Daniels had rejected the estimate from Sanderson & Porter. Uncharacteristically, Requa recommended confrontation, and determined to take the matter to the highest level he could. He suggested that a report be made to Bernard Baruch's Price Fixing Committee, which would argue for the companies' compensation claims. The Price Fixing Committee and its predecessor, the War Industries Board, "were perhaps the most important" among government price-regulating agencies during World War I.[53]

As the possibility of victory in the war came more firmly into sight, industry's willingness to keep quiet about the seizures waned. PWSC members eagerly committed themselves to collecting detailed reports from aggrieved firms and giving them "to Mr. Requa for whatever action he might deem wise to take."[54] A month later, the PWSC adopted a formal, yet still private resolution supporting Requa's effort to resolve the companies' claims, and another resolution calling for the FTC to desist investigating oil prices.[55]

By the time the Treaty of Versailles was agreed to in June 1919, most government agencies had stopped wartime procurement practices under Lever Act authority. The act remained in force, however, because the United States never ratified the treaty; technically, America was still at war. This allowed Daniels to persist in coercing procurements from oil firms. Something had changed, however—one firm fought back in court. Within a day of the conclusion of the Versailles agreement, Atlantic Refining sued the Navy for $2.2 million (over $30 million in 2020 dollars) in compensation for fuel oil taken to date.[56]

NAVY-INDUSTRY CONFLICT IN CALIFORNIA

The likelihood of a Navy-industry confrontation was mounting at a moment that otherwise was auspicious for American naval power. The end of the war meant that some oil-powered dreadnoughts could be reassigned from the Atlantic to the Pacific. This radically altered the Pacific balance of power in America's favor. To understand how great a change this was, consider that back in 1897 Assistant Secretary of the Navy Theodore Roosevelt had asked then-Captain French E. Chadwick what it would take to "smash the Japanese Navy" if it attacked Hawaii, not yet a U.S. territory. The limited range of coal-powered warships made Roosevelt's question almost unanswerable. Coal-powered warships from

West Coast home ports barely could reach Hawaii before having to turn around to refuel.[57] There simply was no way to stand and fight a "battle of Hawaii." All this changed on 26 July 1919, when five oil-powered superdreadnoughts of the newly constituted Pacific Fleet completed their first transit of the Panama Canal, making the United States a Pacific superpower.[58] The fleet's progress northward was celebrated in California with patriotic headlines such as "Giant Guns Thunder Salute to Navy Chief; San Diego Wild with Enthusiasm as Imposing Armada Steams before Daniels."[59]

It seems safe to infer that before the Pacific Fleet's arrival in San Diego the Navy's fuel-oil requirements on the West Coast were modest. Anticipating that requirements would rise, Daniels announced that the Navy would "commandeer fuel oil and gasoline required for the Pacific fleet because of unsatisfactory bids." The so-called necessity to commandeer arose, as it had during the war, because Daniels was unwilling to pay market price. The Navy had a stark choice, Daniels maintained: either it could seize the oil it needed, as it had during the war, or it could abandon plans for a Pacific Fleet.[60] With this false dichotomy as apparent justification, Daniels announced a plan to procure fuel oil in California that was very like the plan established in 1917 for the Atlantic, under Lever Act authority. "Under the navy orders placed today the west coast concerns will be required to supply the navy's demands and to accept a price to be fixed later after the navy department has carefully investigated the cost of production and delivery at Pacific coast points."[61]

By 16 August 1919, it became clear that Daniels meant for the FTC to conduct an investigation to determine West Coast production costs. From this, Daniels ostensibly could determine what fuel-oil price would be "fair." California oil marketers resisted loudly and in public. As the *Oil & Gas Journal* reported, citing an undated issue of the *Petroleum Reporter,* "the producers see in the proposed investigation an attempt on the part of Secretary Daniels to whitewash his action in forcing the companies to sell to the navy at 86 cents a barrel here, although [the companies themselves] pay $1.53 at tidewater for the same product." One producer averred that it was unfair that the Navy could force a 67-cent loss on the marketers on every barrel sold and threaten that "if they refuse they risk government seizure."[62]

The Navy soon escalated, threatening large firms with seizure of their refineries. This attracted national attention, albeit from a quarter friendly to the industry. The *Wall Street Journal* reprinted a protest by Standard Oil of California (Socal) against the seizures:

> The oil companies have refused to execute the requisition agreements [from the Navy]. The necessities of the war are over and they decline voluntarily to submit to

Naval War College Review, Vol. 73 [2020], No. 4, Art. 9

the further taking of their property without just compensation. The marketing companies have expressed their readiness and desire to supply the Navy's requirements under ordinary commercial conditions, but they have declined to make deliveries upon the Navy's confiscatory terms except under duress and compulsion of force used by the Navy. . . . Refusal to deliver the product commandeered has been met with the formal threat of an immediate seizure not only of the products in question but also of the plants at which they are produced.

In the meantime, the indebtedness of the Navy to the oil companies piles up. . . . Its bills are being paid to unwilling sellers by promises of adjustment now more than two years old. . . . It is a serious matter when a great agency of the government embarks on a policy of confiscation without hindrance by Congress or the Chief Executive.[63]

Public awareness was no barrier to Daniels's aggression; he continued to prey on the companies, apparently confident that he still could seize oil if he could not buy it at the price he wanted. Beginning in January 1920, however, Daniels acquired a vocal and influential adversary in Admiral Sims, whose critique of the secretary's war management caused an immediate sensation. Sims accused the secretary of having been laggard in adopting modern naval-warfare tactics and of several other managerial failures. The Senate Committee on Naval Affairs began hearings on Daniels's management that would last until the end of May. The committee recorded over 3,500 pages of testimony, much of it in vehement opposition to Daniels. By the time 1920 ended Lieutenant Kittredge had completed his 450-page book excoriating Daniels, basing his analysis on the Naval Affairs Committee testimony.[64]

However, as those hearings began in March, Daniels—perhaps to demonstrate his resolve—threatened to commandeer still more fuel oil if the companies refused to offer contracts at "reasonable prices." As they had done in 1919, the companies tried to evade supplying the Navy by bidding on only a tiny fraction of the volume sought.[65] In April 1920, Daniels's management was implicitly condemned in recommendations by the Naval Affairs Committee for a complete reorganization of the Navy. Defiant, Daniels advertised that he would step up seizures in anticipation of repeal of the Lever Act, whose authority he continued to invoke even in the second year of peace.[66]

In late June, the General Petroleum Company began what would become the most forceful resistance yet to Navy commandeering. Up to that moment, only the Atlantic Refining Company had resisted by taking the United States to court over Navy confiscations.[67] After General Petroleum won a temporary federal restraining order protecting the firm from seizures, a rumor circulated that "unless the company agreed to sell oil to the navy at the navy department's price" Marines would be landed to seize fuel oil physically from General's refinery in Los Angeles Harbor.[68]

The rumor was "nonsense," according to Admiral Hugh Rodman, commander of the Pacific Fleet, who pushed responsibility for any commandeering of oil up the chain of command. This took little time, as Secretary Daniels was aboard Rodman's flagship *New Mexico* in Los Angeles Harbor. The pride of the fleet, the two-year-old, oil-powered dreadnought had returned only recently from ferrying President Wilson to sign the Versailles Treaty (which the Senate declined to ratify). Now Rodman and his boss were about to take *New Mexico* on a jaunt to San Francisco to attend the Democratic Party national convention.[69]

General Petroleum's suit singled out Daniels; Rear Admiral Samuel McGowan, the Navy's paymaster general; and a few other officers. It argued that the oil they sought at $1.11 would cost $1.42 to replace, and that the firm had contracts with buyers for the same oil at $1.85. The Navy, in short, was seeking a price per barrel 22 percent below wholesale. The U.S. attorney defended the Navy, calling these "quibbling reasons," and asserted that the Navy "had merely set a figure as a temporary price for an advance payment." On Lever Act grounds, Rodman challenged the company's right to sue, because without ratification of a peace treaty the United States was still "technically at war." The Navy also noted that the Pacific Fleet faced a fuel-oil shortage, which moved a supply officer "to declare that the oil would be commandeered, by force if necessary, and that marines might be landed to seize the oil."[70] Rumors of the use of force, it seemed, might come true. Daniels thus was sticking with the tactic he had used with such success ever since Lever's enactment; that is, the Navy would pay nothing or a price well under market, evade the price adjudication that Lever mandated, and then attempt to use FTC estimates to justify a lowball price. What was new was the threat to use the Marines to enforce the scheme.

General Petroleum's bid for a permanent injunction against seizures ultimately was dismissed, on the reasonable grounds that naval readiness could be at risk. Yet the presiding judge, Benjamin Franklin Bledsoe, evaded the core price adjudication problem, calling instead for just compensation "according to the usual rules and principles that obtain in courts of law."[71] The problem was that there never had been anything "usual" in the Navy's seizures, nor any provision for how the price disputes that led to them were to be settled.

Judge Bledsoe also ruled that force could be used to compel the company to deliver oil at $1.11 per barrel, even though the Navy already had contracted for a small quantity (two thousand barrels) at the much higher per-barrel price of $2.85 then prevailing. The judge, however, insisted that only a jury could decide what the price for new procurements should be, and further muddied the issue of price adjudication by referring, vaguely, to a "judicial tribunal" that should determine the price.[72] Since the Lever Act was silent on precisely how prices should be adjudicated, this left Daniels with the upper hand.

The companies' economic fight with the Navy continued around San Francisco Bay a few days later. On 7 July, the Union Oil Company refused to deliver a tiny quantity of oil at $1.60 per barrel to the Mare Island Naval Station in Vallejo. A Union official declared that "it was unjust for the Navy to attempt the use of a war time measure to extract a more favorable price than other customers were paying, the market figure being $2.60." The official also hinted at a passive-aggressive tactic that evidence suggests large California oil firms may have employed widely in the second half of 1920. "The navy may take oil from us and fix its price, but it cannot compel us to continue to refine oil at navy prices or sell at navy figures."[73] What this meant was that Union was minimizing fuel-oil production to avoid loss-making seizures; other firms probably were too. Perhaps for that reason, on 17 July Mare Island Station sent a demand for more fuel oil to four of the five California firms from whom the Navy had been seizing oil since 1917, offering $1.72 per barrel; the fifth firm, General Petroleum, already had been subdued in Los Angeles. Although the Navy's $1.72 was slightly higher than its offer from two weeks before, a reporter noted that market price was "steadily rising above that figure."[74]

The California supply never had been tighter than in the summer of 1920, and meanwhile nationwide consumption was growing at 25 percent a year. Rapidly growing legions of California automobile owners pushed gasoline demand ahead of refinery capacity, while fine weather extended the driving season. To contend with the demand surge, the oil industry in California, Oregon, and Washington adopted a remarkable and comprehensive suite of demand-suppression measures. These included demand prioritization, tiered pricing, rationing, forced substitution to lower grades of fuel, and proselytizing for conservation. The companies also held down price and, as we will see, sold some grades at a loss. In a study of this unusual market, economists Alan Olmstead and Paul Rhode hypothesize "that the oil companies held prices down because they were afraid of hostile government actions."[75] The Navy's fuel-oil seizures, as revealed in the present article, strongly appear to be the "hostile government actions" that Olmstead and Rhode inferred had intimidated the oil companies into forgoing price increases.

The convergence of rapid demand growth, regional scarcity, and Daniels's anticorporate aggression created a strong incentive for California oil companies to do two things: (1) maximize gasoline production, which happened to require minimizing the refining of fuel oil, and (2) avoid supplying fuel oil to the Navy at a loss. For example, Union Oil's tactic of declining to refine fuel oil, which the other large California firms appear to have followed, seems to have been a response to both the general scarcity of gasoline and the desire to avoid supplying the Navy. Navy behavior also explains oil-industry reluctance to advance West Coast gasoline prices in line with national upward trends. The firms seem to have feared that raising prices would harden public opinion further against them, thus allowing the Navy's economic aggression to intensify.

Meanwhile, the combination of crude shortages and company efforts to avoid further seizures was affecting Navy readiness in the Pacific. By late July, fuel oil was so scarce that the Navy began burning coal in three oil-powered dreadnoughts based in California home ports. Then the unthinkable happened: on or shortly before 24 July 1920, one of six destroyers en route from San Diego to San Francisco ran out of fuel oil at sea and had to be rescued by a coal-burning tugboat.[76]

This moved the Navy to act even more aggressively against the companies. The Department of Justice was consulted, after which AG A. Mitchell Palmer instructed the U.S. district attorney to assist the Navy if necessary. Then a "high officer" of the Twelfth Naval District, headquartered at Mare Island, threatened that the companies' refusal to sell would result in either cancelation of a reservists' training cruise in the six destroyers or the seizure of 150,000 gallons of fuel oil so the cruise could proceed.[77] The companies would not sell at $1.72 per barrel; hence seizures by armed force began on 26 July 1920 against northern California oil companies. Once the six destroyers from San Diego reached San Francisco Bay, they carried out a "threat to seize fuel oil from four companies [Socal, Union, Associated, and Shell] which had refused to sell at the price of $1.72 a barrel."

Associated was targeted first. Ignoring the firm's protest, Navy vessels snatched not 150,000 gallons, as threatened, but five hundred thousand gallons (about twelve thousand barrels); "[t]he Navy virtually seized the fuel," Associated's plant manager declared, "because it has the men to make good its threat to take this oil." He complained that the cost of crude oil at the wellhead, two hundred miles away, was $1.60 per barrel, so the notion that it could be transported from there to San Francisco, then refined, stored, and sold for $1.72 was "ridiculous." The Navy's long habit of such behavior was why Associated earlier had declined to bid on new tenders. As the manager put it, "[W]e could not meet the price the Navy demanded without losing money."[78] Naval officers admonished the firm "to resort to court action" if it wanted a higher price for the confiscated oil.[79]

With AG Palmer on his side, the following day Daniels took even-more-aggressive steps. At Naval Coaling Station La Playa in San Diego, a four-million-barrel storage facility was nearly empty, apparently because firms were unwilling to bid at a price the Navy would accept. So more than twenty warships from La Playa raided Union and Socal refinery wharves, paying $1.72 per barrel.[80] Two days later, a subdued Socal agreed to a three-month contract for three hundred thousand barrels at $2.00.[81] Apparently Socal, to avoid future confrontations, was willing to accept payment that was well below market price. The price of fuel oil increased steadily for the remainder of the summer of 1920, which made Socal's price concession ever more painful to sustain. However, although no one knew it at the time, the oil price bubble soon would burst; the thirty-year price maximum was just a few months in the future.

Shell was the last firm willing to risk physical resistance to the Navy. Daniels may have regarded the Anglo-Dutch giant as the least pliable of the five big West Coast firms, and saved his assault on it for last. Oil prices had continued to rise all summer, but in response to Shell's asking price of $2.35 in early September the Mare Island commandant led a party of Marines into the Shell refinery at Martinez. On 11 September, they smashed heavy locks on outlet valves, apparently set in anticipation of the Navy's arrival. After a formal request to purchase at $2.00 per barrel, the raiding party drew off two thousand barrels.[82]

After that, Shell seems to have ceased refining, in an effort to avoid further losses. When the Navy tanker *Chenwa* arrived in Martinez on 20 September to procure a large order of fuel oil, Shell employees offered no resistance—nor any assistance. Soon after *Chenwa*'s pumps began to work, however, the sailors recognized to their horror that the oil they were drawing was "unfit of use owing to insufficient refining."[83] Shell apparently had left unrefined heavy crude in the storage tank it expected the Navy to raid. The Navy understood Shell's action as the retaliation it was, and Daniels's campaign of economic intervention via armed force escalated in response. As of 24 September, "[a]rmed marines are today standing guard over the plant of the Shell Oil Co. at Martinez. Following the failure of the navy to procure the oil through forcible seizure because the company is said to have diverted its oil, Rear Admiral [Joseph L.] Jayne, commandant of the Twelfth naval district, detailed an armed guard to watch the oil plant. The guard has been instructed to prevent all shipment of oil by the company until the navy obtains its supply."[84] Since Shell refused to deliver as expected, the Navy explained, these measures were necessary to ensure that the company supplied "its pro rata share and as an act of justice to other companies and their customers." Shell, for its part, insisted it had no agreement with the Navy.[85]

Thus, company resistance to the Navy was long in coming, beginning only late in 1919, by Atlantic Refining, and intensifying in California during 1920—more than three years after nonpayments and underpayments began. As the California companies began to resist, they were engaged simultaneously in a costly program of retail price restraint and rationing to suppress gasoline demand growth. The California firms understood that, politically, they could not raise the price of gasoline while the Navy was confiscating their products and berating them for profiteering, regardless of the economic reality that they lost money on every barrel seized.

Armed seizures from domestic businesses during peacetime by a U.S. military force were something new in American history—akin to internal piracy. Seizures without force began before the Lever Act gave the Navy any sliver of legality and continued after fuel administrator Requa's failed effort to establish a fair price. At Daniels's direction, things escalated from there.

PEAK OIL AND THE COURSE THAT WAS FOLLOWED

Republican Warren G. Harding's landslide victory in the November 1920 presidential election dashed any hope Daniels had of remaining in government via the good offices of his former assistant secretary, Franklin D. Roosevelt, who was the losing Democratic Party candidate for vice president. Daniels's most ruthless ally, AG Palmer, also was a lame duck. Faced with impending replacement by a Republican appointee and with his public humiliation in the Senate hearings a recent memory, Daniels may have been moved by the prospect of further accountability to a change of political style. After eight years of either lambasting his critics or ignoring them, Daniels suddenly began trying to explain himself. In so doing he revealed the remarkable plan he had followed for eight years, in anticipation of the peak-oil crisis that Interior had predicted.

The secretary's revelation came in response to a pointed critique from Thomas A. O'Donnell, president of the newly constituted American Petroleum Institute (API). The Los Angeles oilman had worked closely with Requa on the PWSC, but ultimately resigned in exasperation at obstacles the government had thrown in the path of wartime production. In a long and combative speech to the API, O'Donnell rejected Interior's peak-oil theory and blamed the Navy and the FTC for the dire supply problems on the West Coast. A trade-journal reporter summarized O'Donnell's message as follows: "The only danger to the maintenance of an adequate supply that he sees is in continuation of agitation fomented by foolish politicians and pseudo-scientists against the industry, restrictions placed on the oil man by the government, and barring the American oil man from development of foreign fields [as Britain, the Netherlands, and some oil-producer states were doing]."[86]

O'Donnell also attacked Interior's assertion that present shortages constituted evidence of peak oil. While acknowledging that there was "a serious world-wide shortage of petroleum" at that moment, he delivered the following explanation:

> Important discoveries are continuing to occur in this country and, I believe, additional discoveries will be made long after the time limit set for exhaustion by some of our experts. . . . The present shortage has not been caused by any serious exhaustion of the petroleum deposits, but has been caused by extraordinary increased consumption. In the United States the production of petroleum has increased about 25 per cent in a little over a year. . . . Agitation by government officials, statesmen, or politicians is just as dangerous as governmental regulation and interference. It destroys stability, credit, and confidence.[87]

Naval War College Review, Vol. 73 [2020], No. 4, Art. 9

O'Donnell was rightly confident that recent price increases would call forth more than enough new production, and he was particularly critical of Navy land withdrawals to create the Naval Oil Reserve. The land withdrawals negated millions of dollars invested there and discouraged further investment. As O'Donnell put it, "[T]he attitude of the navy department toward Pacific coast producers, coupled with agitation for governmental investigation of the industry, nearly always by men not familiar with the subject and frequently with preconceived prejudice, has had a destructive influence on the development of petroleum resources on the Pacific coast." Alluding to the oil seizures of the past summer and fall, O'Donnell complained, "While an armistice has been signed with the Germans, no armistice has been offered to the oil producers by the Navy Department."[88]

Daniels responded to O'Donnell vigorously, revealing much about the centrality of the theory of peak oil to Wilsonian oil policy. Daniels maintained that he had had no choice but to act as he did. Referring to his consultation with Secretary Lane in 1915, Daniels wrote to O'Donnell, reminding him that "[b]efore we adopted the policy of burning oil, the question of the adequate supply for future use was thoroughly investigated and assurances received . . . from the Interior Department that such a supply would be available." As Daniels saw it, there was no alternative to his policy of oil seizures and mineral-patent repatriation. As he told the oilman, "I cannot see how any other course could have been followed when the unprecedented conditions following the war resulted in a world shortage of oil. It would have been suicidal to have opened up our reserves set aside for the future to meet a temporary situation in the present."[89]

With respect to peak oil, Daniels's declaration was elliptical in comparison with his bold assertion of 1915 that the entire world would run out of oil at the same time, leaving the Naval Oil Reserve as the last oil on earth. Yet peak oil was still on the secretary's mind. The reserves, he told O'Donnell, were "set aside for the future," and not even the present severe shortage—in which a Navy warship had run out of oil at sea—was critical enough to open them. Implicit but clear was that the future for which the Naval Oil Reserve was being saved was one in which American oil production was exhausted.[90] Thus, what O'Donnell protested as Navy lawlessness was, to Daniels, an inevitable necessity if the Naval Oil Reserve was to be protected until peak oil arrived.

It was ironic that oil price was the issue that led to so many seizures. Progressives' ire against the oil companies over high prices rang hollow even at the time; prices of everything had increased greatly between 1916 and 1920, as economist Alvin H. Hansen explained in a 1920 article.[91] The prices of naval stores (a category including pitch, paint, resin, tar, turpentine, and pine oil), as but one example, rose 300 percent in 1918 alone.[92] In 1919 prices rose still higher. In both years, industry observers compared the naval stores price increases to "the phenomenal prices of the Civil War period, when the supplies of turpentine and rosin were cut off by the armies of the South."[93] Why oil prices should be considered too high for the Navy when the entire economy was racked by rampant postwar inflation was something Daniels never tried to explain. Interior's peak-oil activism, meanwhile, was becoming more fevered. "[N]othing is more certain," declared USGS chief geologist David White, than that U.S. production would begin its terminal decline within two to three years.[94] The price of oil, therefore, should rise. To an ultra-Progressive such as Daniels, however, an oil-price increase could have but one explanation: profiteering, which must be opposed as a matter of patriotism. Daniels thus maintained to O'Donnell that he had had no alternative but to act as he did: lowballing California producers, withholding their compensation, and ultimately seizing their oil by force. Daniels also claimed that the Navy had tried to obtain "so far as possible, oils from other than American fields." This claim may be true, but research for this article found no records or discussion of procurements or seizures from the most conspicuous importer in California, Doheny's Mexican Petroleum Company.

Lastly, Daniels reminded O'Donnell that California firms had been paid a "tentative price . . . until such time as just compensation could be determined." This was not false, but it hid more than it revealed. First, only Socal had been offered "just compensation"; second, no method of adjudication had been established; and third, Daniels long since had rejected Sanderson & Porter's methodology for fair price estimates. So firms had to consider the possibility that the "tentative price" might be the last one the Navy ever would offer. In any case, Daniels concluded to O'Donnell, his hands were tied; "I don't see how we could have done anything else in this matter."[95]

Two extreme ideologies found expression in Josephus Daniels's management of the naval oil supply. The first was Progressivism, which to Secretary Daniels meant an assumption that in any relation between a large, private business and the Navy the business had an unfair advantage that he was duty bound to overcome. The second was oil-scarcity ideology—that is, the peak-oil theory that Daniels absorbed from scientists of the Department of the Interior, and the inference drawn from peak oil that an aggressive policy was needed to avert terminal scarcity.[96]

Following the ostensible imperatives of these ideologies, Daniels fashioned an unusual, confrontational, and almost delusional oil policy. To compensate for what he thought was the impending exhaustion of American oil production, Daniels created and defended the Naval Oil Reserve, which had to be kept untouched until the day when all the world's oil fields ran dry simultaneously. Yet

Daniels never defined how the Navy would know that peak oil was near or what the criteria were for opening the Naval Oil Reserve. Having an oil reserve was, of course, not a bad thing, but Daniels had no policy other than to protect it against the presumptive day when exhaustion was near.

To preserve the reserve, Daniels determined to take oil at the price he considered fair—always *below* market price—or withhold payment from the oil companies altogether. This policy began even before the 1917 passage of the Lever Act allowed the government to seize fuel if a price could not be agreed on. Daniels's campaign of oil seizure continued throughout America's participation in World War I and right up until Daniels's last months in office. Some firms went unpaid or underpaid for three and a half years, from spring 1917 to late fall 1920.

Daniels's transfer of oil-powered warships to West Coast home ports was strongly positive for the growth of American naval power in the Pacific Ocean, but their arrival in California during a severe gasoline shortage provoked the secretary to harsher measures to secure oil. After the Navy began using force to enter the refineries of firms unwilling to sell at a price Daniels would pay, companies appear to have responded by minimizing their production of fuel oil. One firm even tricked the Navy, placing crude oil the Navy could not use in the tank it expected the Navy to raid. This defiance moved Daniels to surround the offending refinery with armed Marines so that, if the Navy could not get oil by seizure, no one else could get any by purchase. Daniels's most extreme acts took place in the summer and fall of 1920, during the run-up to the presidential election in November—which Republican candidate Warren G. Harding won. Daniels may have called an end to seizures once he knew Harding would take office; there is no direct evidence of this, but a California newspaper database that returned much useful information about seizures between 1917 and October 1920 returned nothing for the short portion of Daniels's tenure that came after the election.

While Daniels's oil-seizure campaign was an aberration in Navy history, it was not so unusual in the context of Wilsonian interventionism. Wilson normalized lawlessness against those whom Progressives considered unpatriotic or alien. However, that lawlessness mainly was directed downward, against the weak (e.g., labor unionists, blacks, and immigrants); Daniels, by contrast, used the imaginary peak-oil crisis to direct the power of the state upward, against large oil corporations. This use of peak oil as the rationale to do something aggressive is the essence of "oil-scarcity ideology," a thought system that has had a profound impact on American foreign policy.[97]

The 1914 U.S. invasion of Veracruz, Mexico, was typical of aggressive policies rationalized by oil-scarcity ideology. These were foreign policies adopted to secure a supply for the United States and to preempt other countries from doing so for themselves to the detriment of the United States. Daniels's use of scarcity ideology was unusual in that his aggression was directed inward, against corporations of his own country; it was more typical for such force to be exerted outward.

The most significant later policy rationalized by scarcity ideology was the Carter Doctrine of 1980. It asserted that the free flow of oil from the Persian Gulf constituted an American national interest, and that flow was to be defended by force, if necessary. The policy was based on a Central Intelligence Agency (CIA) peak-oil theory. By the mid-1980s, the agency claimed, the United States would be out of oil, along with many other countries; only the Middle East would have any oil left. This argument was put to President Carter in the days before he proclaimed the doctrine that now bears his name.[98] But the CIA was wrong, and for the same reasons that Britain's eighteenth- and nineteenth-century peak-coal forecasts were wrong, which were the same reasons that Interior's peak-oil forecasts of 1908–20 were wrong: their models assumed that there would be no technological progress, and that rising prices would not stimulate investors to look harder for oil than they had when prices were low.[99] The CIA also concluded that an oil-starved Soviet Union would invade Iran to replace its own failing supply; however, it was fairly obvious from Western energy journals that the USSR faced no oil crisis.[100] Nonetheless, to deter the anticipated Soviet attack on Iran that peak oil supposedly would provoke, a large USN force was sent to the Persian Gulf in 1980, where it remains to this day.[101]

Josephus Daniels hardly was alone in falling under the influence of a destructive and persuasive strain of bad science—perhaps the worst ever practiced. In a sense, he was a victim of the scientists who concocted an analysis that asserted that the United States would run out of oil by the 1930s. One might fault Daniels for ignoring the oil industry's consistent rejection of the peak-oil theory, but no other federal official questioned peak oil either, save for the four geologists who in 1908 challenged the plausibility of mineral-exhaustion forecasts but were ignored. One lesson of this affair is that American political leaders are vulnerable to persuasion that oil is running out and are willing to take extreme action, including attacks on their own nation's oil industry, to avert even imaginary oil crises. The other is that scientists are as willing as anyone else to invoke the specter of implausible catastrophe to enhance their personal or bureaucratic authority.

NOTES

1. Lee A. Craig, *Josephus Daniels: His Life & Times* (Chapel Hill: Univ. of North Carolina Press, 2013), chaps. 2–4. Daniels used his newspapers to campaign for white supremacy, which meant subverting the enfranchisement of black voters that the Fourteenth and Fifteenth Amendments, the latter two of the three known as the Reconstruction

amendments, had established. Daniels, like many Southern intellectuals and politicians of the era, sought to devise state- and local-level work-arounds that could defeat the Reconstruction amendments' intent without actually repealing them, which would have been impossible politically. His white-supremacy campaign first required strengthening the North Carolina Democratic Party to overcome the so-called Fusionists, an alliance of blacks, poor whites, and Republicans. Daniels was crucial to the success of this effort; by fanning the flames of racial hatred in the pages of the Raleigh *News & Observer (N&O),* he helped pull poor whites away from the Fusionists. The *N&O* became the intellectual source for North Carolina politicians campaigning against blacks' rights to vote and serve in government; against local governments led by blacks; and against the social mingling of the races. He was lauded for his oratory; one agitator redirected praise for his own success to Daniels: "Any man can make speeches if he would read the *News and Observer.*" The de facto and de jure disenfranchisement of black North Carolinians that this campaign achieved resulted from acts of terror against blacks, gerrymandering, revocation of local government authority in black-majority jurisdictions, and poll taxes and literacy tests. Poor whites could avoid the last two mentioned via a grandfathered right to vote.

2. Proceedings of a Conference of Governors in the White House, Washington, D.C., May 13–15, 1908, H.R. Doc. No. 60-1425, pp. 3–12 (W. J. McGee ed., 1909).
3. Ibid.
4. Henry Gannett, ed., *Report of the National Conservation Commission* (Washington, DC: U.S. Government Printing Office, 1909).
5. David T. Day, "The Petroleum Resources of the United States," in ibid.
6. Marius R. Campbell and Edward W. Parker, "Coal Fields of the United States"; C. W. Hayes, "Iron Ores of the United States"; and W. Lindgren, "Resources of the United States in Gold, Silver, Copper, Lead, and Zinc"; all in *Report of the National Conservation Commission,* ed. Gannett.
7. Woodrow Wilson, "The Study of Administration," *Political Science Quarterly* 2, no. 2 (1887), p. 220.
8. Joan M. Jensen, *The Price of Vigilance* (Chicago: Rand McNally, 1969); David C. Unger, *The Emergency State: America's Pursuit of Absolute Security at All Costs* (New York: Penguin, 2012), pp. 24–25.
9. William J. Bryan to Woodrow Wilson, 9 April 1914, General Records of the Department of State, 1763–2002, Record Group [RG] 59, National Archives and Records Administration, Washington, DC [hereafter NARA].
10. Jonathan C. Brown, *Oil and Revolution in Mexico* (Berkeley: Univ. of California Press, 1993), chap. 3.
11. Robert E. Quirk, *An Affair of Honor: Woodrow Wilson and the Occupation of Veracruz* (New York: W. W. Norton, 1967), p. 103.
12. Paul Sabin, *Crude Politics: The California Oil Market, 1900–1940* (Berkeley: Univ. of California Press, 2005), pp. 195–96.
13. Craig, *Josephus Daniels.*
14. "Naval Charges Denied," *Los Angeles Herald,* 21 June 1917, p. 1.
15. Some profiteering was real but much was imagined. The coexistence of profiteering with legitimate practices is a recurring theme in Mark Wilson, *The Business of Civil War: Military Mobilization and the State, 1861–1865,* Studies in the History of Technology (Baltimore: Johns Hopkins Univ. Press, 2006).
16. Tracy Barrett Kittredge, *Naval Lessons of the Great War: A Review of the Senate Naval Investigation of the Criticisms by Admiral Sims of the Policies and Methods of Josephus Daniels* (Garden City, NY: Doubleday, 1921), p. 452.
17. Day, "The Petroleum Resources of the United States."
18. David White, "The Petroleum Resources of the World," *Annals of the American Academy of Political and Social Science* 89 (May 1920), p. 126.
19. U.S. Navy Dept., *Annual Reports of the Navy Department for the Fiscal Year 1913* (Washington, DC: U.S. Government Printing Office, 1914), pp. 14–16.
20. *Estimates Submitted by the Secretary of the Navy, 1916: Hearings before the H. Comm. on Naval Affairs,* 64th Cong., p. 3604 (1916) (statement of Josephus Daniels, Secretary of the Navy).

21. From a letter to the Secretary of the Navy, cited in John A. DeNovo, "Petroleum and the United States Navy before World War I," *Mississippi Valley Historical Review* 41, no. 4 (1955), p. 647.
22. Ibid., p. 650.
23. U.S. Navy Dept., *Annual Reports of the Navy Department for the Fiscal Year 1913,* pp. 14–15.
24. U.S. Navy Dept., *Annual Reports of the Navy Department for the Fiscal Year 1915* (Washington, DC: U.S. Government Printing Office, 1916), p. 63.
25. Ibid.; U.S. Navy Dept., *Annual Reports of the Navy Department for the Fiscal Year 1913,* pp. 14–15.
26. H.R. Res. 175, 64th Cong. (1916); "Report Made on Gasoline," *Federal Trade Reporter,* 15 April 1916, pp. 237–38; "Gasoline Question in Congress," *Federal Trade Reporter,* 15 April 1916, pp. 238–41.
27. *Estimates Submitted by the Secretary of the Navy, 1916,* pp. 3602–609 (statement of Josephus Daniels, Secretary of the Navy).
28. "Daniels in Defense of Navy Oil Reserve: Asks President to Block Legalizing of Entries on the Land Withdrawn by Taft; Secretary Says Claim, If Allowed, Would Leave Only Fuel for Five Years of War," *New York Times,* 20 May 1916, p. 6.
29. "Naval Petroleum Reserve #1 and #2, California," *Center for Land Use Interpretation,* clui.org/; Chris Kraul, "Occidental's $3.7-Billion Bid Buys Elk Hills Field," *Los Angeles Times,* 7 October 1997.
30. Manley Rutherford Irwin, *Silent Strategists: Harding, Denby, and the U.S. Navy's Trans-Pacific Offensive, World War II,* rev. ed. (Lanham, MD: Univ. Press of America, 2013), pp. viii, 19.
31. PWSC meeting minutes of 13 September 1918 record that SONJ president Walter Teagle had submitted bills "which extend back to the time the United States entered the War" but that the Navy had rebuffed him. This would make the unpaid bills about seventeen months old. "Minutes of the 31st Meeting of the National Petroleum War Service Committee, Held in the Office of the Chairman, 26 Broadway, Friday, September 13th, 1918, at 11 O'Clock A.M.," Mark L. Requa Papers, box 3, Univ. of Wyoming American Heritage Center, Laramie, WY [hereafter Requa Papers]. PWSC records, and much else pertaining to oil logistics during World War I, reside in this collection. Requa was director of the Oil Division of the U.S. Fuel Administration. His job was to regulate oil production and coordinate transportation to keep both the domestic economy and the Allied war effort supplied. Requa worked closely with oil executives as well as then–Vice Admiral William S. Sims, who, among his other wartime duties, directed the U.S. Shipping Mission in London.
32. Josephus Daniels to Woodrow Wilson, 18 June 1917, in *Papers of Woodrow Wilson,* ed. Arthur S. Link (Princeton, NJ: Princeton Univ. Press, 1966), vol. 42, pp. 534–35.
33. "Daniels to Battle for Navy Supplies," *Los Angeles Herald,* 20 June 1917, p. 2.
34. From section 4 of the Food and Fuel Control Act of 1917, known as the Lever Act. Text of the act is reprinted as an appendix in George Otis Smith, ed., *The Strategy of Mineral: A Study of the Mineral Factor in the World Position of America in War and in Peace,* (New York: D. Appleton, 1919).
35. Cover letter to the submission of a report, "Prices of Petroleum Products Including Fuel Oil for the United States Navy: Report to Mark L. Requa, Esq., General Director, Oil Division, United States Fuel Administration, Washington, D.C. from Sanderson & Porter, Engineers," Requa Papers, box 4 [hereafter S&P report]. Emphasis added.
36. Mark L. Requa to A. C. Bedford, National Petroleum War Service Committee, 8 August 1918, Requa Papers, box 3.
37. Memorandums for Mr. Naramore, 2 August 1918, United States Fuel Administration, Records Relating to U.S. and British Oil Policy, 1918–1920, Great Britain, vols. 1, 2, box 2, RG 67, NARA.
38. Ibid.
39. John Mason Hart, *Revolutionary Mexico: The Coming and Process of the Mexican Revolution* (Berkeley: Univ. of California Press, 1989), pp. 162–63.
40. Roger M. Olien and Diana Davids Olien, *Oil and Ideology: The Cultural Creation of the American Petroleum Industry,* Luther Hartwell

Hodges Series on Business, Society, and the State (Chapel Hill: Univ. of North Carolina Press, 2000), p. 117.

41. For a description of Gregory's suit against Jersey affiliates in Texas, see Evan Anders, "Thomas Watt Gregory and the Survival of His Progressive Faith," *Southwestern Historical Quarterly* 93, no. 1 (July 1989), pp. 1–24; Requa to Bedford, 8 August 1918.

42. "PWSC Minutes of the 22nd Meeting of the National Petroleum War Service Committee, Held in the Office of the Chairman, 26 Broadway, N.Y. City, Friday, June 21, 1918," Requa Papers, box 3.

43. S&P report.

44. Josephus Daniels to Harry A. Garfield, United States Fuel Administrator, 7 October 1918, Josephus Daniels Papers, container 518, reel 36, Library of Congress, Washington, DC [hereafter Daniels Papers].

45. A. C. Bedford, National Petroleum War Service Committee, to M. L. Requa, 18 September 1918, Requa Papers, box 6.

46. "Costs of Refining," sec. 13 in S&P report, pp. 60–70.

47. Daniels to Garfield, 7 October 1918.

48. S&P report, p. 142.

49. Volumes of seizures in ibid., p. 243. FY18 production estimated from an average of 1917 and 1918 total calendar year U.S. production, so as to reflect the federal fiscal year, 1 July 1917–30 June 1918. Total U.S. production from E. Russell Lloyd, "Petroleum," in *Mineral Resources of the United States, 1918,* pt. 2, *Nonmetals* (Washington, DC: U.S. Government Printing Office, 1921), pp. 969–1170.

50. John Mason Hart, *Empire and Revolution: The Americans in Mexico since the Civil War* (Berkeley: Univ. of California Press, 2002), p. 306.

51. Total U.S. production was estimated as in note 49. Jersey refinery runs for the federal fiscal year were averaged from data for 1917 and 1918 in table 8 in the SONJ company history. George S. Gibb and Evelyn H. Knowlton, *History of Standard Oil Company (New Jersey),* vol. 2, *The Resurgent Years, 1911–1927* (New York: Harper, 1955), app. 2.

52. SONJ gross earnings data go back only as far as 1919, when they were $455 million. The firm's losses for the federal fiscal year 1918 were $42 million, from a lower total production than 1919. Seized-oil-volume data taken from S&P report, p. 144. SONJ financial data from Gibb and Knowlton, *The Resurgent Years,* app. 2, table 2.

53. Paul F. Hannah, "Some Aspects of Price Control in Wartime," *Cornell Law Review* 27, no. 1 (1941), p. 21. The Price Fixing Committee originated within the War Industries Board, which was headed by Bernard M. Baruch. To give it more authority, the committee was made independent in May 1918, so it could act "as the personal representative of the President, exercising such prestige or authority as he might have as President of the United States and commander in chief of the Army and Navy." The Price Fixing Committee chairman was Robert S. Brookings. Membership included such luminaries as Baruch; F. W. Taussig; Harry Garfield of the Fuel Administration; W. B. Colver, chairman of the Federal Trade Commission; and one representative each from the Army and Navy. In C. F. Stoddard, "Price Fixing by the Government during the War," *Monthly Labor Review* 10, no. 5 (1920), pp. 1–24.

54. "Minutes of the 37th Meeting of the National Petroleum War Service Committee Held Friday October 25th, 1918, at 11 O'Clock A.M. at 26 Broadway, N.Y.," Requa Papers, box 3.

55. "PWSC Minutes of the 40th Meeting of the National Petroleum War Service Committee Held Friday, November 22, 1918, at 26 Broadway, N.Y.," Requa Papers, box 3.

56. "Coal Association Wants Tariff on Oil," *Oil & Gas Journal* 18, no. 5 (1919), p. 64.

57. See Peter A. Shulman, "Empire of Energy: Environment, Geopolitics, and American Technology before the Age of Oil" (PhD dissertation, Massachusetts Institute of Technology, 2007), pp. 195–96.

58. "No Hitch in Fleet Voyage: Ready to Go through First Stage in Panama Canal Journey," *Sacramento Union,* 26 July 1919, p. 1.

59. "Big Pacific Fleet in Review: Giant Guns Thunder Salute to Navy Chief," *Los Angeles Evening Herald,* 7 August 1919, pp. 1, 13.

60. "Daniels to Seize Fuel for Ships," *Washington Herald,* 1 July 1919, p. 1.

61. "West Concerns to Supply Navy Oil," *Sacramento Union,* 1 July 1919, p. 7.

62. "Oil Operators Are Ready to Meet Their Accusers," *Oil & Gas Journal* 18, no. 12 (22 August 1919), p. 69.

63. "Navy Threatens Seizure of Coast Oil Refineries," *Wall Street Journal,* 20 August 1919, p. 1.

64. Kittredge, *Naval Lessons of the Great War.*

65. "Fuel Seizure Is Threat. Daniels Says Navy Will Commandeer Supply If Necessary," *Morning Oregonian,* 12 March 1920, p. 17.

66. "Senate Committee Will Urge Complete Navy Reorganization," *Los Angeles Evening Herald,* 10 April 1920, p. A1.

67. "Coal Association Wants Tariff on Oil," p. 64.

68. "Navy Has No Intention of Using Force to Secure Oil," *Sacramento Union,* 20 June 1920, p. 2; "Secretary Daniels to Be Present Dem. Convention," *Red Bluff (CA) Daily News,* 19 June 1920, p. 2.

69. "Navy Has No Intention of Using Force," p. 2; "Secretary Daniels to Be Present," p. 1.

70. "Refused Navy Oil in War, Charge in L.A. Court: U.S. Fights Suit of Company against Fleet Commandeering Petroleum," *Los Angeles Herald,* 21 June 1920, p. 1.

71. "Injunction Is Refused in Oil Seizure Matter," *Oil & Gas Journal* 19, no. 5 (1920), p. 89.

72. "Navy Gains Point in Oil Controversy," *San Pedro Daily News,* 22 June 1920, p. 1.

73. "Oil Price Dispute Goes to Daniels," *Sacramento Union,* 8 July 1920, p. 2.

74. "Navy Demands Supply of Oil—Mare Island Orders 14,400 Barrels from Companies at Former Price," *Sacramento Union,* 18 July 1920, p. 9.

75. Alan L. Olmstead and Paul Rhode, "Rationing without Government: The West Coast Gas Famine of 1920," *American Economic Review* 75, no. 5 (1985), pp. 1044–55.

76. "Navy Awaiting Order to Seize Oil for Ships," *San Francisco Chronicle,* 24 July 1920, p. 3.

77. Ibid.

78. "Seize Oil for Navy," *Los Angeles Times,* 27 July 1920, p. I-5.

79. "Destroyers Take 500,000 Gallons Oil at Frisco—Six Destroyers Ordered to Commandeer Big Plant If Necessary," *Columbus (GA) Enquirer Sun,* 27 July 1920, p. 1.

80. Ibid.

81. "Navy to Pay $2.00 for Oil—Standard Company's Proposal Accepted; Ends Long Contest over Price," *Sacramento Union,* 30 July 1920, p. 1.

82. "Latest News—U.S. Marines in Big Cal. Oil Seizure," *Los Angeles Herald,* 11 September 1920, p. 1.

83. "Inferior Fuel Halts Navy Oil Seizure," *Los Angeles Herald,* 20 September 1920, p. A11.

84. "Armed Marines Put over Cal. Oil Plant," *Los Angeles Herald,* 24 September 1920, p. 1.

85. "Armed Marines Guard Oil Plant—Shell Company Fails to Make Big Delivery for Naval Vessels," *Sacramento Union,* 24 September 1920, p. 8.

86. Thomas A. O'Donnell, "Oil Supply Sufficient If Wildcatter Is Unrestricted," *National Petroleum News* 12, no. 47 (1920), pp. 53–54.

87. Ibid.; "Say Oil Supply Good for Years—Prominent Petrol Men Declare Resources of World Nowhere near Exhaustion," *Miami Herald,* 20 November 1920, p. 5.

88. O'Donnell, "Oil Supply Sufficient If Wildcatter Is Unrestricted"; "Say Oil Supply Good for Years."

89. Josephus Daniels, Secretary of the Navy, to Thomas O'Donnell, 19 November 1920, Daniels Papers, containers 566–67, reel 64.

90. Ibid.

91. Alvin H. Hansen, "The Sequence in War Prosperity and Inflation," *Annals of the American Academy of Political and Social Science* 89 (May 1920), pp. 234–46.

92. "Naval Store Prices in 1918 Unprecedented," *1918 Year Book of the Oil Paint and Drug Reporter* (1919), pp. 231–33.

93. "Naval Stores in 1919," *1919 Year Book of the Oil Paint and Drug Reporter* (1920), pp. 214–15.

94. White, "The Petroleum Resources of the World," p. 115.

95. Daniels to O'Donnell, 19 November 1920.

96. Roger J. Stern, "Oil Scarcity Ideology in US Foreign Policy, 1908–1997," *Security Studies* 25, no. 2 (2016).

97. Ibid.

98. Fritz Ermarth and Marshall Brement, "Memorandum for Brzezinski: CIA Assessment of Future Soviet Policy in Southwest Asia," 18 January 1980, NLC 6-82-7-14-3, Jimmy Carter Presidential Library, Atlanta, GA.

99. Nuno Luis Madureira, "The Anxiety of Abundance: William Stanley Jevons and Coal Scarcity in the Nineteenth Century," *Environment and History* 18 (2012), pp. 395–421.

100. One example, among many, was published by high-echelon Soviet engineers. S. A. Orudjev and V. I. Muravlenko, "Integrated Planning for Exploration Development, Production and Transportation for Rapid Expansion of Oil Field Operations," *Petrolieri International* 24, no. 12 (1977), pp. 29–40.

101. Stern, "Oil Scarcity Ideology in US Foreign Policy."