Under the Eisenhower Presidency from 1953 to 1961, the United States made nuclear weapons the centerpiece of its military strategy, relying on the threat of massive nuclear retaliation to deter aggression. In so doing, the “New Look” policy caused the primary thrust of the nation’s military forces to shift from costly manpower-intensive conventional ground forces to nuclear-capable forces, most notably in the form of the Air Force’s Strategic Air Command. Eisenhower felt that nuclear weapons would permit the United States to effectively counterbalance the Warsaw Pact’s manpower advantage and at the same time spare the American economy the strain of maintaining a large ground force.\(^1\) Of the services, the Air Force was the primary beneficiary of nuclear strategy, while the Army was the odd man out: between 1953 and 1961, the Army’s budget fell from $16 billion to $9.3 billion, while the number of divisions dropped from 20 to 14.\(^2\)

In 1956, Army Chief of Staff General Maxwell Taylor stepped into this situation and attempted to make the Army relevant once again. Taylor appears to have championed the fielding of austere new divisions that would both capture increased budgets from the nation’s

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\(^1\)Stephen E. Ambrose, *Eisenhower, Volume Two: The President* (New York: Simon and Schuster, 1984), pp. 171–172. Eisenhower felt that nuclear weapons had made large armies obsolete. Nevertheless, Army manpower stood at more than one million. Eisenhower regarded calls for anything beyond that as irresponsible and fueled by hysteria. To his credit, Army Chief of Staff General Matthew Ridgway charged that depending on nuclear weapons resulted in an unbalanced military, forcing the United States into an “all or nothing” posture.

political leaders and permit the retention of a maximum number of divisions that could be bulked up during a mobilization.\textsuperscript{3} After a series of studies and experimentation that would foreshadow future organizational and doctrinal inadequacies, the Pentomic division was designed and adopted under pressure from Taylor himself.\textsuperscript{4}

Manpower limitations, tactical nuclear weapons, and the expectation that likely adversaries would themselves employ nuclear weapons were all prime design considerations. By the mid-1950s, in the midst of the predominance of nuclear weapons and the strategy of massive retaliation in the minds of U.S. security planners, the Army had lost much of its strategic direction and relevance, as well as much of its prestige and budget share, to the Air Force. Army leaders sought desperately to make the service relevant in the nuclear age by investing in air defense systems, long-range attack rocketry and missiles, and space exploration, in effect competing with the Air Force. Before long, they found their “silver bullet” in tactical nuclear weapons. Army leaders had come to believe that tactical nuclear weapons would decide the outcome of the next war: “small-yield, limited-range, highly accurate nuclear weapons would provide the crucial differential, allowing outnumbered American fighters to win.”\textsuperscript{5}

Nuclear weapons were not thought of as small strategic bombs, but as artillery of unprecedented effectiveness. Thus, the Pentomic divi-

\textsuperscript{3}Ibid., pp. 271–286.

\textsuperscript{4}For a critical account of Army policy during this period, see John J. Midgely, Jr.,\textit{Deadly Illusions: Army Policy for the Nuclear Battlefield} (Boulder, CO: Westview Press, 1986); for a different view on the prominent experiments of this period, see Hawkins and Carafano (1997). All three major studies commissioned by the Army to design a suitable atomic force—“Atomic Field Army” (ATFA), “Doctrinal and Organizational Concepts for Atomic-Nonatomic Army During the Period 1960–1970” (PENTANA), and “Reorganization of the Current Infantry Division,” (ROCID)—were characterized by incomplete wargaming and testing. Often when testing was conducted, it was done so with unrealistic constraints. For example, during testing of the ATFA division concept in exercises\textit{Follow Me} and\textit{Blue Bolt} in 1955, commanders were prevented from using nuclear strikes beyond those already scripted. Subsequently, the effects of nuclear strikes on maneuver operations had not been determined and evaluated. On a more positive note, the ATFA study indicated that Army aviation was coming into its own: the SKY CAV concept—grouping air transport, aerial reconnaissance, and air transportable reconnaissance under one headquarters—drew notable positive attention.

sion permitted the Army to claim some of the country’s investments in nuclear weaponry.

The Pentomic division was intended to both survive a nuclear attack and successfully employ tactical nuclear weapons on the battlefield. This meant that the Army had to master these new weapons, and new doctrines and operational concepts for their employment, while attempting to minimize the effects of enemy nuclear weapons. U.S. Army formations, it was believed, would be required to mass quickly, strike, then disperse again to operate effectively and survive on the nuclear battlefield. New organizations and strategy emphasized three concepts: dispersion, flexibility, and mobility. American forces would disperse laterally and in depth, essentially scattered on the nonlinear battlefield. Units would avoid massing and thus refrain from presenting themselves as a strike-worthy target. Severe damage to one part of the division—even the command center—ostensibly would not prevent it from continuing the fight. Flexibility implied a more responsive command-and-control element, while mobility stressed the ability of forces to move rapidly and mass quickly from far-flung locations on the battlefield, thus requiring increased mechanization of the force.6

Five battle groups formed the fighting core of the Pentomic division, replacing regimental combat teams as the primary maneuver commands. The battle group was sized (at 1,427 total personnel, prior to 1959) to be large enough to fight independently, but small enough to be expendable. Subordinate units were similarly sized and organized to address the same dispersion and survival arguments. Each battle group was commanded by a colonel and had four (five after 1959) combat maneuver companies; each company in turn possessed five platoons. The battle group bolstered its firepower and sustainability through some organic support: it had a heavy mortar battery (4.2-inch), while its headquarters company had extensive reconnaissance, signal intelligence, maintenance, and medical assets.

The battle group’s battlefield independence was, however, quite limited. It was clear that it still had to depend on the division for much of its combat and combat service support. Most indirect-fire

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6Bacevich, pp. 66–68; and Hawkins, p. 23.
support—in the form of Honest John (nuclear) rockets, and 105-mm, 155-mm, and 8-inch howitzers—came from division artillery, while armor support came from the division’s five tank companies. On the other hand, division artillery 105-mm howitzer batteries were so frequently attached to each battle group that they could be considered near-organic. Division engineer and tank companies were also similarly assigned. Division trains possessed all armored personnel carriers (tracked) and large wheeled vehicles, and the fact that there was only enough of them to move one battle group at a time severely hampered the division’s mobility.

Figure 4.1 shows the Pentomic division’s organization. Only the Army’s infantry and airborne divisions were reorganized to the Pentomic design; troop strength in each fell to about 13,500 and 11,500, respectively. Armored divisions retained the World War II–type combat command structure, with the exception that an Honest John rocket battery was added to each for nuclear capability.7

The Pentomic era was a strategically muddled and dark period in Army history. The Pentomic division was conceived, developed, and presented as proof that the Army was adapting to the nuclear age

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7Hawkins, pp. 26–32.
with dramatic, modern results. In its attempt to market itself to regain relevance in the nation’s security planning, the Army dangerously lost its focus, leading to rushed force designs and incomplete testing and wargaming throughout the Pentomic division’s development. Although it was admittedly planned and adopted to be merely a transitional design—filling the gap until technology or an improved design would arise—the Pentomic division encountered more problems than most decisionmakers expected.

From the start, Army leaders utterly failed to comprehend the damage that tactical nuclear weapons would do to the battlefield and battlefield operations, leaving the Pentomic organization unable to fulfill wishful predictions of Army performance on the nuclear battlefield. Severe equipment and technical shortcomings also ensured that the Pentomic division was simply not prepared to succeed in conventional warfare, either. The battalion-size battle groups did not possess sustainable combat power, while shortcomings in mobility and logistical assets also left the division ineffective. The division did not possess enough vehicles to fulfill the Pentomic doctrinal concepts of timely massing and dispersion of forces. In addition, the lack of intermediate command echelons and inadequate communications technology created significant command and control problems for commanders at all echelons. In the end, Pentomic division organization was unwieldy and unmanageable and proved to be less than robust vis-à-vis task organizing to suit specific missions.  

The dual atomic-conventional role imposed on the Pentomic division designers was impossible to fill. At the most fundamental level, there was an inherent contradiction in the objectives and doctrine of an “atomic battlefield” force and a conventional force. The preferred atomic force would consist of small, highly mobile reconnaissance elements designed to find suitable targets and force the enemy into kill zones, while conventional forces would be designed with elements capable of seizing and holding ground. The resultant Pen-  

tomic force—intended to satisfy the requirements of both missions—
could not do either.⁹

⁹Midgely, pp. 72–79.