

Ground War Launch

Bush Acts After Iraq Scorns Deal

COLUMN ONE

Ordnance: High Tech's Gory Side

■ The new generation of weapons and ammunition, developed since the Vietnam War, can destroy tanks, penetrate bunkers and kill or maim troops with deadly precision.

By RALPH VARTABEDIAN
TIMES STAFF WRITER

They sound like a cast of cartoon characters: Adam, Beehive and Bouncing Betty. Yet they are among the most lethal ordnance ever deployed in battle.

Adam, a member of the Army's "family of scatterable mines," is packed with electronic detectors and a charge just large enough to puncture a liver. Beehive spews out 8,800 tiny flechettes—razor sharp darts that cause deep wounds. Bouncing Betty and its sister ordnance systems are designed to detonate at groin level, close to vital organs.

The Gulf War has raised public awareness of many high technology American weapons, such as Stealth fighters and Patriot missiles. But with much less fanfare, the Pentagon since the Vietnam War has developed a new generation of ordnance to destroy tanks, penetrate bunkers and kill troops with deadly effectiveness.

The mechanics of death and destruction are a grim affair. The military's scientific approach and its philosophies—for example, its preference for wounding vital organs over blowing off limbs—can be deeply disquieting to anybody who imagines such matters are left to chance. Many people would rather not know about the gruesome details.

"When my wife meets new friends and they ask, 'What does your husband do?' she tells them, 'He is a business executive at an ordnance manufacturer,' and they act horrified," one official lamented recently. "And they give her a very bad time. People don't like to think about ordnance."

People in the business of thinking up such weapons, fine-tuning them and producing them for maximum injury on the battlefield, are deeply committed to what they do. In war, the enemy must be destroyed. In the end, that will save American lives, they say.

In the Persian Gulf War, Saddam Hussein's notorious arsenal of ground weapons may be no match

Please see **ORDNANCE**, A10



Associated Press

An Iraqi soldier holds up his hands as he and other countrymen are taken prisoners of war by American forces in Saudi Arabia.

Thai Military Seizes Power in Bloodless Coup

By CHARLES P. WALLACE
TIMES STAFF WRITER

BANGKOK, Thailand—Thailand's military Saturday ousted the country's civilian government, suspended the constitution and imposed martial law in a coup that could undermine one of Asia's fastest-growing economies.

Prime Minister Chatichai Choonhavan, a former army general who was the nation's first elected prime minister in 12 years, reportedly was taken from a military plane at gunpoint as he was about to leave a Bangkok airfield on a flight to attend the swearing-in of his new deputy defense minister. Other members of Chatichai's Cabinet also were detained.

The coup was carried out without apparent bloodshed and the capital showed little evidence of military activity. Weekend shoppers jammed downtown streets and malls as usual.

Troops in armored cars surrounded the buildings of Radio Thailand and the government-controlled television station. On the rival military station, an officer read a series of communiques from the new government, which is headed by Gen. Sunthorn Kongsompong, the supreme commander of the Thai military. The first

Please see **THAILAND**, A30

Allies Accuse Iraq of 'Execution Campaign'

■ **Atrocities:** U.S. military says Iraqi soldiers are killing Kuwaiti civilians to destroy evidence of torture.

By DAVID LAMB
and JOHN BRODER
TIMES STAFF WRITERS

RIYADH, Saudi Arabia—Allied commanders accused Iraq on Saturday of conducting "a systematic campaign of execution" in occupied Kuwait, which a variety of reports suggested is suffering an intensifying devastation by the Iraqis.

"This is terrorism at its finest hour," said Marine Brig. Gen. Richard I. Neal, U.S. military spokesman in Riyadh, charging that Iraqi soldiers were killing Kuwaiti civilians previously subjected to torture. "They are executing people on a routine basis, people not connected with the resistance. They may think the game is up and they are trying to destroy the evidence [of torture], and that evidence is the people."

In Washington, Rear Adm. John (Mike) McConnell, director of intelligence for the Joint Chiefs of Staff, said that analysts estimated that 2,000 to 10,000 Kuwaitis had been arrested and in some cases raped, tortured and mutilated.

"The perpetrators of those crimes will have to answer for it," said Lt. Gen. Thomas W. Kelly, director of operations for the Joint Chiefs.

In Los Angeles, Kuwaitis in exile said reports from the resistance in

their country had characterized the mood of citizens there as a mixture of dread and hope. The latest round of Iraqi atrocities was viewed by many Kuwaitis as the sad but expected prelude to freedom.

Besides the reports of the human toll of the Iraqi occupation, McCon-

Please see **KUWAIT**, A9

U.S. Officials Set Date for the Attack Nearly 2 Weeks Ago

By DAVID LAUTER
TIMES STAFF WRITER

WASHINGTON—For the scores of thousands of American and allied troops who launched the ground attack against Iraq early this morning and for their commanders, the last week of frantic diplomatic maneuverings in Moscow, Baghdad and the United Nations were a sideshow that might just as well never have taken place.

For nearly two weeks, the machinery to launch the assault proceeded like a vast train moving down the tracks. Only a massive

Please see **TIMING**, A24

Allied Assault Mapped to Rout Crippled Foe

By MELISSA HEALY
and JOHN M. BRODER
TIMES STAFF WRITERS

WASHINGTON—The massive U.S.-led ground assault against the Iraqi army that began early today was designed months ago to be a campaign of speed, deception and seamless maneuver with just one goal, senior Pentagon officials said, Saturday: to crush a crippled adversary.

It is a plan for surrounding and destroying the heart of the Iraqi military force, not merely to drive it from Kuwaiti soil.

The offensive, which envisions simultaneous air, land and amphibious attacks across the entire front, contains no intermediate objectives or "firebreaks" where action would pause to allow an orderly Iraqi withdrawal.

Instead, military planners said Saturday, the campaign is designed to do to the Iraqi army exactly what Gen. Colin L. Powell, chairman of the Joint Chiefs of Staff, promised it would: Cut it off and kill it.

Multiple attacks will force the Iraqis to defend at numerous points and will mask the main assault, a 150,000-man armored and airborne thrust which Pentagon officials call "the hammer."

And the attack will not stop until the hammer has fallen on the

Please see **OFFENSIVE**, A26

stead of concentrating the attack on Israel could already be considered a miracle with parallels in the Bible.

Quoting a medieval Jewish commentator, he said that the greatest miracle in Exodus was not the 10 plagues that God brought on Egypt. It was the Pharaoh's decision to chase the escaping Jews into the Red Sea, bringing on his own death because God had clouded his judgment.

Now a special prayer, added since the war began, is said at midday services at the Western Wall and in Israeli synagogues. It asks God for similar help to "destroy the counsel of our enemies."

Israeli media reported that one group of 10 Jewish mystics in the ultra-religious Meah Shearim quarter of Jerusalem actually attempted to revive an old cabalistic cursing ritual known as the *pulsa denura* (lashes of fire) against Saddam Hussein.

The ritual, which uses black candles, has been either discounted or denounced by most who are

student, said he and his wife recited psalms together during the attacks or discussed biblical passages to "take their mind off the situation, thus staying calm."

Lyle Wexler, an Ohr Somayach student originally from Minneapolis, said he would surely have been "freaking out" if it were not for his faith.

"How religion comes into play is that you accept that everything is ultimately for the good," he said.

The Lubavitch sect of Hasidic Jews appeared to take the most optimistic view of the crisis, with its leader reportedly predicting early on that there would be few injuries and with rumors spreading among his followers that the Messiah is due to arrive in April.

The predictions stem in part from biblical prophecies that say the Messiah will come after "the ingathering of the exiles"—which some take to mean the current heavy immigration from the Soviet Union—and after another country

Please see **ORTHODOX, A24**

outside Washington, Walter Reed Army Medical Center here and the Malcolm Grow Medical Center at Andrews Air Force Base, are poised to move into high gear.

Officials say that, depending on the ferocity of the ground fighting, it could prove to be the biggest such effort since World War II.

Unlike the Vietnam War, when most casualties were taken to military medical facilities on the West Coast, the burden this time is expected to fall largely on the East Coast hospitals.

"In peacetime, these hospitals are treading water," says one naval reserve physician stationed at Bethesda, Md. "But in wartime, they go on the front lines, too."

The war preparations have been extensive.

Leaves have been canceled and some personnel have been placed on 12-hour shifts. Additional supplies have been ordered, wards have been rearranged or expanded, and contingency plans are ready for doubling bed capacity.

"We know what we can do, and

that's what the soldiers want and expect."

COL. RON BELLAMY

Acting chief of surgery at Walter Reed Army Medical Center

work formed to be activated in times of disaster—to be ready to handle casualties in the event of an overflow, or to take patients who require special care.

The lobby of the naval hospital has been designated a triage area, where patients on litters will wait to be assigned to appropriate hospital stations.

Planning for even the remotest of possibilities, the garage at Walter Reed has been designated a chemical decontamination unit if terrorists hit the Washington area in a chemical attack.

One difficulty is that no one knows how many casualties to expect, or how bad they will be.

"We have well-trained people, good equipment and everything is in place, but you cannot predict the

Zajtchuk said they expect that the most common wounds will include ballistic injuries, which are caused by bullets or grenades; blast injuries, which often carry a force so great that "they throw things, and cause internal injuries," and massive burns.

The military was recently criticized by several civilian trauma experts for its plan to send critically injured soldiers to military facilities first, rather than to civilian trauma centers where, they said, the expertise is better.

Military medical officials insist that the key trauma work will occur in the field—where such efforts are critical in the minutes and hours after an injury—and most of the wounded will arrive here stabilized.

Further, they say, members of

able," said Cmdr. Martin Eichelberger, a naval reservist stationed at Bethesda who, in civilian life, heads the trauma service at Children's National Medical Center here.

62% Back Ground War to Oust Hussein, Poll Says

NEW YORK—A poll on the eve of Saturday's deadline for Iraq showed that 62% of Americans supported a ground war to humiliate Saddam Hussein and reduce his ability to cause future trouble. Newsweek reported. The alternative of letting Hussein save face to avoid a bloody ground war appealed to 30%.

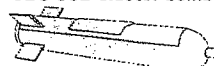
The Gallup organization interviewed a national sample of 768 adults by phone Friday for the poll, the magazine said. The margin of sampling error was 4 percentage points either way.

—Associated Press

FUEL-AIR EXPLOSIVE

The blast from a fuel-air explosive creates a high-pressure shock wave that can flatten buildings or detonate mines. The bomb was used in the Vietnam War.

CBU-55B cluster bomb



Bomb contains three fuel-air explosive devices. Each weighs 100 lbs. and is filled with 73 lbs. of ethylene oxide fuel.

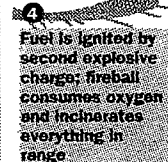


1 Bomb release

2 Fuse detonates at height of about 30 feet



3 Cloud of fuel about 60 feet across and eight feet thick forms and falls to ground



4 Fuel is ignited by second explosive charge; fireball consumes oxygen and incinerates everything in range

Source: Jane's Air-Launched Weapons

AP/Los Angeles Times

ORDNANCE: High Technology for Death, Destruction

Continued from A1

for the artillery shells, rockets and mines that the U.S. Army has likely begun to use—weapons so revolutionized in the last two decades that many experts believe they are the most deadly in the world.

"Lethality and accuracy are the two areas that have shown the most improvements," said Jay Sculley, former assistant secretary of the Army.

The same advances in metallurgy, electronics miniaturization and computer modeling that have improved consumer products have also made ordnance more deadly. Fragmentation is more precise. Weapons find their targets with greater accuracy. And the trauma inflicted on human tissue is more calculated.

Only about 20% of the human body consists of vital organs and tissues—such as the brain, major arteries and glands—injury to which will incapacitate a soldier in battle. So a major objective of weapons experts has been to develop ordnance that will increase the probability of a small injury to a

vital organ, rather than a major injury to a nonvital part of the body.

It is ordnance that determines winners and losers on the battlefield. An estimated 60% of all deaths in land warfare are caused by artillery; a large proportion of the remainder by mortar fire.

The destructiveness of such weapons is documented in a series of classified handbooks, called JMEMS or joint munitions effectiveness manuals. The manuals tell commanders at the front line how much carnage they can anticipate when using certain ordnance.

The manual was derived from a series of calculations on ballistic wounds pioneered by the late Marguerite Rogers, a Navy bomb expert, and Joseph Sperrazza, an Army ballistic wound specialist. Their research resulted in tables and formulas that could determine the probability of a soldier being incapacitated within a given number of seconds, based upon such variables as weapon fragment size and velocity, among others.

That work was followed by a

study of 7,801 casualties of the Vietnam War to determine which types of wounds were most debilitating. The Vietnam War analysis by Sperrazza eventually led the military to supply protective vests to American soldiers—believed to be 25% more effective in reducing wounds than earlier such gear.

Battlefields are clearly getting more lethal. Since fragments are smaller, they travel at far higher velocities for any given explosive charge; with fragments so much smaller, there can be many more of them. That has significantly increased the so-called "probability of kill."

Until the 1970s, cannons had changed little since their introduction during the Sixth Crusade in 1228. A propellant charge hurtles a projectile at high speed out of a tube toward a target. The shell explodes, destroying targets either with shrapnel or with the percussion of the blast.

The problem with a conventional cannon is that it is not terribly accurate, and its fragmentation or blast can kill only over a limited

area. The solution has been to improve accuracy with precision guidance and to increase the fragmentation effect by filling the shells with small sub-munitions.

Hence, the Army has deployed the "improved conventional munition" or ICM round. These 155-millimeter artillery shells contain up to 88 bomblets that cover a huge area of a battlefield. They are capable of destroying lightly armored vehicles, such as personnel carriers, with hollow-point, armor-piercing heads and of incapacitating soldiers with secondary fragmentation.

ICM bomblets have an estimated 50% probability of killing a soldier at 15 meters. By spreading 88 sub-munitions, rather than a single large blast, the ICM can kill four times as many soldiers.

Yet in relative terms, the blast from an artillery shell or bomb is not particularly lethal.

The chance of dying from a blast shock does not begin until the pressure reaches 42 pounds per square inch; the probability of

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THE GULF WAR

ORDNANCE: High Tech's Gory Side

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death rises to 90% at 90 pounds per square inch, according to Robert G.S. (Bud) Sewell, a physicist who designed weapons at the China Lake Naval Weapons Center for three decades. By comparison, human eardrums are pierced at a pressure of just a half-pound per square inch.

"Blast is the most inefficient kill mechanism there is for people," Sewell said.

On the other end of the spectrum is the white phosphorus howitzer shell, which bursts high-velocity, burning white phosphorus particles over a limited area. The fragments can continue to burn hours after they have penetrated a soldier's body, creating deep lesions.

Wounds from such incendiary or high-explosive weapons, however, are not always intended to cause death.

"You would rather have casualties [injuries] than death," said Tom Amlic, former technical director of the China Lake center. "Injury raises hell with the enemy's logistics load. With the dead, he doesn't have to do anything. But with a wounded [soldier], he has a huge logistics problem, requiring all kinds of transportation and medical care. And if he doesn't care for his wounded, the morale of his troops will just go to hell."

While many people find such thinking abhorrent, weapons designers argue that the intention is to save the lives of American troops at the expense of the enemy. "A lot of people come unglued," Sewell said. "But it is a job that has to be done. We all deal with it in our own way."

Taking the concept of bomblet-type weapons such as the ICM one step further are so-called bouncing or bounding ordnance systems, designed to detonate at groin level and spray shrapnel at an elevation that is more damaging to vital human organs.

The Adam, dropped out of a howitzer shell, has detectors sensitive to touch, pressure or magnetic fields. Once triggered, a propellant charge launches the mine upward before it detonates. With its advanced electronics, Adam can be remotely detonated or remotely deactivated to avoid posing a hazard to American troops.

But such anti-personnel weapons are only as good as the uniformity of the shrapnel that they disperse.

Metallurgical science has advanced substantially since World War II, when a bomb could produce huge chunks of metal that would have little velocity, or very high speed, dust-size particles capable of inflicting only minor damage to human tissue.

By using sophisticated heat-treating processes and high-carbon steels, however, arms manufacturers have developed shells and submunitions capable of shattering into uniform chunks of lethal metal, much like a tempered automobile windshield shatters into per-

fect cubes upon impact.

Charles Bernard, an ordnance expert and former assistant deputy undersecretary of defense for land warfare, estimates that just several grains of metal—a cube measuring one-tenth of an inch across each face—are adequate to cause serious injury at velocities of 2,000 to 4,000 feet per second. (There are 7,000 grains in a pound.)

Perhaps the ultimate concept in improved fragmentation is the Beehive system, which has no fragments at all. The Beehive shell is fired out of a cannon and spins at high velocity, spitting out 8,800 flechettes—tiny darts with razor edges capable of causing deep wounds.

The development of these weapons—and the breakthrough finding that tiny, high-velocity fragments were more effective than larger, slow fragments—followed a series of tests during the 1950s and 1960s, in which the Army shot hundreds of goats to study wound tracks.

Much of the research was conducted at the China Lake Naval Weapons Center in California, the Picatinny Army Arsenal in New Jersey and the Aberdeen Proving Grounds in Maryland.

"The reason we used goats was that their internal structure is very similar to the human, and they were cheap—just \$10 a head. But don't put my name in the paper, because people get upset," said a scientist involved in the tests. "These goats were very old and ready to die anyway. You know in France, they used pigs and then they fed them to the poor. We didn't do that. We cremated them."

Indeed, testing such lethal weapons has always been a tricky business.

Austin, the China Lake scientist, recalls that in the early days of ordnance testing, he once checked the percussive effects of a bomb by walking 50 feet closer to ground zero in a series of explosions.

"By the time I was knocked off my feet, I said, 'OK, that's all I can stand,'" he recalled. Austin now is deaf in one ear.

Today, the lethality of such weapons is measured in more sophisticated ways, including the use of dummies much like those employed in car-crash tests, according to John Maniatakis, vice president at NI Industries, an ordnance firm. The dummies are arranged in various positions on the ground or in vehicles and then attacked with ordnance.

Anti-personnel weapons are just one area, however, in which conventional ordnance has improved. The Army also has made important strides in ordnance to attack bunkers and defeat tank armor, experts say.

The Iraqi army is said to be well protected in formidable concrete bunkers. But U.S. experts in building and defeating such bunkers are dubious.

"I have never seen a concrete structure that I could not penetrate," said Austin, the China Lake

scientist and one of the nation's leading experts on ordnance designed to penetrate concrete and stone.

Austin said the concrete in most Middle Eastern construction projects is poorly mixed and made in sections, not continuously cast, resulting in weak structures by U.S. standards.

Middle Eastern concrete is on a par with U.S. sidewalks, making it easier to penetrate, Austin said. Shells fired by naval guns or bombs dropped by aircraft have hardened steel noses that can push their way through such concrete tens of feet thick, Austin said.

Once the bomb has pushed through, a time-delay fuse detonates, blasting occupants inside the bunker. But even if the bomb fails to make it all the way through, the detonation will cause the interior concrete surface to "spall," spraying occupants with high velocity concrete.

Another relatively new high-technology weapon for destroying structures is the fuel-air explosive, which disperses highly flammable liquid over a large area and then detonates it, creating a huge pressure shock that can knock down buildings and exceed the 90-pound-per-square-inch lethality limit for humans.

The area of greatest strides has been in ordnance that defeats armor. The Army's multiple-launch rocket system can disperse 644 anti-tank mines, each of which fires a "shape-charge" projectile when a tank passes nearby.

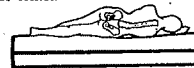
A shape charge is an explosive surrounding a cone of metal; on detonation it creates a jet traveling at up to 25,000 feet per second that cuts through armor. Once through the armor, the jet sends a blinding flash of light into the tank, followed by shattered fragments of tank armor flying at high velocity, according to Robert J. Eichelberger, the physicist renowned in ordnance circles for pioneering early shape-charge weapons.

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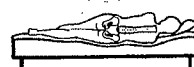
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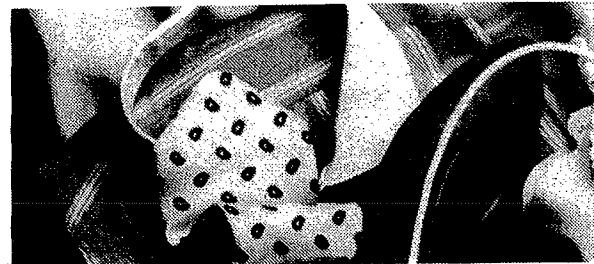
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pause to allow "an orderly Iraqi withdrawal.

Instead, military planners said Saturday, the campaign is designed to do to the Iraqi army exactly what Gen. Colin L. Powell, chairman of the Joint Chiefs of Staff, promised it would: Cut it off and kill it.

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And the attack will not stop until the hammer has fallen on the

Please see OFFENSIVE, A26

"May God bless and protect each and every one of them," Bush said, "and may God bless the United States of America."

At the United Nations, Iraq's deputy ambassador, Sabah Talat Kadrat, vowed: "The war will be long."

Defense Secretary Dick Cheney declared a blackout on information about the assault. He told reporters at the Pentagon that all military briefings in Washington and at allied headquarters in Saudi Arabia would be suspended until further notice. Cheney cited the safety of allied troops and the security of

Please see GULF, A6

Apache Copters: Deadly Havoc in the Dark of Night

■ **Weapons:** Using night-vision sights, air cavalry visits devastation on Iraqi troops behind the lines.

By JOHN BALZAR
TIMES STAFF WRITER

WITH U.S. FORCES ON THE NORTHERN SAUDI BORDER—Through the powerful night-vision gun sights, they looked like ghostly sheep flushed from a pen—Iraqi infantrymen bewildered and terrified, jarred from sleep and fleeing their bunkers under a hellish fire.

One by one, they were cut down by attackers they could not see or understand. Some were blown to bits by bursts of 30-millimeter exploding cannon shells. One man dropped, writhed on the ground, then struggled to his feet; another burst of fire tore him apart. A compatriot twice emerged standing when shot at. As if in pity, the U.S.

Army attackers turned and let him live.

For the Army's 18th Airborne Corps, the ground war had begun earlier. It was carried straight to the enemy in the blackness of night, at 50 feet above the sand, by the Army's longest punch: the fast, deadly and controversial AH-64 Apache attack helicopter.

Then, upon the Apaches' return to forward attack bases—like here, with the 5th Squadron of the 6th Cavalry, the Knight Raiders—the evidence of this early ground fighting is displayed in startling, sharp, intensely violent videotapes from gun cameras.

The \$10-million-plus Apaches are night fighters and tank killers.

Please see APACHES, A28

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THE GULF WAR

APACHES:
Panic, Death in
Dark of Night

Continued from A1

Their pilots are guided by an infrared optical system that turns blackness into a bright phosphorescent daylight in which you can all but read the expressions of shock on the faces of the Iraqi soldiers as they are ground up by cannon rounds and an ugly sampler of rockets.

For those who try to stay in bunkers, laser-guided Hellfire missiles are launched to an altitude of a half-mile, from where they are almost straight down onto the target.

In the briefing tent, the officers play the tapes and a hush falls over the room. Even hardened soldiers hold their breath as the Iraqi soldiers, as big as football players on the television screen, run with nowhere to hide.

These are not bridges exploding or airplane hangers. These are men.

"We're out there to kill their tanks and trucks, to harass and demoralize their troops," said Lt. Col. Randy Tieszen, a squadron commander from Rapid City, S.D. "We've been here since August. We've waited a long time for this."

Tieszen rides in the front seat of the Apache, working an arcade of weaponry and directing his squadron attack. Behind him, peering over his helmet, sits the pilot, Chief Warrant Officer 4 Ron Balak, of Boomer, Neb.

The next phase of the Persian Gulf War may be the greatest tank battle in a half-century. But the soldiers who fly the Apaches believe they will kill half the Iraqi tanks from their hovering position, low and off in the distance.

And with readiness reported at high levels for the complicated and often-doubted Apache, their pilots are growing increasingly confident.

Balak—sitting in his flight suit, the zipper shiny from wear, a .38-caliber revolver slung over his shoulder—described his first combat mission in a 20-year flying career: "For almost five months, we've been leaning forward to do this job. . . . You always envision some scenario how combat will be. But I just didn't envision going up there and shooting the hell out of everything in the dark and have them not know what the hell hit them. . . ."

"A truck blows up to the right, the ground blows up to the left," he said. "They had no idea where we were or what was hitting them."

"When we got back, I sat there on the wing, and I was laughing," he added. "I wasn't laughing at the Iraqis. I was thinking of the training and the anticipation. . . . I was probably laughing at myself. . . . I laid there in bed and said, 'OK, I'm tired. I've got to get to sleep.' And then I'd think about sneaking up there and blowing this up, blowing that up."

Later, he recalled, "a guy came up to me, and we were slapping each other on the back and all that stuff, and he said, 'By God, I thought we had shot into a damn farm. It looked like somebody opened up the sheep pen.'"

Before the war, the Apache was

THE APACHE ATTACK HELICOPTER

The Army's fast, deadly and controversial AH-64 Apache attack helicopter has made its mark in the Persian Gulf. It fired some of the first shots of the war, knocking out Iraqi early-warning radars.

COST: \$10 million plus

WHAT: Night fighters and tank killers

HOW: Pilots are guided by infrared optical system, which turns blackness into a bright phosphorescent daylight

WEAPONS: 30-mm cannon, laser-guided Hellfire missiles

BACKGROUND: Since going into production in 1982, the Apache has had a history of mechanical and logistical problems. Its reliability was repeatedly questioned. But its role in the Gulf has helped it gain respect.



Los Angeles Times

high on the "troubled" list of U.S. weapons programs. Its reliability was so often challenged that even some pilots said they had their doubts about the craft. But now, with around-the-clock maintenance available and a limited combat role, thus far the Apache is slowly gaining respect.

As designed, the gunship represents not just advanced technology but a complete reversal of Army ground tactics. In Vietnam, the Americans fought during the day and went home or holed up later. The night belonged to the enemy.

But, beginning in the late 1970s and accelerating into the mid-1980s, Army doctrine emphasized night fighting. Originally, the idea was that a smaller U.S. force with night-fighting capability could hold off a larger Soviet force in the event of a European war. Now, in the Persian Gulf, the U.S. Army believes its advantage is greater because the Iraqis reportedly have little sophisticated means of carrying the battle past sunset.

So the low-slung, wasp-like Apaches wait out the sunlight hours on the ground, spread wide and far across the hardpan desert here along the front. Their crews live nocturnal lives, too. With the moon, the men, most of them young warrant officers—the top of their flight classes, for this is the elite of Army aviation—spring to

life, heading north in their machines of death.

This report was reviewed by military censors.

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Gulf Oil Slick May Kill
Migrating Birds, Turtles

DIHAHRAN, Saudi Arabia—Up to 2 million migrating birds risk a painful death in the world's worst oil slick when they land in the Persian Gulf on their annual journey to Europe, John Walsh, projects director for the World Society for the Protection of Animals, said Saturday.

Thousands of green turtles due in the Gulf soon for spring and summer nesting will be poisoned, Walsh added.

—Reuters

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Sky-TV via Reuters

Soldiers raise their country's flag just outside Kuwait city; signaling the end of the occupation of the capital by Iraq.

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TWAR, A10

President Tells Iraqis to Lay Down Weapons

■ **Diplomacy:** Bush scornfully rejects Hussein's effort to save face. His tough stand is criticized by the Soviets but is supported by Congress and the allies.

By DAVID LAUTER
and MARK FINEMAN
TIMES STAFF WRITERS

WASHINGTON — President Bush vowed Tuesday that Saddam Hussein will fail in his attempt to "save the remnants of power and control" and ordered Iraqi troops to "lay down their arms" to avoid annihilation.

Bush's statement, coming shortly after the Iraqi president tried in a radio broadcast to claim a shred of victory in retreat, amounted to a demand for unconditional surrender and was clear notice that Iraq will not be able to withdraw from Kuwait on its own terms.

Hussein, announcing his army's withdrawal from the occupied sheikdom, argued that his "brave forces" have withstood an unprecedented assault by 30 nations and praised his soldiers, declaring they have "planted seeds" in the "mother of battles" that would be "harvested within the coming period."

Bush scornfully rejected the Iraqi leader's attempt to save face, saying that Hussein "is trying to claim victory in the midst of a rout." Hussein "is not interested in peace, but only to regroup and fight another day," Bush said.

Bush's uncompromising stand drew criticism from the Soviet Union but support from members of Congress and from key allies.

On a visit to the western Soviet Union, Soviet President Mikhail S. Gorbachev warned that superpower relations could suffer unless "responsible behavior" guides U.S. efforts to end the war.

"It is vital to end this conflict and put on the agenda of the world community resolution of the broader question of the Middle East," the Tass news agency quoted Gorbachev as saying. "There must be no more bloodshed."

But with some U.S. military officials privately predicting that the remainder of Iraq's army would be smashed within 48 hours, a majority of the 12-member U.N. Security Council meeting in closed session backed the United States in rejecting a cease-fire for now.

No cease-fire should be offered until Hussein's government provides a written acceptance of all U.N. resolutions regarding Kuwait, including the resolutions calling for payment of reparations, Security Council members agreed.

And at a meeting with congressional leaders in the Oval Office, both Democrats and Republicans offered support for Bush's position.

"Don't let Saddam Hussein off the hook," Senate Republican leader Bob Dole of Kansas told reporters he had advised Bush. "I think that's the view of most

Please see BUSH, A11

Fleeing Iraqis a 'Jackpot' for Navy's Pilots

By BOB DROGIN
TIMES STAFF WRITER

EASTERN SAUDI ARABIA — Again and again on Tuesday, loudspeakers on the carrier Ranger blared Rossini's "William Tell Overture"—the rousing theme song for the carrier pilots aboard, as well as for the Lone Ranger.

Each time—instead of a "Hi-yo, Silver, awaaaay!"—another strike force of A-6 Intruder jets spurted flame into the cold night and roared off the flight deck to bomb what one pilot called "The Jackpot"—the roads north of Kuwait city, clogged with retreating Iraqi trucks and armored vehicles.

"This morning it was bumper-to-bumper," said Lt. Brian Kasperbauer, 30, a pilot based in Guam. "It was the road to Daytona Beach at spring break. Just bumper-to-bumper. Spring break's over."

Lt. Armando Segarra, 26, a bombardier of Floral Park, N.Y., agreed, saying: "We hit the jackpot!"

The giant carrier's skipper, Capt. Ernest Christensen Jr., said he had received orders to extend the sorties from 10 a.m., the scheduled stopping point, into the afternoon to better destroy the fleeing army.

"It looks like the Iraqis are moving out, and we're hitting them hard," Christensen told his crew. "It's not going to take too many more days until there's nothing left of them."

Please see JACKPOT, A14

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MORE WAR COVERAGE

■ **WAR STORIES, PHOTOS:**
A5-22; D1, D5; E1

■ **A DISPIRITED ARMY**

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THE GULF WAR

JACKPOT: Roads North Are Rich Targets

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The U.S. Navy has been launching more than 300 sorties a day using A-6s and F/A-18 Hornets from four carriers in the Persian Gulf: the Ranger, Midway, Roosevelt and America.

The Ranger's two A-6 attack squadrons focused on two roads leading north from Kuwait city to Basra, believed to be a stronghold for elite Republican Guard units. Waves of land-based B-52 bombers also pounded the roads with devastating 1,000-pound bombs.

The carrier jets swooped in below the cloud cover to drop antitank and antipersonnel Rockeye cluster bombs, which explode into a deadly rain of armor-piercing bomblets. They dodged occasional antiaircraft fire; at least one surface-to-air missile spiraled up from the ground. No one was hit.

Pointing to a map of Kuwait, an A-6 pilot nicknamed Ghost said: "Right about here, we toasted him, pulled off . . . this way to the west to give him [the bombardier] time to set up for the next one. We were just, like, serpentine down the road with our three bombing runs. We hit here and hit here and circled around and hit here."

Ranger pilots expressed no concern about attacking retreating troops. They said the Iraqis may be trying to regroup for another attack, trying to join up with other units or stealing the riches of Kuwait.

"I feel pity for these guys, only because of their leader, only because of the distaste I have for what he has done to their people and the needless sacrifice he has made his people pay," said Cmdr. Frank Sweigart, a squadron leader.

Allied troops advanced so fast that pilots who attended a pre-strike briefing were given new targets—their "kill-box"—as they walked to their plane.

"By the time night had fallen, and we really started doing our flying, we were operating some considerable distance farther north than we expected," said Capt. Jay Campbell, the Ranger's air wing commander.

Other U.S. pilots, flying from the largest air base in Saudi Arabia, expressed growing frustration over their inability to wipe out Iraq's Scud missiles.

Flaming debris from a Scud, apparently fired from the Basra area, hit a U.S. military barracks in Dhahran on Monday night, killing

28 soldiers and injuring about 100. Another air raid warning was sounded in the city Tuesday night.

Pilots who fly F-15E fighter bombers said cloudy weather had hampered their search, particularly along the Syrian and Jordanian borders in western Iraq, an area pilots call Scudville.

"The weather precludes us from seeing where they actually launch the Scuds, which is really frustrating for the guys who go on station out there," said Col. Dave Baker, 44, the base deputy commander, of Phoenix.

Lt. Col. Steve Turner, 41, of Portsmouth, Va., commander of the 236th Tactical Fighter Squadron, observed: "Most of the launches have been when the weather was so lousy that we couldn't get underneath it; they [the Iraqis] knew that and they shot" their missiles.

The pilots' problems in attacking

the Scuds have been compounded, they said, because the missiles are launched from mobile, modified tractor-trailer trucks that are easier to hide than masses of tanks or armored columns.

"We're talking about a large space, and you're looking for a truck," said Capt. Rich Horan, 32, of Walnut Creek, Calif., just before he took off on a Scud-hunting mission early Tuesday. "It's just not easy."

Though Horan said there "hasn't been a night" when the jets have not hunted Scuds, the F-15s stepped up their sorties Tuesday after the Dhahran attack.

"We are going to keep our people out there longer and keep our presence right there," Baker vowed. "We're the Scudbusters. And that's the way it's going to remain."

This report was compiled from pool reports reviewed by military censors.

SUMMERS: The Wrong Book

Continued from A8

French philosopher Raymond Aron called Sun Tzu's "school of ruse, deceit and indirect action."

His objective is to break the allied coalition by inflaming the Arab masses. But except for the Palestinians and Jordanians who, having thrown in their lot with a loser are now so desperate they will believe anything, no matter how preposterous, Hussein's deceptions have fallen on deaf ears. Even the Soviets appear to be tiring of his machinations.

And President Bush certainly made the U.S. position clear. Calling Hussein's withdrawal ploy "outrageous," Bush pointed out that what was going on was not a withdrawal but a retreat, and he ridiculed Hussein's attempts to claim victory in the midst of a battlefield rout. The war, the President said, will be prosecuted with undiminished intensity.

Hussein had been too clever by half, as the British might say. He ended up outwitting himself. If he had agreed to the terms of the United Nations resolutions, or even to the terms of Bush's ultimatum last week, he could have withdrawn most of his military into Iraq in relatively good order.

With his armies intact, he could

have confronted the United States with a Korean War-type stalemate. Even if he did not succeed in dragging out the war, he could have forced the retention of a large U.S. ground presence in the area for years, with dire consequences for both U.S. domestic public support and for Middle East stability.

Instead, by his deceptions, Hussein has all but guaranteed that his armies in the field will be encircled and destroyed. On Tuesday, it was announced that 21 of his divisions already have been rendered combat ineffective. And that's just the beginning. Coalition armies now stand astride Iraqi lines of retreat.

"To subdue the enemy without fighting is the acme of skill," wrote Sun Tzu. Noting that those who fought such wars were often praised, Clausewitz warned that "sooner or later someone will come along with a sharp sword and lop off [their] arms."

For the Iraqi leader, that someone is now at hand in the person of Gen. Powell. "First we're going to cut it [the Iraqi army] off," Powell said, "then we're going to kill it."

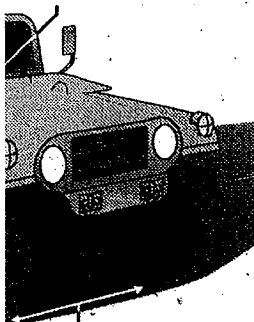
When it comes to the philosophies of war, one thing is clear: Saddam Hussein read the wrong book.

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PAUL GONZALES / Los Angeles Times

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Ed Chen, a Los Angeles
orter in Dhahran.