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The Iraq War: “Worst,” “Worse,” and “Not so Worst” Cases

**The Use of Weapons of Mass Destruction, Terrorism and
Covert Attacks, Flooding, Oil Field Burning, Urban Warfare
and Other Contingencies**

Working Draft

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Any analysis of "worst cases" tends to make an exploration of low probability extremes sound like they describe a probable scenario. In practice, most "worst cases" will (a) not happen, and (b) never take on the worst possible form. Nevertheless, the prospect of an Iraq War does raise contingencies that need serious consideration:

1. Smallpox

There does not seem to be any evidence that Iraq has smallpox, only that it is one of the last countries where an outbreak occurred. Nevertheless, the problems in controlling smallpox are so great that this is seen as the worst of the worst cases by many US planners.

Smallpox would be far more lethal than any of the other biological agents that Iraq is known to possess. It is hard to control even in nations trained to deal with ring vaccination, and most countries in the region do not have vaccine or any experience in these areas.

2. Dry Storable Anthrax Micropowders and an Effective Dissemination System

Weapons of mass destruction are not created equal. Chemical weapons and toxins have limited lethality and most radiological weapons are more area contaminants than killers because they principally emit alpha and beta radiation.

The story is different, however, if Iraq has both moved beyond wet agents to truly effective dry micropowders that are coated for wide dissemination and resistance to sunlight, and sized for maximum infectivity. And, *if* it has a suitable covert delivery system, UAV, or very sophisticated missile/rocket warhead.

There are no indications Iraq has such agents and delivery systems, but this is technically possible. US estimates of the lethality of attacks with such combinations of agents and weapons rank their killing effects with those of theater nuclear weapons.

3. Modern missile/rocket warheads

If Iraq only has VX gas or wet biological agents, and still relies on unitary contact warheads for its large rockets and missiles, its missiles cannot effectively disseminate the agent and achieve high levels of lethality.

If it has developed warheads that non-destructively disseminate the agent at just the right altitude, the lethality could easily be 10 to 100 times higher. (Artillery shells and small rockets cannot carry a large enough payload to do this.)

There is no evidence that Iraq has such warheads for its Ababil rockets, Scuds, Al Husseinis, or Al Samouds. The covert development of such warheads is possible, not probable.

Without such warheads, even CB armed Scuds and Al Hussein would largely be terror weapons, produced fear and massive decontamination exercises, rather than mass casualties. Even with such warheads, the effect on a dispersed oil facility would be more terror than anything else. The facility would survive intact, agents would have a limited life, and corridor and spot decontamination could allow most facilities to operate.

We also need to remember that most estimates put Iraq's maximum Scud/Al Hussein holdings at 12-25. The Al Samoud has limited range -- if it has a CB warhead -- and there are less than 100. There is little or no possibility that Iraq has penetration means that could defeat the sensors on the Patriot or Arrow. Low apogee, short flight systems like the Ababil, however, cannot be intercepted by Patriot or the Arrow.

4. Sprayers and UAVs

The most efficient way to use chemical and biological agents is a low-flying, slow-flying, system that release just the right amount in a long line over a target area or circles in a spiral. Iraq does have some UAVs and has been working on sprayers for two decades. It could fly helicopters or aircraft in one-way or suicide missions, potentially lulling defenders by using them earlier in reconnaissance or conventional attack missions. Some might get through.

Such an attack could contaminate an oil facility for several days, and produce serious casualties in an urban area in the Gulf or Israel, or any rear area where US and British forces were concentrated.

5. Artillery/Rocket Use

Iraq has large amounts of long range 122 mm rockets and artillery, and can potentially fire large amounts of chemical or biological shells at ranges of 40-100 kilometers. Enough VX, other chemical, and BW material and rounds are still unaccounted for so that there is no way to know how much real-world CBW capability rounds Iraq still has if any. Some capability, however, seems likely.

The real world effectiveness of any Iraqi attack, however, depends on being able to fire large numbers of rounds at relatively static targets. Biological also weapons present the problem that they do not have prompt effects

Iraq will not have survivable reconnaissance aircraft, and has not space or other long range photo or electronic intelligence assets capable of more than primitive direction finding. Most of its targeting would have to come from agents and stay behinds with radios. Its command and control structure is likely to be shattered and it was very slow to shift and mass artillery fires during the Iran-Iraq War and its artillery did not target and react effectively during the Gulf War.

The US and British forces could be vulnerable when they mass and concentrate, particularly on the edge of Iraqi cities and built-up areas. Iraq used chemical weapons

effectively against Iranian forces under such circumstances in the Faw campaign, near Basra, and in the northern mountain area.

Iranian forces, however, did not have armored mobility or effective helicopter mobility. They did not have tanks and AFVs with filters and overpressure systems. They did not have satellites and UAVs to show them how to maneuver around concentrations of Iraqi forces. They could not move rapidly enough to take advantage of the fact that chemical and wet biological agents dissipate quickly in day time in hot weather, and they could not carry major regrouping and maneuver at night. They had no effective way to use airpower to suppress Iraqi artillery and use of chemical weapons. All of these factors tend to get lost in most media coverage which has "an agent on chemical protection suit" character, rather than a force-on-force character.

There is no question that even a false alarm can force the US/UK to button down and suit up, that button-downed armor and suits are unpleasant, and that such Iraqi tactics could delay attacks or deny the use of given areas even if they do not have high lethality. No one should disregard the risk of tactical CB warfare, but it is important to keep it in perspective.

6. CBRN Attacks: Israel, Oil Interruptions, and the Problem of Perception

These semi-reassuring remarks indicate that the worst case in which Iraq successfully inflicts mass casualties on Israel or a neighbor is less likely than some think. Such a terror-UAV-Scud/Al Hussein attack is possible, but unlikely.

The problem is, however, that, fear and politics may be more important in many cases than lethality. The ability to decontaminate is scarcely the ability to reassure. The willingness to go into areas with any kind of past CBR presence may be very limited. Markets might panic at the very thought of such use.

The question in terms of any oil interruptions is one of the willingness of civilians to return under these conditions.

The question for Israel is a horrifying mixture of the possibility of a near existential threat to Israeli cities plus panic and politics. Israel might or might not ride out a conventional missile attack without response, if it was at token levels and the Arrow and Patriot worked. It is very doubtful it would ride out even a failed CB attack without major conventional response.

This conventional-retaliation "worst case," might trigger a large-scale Arab reaction. However, it also might not. The Arab world is already so angry over the Second Intifada, and so many Arabs already view this possibility in conspiracy terms, than it might do little other than trigger token protests. It would be desirable to never have to find out but Arabists tend to badly exaggerate the probability of this case.

The true worst case is mass casualties in Israel from a missile, air, or covert/terrorist attack. This might trigger Israel use of its nuclear deterrent. While this may seem extreme, in practice, Israel would have to look far beyond this war and consider its deterrent message to a proliferating region for future wars. The end result would probably be a region-wide race towards more CBRN weapons and an almost unthinkable instability in the Middle East, but history is not always kind.

Furthermore, before one focuses too much on such Israeli action, there is another case to consider. Suppose the attack instead comes on a friendly Gulf state like Kuwait, Turkey, the US, or UK? What does the US then do to retaliate and deter future attacks from another aggressor? What is the message to be sent to China, North Korea, etc.? Israel is scarcely the only worst "worst case."

7. Conventional Covert and Terrorist Attacks

Iraq made a number of serious attempts at covert and terrorist conventional attacks in the last Gulf War. It is easy to focus too much on CBR attacks and forget that there are many other vulnerabilities.

Conventional covert and terrorist attacks, however, could easily do more to create anger than paralyze or deter, and it is difficult to see how they could seriously damage or inhibit US/UK military operations.

The World Trade Center and Pentagon attacks scarcely revealed the weak, selfish, and divided West that some Islamic extremists claimed existed. Nothing about recent history indicates that Arabs, Israelis, or Turks are cowards. Like an ineffective CBR attack, this kind of "worse case" might actually help the US and UK by building popular support for Saddam's overthrow.

The one possible exception is the desalination plants and power plants on the Gulf coast. Damaging these would not produce mass casualties but could affect whole populations and industrial areas. Iraq also has an option other than covert or proxy attacks. A mass release of crude from its oil terminals in the Gulf might create a massive spill that would move towards such facilities. On the other hand, the Marines may seize the Iraqi oil terminals very early in a campaign and this risk is a constant one and most Gulf states do have spill barriers and contingency plans.

8. Conventional Oil Interruptions

Short of incredible stroke of bad luck, it is not clear that Iraq has any meaningful conventional missile or air capability to attack the oil fields or major export and downstream facilities in the Gulf. Most are too large and redundant for simple covert raids.

It is possible that systematic "inside job" acts of sabotage might affect one or two facilities, but it is very unclear that Iraq has such a capability or outside support.

A limited success and temporary panic is possible, but Saudi Arabia at least has a strategic reserve, and any prolonged interruption of any significance seems unlikely.

9. Burning Iraq's Oilfields/Destroying Key Facilities

In contrast, there may be little the US/UK can do if Iraq has already preset explosives at its oil wells and/or key facilities. It can create massive fires and smoke by setting charges at the wellhead it can force major re-drilling by setting the charges deep inside wells. It could achieve at least some prolonged damage by deliberate water flooding and more by injecting salt water in the south. US, British, and Australian Special Forces cannot move faster than an Iraqi can flip a switch.

The question will really be will the Iraqis do it, and why?

The one military argument for burning oil wells is that the oil smoke would paralyze or limit US operations. It wouldn't. We do not rely on lasers anymore, and oil smoke does not affect weapons with GPS. US combat aircraft and attack helicopters can simply fly around such smoke, or launch GPS weapons in support of ground forces, and most fires would be in the wrong area with little tactical impact. Iraq might do more to inhibit its own operations and anger its own population than hurt the US.

The "act of martyrdom" rationale is harder to deal with. It is unclear that Saddam really wants to go into martyrdom having destroyed his country, but he may well see such an act as poisoning any US/UK victory and an act of "historical" defiance.

10. The Damn Dams

Iraq is filled with dams and waterways. The government can easily widen many water barriers and create a limited flood plain in many areas in the south. There are also four to five dams where blowing the dam might produce a major increase in the flood plain around Baghdad, and significant flooding in the south.

This is a case, however, that needs to be kept in perspective. It really isn't clear that even the most destructive blowing of key dams could have more than a temporary affect on combat operations. The US and UK could maneuver around most such barriers by going West through the desert. In many cases, any flooding would impair Iraqi land movement more than US/UK movement, particularly because the US and UK will have major helicopter and air assets and Iraq will have virtually none.

It also in unclear that such actions would do more than produce a day or two of localized increase in the flood plain in most areas or affect the south as much as some analysts think. In many cases, there are so many channels, that the water would simply find its own level back in a major waterway, and in others it simply doesn't matter if part of the marsh areas are reflooded.

Once again, such actions might reflect an "act of martyrdom" rationale or some twisted effort to punish the Shi'ite for disloyalty or an uprising. It is again unclear that Saddam really wants to go into martyrdom having destroyed his country, but he may well see such an act as poisoning any US/UK victory and an act of "historical" defiance.

11. Urban Warfare

The most probable "worse case" is extended urban warfare in at least some areas. Baghdad already is being ringed with earth mounds and oil trenches. The popular forces are being mobilized and trained, and stiffened with security personnel, and Republican/special Republican guard cadres in an effort to insure their loyalty.

Far more is involved than fighting downtown. The area from Ar Ramadi-Tikrit-southern Baghdad could be a broad area where Iraqi forces attempts to first conduct defensive warfare from dug-in positions in built-up areas and then retreated into the cities -- blowing bridges and using chemical weapons.

It should also be stressed that Mosul and Basra are mixed cities where some serious resistance might take place. The ethnic cleansing of Kirkuk could give Arabs and Assyrians a motive to support Saddam.

The fact that Saddam is scarcely lovable does not mean that serious problems will not arise in some areas, and urban warfare needs to be thought of as fighting in broad areas some 50-100 kilometers in diameter,

At the same time, this "worse case" also needs to be kept in perspective:

--It is far from clear that Saddam can count on any sustained popular willingness to die point by point or street by street.

--Iraqis may know the ground, but they have little by way of night vision devices, poor body armor, not air support, no near-real time ability to target and use artillery, no helicopter mobility, no air support, armor with poor ergonomics for urban warfare, and limited tactical mobility once dug in.

--Iraqi urban warfare training is limited and they have had no real combat experience in well over a decade. It is unclear that any of the cadres in the SSO and Republican Guards that used chemical weapon in urban warfare are still serving.

--Most Iraqi government facilities and key strong points are in large exposed compounds. They can be totally destroyed from the air with little fear of civilian casualties and collateral damage. The narrow streets are largely in poor, older areas. In Baghdad, one such area is a Shi'ite slum.

--Many urban strong points will have a "so what" character. They effectively become prison camps that US and British forces can bypass in concentrating on the regime's

remaining centers of real power, and which will collapse the moment Saddam is truly gone.

--In at least some areas, Special Forces may be able to work with local uprisings to create urban warfare against -- not for -- Saddam.

14. Civilian Casualties, Humanitarian Issues, and Collateral Damage

One worse case that is nearly certain is hostile Arab and European coverage of the war in terms of every incident involving significant (or visible) civilian casualties, major collateral damage, or humanitarian problems. This will be coupled in the Arab world to constant linkage of images of US/UK forces and Israeli action in the Second Intifada.

The US is seeking to conduct mass psyops inside Iraq and seems to be having some success. The US/UK will, however, be fighting an unpopular war layered over all of the past images of colonialism and Palestinian suffering, and current conspiracy theories in the region. US public diplomacy has already proved to be a large dismal -- and probably unrecoverable -- failure at virtually every level in the Middle East and much of Europe and the US/UK cannot vindicate the war with successful nation-building until it is over. This, at least, will be a real mess.

12. Ethnic Fighting

The possibility of ethnic fighting, with Turkish and Iranian complications, cannot be dismissed. There are major tribal and clan fault lines. There are serious Arab-Kurd-Turcoman-Assyrian fault lines. There are Sunni vs. Shi'ite fault lines, and deep fault lines within the Kurdish and Shi'ite populations plus problems like the Iraq-armed Iranian MEK and Iranian-armed Iraqi Badr Brigades. There are cities, agricultural area, and oil to fight over and there are real questions about revenge killings.

It is easy to both underplay and exaggerate such risks. The fact is that we simply don't know. One has only to contrast the Balkans, Afghanistan, and Somalia to see how very differently suppressed ethnic, religious, and tribal tensions can work out in the aftermath of a regime's fall.

13. Weather and the Moon

One of the least credible sets of worse cases consists of weather and the phases of the moon. In regard to weather, it is important to note that US forces will rapid move out of the desert and into areas in the north with water and that grow cooler. The greater Baghdad area is fine through mid-June and this is the best time of year in the north. (One needs to be equally careful about placing all chemical defense in the middle of the desert -- where US/UK forces will be hardest to attack.

As for the moon, stealth works best over major surface-to-air defenses with optical capability at night. However, the US/UK now have GPS guided and very accurate cruise

missiles than do not need to fly predictable flight paths. US aircraft have far better avionics and stand off ordnance. The US has been attacking Iraqi air defense for more than four years, and it routinely flies attack missions in the daytime.

As for ground forces, the moon doesn't matter when they are maneuvering unopposed. Thermal sights still out-range Iraqi armor by 2:1 during the daytime. Helicopters and most fixed wing attack aircraft kill better in daylight, and "owning the night" has selective tactical value.