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ARABIAN GULF MARITIME INTERCEPTION OPERATIONS:
BALANCING THE ENDS, WAYS, MEANS, AND RISKS

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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**Abstract:** Commander-in-Chief, U.S. Central Command (USCINCENT) is tasked by the National Command Authorities with producing a military condition that will lead to the strategic goal of Iraq complying with U.N. Security Council Resolutions. Through the application of joint doctrine and operational art, USCINCENT has determined that the military condition that will produce this strategic goal is an effective maritime interception operation in support of economic sanctions imposed on Iraq by the Security Council. However, USCINCENT cannot produce this condition because the ends, ways, means, and risks of the operation cannot be balanced. Further, given the prevailing and ever changing political and social environment in Iraq, there is no military condition that can be produced that can effectively enforce economic sanctions designed to compel Iraq to comply with U.N. Security Council resolutions. However, the primacy of politics in military operations other than war and the credibility of the U.N. Security Council dictate that the NCA task USCINCENT to continue sanctions enforcement efforts in spite of the shortcomings.

Successful operations are those where the ends, ways, means, and risks of the use of military force can be balanced. The NCA must acknowledge that this balance includes both political and social dimensions, and that military force alone rarely achieves the strategic goal. In all operations, and particularly in military operations other than war, operational commanders must acknowledge the primacy of political objectives at every level of war and the balance between military operations and political objectives. An analysis of Arabian Gulf Maritime Interception Operations demonstrates that unless balance is achieved across the broad spectrum of military, political, and social conditions, the operational commander will not be able to produce a military condition that allows the NCA to achieve its strategic goal.
ABSTRACT

Commander-in-Chief, U.S. Central Command (USCINCCENT) is tasked by the National Command Authorities with producing a military condition that will lead to the strategic goal of Iraq complying with U.N. Security Council Resolutions. Through the application of joint doctrine and operational art, USCINCCENT has determined that the military condition that will produce this strategic goal is an effective maritime interception operation in support of economic sanctions imposed by the Security Council. However, USCINCCENT cannot produce this condition because the ends, ways, means, and risks of the operation cannot be balanced. Further, given the prevailing and ever changing political environment in the Arabian Gulf region and the repressive social environment in Iraq, there is no military condition that can be produced that can effectively enforce economic sanctions designed to compel Iraq to comply with UNSC resolutions. However, the primacy of politics in military operations other than war and the credibility of the U.N. Security Council dictate that the NCA task USCINCCENT to continue sanctions enforcement efforts despite of the shortcomings.

Successful operations are those where the ends, ways, means, and risks of the use of military force are balanced. The NCA must acknowledge that this balance includes both political and social dimensions, and that military force alone rarely achieves the strategic goal. In all operations, and particularly military operations other than war, operational commanders must acknowledge the primacy of political objectives at every level of war and the balance between military operations and political objectives. An analysis of Arabian Gulf Maritime Interception Operations demonstrates that unless balance is achieved across the broad spectrum of military, political, and social conditions, the operational commander will not be able to produce a military condition that allows the NCA to achieve its strategic goal.
Joint Publication 3-0, *Doctrine for Joint Operations*, defines operational art as the use of military force to achieve strategic goals through the design, organization, integration, and conduct of strategies, campaigns, major operations and battles.\(^1\) When an operational commander is tasked by the National Command Authorities with applying military force to achieve a strategic goal, operational art requires that, among other considerations, he or she answer four questions. The first question is what military (or related political or social) condition must be produced in the operational area to achieve the strategic goal—what are the ends? The second question is what sequence of events is most likely to produce that condition—what are the ways? The third question is how should the resources of the joint force be applied to accomplish the desired sequence of actions—what are the means? Lastly, the operational commander must ask what is the likely cost or risk to the joint force in performing that sequence of actions?\(^2\) For any strategic goal to be effectively achieved with the application of military force, the ends, ways, means, and risks of the operation must be balanced.

In the Arabian Gulf, Commander-in-Chief, U.S. Central Command (USCINCENT) struggles with these four questions on a daily basis while enforcing economic sanctions imposed on Iraq by the United Nations Security Council (UNSC) after Iraq’s invasion of Kuwait on 2 August 1990. Iraq’s lack of compliance with Security Council resolutions since the end of Desert Storm bring into question the effectiveness of USCINCENT in enforcing these sanctions and the effectiveness of the sanctions themselves. This paper examines Arabian Gulf Maritime Interception Operations (MIO) as the military force that USCINCENT applies to enforce economic sanctions on Iraq. The background of the operation, its current status, and a review of one of the most serious of the Iraqi economic sanctions violations will be presented. The examination reveals that upon looking at the problem from an ends-ways-means-risks point of view, it is clear that Commander-in-Chief, U.S. Central Command cannot effectively enforce economic sanctions on Iraq because the ends, ways, means, and risks
of sanction enforcement cannot be balanced. In other words, given the prevailing and
ever changing political environment in the Arabian Gulf region and the repressive social
environment in Iraq, there is no military condition that can be produced that can
effectively enforce economic sanctions designed to compel Iraq to comply with UNSC
resolutions. However, the NCA has overarching political objectives that dictate that
USCINCCEENT continue sanctions enforcement efforts in spite of the shortcomings.

History of the Multinational Maritime Interception Force

In response to the Iraqi invasion of Kuwait, the United Nations Security Council
on 6 August 1990 adopted Resolution 661 which imposed comprehensive and mandatory
sanctions on Iraq and occupied Kuwait. The United States established the Maritime
Interception Force (MIF) and began conducting maritime interception operations (MIO)
in the Arabian Gulf and Red Sea on 16 August 1990 as a measure of collective self
defense under Article 51 of the U.N. Charter. On 25 August 1990, the Security Council
adopted Resolution 665 which requested that member states employing maritime forces
in the Arabian Gulf participate in interception operations. After the legitimate
government in Kuwait was restored, the Security Council in April 1991 adopted
Resolution 687 which relaxed the sanctions for humanitarian supplies and Resolution
688, which lifted all sanctions against Kuwait.3 In August 1994, Lloyds Registry of
London assumed responsibility for the shore based inspection of cargo going into Aqaba,
Jordan. Following U.N. certification of Lloyd's Registry inspection procedures, Red Sea
MIO was discontinued.4

Resolution 687, in addition to relaxing sanctions on Kuwait, also established the
criteria under which the sanctions on Iraq would be lifted. The requirements are as
follows:
1) Iraq must destroy, remove, or render harmless under international supervision all chemical and biological weapons and all ballistic missiles with a range of greater than 150 kilometers.

2) Iraq must declare the locations, amounts, and types of chemical and biological weapons and ballistic missiles and agree to inspections as specified.

3) Iraq must not develop, construct or acquire chemical or biological weapons or ballistic missiles and must develop a plan for monitoring and verifying this restriction.

4) Iraq must reaffirm the Treaty on the Non-Proliferation of Nuclear Weapons.

5) Iraq must not acquire or develop nuclear weapons, nuclear weaponsusable material, or any systems or components that support research, development, support, or manufacturing of nuclear weapons and nuclear weapons usable material. Further, Iraq must declare the locations, amounts, and types of the above, place such materials under the exclusive control of the International Atomic Energy Agency, and allow for on-site inspection and on-going monitoring and verification.5

In April 1995, the Security Council passed Resolution 986, the “Oil-for-Food” program which allows limited Iraqi oil exports for humanitarian and other purposes. On 20 February 1998, the Security Council adopted Resolution 1153 which set the limit for Iraqi oil exports at $5.265 billion over a 180-day period, more than doubling the previous limit of $2.14 billion. After deducting a predetermined amount for war reparations to Kuwait and to fund the operations of the United Nations Special Commission (UNSCOM), proceeds from Iraqi oil sales are then used to purchase humanitarian goods such as medicine, health supplies, foodstuffs, and materials and supplies essential for Iraqi civilian needs.6

The United States has participated in Arabian Gulf Maritime Interception Operations every day since sanctions were first imposed on Iraq. The Maritime Interception Force has truly been a multi-national operation. At its peak, MIO involved over 100 ships from 15 nations. Since May 1994, the United Kingdom, Australia,
Canada, Belgium, New Zealand, the Netherlands, and Italy have participated in the operation.\(^7\)

In conducting MIO in the Arabian Gulf, the ships of the MIF intercept, board and search merchant vessels proceeding to and from Iraqi ports. The vessels are checked for proper documentation and are inspected to ensure that all cargo complies with UNSC Resolutions 661, 688 and 986. Vessels in compliance are allowed to proceed. Vessels in violation of the sanctions are diverted to accepting Gulf Cooperation Council ports for final disposition. Through December 1996, the MIF had queried over 22,800 ships, boarded over 10,300 vessels, and diverted 608 for violation of U.N. sanctions.\(^8\) In 1997, an average of 57 ships were boarded per month and an average of 3 per month were diverted.\(^9\)

**Iraqi Gas Oil Smuggling**

Despite the efforts of the MIF and the implementation of Security Council Resolution 986, maritime smuggling of prohibited cargo to and from Iraq continues to be a lucrative business. Most smugglers have been small in-shore cargo vessels or dhows carrying Iraqi gasoil or dates out of Iraq or attempting to smuggle other than humanitarian goods into Iraq.\(^10\) By far, the most profitable of the smuggling efforts for the Iraqi regime is the illegal export of gasoil. The U.S. estimates that Saddam Hussein earns as much as $700 million a year from this smuggling operation.\(^11\)

Much of the success of the gasoil smugglers is due to the complicity or outright cooperation of the Iranians in allowing the smugglers to transit in Iranian territorial seas completely safe from interception by the MIF. During the first few years after the Gulf War, more than 80% of the gasoil smugglers were intercepted and diverted by the MIF.\(^12\) However, by 1996 the Iranians were complicit with the smugglers such that only 10% were intercepted.\(^13\) It is estimated that by late 1997, Iraq was smuggling 100,000 metric tons of gasoil per month.\(^14\)
The route that the smugglers use is as well known to the MIF as it is to the smugglers. Starting in the Iraqi port of Basra on the Shat-al-Arab waterway, the smugglers proceed south hugging the Iranian coastline. The smugglers often obtain false Iranian documentation and pay off Iranian Navy and Republican Guard forces along their transit route. At the southern end of the gulf, the smugglers either make a dash across a narrow strip of international waters to the United Arab Emirates, or continue on directly to ports in Pakistan, India, or to larger tankers awaiting transfer of the illegal cargo. In any case, as long as the smugglers remain inside Iranian territorial waters, the best that the MIF can do is to track them and hope for the unlikely chance of an intercept in international waters.

*Ends, Ways, Means, and Risks*

The strategic goal of the National Command Authorities with respect to Iraq is Iraqi compliance with Security Council Resolutions including 661, 687, 688, and 986. USCINCENT is charged with producing a military condition that will lead to achieving this strategic goal. An application of the four questions from Joint Publication 3-0 and an ends-ways-means-risks examination helps to explain why the gasoil smugglers and Iraq have been seemingly so successful at violating the economic sanctions, why the MIF appears to be ineffective at enforcing economic sanctions, and why USCINCENT cannot produce a military condition that will achieve the strategic goal of compelling Iraq to comply with Security Council Resolutions.

*The Ends*

USCINCENT must first ask what military, or related political or social condition must be achieved to realize the strategic goal. The military condition that must be achieved is, in essence, a blockade of Iraq. It is not a true blockade in that the aim of the MIF is not to block the Iraqi coast for the purpose of preventing the ingress and egress
of all vessels, but it is instead directed at cargo in enforcing Security Council Resolutions. Therefore, the military condition that must be achieved is an effective maritime interception operation. Joint Publication 3-07, Joint Doctrine for Military Operations Other Than War, describes that maritime interception operations are military in nature and serve both political and military purposes.\textsuperscript{16} The military objective is to establish a barrier which is selective, while the political objective is to compel a country to comply with the objectives of the initiating body.\textsuperscript{17} In this case, the NCA expects that the hardships imposed by the sanctions will produce a political and social condition inside Iraq such that the leadership would be compelled comply with Resolutions 661, 687, 688, and 986 in order to have the sanctions lifted.

It is with the ends that the first example of imbalance in Arabian Gulf MIO is uncovered. The social and political condition expected as a result of the sanctions and the enforcement efforts of the MIF has not materialized. It is true that, not unexpectedly, the sanctions have contributed to severe economic hardships for the citizens of Iraq. In 1997, inflation was estimated at 200\%, and unemployment was high as well.\textsuperscript{18} Per-capita income and standards of living are far below their pre-war levels.\textsuperscript{19} It is further estimated that Iraq has lost more than $100 billion is oil sales since 1991.\textsuperscript{20} The citizens of Iraq are, however, suffering more than just economic hardships. The World Health Organization reports that the health standards in Iraq have been set back 50 years since 1990.\textsuperscript{21} The Iraq Action Coalition (IAC) reports that 250 people die per day in Iraq as a result of the sanctions, and that four million Iraqis are threatened with famine.\textsuperscript{22}

How is it that so many people are suffering in Iraq when Resolutions 687 and 986 allow for Iraq to import humanitarian goods and sell $5.2 billion of oil every six months to buy food and medicine? The answer to this question also explains why there is no social or political condition that will achieve the strategic goal of Iraq complying with Security Council Resolutions. No matter how much the people of Iraq suffer, Saddam Hussein and the leadership of the Iraqi government act purely in their own self interest.
There is no tolerance for opposition, and no concern for the plight of the ordinary Iraqi citizen. Indeed, instead of taking measures to ease the suffering of Iraq’s citizens, the Iraqi regime represses its own people. President Clinton in a recent report to Congress on Iraqi non-compliance with United Nations Security Council Resolutions stated, “Saddam Hussein has exploited the suffering he himself has imposed on his people to build sympathy for Iraq and its government and to create pressure to lift the sanctions. In the meantime, he has continued to build lavish palaces that benefit only the elite within his regime.” President Clinton also stated that extrajudicial, summary, and arbitrary executions and the practice of torture continue in Iraq. In an unusual break of Arab solidarity, the Saudi Arabian and Egyptian governments have echoed these sentiments and have publicly called for the Iraqis to overthrow Saddam Hussein. With respect to the Oil for Food program, in his same report to Congress, President Clinton stated that

Iraq...has frequently failed to provide the full cooperation necessary to ensure that the program functions smoothly. For example, during calendar year 1997, the Government of Iraq refused to pump oil under UNSCR 986 for more than 3 months, all the while blaming the U.N. and the United States for disruptions in the flow of food and medicine that it caused.

Therefore, given the repressive nature of the Iraqi regime and its callous attitude toward the suffering of its own people, there is no social or political condition that can be achieved as a result of economic sanctions that will lead to the strategic goal of Iraq’s compliance with Security Council Resolutions.

**The Ways**

The second question that USCINCCENT must ask is what sequence of actions is most likely to produce the military condition of an effective maritime interception operation? The success rate of the MIF before Iranian complicity with the smugglers indicates that USCINCCENT has a firm understanding of how to produce an effective maritime interception operation. However, the Maritime Interception Force cannot be
applied in a sequence of events to produce an effective maritime interception operation as long as the gasoil smugglers are able to transit in Iranian territorial seas. As was previously noted, the MIF was 80% successful at intercepting the smugglers before Iranian complicity, and only 10% successful thereafter. Also, while countries such as the United Arab Emirates allow the smugglers to do business within their borders, it will be much harder for USCINCCENT to apply the Maritime Interception Force in such a manner to produce a successful maritime interception operation. Therefore, since the smugglers can transit in Iranian territorial waters free from interception from the MIF, and countries such as the United Arab Emirates continue to allow the smugglers to conduct business within their borders, an effective maritime interception operation cannot be produced.

*The Means*

The third question that USCINCCENT must answer is how should the resources of the joint force be applied to accomplish this sequence of actions? The means of Arabian Gulf Maritime Interception Operations are not in question—USCINCCENT has sufficient ships and aircraft available to carry out the operation.²⁷

*The Risks*

Lastly, after struggling with the first three questions, USCINCCENT must ask what is the likely cost or risk to the joint force in performing the sequence of actions necessary to produce an effective MIO? As the ideal way to produce an effective MIO would be for the MIF to enter Iranian territorial seas to intercept the smugglers, clearly, the answer to this question is that the cost or risk to the joint force and the overall stability in the region of conducting a truly effective MIO is too high. There can be little argument with this decision. The benefit of not precipitating a possible armed conflict with Iran far outweighs the cost of continued Iraqi gasoil smuggling. However, by
accepting this decision, the NCA and USCINCCENT have thrown the ends, ways, means, and risks of Arabian Gulf MIO out of balance. In short, the ends cannot be achieved because the risks of carrying out the ways are too high.

The imbalance between the ways and risks of Arabian Gulf MIO leads to a further imbalance in the Central Region. At the theater level, combatant commanders must balance the objectives of individual operations against the overall theater strategy. In all operations—and to a greater extent in military operations other than war—this includes balancing military operations against the political objectives as defined by the NCA. Operational objectives should support the overall theater strategy by design. However, commanders must be aware of those operational objectives that may contradict theater objectives and be able to adjust the operational objectives accordingly. In the case of Arabian Gulf Maritime Interception Operations, USCINCCENT’s operational objective of establishing an effective maritime interception operation against Iraq contradicts his theater objective of maintaining regional stability. How can this be? USCINCCENT describes Iran as “...potentially the most dangerous long-term threat to peace and stability in the Central Region.” Clearly, any action taken that risks provoking Iran would also contradict the theater objective of maintaining stability in the region. Therefore, if USCINCCENT applied the sequence of events necessary to produce an effective maritime interception operation and intercepted Iraqi gasoil smugglers in Iranian territorial seas, then an armed conflict with Iran could result, and stability would not be maintained in the region. This is same conclusion that is derived from balancing the risk to the joint force in performing the sequence of actions necessary to produce an effective MIO against the cost of continued Iraqi gasoil smuggling. Again, there can be little argument that the NCA and USCINCCENT have made the correct decision.

Taking the risk argument one step further, if USCINCCENT cannot bear the risk of producing a truly effective maritime interception operation, what is the risk of discontinuing the operation? Obviously, no operational commander can take pleasure in
continuing an operation that has only a 10% success rate; therefore, the risk to
USCINCCENT is minimal. However, the risk to the NCA of not enforcing economic
sanctions on Iraq by discontinuing Arabian Gulf MIO may be too high. The United
States holds firmly to the position that sanctions on Iraq will remain in place until the
Iraqi regime complies with all relevant Security Council Resolutions.31 The United
States also holds that

[the notion that mandatory resolutions of the Security Council applying
sanctions to Iraq can be freely or lightly violated at any time that [Iraq]
should choose is a very serious one. Not only because of the immediate
effects in terms of the threat that Saddam poses to the region and the
world community and what that would mean for that particular threat...but
secondly, what it would mean to the effectiveness and the capacity of the
Security Council to address threats to international peace and security,
which is precisely what it is designed to achieve.32

In other words, if USCINCCENT discontinued Arabian Gulf MIO, then Iraq would be
able to freely violate economic sanctions thereby risking a loss of Security Council
credibility. This is a risk that the NCA is justifiably unwilling to tolerate. Consequently,
USCINCCENT must continue to conduct Arabian Gulf MIO within the risks acceptable
in the Central Region.

Achieving Balance

The United Nations, the United States, and the countries of the Multinational
Maritime Interception Force have shown great resolve in their efforts to achieve the
strategic goal of compelling Iraq to comply with Security Council Resolutions. As has
been shown, USCINCCENT, as the operational commander responsible for applying
military force to achieve this goal, has not been able to balance the ways and risks of
Arabian Gulf MIO. Although there is some question as to whether the current Iraqi
regime can be compelled to comply with Security Council Resolutions at all, there exists
within the framework of the United Nations and international law the capacity to balance
the ways and risks of curbing the illegal smuggling of gasoil.
One such action recently taken by the United States and the United Kingdom was Operation Desert Fox conducted from 16-18 December 1998. Arguably, this use of force was conducted as a valid measure of individual and collective self defense as defined by Article 51 of the United Nations Charter. Under this Article, a nation may take necessary and proportional measures to protect itself from hostile acts and demonstrations of hostile intent. One of the targets destroyed during this operation was the oil refinery at Basra. Obviously, one way to curb the illegal smuggling of gasoil is to stop it at the source. However, this is at best a short term solution as the Iraqis have demonstrated their ability to bounce back from U.S. and Allied attacks on numerous occasions since the Gulf War.

The surest way to produce an effective maritime interception operation is to deny the gasoil smugglers safe haven in Iranian territorial waters. This can be accomplished in one of two ways--deny the smugglers entry into territorial waters or allow the MIF to enter Iranian territorial waters to make intercepts. Iran is legally required to assist the United States and the MIF in enforcing economic sanctions on Iraq. Article 25 of the United Nations Charter states that “[t]he Members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter.” Moreover, Security Council Resolution 665 requests all States to provide assistance as may be required by the States enforcing the sanctions and participating in the interception. As Lois Fielding in her book, Maritime Interception and U.N. Sanctions, points out, “[c]onceivably, this request require[s] all states to allow interception activities to take place within their territorial seas as needed. In fact, binding resolutions, specifically those of the Security Council...have the effect of law for members of the organization.” However, Iran has repeatedly protested the use of its territorial seas or airspace by the MIF and has reported what it considered to be violations to the Security Council. If Iran does not desire the MIF to operate within its territorial seas and airspace, it then follows from Resolution 665 that Iran should not allow the
smugglers access to these waters either. Taking this argument one step further, the United Arab Emirates, as a member State in the United Nations, should also not allow the gasoil smugglers access to its territorial seas.

Recognition of the Imbalance by the NCA

Clearly, the United States has firm legal footing to pursue Iranian and United Arab Emirates complicity with the smugglers within the confines of the Security Council and is, in fact, doing so. President Clinton, in his 8 April 1998 Report to Congress, recognized the use of Iranian territorial seas by the smugglers and stated that reports of the illegal activities were made to the U.N. Sanctions Committee. The results of further diplomatic efforts were also described by the President as follows:

The level of petroleum smuggling from Iraq appears to be decreasing. There are indications, still preliminary, that the Government of Iran may be taking steps to curb the flow of illegal petroleum products through its territorial seas. While it is too early to tell if Iran will completely and permanently stop this illegal traffic, we are hopeful that Iran will help enforce the provisions of UNSCR 661 and other relevant UNSCRs.

Recent actions by the United Arab Emirates (UAE) will greatly enhance our efforts to halt illegal exports from Iraq. After diplomatic consultations with the United States and our MIF allies, the UAE has significantly increased its level of cooperation with the MIF. These efforts have resulted in a significant increase in the number of ships caught with illegal cargoes. In addition, the UAE has prohibited the use of tankers, barges, and other vessel types to transport petroleum products to UAE ports and through its waters or to store such products there. While it is still too early to determine the full effect of these measures, we are hopeful that these actions will deal a significant blow to sanctions-busting activity in the region.

If the Iranians and the UAE continue their efforts to curb the illegal smuggling of gasoil, and other Arab countries join Egypt and Saudi Arabia in their call for the removal of Saddam Hussein as the leader of Iraq, then the ends, ways, means, and risks of sanctions enforcement will be brought closer into balance. Therefore, it follows that
USCINCCENT would be better able to produce a military condition that would lead to the NCA's strategic goal of Iraqi compliance with United Nations Security Council Resolutions.  

Conclusions

Successful operations are those where the ends, ways, means, and risks of the use of military force are balanced. The NCA must acknowledge that this balance includes both political and social dimensions, and that military force alone rarely achieves the strategic goal. In all operations, and particularly military operations other than war, operational commanders must acknowledge the primacy of political objectives at every level of war and the balance between military operations and political objectives. As this paper has demonstrated through an analysis of Arabian Gulf Maritime Interception Operations, unless balance is achieved across the broad spectrum of military, political, and social conditions, the operational commander will not be able to produce a military condition that allows the NCA to achieve its strategic goal.
NOTES


2Ibid.


5Fielding, 150-151.


13Ibid.

14Ibid.

15This information was taken from three sources as well as from the writers personal


17 Ibid.


19 Ibid.

20 Ibid.

21 Ibid.


24 Ibid., 1.

25 "Saudis, Egyptians Call for the Overthrow of Hussein", CNN Interactive, 10 January 1998, <http://cnn.com/WORLD/meast.9901/10/iraq.saudi.arabia/index.html>, (12 January 1998). However, in an effort to quiet Arab opposition to the economic sanctions, Saudi Arabia also called for the sanctions to be lifted with the exception of military equipment. This effort may actually be motivated more by self interest than by concern for the Iraqis. At a November 1998 trade fair in Baghdad, 30 countries, including 13 Arab nations, participated, marking the largest turnout since the Iraqi invasion of Kuwait. See United States Energy Information Administration, Iraq, November 1998, <http://www.eia.doe.gov/emeu/cabs/iraqfull.html> (3 December 1998).


27 This conclusion is based on the writers personal experience as a member of the Arabian Gulf MIO Tactical Commander’s staff from May through August 1997.


34 “Assessing the Damage in Iraq”, *USA Today*, 22 December 1998, 12A.


36 Fielding, 100.

37 Ibid.

38 Ibid.


40 Ibid., 3-4.

41 However, USCINCCENT’s job may get harder rather than easier as more countries, such as France and Russia, call for lifting of the sanctions. As with Saudi Arabia’s call to lift the sanctions, the motivation of these countries may be economic as well. See Appendix A for a listing of countries waiting to begin oil and gas field developments in Iraq upon the lifting of the sanctions.
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“Assessing the Damage in Iraq”. USA Today. 22 December 1998, 12A.


APPENDIX A

The Post-U.N. Sanctions Development Plan
In May 1997, Faleh al-Khayat, Director General for Planning at the Iraqi Oil Ministry, was quoted in the trade press as stating that 3 MMBD of production capacity could be reached within 1 year, 3.5 MMBD within 3-5 years, and 6 MMBD in less than a decade after the lifting of U.N. sanctions. This would be accomplished by a 3-phased development effort including: 1) re-working and upgrading existing upstream and downstream facilities; 2) attracting foreign investment for new field development and production; and 3) actively conducting exploration and development activities in prospective areas such as the Western Desert.

Field development work under the three phases would be extensive, with 33 fields containing 50 billion barrels of reserves and a potential production capability of 4.65 MMBD slated for eventual development. Of these 33 fields, twenty-five have been appraised, but never developed. Of the 25 appraised fields, eleven are located in southern Iraq and have an output potential of 3 MMBD. Smaller, undeveloped fields are located in northern and central Iraq and have estimated output capabilities of 450,000 bbl/d and 300,000 bbl/d, respectively. A further eight of the 33 fields are already in production, but will require more work to tap additional reservoirs and to bring another 900,000 bbl/d of production online.

Although development costs in Iraq are as low as $1/barrel, there is no doubt that any post-sanction oil program will require massive amounts of foreign investment. In May 1997, former Iraqi Oil Minister Fadhil al-Chalabi estimated that Iraq would need at least $5 billion of foreign investment during the first 2-3 post-sanction years in order to bring the country's oil output back to pre-Gulf War levels. He also projected that $30-$50 billion of foreign investment would be required to bring capacity up to 6 MMBD.

As of March 1998, there reportedly were dozens of foreign oil companies from a wide variety of countries in discussions with the Iraqi government (see table at the end of this report). U.S. firms which have held talks on Iraqi field development include: Amoco, Arco, Chevron, Coastal, Conoco, Exxon, Mobil, Occidental, and Texaco. Iraq plans to offer new fields to foreign oil companies through production sharing contracts (PSC), joint ventures, and service contracts. Initially, Iraq plans to offer up to 25 new fields to foreign companies. Ten of these fields, with a production potential of 2.7 MMBD, are slated for development under PSCs with foreign companies. Four of these fields are located in southern Iraq and, with a combined production potential of 2.1 MMBD, represent the cornerstone of Iraq's post-sanction development plans. These four "giant" southern fields are Majnoon, West Qurna, Nahr Umar, and Halfaya.
As of October 1998, Iraq had signed PSCs (reportedly on relatively generous terms) for a handful of post-sanction field developments. One deal is with the China National Petroleum Corporation (CNPC) and Chinese state-owned Norinco for development of the al-Ahdab field. Al-Ahdab is located about 40 miles south of al-Kut in central Iraq. The field contains an estimated 1.4 billion barrels of oil and has a production potential of roughly 90,000 bbl/d. CNPC and Norinco reportedly have formed a new company, named al-Waha, to undertake the field development. Development and operating costs are expected to be around $1.3 billion. U.N. sanctions have, to date, apparently limited CNPC to limited, mainly surveying, work on al-Ahdab.

Russia, which is owed $7 billion by Iraq for past arms deliveries, has a $3.5 billion, 23-year deal with Iraq to rehabilitate Iraqi oilfields, particularly the 15-billion-barrel West Qurna field (located west of Basra near the Rumaila field). Production is to begin only once U.N. sanctions are lifted. Since a deal was signed in March 1997, Russia’s Lukoil (the operator, heading a Russian consortium plus an Iraqi company to be selected by the Iraqi government) has prepared a plan to install equipment with capacity to produce 100,000 bbl/d from West Qurna’s Mishrif formation by March 2000. Lukoil has been hampered by sanctions in conducting needed 3D seismic or drilling work. Overall, the West Qurna PSC is to include development of the Yamamah and deeper Mishrif reservoirs, which, combined, contain 7-8 billion barrels of light (370 API) and heavy (270 API) crude oil, respectively. West Qurna has estimated production potential of 500,000-750,000 bbl/d, two-thirds of which will be heavier Mishrif crude. At present, most of the required production wells have been drilled, although a crude pipeline spur and associated gas processing stations are only partially completed. Completion of first phase development could take up to a year, but it is unclear exactly how much surface work remains and whether this is included in the recent PSC, which is valued at $3.7 billion.

Besides West Qurna, PSCs for the three other large southern oil fields are in various stages of negotiation. The largest of the four fields is Majnoon, which has reserves of 10-30 billion barrels of 280-350 API oil. Located only 30 miles north of Basra on the Iranian border, Majnoon originally was discovered and partially appraised by Braspetro in the late 1970s. Prior to the outbreak of the Iran-Iraq War, 24 wells had been drilled to assess the field’s 14 oil-bearing zones. Since that time, Iraq has conducted limited reservoir and design studies. As of October 1998, French companies Elf Aquitaine and Total were negotiating with Iraq on development rights for Majnoon. In the past, it was reported that Elf would retain operatorship and a 40% stake in the $3-$4 billion project. Initial output at Majnoon is expected to be 300,000 bbl/d, with later development yielding 600,000 bbl/d or more. Ultimate production potential is estimated at up to 2 MMBD.

As with Majnoon, the 6-billion barrel Nahr Umar field was explored and appraised
by Braspetro in the mid- to late 1970s. Prior to the Iran-Iraq War, five wells had been drilled. France-based Total apparently has all but agreed with Iraq on development of Nahr Umar. Initial output from Nahr Umar is expected to be around 440,000 bbl/d of 42° API crude, but may reach 500,000 bbl/d with more extensive development.

The 5-billion barrel Halfaya project is the final large field development in southern Iraq. Italian Agip originally drilled four appraisal wells at Halfaya under a service contract in the 1970s. A variety of companies reportedly have shown interest in the field, which could ultimately yield 200,000-300,000 bbl/d in output.

Smaller fields with under 2 billion barrels in reserves also are receiving interest from foreign oil companies. These fields, along with anticipated maximum production levels, include: Nasiriya (250,000 bbl/d); Khormala (100,000 bbl/d); Hamrin (80,000 bbl/d); and Gharraf (100,000 bbl/d). As of March 1998, Italy's Agip was thought to be close to signing a contract for the Nasiriya development. In the past, Agip officials have stated that they would like to use the field's access to infrastructure as a "reference point" for development of a number of satellite fields. Spain's Repsol also appears to be a strong possibility to develop Nasiriya.

In addition to the 25 new field projects, Iraq plans to offer foreign oil companies service contracts to apply technology to 8 already-producing fields. This will include new reservoir development at the North and South Rumaila, Zubair, Luhais, Subba, Abu Ghirab, Buzurgan, and Fuqa fields. Iraq also will provide incentives to promote exploration in the remote Western Desert. Located near the Saudi and Jordanian borders, Iraq has identified at least 110 prospects from previous seismic work in this region. As of December 1997, Calgary-based Ranger Oil was reported to be in discussions with Iraq on a $163 million deal to develop an oilfield in this area.