

TB

THE WHITE HOUSE  
CORRESPONDENCE TRACKING WORKSHEET

ID# 230359

00083

INCOMING

DATE RECEIVED: APRIL 17, 1991

NAME OF CORRESPONDENT: THE HONORABLE RICHARD SHELBY

SUBJECT: FORWARDS A PAPER FROM MICHAEL W. ADAMS AND  
JOSEPH SITES REGARDING THE BURNING OIL FIELDS  
IN KUWAIT

		ACTION		DISPOSITION	
ROUTE TO:		ACT	DATE	TYPE	C
OFFICE/AGENCY	(STAFF NAME)	CODE	YY/MM/DD	RESP	COMPLETED D YY/MM/DD
FREDERICK MCCLURE		ORG	91/04/17	FM	A 91/04/19
99 EPA	REFERRAL NOTE:	A	91/05/06		A 91/05/06
99 DOE	REFERRAL NOTE:	I	91/05/06		
	REFERRAL NOTE:				
	REFERRAL NOTE:				
	REFERRAL NOTE:				

COMMENTS:

ADDITIONAL CORRESPONDENTS: MEDIA:L INDIVIDUAL CODES: 1210  
MAIL USER CODES: (A) (B) (C)

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*ACTION CODES:	*DISPOSITION	*OUTGOING	*
*	*	*CORRESPONDENCE:	*
*A-APPROPRIATE ACTION	*A-ANSWERED	*TYPE RESP=INITIALS	*
*C-COMMENT/RECOM	*B-NON-SPEC-REFERRAL	*OF SIGNER	*
*D-DRAFT RESPONSE	*C-COMPLETED	*CODE = A	*
*F-FURNISH FACT SHEET	*S-SUSPENDED	*COMPLETED = DATE OF	*
*I-INFO COPY/NO ACT NEC		*OUTGOING	*
*R-DIRECT REPLY W/COPY			*
*S-FOR-SIGNATURE			*
*X-INTERIM REPLY			*
*****			

REFER QUESTIONS AND ROUTING UPDATES TO CENTRAL REFERENCE  
(ROOM 75,OEOb) EXT-2590  
KEEP THIS WORKSHEET ATTACHED TO THE ORIGINAL INCOMING  
LETTER AT ALL TIMES AND SEND COMPLETED RECORD TO RECORDS  
MANAGEMENT.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MAY 20 1991

Honorable Richard Shelby  
United States Senate  
Washington, D.C. 20510-0103

Dear Senator Shelby:

The President has forwarded on to our office the white paper from your constituent, Michael Adams. We have received several copies of this white paper, which we have reviewed and responded to. Enclosed is a copy of that response.

If you have any further questions or concerns, please do not hesitate to contact me at 475-8600.

Sincerely,

A handwritten signature in cursive script that reads "Claire Davies for".

Jim Makris  
Director, Chemical Emergency  
Preparedness and Prevention Office

Enclosures





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Michael Adams  
7514 Republic Court #201  
Alexandria, VA 22306

Dear Mr. Adams:

Thank you for your letter and white paper dated April 14, 1991, concerning the oil well fires in Kuwait and their possible environmental effects. The President has asked me to respond to your concerns.

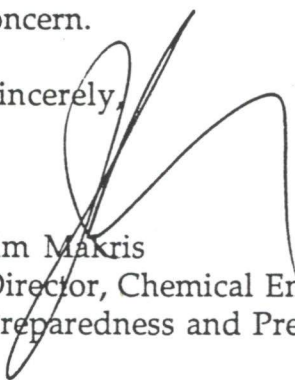
A team of experts was sent to the area to assist in assessing the environmental impact of the oil fires there and the potential health risks. The Environmental Protection Agency, coordinating this effort and working with the National Oceanic Atmospheric Administration, the Centers for Disease Control, the Department of Energy, the Department of Defense, and the U.S. Coast Guard identified an appropriate team. The mission of the team was to obtain a reliable assessment of the air quality situation, with primary emphasis on health effects. The team will also began setting out a framework for longer-term monitoring for environmental effects of the fires. The team has and will continue to consult with U.S. military and embassy officials as well as Gulf government officials in the area regarding its findings.

Other than providing this technical assistance and expertise, the United States have not been asked to provide any further assistance with regards to the oil well fires in Kuwait, nor have we been asked to identify or coordinate public and/or private resources in either the United States or abroad who could assist. The Kuwaiti Government feels capable of dealing with the environmental consequences of this incident and we are supporting their efforts. Within the Kuwaiti Government, the Kuwait Petroleum Company in London is coordinating the efforts to extinguish the oil well fires as well as clean-up and mitigate their effects. The Kuwait Petroleum Company can be reached at the following phone number: (44-71) 491-4000.

With regards to your concern on climate change and nuclear winter effects, there will most likely not be a large scale climate change, but the air pollution will produce a significant change in the short term in the local area. The density of the plume does indeed cause reductions in the air temperature at the ground in the shaded areas, and will certainly result in local heating of the air at the height of the plume itself. These are two characteristic features of the nuclear winter scenario. However, the plumes do not rise to levels at which they will enter the stratosphere and hence be long-lived. It is expected that the plume heights will slowly rise during the summer, with tops usually around 15,000 feet and with infrequent excursions up to more than 20,000 feet. These heights are well below the altitude necessary for injection into the stratosphere, as would be necessary for a full nuclear winter consequence. It is possible that some material might enter the jet stream and be transported around the globe. However, any such event would be shortlived and infrequent, since the source region is small on a global scale (even though huge when viewed from below) and the jet stream would not pass close enough except rarely.

Once again, thank you for your concern.

Sincerely,



Jim Makris  
Director, Chemical Emergency  
Preparedness and Prevention Office

April 19, 1991

Dear Richard:

Thank you for your recent letter to the President and the enclosed copy of a report from Mr. Michael Adams and Col. Joseph Sites of Fort Belvoir, Virginia, regarding the burning oil fields in Kuwait.

We appreciate being apprised of the concerns of Mr. Adams and Col. Sites on the damage the oil fires might have on our atmosphere. I was pleased to share your letter with the President's advisors on this matter so that they, too, are aware of your recommendations.

Thank you again for your interest in writing.

With best regards,

Sincerely,

Frederick D. McClure  
Assistant to the President  
for Legislative Affairs

The Honorable Richard C. Shelby  
United States Senate  
Washington, D.C. 20510

FDM:TSB:

bcc: w/ copy of inc to EPA - for Appropriate Action  
bcc: w/ copy of inc to Dept. of Energy - FYI



THE WHITE HOUSE OFFICE  
REFERRAL

MAY 6, 1991

WH  
SW  
A  
DA  
RD  
R3  
Gunn  
AA

TO: ENVIRONMENTAL PROTECTION AGENCY

ACTION REQUESTED:  
APPROPRIATE ACTION

REMARKS: ATTN: ALSO REFERRED TO DOE

DESCRIPTION OF INCOMING:

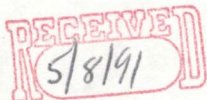
ID: 230359  
MEDIA: LETTER, DATED APRIL 15, 1991  
TO: PRESIDENT BUSH  
FROM: THE HONORABLE RICHARD SHELBY  
UNITED STATES SENATE  
WASHINGTON DC 20510

SUBJECT: FORWARDS A PAPER FROM MICHAEL W. ADAMS AND  
JOSEPH SITES REGARDING THE BURNING OIL FIELDS  
IN KUWAIT

PROMPT ACTION IS ESSENTIAL -- IF REQUIRED ACTION HAS NOT BEEN  
TAKEN WITHIN 9 WORKING DAYS OF RECEIPT, PLEASE TELEPHONE THE  
UNDERSIGNED AT 456-7486.

RETURN CORRESPONDENCE, WORKSHEET AND COPY OF RESPONSE  
(OR DRAFT) TO:  
AGENCY LIAISON, ROOM 91, THE WHITE HOUSE, 20500

SALLY KELLEY  
DIRECTOR OF AGENCY LIAISON  
PRESIDENTIAL CORRESPONDENCE



4474

U.S. HOUSE OF REPRESENTATIVES

OFFICE

1991

TO: ENVIRONMENTAL PROTECTION AGENCY

ACTION REQUESTED:  
APPROPRIATE ACTION

REMARKS: ATTN: ALSO REFERRED TO DOE

DESCRIPTION OF INCIDENT

ID: 20352

MEDIA: LETTER DATED APRIL 18, 1991

TO: PRESIDENT BUSH

FROM: THE HONORABLE RICHARD SHELBY  
UNITED STATES SENATE

WASHINGTON, DC 20510

SUBJECT: FORWARDING OF LETTER FROM MICHAEL W. ADAMS AND  
JOSEPH STONE REGARDING THE BURNING OF TIRE  
IN KENT

PROMPT ACTION IS REQUESTED -- IT IS REQUESTED ACTION BE TAKEN  
TAKEN WITHIN 2 WORKING DAYS OF RECEIPT, PLEASE TELEPHONE THE  
UNDERSIGNED AT 404-7400.

RETURN CORRESPONDENCE TO: (OR DRAFT) TO:  
AGENCY LIAISON, ROOM 211, THE WHITE HOUSE, 20500

SARAH KERRY  
DIRECTOR OF AGENCY LIAISON  
PRESIDENTIAL CORRESPONDENCE

91 MAY 7 11:42

RECEIVED  
EPA  
CORR. CONTROL

RECEIVED

RICHARD SHELBY  
ALABAMA

COMMITTEE ON ARMED SERVICES  
COMMITTEE ON BANKING, HOUSING,  
AND URBAN AFFAIRS  
COMMITTEE ON ENERGY AND  
NATURAL RESOURCES  
SPECIAL COMMITTEE ON AGING

○ 313 HART BUILDING  
WASHINGTON, DC 20510  
(202) 224-5744

United States Senate  
WASHINGTON, DC 20510-0103

April 15, 1991

230359  
STATE OFFICES:

- 1800 FIFTH AVENUE NORTH  
321 FEDERAL BUILDING  
BIRMINGHAM, AL 35203  
(205) 731-1384
- HUNTSVILLE INT'L AIRPORT  
1000 GLENN HEARN BOULEVARD  
Box 20127  
HUNTSVILLE, AL 35824  
(205) 772-0460
- 113 ST. JOSEPH STREET  
438 U.S. COURTHOUSE  
MOBILE, AL 36602  
(205) 694-4164
- 15 LEE STREET  
828A U.S. COURTHOUSE  
MONTGOMERY, AL 36104  
(205) 223-7303
- 1118 GREENSBORO AVENUE #240  
TUSCALOOSA, AL 35401  
(205) 759-5047

*F. McClure*  
President George W. Bush  
The White House  
Washington, DC 20500

Dear President Bush:

Enclosed is a paper on the burning oil fields in Kuwait that I thought you might find interesting.

As the fires continue to burn and conditions deteriorate, I would like to encourage you to take some aggressive action to extinguish the fires. I understand that there have been a number of unexpected complications; however, I believe we can do more. If I can be of any assistance, please do not hesitate to contact me.

Thank you for your time and consideration.

Sincerely,

*Richard Shelby*  
Richard Shelby

RCS/gs  
Enclosure



THE WHITE HOUSE

WASHINGTON

ORM OPTICAL DISK NETWORK

ID# 232359

\_\_\_\_\_ Hardcopy pages are in poor condition (too light or too dark).

\_\_\_\_\_ Remainder of case not scanned.

\_\_\_\_\_ Oversize attachment not scanned.

\_\_\_\_\_ Report not scanned.

✓ \_\_\_\_\_ Enclosure(s) not scanned.

\_\_\_\_\_ Proclamation not scanned.

\_\_\_\_\_ Incoming letters(s) not scanned.

\_\_\_\_\_ Proposal not scanned.

\_\_\_\_\_ Statement not scanned.

\_\_\_\_\_ Duplicate letters attached - not scanned.

\_\_\_\_\_ Only table of contents scanned.

\_\_\_\_\_ No incoming letter attached.

\_\_\_\_\_ Only tracking sheet scanned.

\_\_\_\_\_ Photo(s) not scanned.

\_\_\_\_\_ Bill not scanned.

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\_\_\_\_\_ Comments:

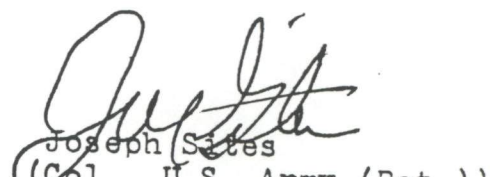
WHITE PAPER:

CRISIS IN THE GULF

by



Michael W. Adams  
Physicist (Ret.)  
Belvoir RD&E Center  
Ft. Belvoir, Virginia  
(home)  
7514 Republic Court, #201  
Alexandria, VA 22306  
(703) 768-6028



Joseph Sites  
(Col., U.S. Army (Ret.))  
AMC-FAST  
Ft. Belvoir, Virginia  
(703) 664-5458

The purpose of this White Paper is to set forth, plainly and concisely, to the responsible Officials of the United States Government, critical information regarding the extreme gravity of the events now occurring in the Middle East, specifically in the Kingdom of Kuwait. It is generally known that, in the wake of overwhelming military defeat, Saddam Hussein has ignited over six hundred oil wells in that Kingdom. What is not generally known is that these are not ordinary oil well fires, such as occur from time to time, and by accident, in the oil industry. The well fires which are now burning in Kuwait were ignited by knowledgeable Iraqi engineers, at a level 200-300 feet below ground level, by high explosives, at the "choke point" of each well. The "choke point" is the point at which the flow of oil to the surface is regulated. The critical information is that these fires cannot be handled by the technology which is currently in use in the oil industry for putting out oil well fires. All of the technology which has been developed is designed for putting out well fires which have been ignited by accident (usually worker error, involving lit matches for pipe or cigarette, or sparks due to friction) at the surface of the well. The plain fact is that, for economic reasons, no government or corporation has ever deliberately ignited large numbers of oil wells below the surface, as a job of military engineering. Because of that, the present



technology (i.e., engineering techniques and equipment) which exists in the oil industry for putting out well fires is not adequate, and in fact is not designed, for the task which now confronts the world in the Kingdom of Kuwait.

In and of itself, the situation in Kuwait would be a world tragedy. But there is another dimension to this crisis, which goes far beyond the situation in the Middle East, which, if not addressed, literally threatens the total extinction of all life on this planet. If these fires are not extinguished quickly, there is an excellent chance that the world will experience the equivalent of a "nuclear winter" -- the scenario which men of science put forth as the aftermath of thermonuclear war. The reason for the above is the timing of the Gulf War: the Season in which these oil well fires were set. The Middle East is about to enter its "hot season" -- Spring and Summer. As the wells burn, a large, continuously augmenting mass of smoke-laden air will accumulate over Kuwait. As the temperature of the desert air rises, the smoke will begin to ascend, into the upper layers of the earth's atmosphere. Once there, it will be carried by winds aloft (the "jet stream") over the entire extent of the upper atmosphere. As the process continues, the smoke will accumulate in ever-denser layers, until all sunlight is shut off. The result will be unparalleled catastrophe, including crop failure, freezing temperatures at the earth's surface, and finally the extinction of all life on this planet.

The critical information is that this is not Science Fiction. It is Science Fact. If the fires in Kuwait are not extinguished rapidly, the "nuclear winter" scenario just described is going to happen. Once the smoke from these well fires begins to ascend, the process becomes irreversible.

The critical emergency -- the task now before the Governments of the world -- is to extinguish these fires now, before the hot season in Kuwait sets in, and the mass of smoke-laden air begins to ascend. What is needed is concerted, centrally-controlled effort on an unparalleled scale.

At this point in time, the United States has just successfully concluded a war in the Middle East. We have a land army in place, with men, equipment and know-how, in the area in which the fires are burning. In addition, the Government of Kuwait has hired the three Houston-based companies which specialize in putting out fires of this kind. The job to be done is too massive for these companies to handle alone, as they have recently acknowledged.

The task now is to marry the immense land force which the United States and its allies have marshaled in that area with the Houston-based companies whose job it is to fight oil well fires. These companies, with their personnel and expertise, can and must be used as cadres for the training and deployment of this fire-fighting force. The "connecting link" between the forces in the Gulf and the fire-fighting companies is the

U.S. Army Corps of Engineers, and the Army Research and Development community. These organizations must be pressed into service immediately, as the connecting channel for information and services between the Allied land army in the Gulf and the Houston-based fire-fighting companies hired by the Kingdom of Kuwait.

As stated here, the task must begin immediately. As the fires continue to burn, and as oil-leaks from ruptured wells flood the Kuwaiti countryside and threaten the cities, the working environment in Kuwait will steadily deteriorate. Civil disorder will increase, and access to the oil fields will become more difficult. In addition, as smoke and heat accumulate, the air quality will go down, and surface temperature in the oil fields will go up, making operations at the burning wells more and more difficult. Finally, a point will be reached at which men and machines cannot get near enough to the burning wells to work effectively. At that point, the situation will pass beyond human control.

The critical element is time. The logical leader in this world-wide effort is the United States. We have a President whose formative working life was spent in the oil industry in Texas, and who is grounded in the fundamental realities of the current crisis. We have just emerged from the Cold War as the world's preeminent force for global leadership. And we have successfully concluded a major military conflict



in the Gulf region. The leadership in this emergency, which literally threatens the survival of life on this planet, will logically fall to us.

As mentioned, current technology in the area of fighting oil well fires is not equal to this emergency. New, innovative methods for dealing with these fires, which are occurring in a recently-abandoned area of military operations, can be developed and put forward by the U.S. Army R&D Community, working in conjunction with the Houston-based fire-fighting companies. Once developed, these techniques can be put into operation by the U.S. Army Corps of Engineers, with equipment and manpower drawn from the force currently in the Gulf region.

The extreme peril which the world faces from the fact of the recently-ignited oil fields of Kuwait cannot be overstated. The emergency calls for, and must command, the entire resources of the United States Government, private industry, and of the Governments of the world. This concerted effort should, and in fact must, be led and carried to completion by the United States. Because of the grave nature of this crisis, it should command the immediate attention of public officials at the most senior levels of our Government.

The critical danger to the world from these well fires can be simply explained. It is called "blackbody radiation." A good example is the following: place a black blanket on a snowbank on a sunny day. Before long, the snow under the blanket will begin to melt at a much faster rate than the surrounding snow. This is because the blanket, a black object, absorbs the heat from the sun much better than the surrounding snow. The blanket is called a "black body". It is a good absorber of the sun's energy, and also a good emitter of that energy (which is what melts the snow). At the present time, a large mass of black-colored smoke is accumulating on the earth's surface, over the Kingdom of Kuwait. Because it is a "black body," it will, like the blanket in the snowbank, absorb the sun's rays much better than the surrounding air, and its temperature will be higher than the surrounding air. It will begin to heat up, in other words. As that happens, the black mass of smoke will begin to rise. The process will continue until the smoke reaches the upper atmosphere, where it will be circulated by the "jet stream" (the winds aloft) over the entire upper atmosphere. The black smoke over Kuwait will rise for the same reason that the smoke from a campfire rises: it is receiving heat. Except in this case, the "campfire" is the sun's energy at the earth's surface. The only way to keep the above from happening is to extinguish the well fires in Kuwait before the hot season in the Gulf sets in. The survival of life on this planet literally depends upon putting out the well fires in Kuwait quickly.

THE WHITE HOUSE  
CORRESPONDENCE TRACKING WORKSHEET

INCOMING

DATE RECEIVED: APRIL 17, 1991

NAME OF CORRESPONDENT: THE HONORABLE RICHARD SHELBY

SUBJECT: FORWARDS A PAPER FROM MICHAEL W. ADAMS AND  
JOSEPH SITES REGARDING THE BURNING OIL FIELDS  
IN KUWAIT

		ACTION		DISPOSITION	
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FREDERICK MCCLURE		ORG	91/04/17	Fm A	91/04/19
99 EPA	REFERRAL NOTE: _____	A	91/05/06		1/1
99 DOE	REFERRAL NOTE: _____	I	91/05/06		1/1
	REFERRAL NOTE: _____		1/1		1/1
	REFERRAL NOTE: _____		1/1		1/1
	REFERRAL NOTE: _____		1/1		1/1

COMMENTS: \_\_\_\_\_

ADDITIONAL CORRESPONDENTS: MEDIA: L INDIVIDUAL CODES: 1210 \_\_\_\_\_

MAIL USER CODES: (A) \_\_\_\_\_ (B) \_\_\_\_\_ (C) \_\_\_\_\_

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*	*	*CORRESPONDENCE:	*
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Thank you again for your interest in writing.

With best regards,

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for Legislative Affairs

The Honorable Richard C. Shelby  
United States Senate  
Washington, D.C. 20510

FDM:TSB:

bcc: w/ copy of inc to EPA - for Appropriate Action  
bcc: w/ copy of inc to Dept. of Energy - FYI

RICHARD SHELBY  
ALABAMA

COMMITTEE ON ARMED SERVICES  
COMMITTEE ON BANKING, HOUSING,  
AND URBAN AFFAIRS  
COMMITTEE ON ENERGY AND  
NATURAL RESOURCES  
SPECIAL COMMITTEE ON AGING

○ 313 HART BUILDING  
WASHINGTON, DC 20510  
(202) 224-5744

United States Senate  
WASHINGTON, DC 20510-0103

April 15, 1991

230359  
STATE OFFICES:

- 1800 FIFTH AVENUE NORTH  
321 FEDERAL BUILDING  
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- HUNTSVILLE INT'L AIRPORT  
1000 GLENN HEARN BOULEVARD  
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HUNTSVILLE, AL 35824  
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- 113 ST. JOSEPH STREET  
438 U.S. COURTHOUSE  
MOBILE, AL 36602  
(205) 694-4164
- 15 LEE STREET  
B28A U.S. COURTHOUSE  
MONTGOMERY, AL 36104  
(205) 223-7303
- 1118 GREENSBORO AVENUE #240  
TUSCALOOSA, AL 35401  
(205) 759-5047

*F McClure*  
President George W. Bush  
The White House  
Washington, DC 20500

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*Richard Shelby*  
Richard Shelby

RCS/gs  
Enclosure

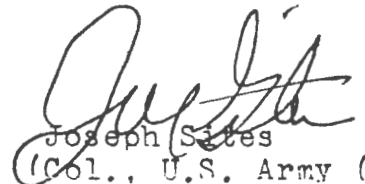
WHITE PAPER:

CRISIS IN THE GULF

by



Michael W. Adams  
Physicist (Ret.)  
Belvoir RD&E Center  
Ft. Belvoir, Virginia  
(home)  
7514 Republic Court, #201  
Alexandria, VA 22306  
(703) 768-6028



Joseph Sites  
(Col., U.S. Army (Ret.))  
AMC-FAST  
Ft. Belvoir, Virginia  
(703) 664-5458



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At this point in time, the United States has just successfully concluded a war in the Middle East. We have a land army in place, with men, equipment and know-how, in the area in which the fires are burning. In addition, the Government of Kuwait has hired the three Houston-based companies which specialize in putting out fires of this kind. The job to be done is too massive for these companies to handle alone, as they have recently acknowledged.

The task now is to marry the immense land force which the United States and its allies have marshaled in that area with the Houston-based companies whose job it is to fight oil well fires. These companies, with their personnel and expertise, can and must be used as cadres for the training and deployment of this fire-fighting force. The "connecting link" between the forces in the Gulf and the fire-fighting companies is the



U.S. Army Corps of Engineers, and the Army Research and Development community. These organizations must be pressed into service immediately, as the connecting channel for information and services between the Allied land army in the Gulf and the Houston-based fire-fighting companies hired by the Kingdom of Kuwait.

As stated here, the task must begin immediately. As the fires continue to burn, and as oil-leaks from ruptured wells flood the Kuwaiti countryside and threaten the cities, the working environment in Kuwait will steadily deteriorate. Civil disorder will increase, and access to the oil fields will become more difficult. In addition, as smoke and heat accumulate, the air quality will go down, and surface temperature in the oil fields will go up, making operations at the burning wells more and more difficult. Finally, a point will be reached at which men and machines cannot get near enough to the burning wells to work effectively. At that point, the situation will pass beyond human control.

The critical element is time. The logical leader in this world-wide effort is the United States. We have a President whose formative working life was spent in the oil industry in Texas, and who is grounded in the fundamental realities of the current crisis. We have just emerged from the Cold War as the world's preeminent force for global leadership. And we have successfully concluded a major military conflict

in the Gulf region. The leadership in this emergency, which literally threatens the survival of life on this planet, will logically fall to us.

As mentioned, current technology in the area of fighting oil well fires is not equal to this emergency. New, innovative methods for dealing with these fires, which are occurring in a recently-abandoned area of military operations, can be developed and put forward by the U.S. Army R&D Community, working in conjunction with the Houston-based fire-fighting companies. Once developed, these techniques can be put into operation by the U.S. Army Corps of Engineers, with equipment and manpower drawn from the force currently in the Gulf region.

The extreme peril which the world faces from the fact of the recently-ignited oil fields of Kuwait cannot be overstated. The emergency calls for, and must command, the entire resources of the United States Government, private industry, and of the Governments of the world. This concerted effort should, and in fact must, be led and carried to completion by the United States. Because of the grave nature of this crisis, it should command the immediate attention of public officials at the most senior levels of our Government.

The critical danger to the world from these well fires can be simply explained. It is called "blackbody radiation." A good example is the following: place a black blanket on a snowbank on a sunny day. Before long, the snow under the blanket will begin to melt at a much faster rate than the surrounding snow. This is because the blanket, a black object, absorbs the heat from the sun much better than the surrounding snow. The blanket is called a "black body". It is a good absorber of the sun's energy, and also a good emitter of that energy (which is what melts the snow). At the present time, a large mass of black-colored smoke is accumulating on the earth's surface, over the Kingdom of Kuwait. Because it is a "black body," it will, like the blanket in the snowbank, absorb the sun's rays much better than the surrounding air, and its temperature will be higher than the surrounding air. It will begin to heat up, in other words. As that happens, the black mass of smoke will begin to rise. The process will continue until the smoke reaches the upper atmosphere, where it will be circulated by the "jet stream" (the winds aloft) over the entire upper atmosphere. The black smoke over Kuwait will rise for the same reason that the smoke from a campfire rises: it is receiving heat. Except in this case, the "campfire" is the sun's energy at the earth's surface. The only way to keep the above from happening is to extinguish the well fires in Kuwait before the hot season in the Gulf sets in. The survival of life on this planet literally depends upon putting out the well fires in Kuwait quickly.