Exhibit B

Science Applications International Corporation		
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From my Appeal (August 22, 2007)

SAIC's PsyOPs Department

Science Applications International Corporation (SAIC)
http://sourcewatch.org/index.php?title=SAIC
Quoting sourcewatch:

> **Science Applications International Corporation** (SAIC) was founded in 1969 by J. Robert Beyster "and a small group of scientists ... as a scientific consulting firm with a handful of government contracts for nuclear power and nuclear weapons effects study programs...."[1]
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> In 1990 SAIC was indicted and pled guilty to 10 felony counts of fraud on a Superfund site, called "one of the largest (cases) of environmental fraud" in Los Angeles history. [2] SAIC had some 44,000 employees and took in $8 billion in 2006. SAIC "is larger than the departments of Labor, Energy, and Housing and Urban Development combined," reported *Vanity Fair*. [3] "SAIC's largest customer by far is the U.S. government, which accounts for 69 percent of its business," according to the Center for Public Integrity. [4]
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> **Lost Contract**
> In July 2006 the U.S. military "removed two firms from a psychological operations contract aimed at influencing international public opinion," reports the *Washington Post*. "The firms, plus a third company (SYColeman) that will retain the contract, spent the past year developing prototypes for radio and television spots intended for use in Iraq and in other nations...
>
> **Iraq Work**
> "SAIC executives have been involved at every stage ... of the war in Iraq," from pushing WMD claims to helping "investigate how American intelligence could have been so disastrously wrong," described *Vanity Fair* in its March 2007 issue. [6] …
>
> Under "yet another no-bid contract," SAIC created the Iraqi Media Network, supposedly a "free and independent indigenous media network" that quickly became "a mouthpiece for the Pentagon"….Moreover, SAIC's work on the Iraqi Media Network was criticized by the Pentagon's Inspector General as having "widespread violations of normal contracting procedures." [8] [9]

Mind Games http://cjrarchives.org/issues/2006/3/schulman.asp
Quoting the article:

> In November 2001, a secretive Pentagon directorate took shape within the Office of the Assistant Secretary of Defense for Special Operations and …. its role was to harness a variety of informational activities to sway public opinion in the Middle East in favor of the administration's war on terror. It was called the Office of Strategic Influence.

Budgeted at $100 million for its first year of operations, OSI's staff of twenty consisted of experts in psychological and cyber warfare, authorities on the Middle East and Islamic studies, and contractors from Science Applications International Corporation (SAIC), the Fortune 500 research and engineering firm that considers itself a specialist in "information dominance."

Science Applications International Corp.

http://www.public-i.org/wow/bio.aspx?act=pro&ddlC=51

Quoting Center for Public Integrity:

> The company has worked on a large number of high-profile government projects. SAIC had engineers on the ground in New York the day after the Sept. 11, 2001, terrorist attacks on the World Trade Center, ... …. Other high-profile projects SAIC has been involved in include the 1993 World Trade Center bombing investigation, the cleanups after the Three Mile Island nuclear disaster and the Exxon Valdez oil spill in Alaska, the first Gulf War, and space missions including the Voyager mission to Mars and the Hubble Space Telescope.

References to bowed columns in the summary document NCSTAR 1.

The sagging of the floors had increased. Although the floors on the north side of the tower had sagged first, they contracted due to cooling when the fires moved toward the south. Now, the south side floors had sagged to the point where the south perimeter columns bowed inward (Figure 2–12). By 10:23 a.m., the south exterior wall had bowed inward as much as 55 in.

Figure 1 032_Picture45.jpg

- Bowed south perimeter columns that had a reduced capacity to carry loads.

Figure 2 034_Picture46.jpg

The fires were weakening the structure in a manner different from WTC 1. First, the severed core columns in the southeast corner led to the failure of some column splices to the hat truss. Nonetheless, the hat truss continued to transfer loads from the core to the perimeter walls. Second, the overall load redistribution increased the loads on the east wall. Third, the increasing temperatures over time on the long-span floors on the east side had led to significant sagging on the 79th through 83rd floors, resulting in an inward pull force. Fourth, within 18 min of the aircraft impact, there was inward bowing of the east perimeter columns as a result of the floors sagging. As the exposure time to the high temperatures lengthened, these pull-in forces from the sagging floors increased the inward bowing of the east perimeter columns.

Figure 3 043_Picture16.jpg

The physical condition of the tower had deteriorated seriously. The inward bowing of columns on the east wall spread along the east face. The east wall lost its ability to support gravity loads, and, consequently, redistributed the loads to the weakened core through the hat truss and to the adjacent north and south walls through the spandrels. But the loads could not be supported by the weakened structure, and the entire section of the building above the impact zone began tilting as a rigid block to the east and south (Figure 3–5). Column failure continued from the east wall around the corners to the north and south faces. The top of the building continued to tilt to the east and south, as, at 9:58:59 a.m., WTC 2 began to collapse.

Figure 4 044_Picture17.jpg

- Bowed east perimeter columns that had a reduced capacity to carry loads.

Figure 5 046_Picture47.jpg

Table 6–2. Indications of major structural changes up to collapse initiation.

Tower	Time (a.m.)	Observation
WTC 1	10:18	Smoke suddenly expelled on the north face (floors 92, 94, 95 to 98) and west face (92, 94 to 98).
	10:23	Inward bowing of perimeter columns on the east side of the south face from floors 94 to 100; maximum extent: 55 in. ± 6 in. at floor 97.
	10:28:22	First exterior sign of collapse (downward movement of building exterior). Tilting of the building section above the impact and fire area to due south as the structural collapse initiated. First exterior sign of downward movement of building at floor 98.
WTC 2	9:02:59	Exterior fireball from the east face of floor 82 and from the north face from floors 79 to 82. The deflagration prior to the fireballs may have caused a significant pressure pulse to act on floors above and below.
	9:21	Inward bowing of exterior wall columns on most of the east face from floors 78 to 83; maximum extent: 7 in. to 9 in. at floor 80.
	9:58:59	First exterior sign of collapse (downward movement of building exterior). The northeast corner tilted counterclockwise around the base of floor 82. Column buckling was then seen progressing across the north face and nearly simultaneously on the east face. Tilting of the building section above the impact and fire area to the east and south prior to significant downward movement of the upper building section. The tilt to the south did not increase any further as the upper building section began to fall, but the tilt to the east did increase until dust clouds obscured the view.

Figure 6 087_Picture18.jpg

In addition, there was a fire on the 104th floor of WTC 1 on September 11, 2001, that apparently did not contribute to the eventual collapse, yet was quite severe. At 10:01 a.m., flames were first observed on the west face, and by 10:07 a.m., intense flames were emanating from several windows in the southern third of that face. The fire raged until the building collapsed at 10:28 a.m. Thus, the tower structure was able to withstand a sizable fire for about 20 min, presumably with the ceiling tile system heavily damaged and the truss system exposed to the flames. The 104th floor was well above the aircraft impact zone, so there should have been little damage to the sprayed fire-resistive material, which was the same (Table 5–3) as

Figure 7 091_Picture19a.jpg

on the floors where the fires led to the onset of the collapse. The photographic evidence showed no signs of column bowing or a floor collapse.

Figure 8 092_Picture19b.jpg

A finite element model of the full 96th floor of WTC 1 was translated from the SAP2000 reference models into ANSYS 8.1 for detailed structural evaluation (Figure 6–12)[14]. The two models generated comparable predictions of the behavior under dead or gravity loads.

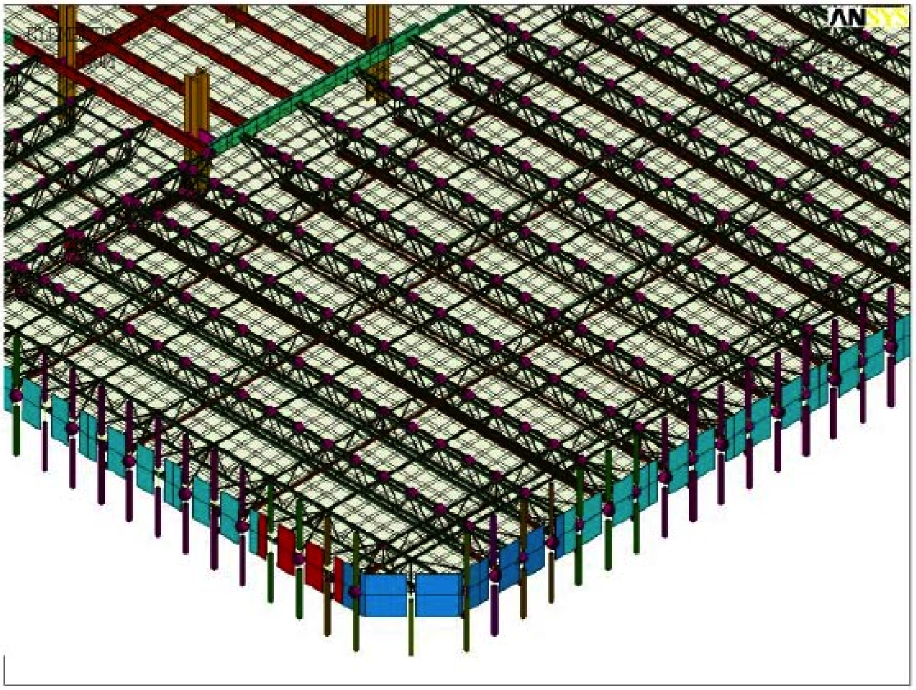

Figure 6–12. ANSYS model of 96th floor of WTC 1.

The model was used to evaluate structural response under dead and live loads and elevated temperatures, identify failure modes and associated temperatures and times to failure, and identify reductions in modeling complexity for global models and analyses. The structural response included thermal expansion of steel and concrete members, temperature-dependent properties of steel and concrete that affected material stiffness and strength, and bowing or buckling of structural members. The deformation and failure modes identified were floor sagging between truss supports, floor sagging resulting from failure of a seat at either end of the truss, and failure of the floor subsystem truss supports.

Figure 9 099_Picture21.jpg

Exterior Wall Subsystem

The exterior walls played an important role in each tower's reaction to the aircraft impact and the ensuing fires. Photographic and video evidence showed inward bowing of large sections of the exterior walls of both towers just prior to the time of collapse.

Figure 10 099_Picture22.jpg

- Case B impact damage and thermal loads for WTC 1 floors resulted in floor sagging on the south side of the tower over floors that reasonably matched the location of inward bowing observed on the south face. Case A impact damage and thermal loads did not result in sagging on the south side of the floors.

Figure 11 102_Picture23.jpg

- Cases C and D impact damage and thermal loads for WTC 2 both resulted in floor sagging on the east side of the tower over floors that reasonably matched the location of inward bowing observed on the east face. However, Case D provided a better match.

Figure 12 102_Picture24.jpg

Exterior Wall

Exterior wall models were developed for the south face of WTC 1 (floors 89 to 106) and the east face of WTC 2 (floors 73 to 90). These sections were selected based on photographic evidence of column bowing.

Figure 13 103_Picture25.jpg

- The observed inward bowing of the exterior wall indicated that most of the floor connections must have been intact to cause the observed bowing.

Figure 14 103_Picture26.jpg

- Case B impact damage and thermal loads for the WTC 1 south wall, combined with pull-in forces from floor sagging, resulted in an inward bowing of the south face that reasonably matched the observed bowing. The lack of floor sagging for the Case A impact damage and thermal loads resulted in no inward bowing for the south face.

- Cases D impact damage and thermal loads for the WTC 2 east wall, combined with pull-in forces from floor sagging, resulted in an inward bowing of the east face that reasonably matched the observed bowing.

Figure 15 103_Picture27.jpg

The analysis results showed that:

- Inward pull forces were required to produce inward bowing consistent with the displacements measured from photographs. The inward pull was caused by sagging of the floors. Heating of the inside faces of the exterior columns also contributed to inward bowing.

- Exterior wall sections bowed outward in a pushdown analysis when several consecutive floors were disconnected, the interior face of the columns was heated, and column gravity loads increased (e.g., due to load redistribution from the core and hat truss). At lower temperatures, thermal expansion of the inside face was insufficient to result in inward bowing of the entire exterior column. At higher temperatures, outward bowing resulted from the combined effects of reduced steel strength on the heated inside face, which shortened first under column gravity loads, and the lack of lateral restraint from the floors.

- The observed inward bowing of the exterior wall indicated that most of the floor connections must have been intact to cause the observed bowing.

Figure 16 103_Picture28.jpg

- Case B impact damage and thermal loads for the WTC 1 south wall, combined with pull-in forces from floor sagging, resulted in an inward bowing of the south face that reasonably matched the observed bowing. The lack of floor sagging for the Case A impact damage and thermal loads resulted in no inward bowing for the south face.

- Cases D impact damage and thermal loads for the WTC 2 east wall, combined with pull-in forces from floor sagging, resulted in an inward bowing of the east face that reasonably matched the observed bowing.

Figure 17 103_Picture29.jpg

the core, the loads on the north and south walls had each increased by about 10 percent, and those on the east and west walls had about a 25 percent increase. The increased loads on the east and west walls were due to their relatively higher stiffness compared to the impact damaged north wall and bowed south walls.

The inward bowing of the south wall caused failure of exterior column splices and spandrels, and these columns became unstable. The instability spread horizontally across the entire south face. The south wall, now unable to bear its gravity loads, redistributed these loads to the thermally weakened core through the hat truss and to the east and west walls through the spandrels. The building section above the impact zone began tilting to the south as the columns on the east and west walls rapidly became unable to carry the increased loads. This further increased the gravity loads on the core columns. The gravity loads could no longer be redistributed, nor could the remaining core and perimeter columns support the gravity loads from the floors above. Once the upper building section began to move downwards, the weakened structure in the impact and fire zone was not able to absorb the tremendous energy of the falling building section and global collapse ensued.

Figure 18 145_Picture48.jpg

The south exterior wall displaced downward following the aircraft impact, but did not displace further until the east wall became unstable 43 min later. The inward bowing of the east wall, due to the inward pull of the sagging floors, caused failure of exterior column splices and spandrels and resulted in the east wall columns becoming unstable. The instability progressed horizontally across the entire east face. The east wall, now unable to bear its gravity loads, redistributed them to the thermally weakened core through the hat truss and to the east and west walls through the spandrels.

Figure 19 145_Picture31.jpg

Simulating what? Certainly this was not simulating the real situation. It was fraudulent to imply it was.

- In a fire simulation of WTC 2, that was extended for 2 hours beyond Case D and with all windows broken during this period, the temperatures in the truss steel on the west side of the building (where the insulation was undamaged) increased for about 40 min before falling off rapidly as the combustibles were consumed. Results for a typical floor (floor 81) showed that temperatures of 700 °C to 760 °C were reached over approximately 15 percent of the west floor area for less than 10 min. Approximately 60 percent of the floor steel had temperatures between 600 °C and 700 °C for about 15 min. Approximately 70 percent of the floor steel had temperatures that exceeded 500 °C for about 45 min. At these temperatures, the floors would be expected to sag and then recover a portion of the sag as the steel began to cool. Based on results for Cases C and D, the temperatures of the insulated exterior and core columns would not have increased to the point where significant loss of strength or stiffness would occur during these additional 2 hours. With intact, cool core columns, any inward bowing of the west exterior wall that might occur would be readily supported by the adjacent exterior walls and core columns.

Figure 20 147_Picture32.jpg

- Inward bowing of the exterior walls in both WTC 1 and WTC 2 was observed only on the face with the long-span floor system. In WTC 1, this was found to be the case even though equally extensive fires were observed on all faces. In WTC 2, fires were not observed on the long-span west face and were less intense on the short-span faces than on the east face.

- Inward bowing was a necessary but not sufficient condition to initiate collapse. In both WTC 1 and WTC 2, significant weakening of the core due to aircraft impact damage and thermal effects was also necessary to initiate building collapse.

- The tower structures had significant capacity to redistribute loads (a) from bowed walls to adjacent exterior walls with short-span floors via the arch action of spandrels, and (b) between the core and exterior walls via the hat truss and, to a lesser extent, the floors.

Figure 21 148_Picture49.jpg

- The *potential for inward bowing of exterior walls* (i.e., magnitude and extent of bowing over the width of the face and the number of floors involved) due to thermally induced floor sagging of long-span floors and associated inward pull forces.

- The *capacity of the structure to redistribute loads* (e.g., via the spandrels, hat truss, and floors) if the thermal conditions were sufficiently intense to cause inward bowing of the exterior walls.

Figure 22 149_Picture36.jpg

Collapse Initiation

- The bowed south wall columns buckled and were unable to carry the gravity loads. Those loads shifted to the adjacent columns via the spandrels, but those columns quickly became overloaded as well. In rapid sequence, this instability spread all the way to the east and west walls.

Figure 23 151_Picture50.jpg

- Those sagging floors whose seats were still intact pulled inward on the east perimeter columns, causing them to bow inward. The inward bowing increased with time.

Collapse Initiation

- As in WTC 1, the bowed columns buckled and became unable to carry the gravity loads. Those loads shifted to the adjacent columns via the spandrels, but those columns quickly became overloaded. In rapid sequence, this instability spread all across the east wall.

Figure 24 152_Picture51.jpg

Table 6–10. Comparison of global structural model predictions and observations for WTC 1, Case B.

Observation	Simulation
Following the aircraft impact, the tower still stood.	The tower remained upright with significant reserve capacity.
The south perimeter wall was first observed to have bowed inward at 10:23 a.m. The bowing appeared over nearly the entire south face of the 94th to 100th floors. The maximum bowing was 55 in. on the 97th floor. (The central area in available images was obscured by smoke.)	The inward bowing of the south wall at 10:28 a.m. It extended from the 94th to the 100th floor, with a maximum of about 43 in.
As the structural collapse began, the building section above the impact and fire zone tilted at least 8 degrees to the south with no discernable east or west component in the tilt. Dust clouds obscured the view as the building section began to fall downward.	The south side bowed and weakened. The analysis stopped as the initiation of global instability was imminent.
The time to collapse initiation was 102 min from the aircraft impact.	There was significant weakening of the south wall and the core columns. Instability was imminent at 100 min.

Figure 25 153_Picture38.jpg

Table 6–11. Comparison of global structural model predictions and observations for WTC 2, Case D.

Observation	Simulation
Following the aircraft impact, the tower still stood.	The tower remained upright with significant reserve capacity.
The east perimeter wall was first observed to have bowed inward approximately 10 in. at floor 80 at 9:21 a.m. The bowing extended across most of the east face between the 78th and 83rd floors.	The inward bowing of the east wall had a maximum value of about 9.5 in. at 9:23 a.m. The bowing extended from the 78th floor to the 83rd floor.
The building section above the impact and fire area tilted to the east and south as the structural collapse initiated. The angle was approximately 3 degrees to 4 degrees to the south and 7 degrees to 8 degrees to the east prior to significant downward movement of the upper building section. The tilt to the south did not increase as the upper building section began to fall, but the tilt to the east rose to approximately 25 degrees before dust clouds obscured the view.	At point of instability, there was tilting to the south and east.
The time to collapse initiation was 56 min after the aircraft impact.	The analysis predicted global instability after 43 min.

The agreement between the observations and the simulations is reasonably good, supporting the validity of the probable collapse sequences. The exact times to collapse initiation were sensitive to the factors that controlled the inward bowing of the exterior columns. The sequence of events leading to collapse initiation was not sensitive to these factors.

Figure 26 153_Picture40.jpg

- Bowed perimeter columns that had a reduced capacity to carry loads.

Figure 27 180_Picture52.jpg

8.3.4 Reconstruction of the Fires

- In each tower, the fires were initiated simultaneously on multiple floors by ignition of some of the jet fuel from the aircraft. The initial jet fuel fires themselves lasted at most a few minutes.
- The principal combustibles on the fire floors were workstations. The total combustible fuel load on the WTC floors was about 4 lb/ft^2. Higher combusted fuel loadings resulted in slower fire spread rates that did not match the patterns observed in the photographic evidence. Under these higher combusted fuel loadings, the fires likely would not have reached the south side of WTC 1 in the time needed to cause inward bowing and collapse initiation.

Figure 28 183_Picture41.jpg

8.3.5 Structural Response and Collapse Analysis

- The core columns were weakened significantly by the aircraft impact damage and thermal effects. Thermal effects dominated the weakening of WTC 1. As the fires moved from the north to the south side of the core, the core was weakened over time by significant creep strains on the south side of the core. Aircraft impact damage dominated the weakening of WTC 2. With the impact damage, the core subsystem leaned to the southeast and was supported by the south and east perimeter walls via the hat truss and floors. As the core weakened, it redistributed loads to the perimeter walls through the hat truss and floors. Additional axial loads redistributed to the exterior columns from the core were not significant (only about 20 percent to 25 percent on average) as the exterior columns were loaded to approximately 20 percent of their capacity before the aircraft impact.
- The primary role of the floors in the collapse of the towers was to provide inward pull forces that induced inward bowing of perimeter columns (south face of WTC 1; east face of WTC 2). Sagging floors continued to support floor loads as they pulled inward on the perimeter columns. There would have been no inward pull forces if the floors connections had failed and disconnected.

Figure 29 185_Picture42.jpg