All experts serve the state and the media and only in that way do they achieve their status. Every expert follows his master, for all former possibilities for independence have been gradually reduced to nil by present society’s mode of organization. The most useful expert, of course, is the one who can lie. With their different motives, those who need experts are falsifiers and fools. Whenever individuals lose the capacity to see things for themselves, the expert is there to offer an absolute reassurance....

Such a perfect democracy constructs its own inconceivable foe, terrorism. Its wish is to be judged by its enemies rather than by its results. The story of terrorism is written by the state and it is therefore highly instructive. The spectators must certainly never know everything about terrorism, but they must always know enough to convince them that, compared with terrorism, everything else must be acceptable, or in any case more rational and democratic.

—Guy Debord, Comments on the Society of the Spectacle (1988)

September 11: The Pentagon’s B-Movie

By Graeme MacQueen

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The events that took place in the United States on September 11, 2001 were real and they were extremely violent. As David Griffin has recently shown in detail, they also had catastrophic real-life consequences for both the United States and the world.[1]

But these events were also deeply filmic (like a film) and they were presented to us through a narrative we now know to be fictional. This “9/11 movie” reveals itself to careful investigators as scripted, directed and produced by the U.S. national security state. The movie does not represent the real world. It violates the rules operative in the real world, including the laws of physics. Audiences will remain in thrall to the spectacle and violence of the War on Terror only as long as they remain mesmerized by the B-movie of 9/11.

The Filmic Nature of the September 11 Events

Many people caught a whiff of Hollywood on September 11, 2001. According to Lawrence Wright (screenwriter of The Siege),

It was about an hour after the first trade centre came down that I began to make the connection with the movie, this haunting feeling at the beginning this looks like a movie, and then I thought it looks like my movie.[2]

Steve De Souza (screenwriter, Die Hard I and II) has said:

Well it did look like a movie. It looked like a movie poster. It looked like one of my
The 9/11 attacks were filmic in at least the following ways:

- Given the complex and coordinated nature of these attacks, they had been *scripted* and given a timeline in advance;
- given the need to make decisions as the attacks progressed (for example, when an aircraft went off course or was delayed), it is clear that there was a *director*;
- given the overall vision, the need for funds, resources and international coordination over a period of years, it is obvious that there had been a *producer*;
- given the numerous roles played in this event (for example, by the “hijackers”), there were undoubtedly *actors*.

In addition, the event included the key dramatic elements of conflict, violence and spectacle.[4] The entire production was filmed from several angles, and the films, sometimes in the rough and sometimes cleverly edited, were shown many, many times all over the world.

Official U.S. sources rapidly acknowledged the remarkably filmic nature of these events. In October, 2001 some two dozen Hollywood writers and directors were assembled “to brainstorm with Pentagon advisers and officials in an anonymous building in L.A.”[5] The Army’s *Institute for Creative Technologies* was the lead organization.[6] The assembled group was assumed to have relevant expertise and was asked to brainstorm about what future attacks might look like so that the Pentagon could be prepared. (“We want some left-field, off-the-wall ideas; say the craziest thing that comes into your mind”).[7]

While the bare fact of this consultation was widely reported by news media, further details about the three-day consultation have been hard to come by. Reporters have had their FOIA requests denied.[8]

Beneath this consultation lay the “failure of imagination” hypothesis. Although the hypothesis emerged almost immediately after September 11, it was given especially clear expression in a BBC Panorama programme aired on March 24, 2002.[9] *Steve Bradshaw* interviewed representatives of Hollywood and of national security institutions. The Pentagon, we were supposed to believe, is a typical large bureaucracy characterized by inertia. It is unable to imagine, and to rapidly respond to, new and emerging threats. It is stuck in the past. It is also afraid to irritate the general population by appearing to be politically incorrect—by looking, in this case, at Islam as a threat. Fortunately, there are two sets of people with imagination and
courage: a small number of people within the national security apparatus who were trying to warn the Pentagon but were ignored, and Hollywood screenwriters and directors, who had imagination, who had some contact with the national security dissidents, and who had the courage to risk being called Islamophobic.[10]

So the planes of September 11, when they burst on the scene, confirmed the imaginative prescience of Hollywood, supported the courageous faction of the national security apparatus, and embarrassed the national security bureaucracy, which had to lower itself in October, 2001 to meet with the purveyors of fiction in order to stimulate its sclerotic brain.

This failure of imagination hypothesis was supported by statements by George W. Bush[11] and, even more famously, by Condoleezza Rice:

I don’t think anybody could have predicted that these people would take an airplane and slam it into the World Trade Center, take another one and slam it into the Pentagon; that they would try to use an airplane as a missile, a hijacked airplane as a missile.[12]

The hypothesis became more or less official when it was adopted by the 9/11 Commission in its report on the attacks.[13]

Of course, given the filmic nature of 9/11, it is clear that, according to these official U.S. sources, there was another group—beyond Hollywood and a few national security malcontents—that had imagination, namely al-Qaeda.

Robert Altman (director of MASH, McCabe and Mrs. Miller and many other films) said in 2002 that Hollywood was to blame for the 9/11 events.

The movies set the pattern, and these people have copied the movies. Nobody would have thought to commit an atrocity like that unless they’d seen it in a movie.[14]

Presumably, by “these people” Altman meant al-Qaeda. Perhaps it was while munching popcorn and watching a Hollywood movie that Osama bin Laden and his high-level companions got the idea for 9/11? This is possible. But would it not make sense to ask if it is true that the Pentagon has no imagination, and that it was incapable of picturing attacks like those of the fall of 2001?

Collaboration between Hollywood and U.S. government agencies goes back at least as far as WW II. Indeed, a 1943 memo from the OSS (forerunner of the CIA) noted that,

The motion picture is one of the most powerful propaganda weapons at the disposal of the United States.[15]
Many Hollywood films and TV programs have, therefore, been supported by the Pentagon, and some have been supported by the CIA. Such support can be crucial for films that require U.S. military assets such as planes and helicopters. But support is not automatic. The script must first be approved, and emendations may be demanded by the national security agency in question. In a recent book on this subject (National Security Cinema: The Shocking New Evidence of Government Control in Hollywood), authors Tom Secker and Matthew Alford list 814 films and 1133 TV titles that received DOD support.[16]

Since many of these films are highly imaginative constructions, how can it be that the national security agencies that have helped bring them to fruition have remained trapped in their grey, unimaginative world? Presumably, we are to believe that it is the nature of a bureaucracy to restrict these imaginative insights to one part of the organization—say, the Army’s Institute for Creative Technologies—while neglecting to disseminate them to other parts of the national security state. But is this true?

Those familiar with the History Commons research project on 9/11 will know that it is not true at all. Here are 16 titles from that project (selected from a much longer list) that refer to pre-9/11 exercises and simulations by U.S. government agencies:[17]

- November 7, 1982:
  Port Authority Practices for Plane Crashing into the WTC

- 1998-September 10, 2001:
  NORAD Operations Center Runs Five ‘Hijack Training Events’ Each Month

- 1998-2001:
  Secret Service Simulates Planes Crashing into the White House

- October 14, 1998:
  ‘Poised Response’ Exercise Prepares for Bin Laden Attack on Washington

- Between 1999 and September 11, 2001:
  NORAD Practices Live-Fly Mock Shootdown of a Poison-Filled Jet

- Between September 1999 and September 10, 2001:
  NORAD Exercises Simulate Plane Crashes into US Buildings; One of Them Is the World Trade Center

- November 6, 1999:
  NORAD Conducts Exercise Scenario Based around Hijackers Planning to Crash Plane into UN Headquarters in New York
June 5, 2000:
NORAD Exercise Simulates Hijackers Planning to Crash Planes into White House and Statue of Liberty

October 16-23, 2000:
NORAD Exercise Includes Scenarios of Attempted Suicide Plane Crashes into UN Headquarters in New York

May 2001:
Medics Train for Airplane Hitting Pentagon

June 1-2, 2001:
Military Conducts Exercises Based on Scenario in which Cruise Missiles Are Launched against US [“Osama bin Laden is pictured on the cover of the proposal for the exercise”]

July 2001:
NORAD Plans a Mock Simultaneous Hijacking Threat from inside the US

Early August 2001:
Mass Casualty Exercise at the Pentagon Includes a Plane Hitting the Building

August 4, 2001:
Air Defense Exercise Involves the Scenario of Bin Laden Using a Drone Aircraft to Attack Washington

September 6, 2001:
NORAD Exercise Includes Terrorist Hijackers Threatening to Blow Up Airliner

September 9, 2001:
NEADS Exercise Includes Scenario with Terrorist Hijackers Targeting New York

It is not necessary to find an exercise here that perfectly matches the attacks of the fall of 2001. The point is that there is far too much imagination and far too much similarity to the actual attacks of the fall of 2001 to support the “failure of imagination” hypothesis. Hollywood participants in the October, 2001 brainstorming exercise, who thought they were being tapped for their imagination, were conned.

Who was better prepared, through both imagination and logistical capacity, to carry out the attacks of the fall of 2001—Bin Laden’s group or the U.S. national security state? The latter had been practising steadily, in relevant scripted training operations, for years, and it had the power and resources to bring the imaginative scenarios to reality. Al-Qaeda was not remotely its match.
Not Just Filmic, But Exclusively Filmic

The violent destruction of the North Tower

If this business of the filmic nature of the September 11 attacks involved only Hollywood scriptwriters we might be tempted to regard it as nothing but a minor distraction. But what we find is that even members of the Fire Department of New York, risking their lives at the scene, were shocked by the filmic nature of what they witnessed.[18]

EMS **Chief Walter Kowalczyk:**
“I thought I was at an event at Universal Studios, on the side, watching a movie being taped.”

EMT **Peter Cachia:**
“I remembered hearing Lieutenant D’Avila coming over the radio and saying Central be advised, a second plane just went into the second tower. We ran out and we saw the second plane. It was like watching a movie. It really was.”

**Chief Steve Grabher:**
“I looked over my shoulder and you could see the whole top of the south tower
leaning towards us. It looked like it was coming over. You could see the windows pop out just like in the picture, looked like a movie. I saw one floor of windows pop out, like poof, poof. I saw one and a half floors pop out.”

EMT Michael Mejias:
“The building started collapsing, the north tower started collapsing. It tipped down first and then the thing fell within itself. It was an amazing sight to see. It was really unbelievable. I thought I was watching a movie with special effects.”

Fire Marshal Steven Mosiello:
“As I’m looking up at this stuff that’s going on up there now, I just like — I’m saying to myself I’ve seen this in a movie. My whole recollection is going back to a movie or something I saw. I just saw this before.”

Firefighter Edward Kennedy:
“... it looked like a bomb, of course, had gone off, almost like a nuclear bomb. That’s all I could think of. I’ve never been at war. I equated it to being like when I saw something like when I was a kid and I saw Godzilla in the movies or something, when he crushes those buildings and stuff like that, that’s what it looked like to me.”

Firefighter Tiernach Cassidy:
“I’m standing on top of the rig between the bucket and the cab, between the ladder and the cab. People were blessing themselves in this gloominess of going down. It was like out of a movie. I couldn’t believe what was going on.”

Firefighter Daniel Lynch:
“I just recall that those first — those first minutes from the time that sound started, the rumbling started to occur and the dust started to fall and then stopped to get gear and equipment from the fire truck and then continue down to West Street and getting there and seeing the crushed fire trucks, crushed cars, vehicles on fire. It was like a movie set.”

Battalion Chief Brian Dixon:
“Then like a Godzilla movie, everybody that had been standing in that little park there across from One Liberty Plaza and had been just looking up and watching the north tower burn just started running eastbound like they were being chased by someone.”

EMP Peter Constantine:
“Then, you started to run, your [sic] helping people, helping them run. You saw it, it was amazingÉlike out of a movie, you know, the cloud’s just chasing you. As you
look back, you see it engulf people.”

EMS Captain Frank D’Amato:
“... as I turned on Albany I looked over my shoulder and I saw the big cloud of dust that was already on the ground like just making its way down the block, just like a movie.”

EMT Russell Harris:
“The first thing came in my mind was the movie Armageddon, and this was reality, with the black smoke 30 floors high, debris falling everywhereÉ. Because I have never seen anything like that in 21 years of emergency work.”

EMT Christopher Kagenaar:
“When we got over there, as soon as we got off of the Brooklyn Bridge, the people were running like it was a Godzilla movie, and we had to stop there for a while. People were overcome, were shaken, were scaredÉ.”

Paramedic Robert Ruiz:
“But I ran and ran, and finally I could see the light. When I got to where the tunnel was, I’m looking everywhere. It was just like that movie the day after with the atomic bomb. They drop it and nobody’s left and I’m the only one.”

Rosario Terranova:
“I remember seeing the rubble, seeing the rubble fall and actually start to chase down the street, and, you know, it’s strange because you wouldn’t expect — you wouldn’t expect debris to do that, but it literally traveled, like, you would see these movies with like a tidal wave that flows through the streets and hits down any path it can.”

These comments, selected from a wider set of similar comments, are intriguing, but what is their significance? As we examine them closely we recognize that the September 11 event was not just filmic but exclusively filmic. By this I mean that the narrative presented to us by authorities could not have unfolded outside of a film.

Since at least as early as 1902, when the French film A Trip to the Moon (Le Voyage dans la Lune) took its viewers into space, audiences have been enjoying the ability of movies to deliver dramatic action through special effects, and especially by suspending, fictionally, the laws of physics. This is part of the power of film and there is nothing inherently wrong with it. But it is important to know when we are in the theatre and when we are not.

In the original 1933 film, King Kong, director Merian Cooper was determined to make the appearance of his monster dramatically powerful, and to this end was prepared to change the
monster’s size repeatedly to fit particular scenes.

“I was a great believer in constantly changing Kong’s height to fit the settings and the illusions. He’s different in almost every shot; sometimes he’s only 18 feet (5.5 m) tall and sometimes 60 feet (18.3 m) or larger.... but I felt confident that if the scenes moved with excitement and beauty, the audience would accept any height that fitted into the scene.”[19]

Cooper understood what mattered in a movie. But imagine what would happen if audiences remained convinced by the suspension of the laws of physics after they left the theatre? This, it seems to me, is what has happened with the events of September 11, 2001. Many people are still deceived by the special effects. They are still captured by the movie of 9/11.

Consider two of the most traumatizing elements in the attacks, the disappearance of the Twin Towers and the ensuing debris cloud.

The destruction of the Twin Towers stunned first responders. Their previous experiences, including experiences with high-rise fires, did not lead them to suspect these buildings would come down.

**Lieutenant Warren Smith:**
“I’ve worked in Manhattan my whole career in high rises and everything else...you looked back, all you see—you know how fast those buildings came down...it just doesn’t click that these buildings can come down...you just couldn’t believe that those buildings could come down...there’s no history of these buildings falling down.”[20]

**EMS Captain Mark Stone:**
“whoever in their right mind would have thought that the World Trade Center would ever fall down...Nobody in the world, nobody ever would ever have thought those buildings were coming down.”[21]

Investigations over the last 16 years have demonstrated that the first responders’ surprise was justified. The explanations offered by official U.S. agencies have been shown to violate basic laws of physics.[22]

Awed by the spectacle of the Twin Towers coming down, and by the later fall of World Trade 7, we are supposed to forget our high school physics. We are not supposed to notice that the official explanations given to us leave these spectacles every bit as peculiar as King Kong’s ever-changing size.

So this central dramatic element, as edited for TV, interpreted by ponderous official voices, and
played repeatedly for a world audience, belonged to the 9/11 movie. Behind the scenes the director had ordered that explosive charges be set in the buildings.

Well over one hundred members of the Fire Department of New York witnessed explosions at the beginning of the so-called collapses of the Twin Towers.[23] Their testimony fits with the controlled demolition hypothesis and does not fit with the script of the 9/11 movie. Since promotion of the government’s movie would have been difficult if these voices were heard, they were suppressed.

The second deeply impressive event of September 11, which appears repeatedly in the FDNY musings about the filmic nature of what they witnessed, was the cloud of material that rushed through the streets of Manhattan in the wake of the destruction of each of the Towers. Several films are mentioned by name in this connection, including those featuring Godzilla, King of Monsters, created for Japanese films less than ten years after the nuclear bombing of Hiroshima and Nagasaki as a deliberately provocative meditation on the forces of the nuclear age.[24]

The FDNY World Trade Center Task Force interviews give a lively sense of what it felt like to be trapped in this debris cloud.[25]

**EMT Renae O'Carroll:**
I’m about ten feet in front of it, running, actually sprinting because I’m an athlete and I’m running... Ash came around another building in front of me, and it caught me in front of me and in back of me, and everything was pitch-black. Where it hit me from the front and the back, it actually lifted me off the ground and threw me. It was like someone picked me up and just threw me on the ground.

Everything was pitch-black. You couldn’t see anything. All I saw was big bolts of fire, fire balls. I could feel the heat around me. It was pitch-black. I couldn’t see anything at all. My lungs, my airways, everything filled up with ash. I couldn’t breathe.”

**Timothy Burke:**
“All of a sudden the noises stopped, the sound of the building falling stopped. We all turned around and it was dark now. We really couldn’t see. The cloud was in there. All eating the cloud, whatever it was like, very thick. I keep saying it was like a 3 dimensional object. It wasn’t smoke. It was like everything. It was like a sand storm.”

**Firefighter**

**EMT Mary Merced:**
“So I’m running, and people are running in front of me. They stop. They turn around.
I think everything’s over with. So I stop, all of a sudden the thing is coming at us. It was like in dark hell, like a nuclear blizzard. I couldn’t explain it. You couldn’t see in front of you. You couldn’t breathe. You’re inhaling. You’re coughing. You’re running. You can’t see anything.”

Paramedic Louis Cook:
“You still can’t see it because it’s dark as a mother. You can’t breathe. It’s so heavy with smoke and dust and ash.

I can’t breathe. I have, for lack of a better term, dust impaction in my ears, in my nose. I was coughing it out of my mouth. It felt like I had a baseball in my mouth. I was just picking it out with my fingers.

As is clear from these testimonies, words like “smoke” and “dust” do not do justice to the cloud in which people were trapped. That is because the clouds were the Towers. Each Tower was converted in less than 20 seconds from a powerful, massive structure over 415 metres (1362 feet) high into cut steel and pulverized matter. While the steel lay on the ground, much of the remainder was rapidly propelled through the streets of Manhattan.

Just as the dramatic tale of building destruction involved deception, so did the equally dramatic tale of this engulfing cloud. This cloud was not the result of a gravitational collapse caused by Muslim terrorists flying planes into buildings. It was the result of an explosive building demolition.

That this cloud could not have been caused in the manner claimed by the official narrative has been argued several times, beginning at least as early as 2003.[26] The demonstrations are independent of the proofs of explosive destruction of the buildings.
Credible scientists have calculated the amount of potential gravitational energy in the Twin Towers—"the only major form of energy available, according to the official narrative, at the time of the "collapse" since the energy contributed at that point by the fires was minimal and indirect—and have compared it to the amount of energy that would have been required to create the pulverized debris cloud.

Professor emeritus of civil engineering, Robert Korol, has recently discussed this issue.[27] He has calculated the gravitational potential energy of each of the Towers at $508.4 \times 10^9$ joules. He has calculated the energy required to pulverize the concrete of each Tower at $857.5 \times 10^9$ joules; the energy to destroy the perimeter columns at $219 \times 10^9$ joules; and the energy to destroy the core columns at $178 \times 10^9$ joules. The total energy required for the concrete and columns is $1,254.5 \times 10^9$ joules.

Simply put, these figures suggest that it would have taken about two and a half times the amount of energy available through gravity to have destroyed the Towers as witnessed.

Professor Korol’s calculations are based on experimental work he has done in the laboratory, the results of which have been published in peer-reviewed journals. He has pulverized concrete. He has buckled and crushed columns. He has measured the force required in each case. His calculations with respect to the Twin Towers are extremely conservative in that they do not attempt to include all forms of destruction attested, such as pulverizing of walls, furniture and human bodies.

If, moreover, we were to add to his calculations the energy required to propel the pulverized buildings in all directions through the streets of Manhattan, as some authors have done, we would find the impossibility of the official narrative even more striking.[28] The comment by the FDNY’s Terranova, quoted earlier—“you wouldn’t expect debris to do that—” is an understatement.

We cannot avoid the conclusion that the gravity-caused debris cloud was exclusively filmic just like King Kong’s fluctuating height. Both honoured the rules of dramatic action by violating the laws of physics.

The apparently fanciful references to Godzilla by first responders are actually perceptive. Gravity was aided by an extremely muscular destructive force. But in Godzilla movies the monster is visible, while the monster of the 9/11 movie was invisible and must be made visible through investigation.
Our Challenge

In the 1958 trailer for the B-movie, *The Blob*, film-goers are shown sitting in a theatre as a horror movie begins.[29] They are frightened, but only in the distant way that film audiences allow themselves to feel frightened by fictional representations. Then we notice the monster (“the Blob”) oozing into the theatre itself. As the movie-goers wake up to this reality and sense the real danger, they tear their eyes from the screen and run from the theatre.

As audiences today watch the War on Terror, hypnotized by the extremist evil-doers, a pitiless oligarchy creeps unseen into the room. Our challenge is to break the spell of the B-movie of 9/11. Only when people sense the genuine danger and leave behind fiction and special effects will they be in a position to deal with the real monster that confronts us.

Notes


2. *“September 11: A Warning from Hollywood,” BBC Panorama* (BBC, March 24, 2002). [↩]

3. *Ibid.* [↩]

4. Spectacle, the visual aspect of dramatic action, was included in Aristotle’s *Poetics* as an essential element of drama. As for conflict and violence, see Lew Hunter, *Lew Hunter’s Screenwriting 434* (New York: Perigee, 1993), pp. 19, 22 ff. [↩]
   See Also: Guy Debord’s *The Society of the Spectacle* and *Comments on the Society of the Spectacle*


6. Weinberger, *“Hollywood’s Secret Meet.”* [↩]

7. *“Hollywood: The Pentagon’s New Advisor.”* [↩]

8. Weinberger, *“Hollywood’s Secret Meet.”* [↩]

9. *“September 11: A Warning from Hollywood.”* [↩]

10. *Ibid.* [↩]


14. Sean Alfano, “Iconic Director Robert Altman Dead At 81,” *CBS/AP*, November 21, 2006. [↩]


16. *Ibid.* [↩]

17. “History Commons: Military Exercises Up to 9/11,” Complete 911 Timeline. [↩]

18. *The New York Times*, having obtained the World Trade Center Task Force interviews from the City of New York through a lawsuit, hosts the documents on its website. The interviews are in the form of separate PDF files. Each file is identified by the interviewee’s name. “World Trade Center Task Force Interviews” (City of New York, 2002 2001). [↩]

19. From an interview with Cooper quoted in “King Kong,” *Wikipedia*, accessed August 6, 2017. [↩]

20. “World Trade Center Task Force Interviews.” See note 18. [↩]


25. “World Trade Center Task Force Interviews.” See note 18. [↩]


27. Walter, *BEYOND MISINFORMATION: What Science Says About the Destruction of World Trade Center Buildings 1, 2, and 7*. See Chapter 3, note 13:

The calculation of the energy required to pulverize the concrete and dismember the structures of WTC 1 and WTC 2, and the gravitational potential energy contained in each building, is based upon the following calculations and assumptions:

**Gravitational Potential Energy Contained in Each Building (i.e. Total Building Mass):** 2.765 mega kilograms [single floor mass of upper 12 floors (see *Some Misunderstandings Related to WTC Collapse Analysis*)], which equates to $2.765 \times 10^6$ joules x 105 [number of floors (5 floors are subtracted from 110 floors to account for 5-story debris pile)] x 1.05 [to account for increasing mass of lower floors due to increasing thickness of columns] x 9.81 [gravitational constant] x 170 [the distance in meters to the center of gravity of the building above the 5th [floor] = 508.4 x 10^9 joules of gravitational potential energy.

**Energy Required to Pulverize Concrete:** Estimates vary based on kind of concrete,
assumed ratio of loading area to slab area, and assumed size of dust particles generated. Based upon scenarios detailed in a 2012 publication “Energy absorption potential of light weight concrete floors,” Can J of Civ Eng pp. 1193-1201, authored by R. M. Korol and K.S. Sivakumaran, an estimate of $857.5 \times 10^9$ joules is obtained. 

**Energy Required to Destroy Perimeter Columns:** $120$ [number of perimeter columns assumed to fail by mid-height hinge plastic bending] $\times 9.11 \times 10^6$ joules [energy required to cause mid-height hinge plastic bending] $\times 105$ [number of floors] $+ 120$ [number of perimeter columns assumed to fail by crushing] $\times 8.348 \times 10^6$ [energy required to cause crushing] $\times 105$ [number of floors] $= 219 \times 10^9$ joules. The energy values noted above are based on two publications by Korol and Sivakumaran: “Reassessing the Plastic Hinge Model for Energy Dissipation of Axially Loaded Columns” (J of Structures, 2014, 7 pages) and “Energy Dissipation Potential of Square Tubular Steel Columns Subjected to Axial Compression” (Inter. Review of Civ. Eng., 2011, pp. 46-51).

**Energy Required to Destroy Core Columns:** $47$ [number of core columns, all assumed to fail by mid-height hinge plastic bending] $\times 36,070$ joules [energy required to cause mid-height hinge plastic bending] $\times 105$ [number of floors] $= 178 \times 10^9$ joules.

**Total Energy Required to Pulverize the Concrete and Dismember the Steel Structures (i.e. the sum of the three previous calculations):** $(857.5 + 219 + 178) \times 10^9$ joules $= 1,254.5 \times 10^9$ joules, or 1,255 gigajoules.

Full references to Korol’s articles can be found at Adnan Zuberi’s compilation accompanying “9/11 in the Academic Community: Academia’s Treatment of Critical Perspectives on 9/11—Documentary”: Academic Papers [↩]


29. Trailer, The Blob, 1958. [↩]

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