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The fear of Asteroid Impacts causing Extinction naturalizes Nuclear Annihilation by making it a part of the Earth’s inevitable history. This justifies the Cold War logic of mutually assured destruction

**Davis in 2001** (Doug,PhD in Literary and cultural theory and Britain Fellow @ the School of literature, communication and culture at the Georgia Institute of Technology, "A Hundred Million Hydrogen Bombs": Total War in the Fossil

Record, from Configurations Vol. Num. 3, Fall 2001, pg. 463-464, NB

http://muse.jhu.edu/journals/configurations/v009/9.3davis.pdf)

Impact-extinction theory emerged from the Cold War’s state of conflict, and in the process turned that conflict’s nuclear threat into a state of nature. Viewed from inside the trenches of the debate over the causes of mass extinctions that it started, the Alvarez thesis may not look like a party to the Cold War, but it does look like the beginning of a scientific revolution. “The new paradigm . . . has arrived,” paleontologist Karl Flessa halfjokingly announces at the opening of the Geological Society of America’s Special Paper 247, a volume devoted to the tenth anniversary of serious debate over impact-driven extinctions.3 The Alvarez thesis did arrive, but as a theoretical gauntlet tossed by a group of physicist and chemist outsiders at paleobiology’s patient narrative of life on earth. It was intended to incite investigation and bring the debate over mass extinction to the larger geological community, and it surely did. Yet its ensuing study resulted in far more than that: it rallied the resources of a scientific community that had otherwise been doing the science needed to fight World War III, and ultimately taught statesmen how that war might end in a nuclear winter. The history of life on earth, it is fair to say, would never be the same. Walter Alvarez has already detailed impact-extinction theory’s internal development in his own charming, sensationally titled scientific autobiography, T. rex and the Crater of Doom.4 I will explore here how that history is party to other histories not exclusively of science, but also of military institutions, of mass culture, and, fundamentally, of Cold War politics. The road from Alvarez’s first thesis to a fullfledged impact-extinction theory wends through the institutions of American nuclear arms production and is marked with signs of total war-fighting all along the way. Built on the science of impacts developed in national weapons laboratories, the theory is the wide province of planetary scientists, nuclear chemists, and weapons specialists who over the last two decades have become familiar comrades to the more sedimentary petrologists and paleontologists. As impact-extinction theory drew the study of the deep past into the networks of Cold War science, it cast the Cold War’s nuclear threat into the planet’s history. The death of the dinosaurs becomes an atomic war story as researchers across disciplines mobilize the models and metaphors of nuclear war-fighting to read the earth’s ancient record of catastrophic impacts. Finding total war in the fossil record, we may now read the history of impact-extinction theory for its own atomic war story. Representations of the threat posed to Earth by asteroids and comets reflect impact-extinction theory’s atomic-age history and remain coded by the science and fiction of nuclear war. So it seems that projecting nuclear war onto an asteroid or comet is not as unscientific as it first seems on the silver screen, for it was projected there by earth scientists first—only not so literally.

1NC 2/3

This Cold War mentality guarantees nuclear weaponization of space – the asteroid threat is just a convenient gateway for the defence industry to pursue aggressive policies against other countries

Mellor 7(Felicity PhD in theoretical physics from Newcastle University and was a lecturer in astronomy at Sussex University before deciding to focus on critical analyses of science, Social Studies of Science,

*Colliding Worlds : Asteroid Research and the Legitimization of War in Space*, 2007, pg. 521-522, MS)

Even as the scientists themselves attempted to pull back from concrete proposals for weapons systems, their own discourse irresistibly drew them towards the militaristic intervention demanded by the narrative imperative. The identification of asteroids as a threat required a military response. Astronomer Duncan Steel (2000b), writing about the impact threat in The Guardian newspaper, put it most clearly when he stated that ‘we too need to declare war on the heavens’. Just as the overlap between science and science fiction was mutually supportive, so the overlap between impact science and defence helped legitimize both. The civilian scientists could draw on a repertoire of metaphors and concepts already articulated by the defence scientists to help make the case for the threat from space. They would no longer be a marginalized and underfunded group of astronomers, but would take on the ultimate role of defending the world. Similarly, in the context of the impact threat, the defence scientists could further develop their weapons systems without being accused of threatening the delicate nuclear balance of mutually assured destruction or, in the period between the fall of the Soviet Union and the 9/11 attacks, of irresponsibly generating a climate of fear in the absence of an identifiable enemy. The civilian scientists attempted to still their consciences in their dealings with the defence scientists by suggesting that, with the end of the Cold War and the demise of SDI, the latter had lost their traditional role. This argument was naive at best. In fact, as we have seen, the US defence scientists had taken an interest in the impact threat since the early 1980s, from the time that SDI had greatest political support during the defence build-up of the Reagan era. Even at the time of the fractious Interception Workshop, George H.W. Bush was maintaining SDI funding at the same level as it had been during the second Reagan administration. If outwardly the Clinton administration was less supportive when it took office in 1993 and declared that SDI was over, many of those involved in the programme felt that it would actually go on much as before (FitzGerald, 2000: 491). SDI was renamed, and to some extent reconceived, but funding continued and was soon increased when the Republicans gained a majority in Congress. After George W. Bush took office in 2001, spending on missile defence research was greatly increased, including programmes to follow on from Brilliant Pebbles (Wall, 2001a; 2001b). Thus the defence scientists had shown an interest in the impact threat from the time of the very first meeting onwards, regardless of the state of funding for missile defence, which in any case continued throughout the period. This is not to suggest that the impact threat was not used by the defence scientists as a means of maintaining the weapons establishment. Indeed, the impact threat offered a possible means of circumventing or undermining arms treaties. But it does mean that the attempt to access new sources of funding, while being an important factor in the promotion of asteroids as a threat, did not fully explain either the weapons scientists’ interests or the civilian scientists’ repeated meetings with them. The asteroid impact threat offered a scientifically validated enemy onto which could be projected the fears on which a militaristic culture depends. Far from providing a replacement outlet for weapons technologies, the promotion of the asteroid impact threat helped make the idea of war in space more acceptable and helped justify the continued development of spacebased weaponry. Arguably, with the Clementine and Deep Impact missions, the asteroid impact threat even facilitated the testing of SDI-style systems. The asteroid impact threat legitimized a way of talking, and thinking, that was founded on fear of the unknown and the assumption that advanced technology could usher in a safer era. In so doing, it resonated with the politics of fear and the technologies of permanent war that are now at the centre of US defence policy.

1NC 3/3

The logic of asteroid protection is really the logic of Space War – the aff makes terrestrial destruction inevitable, while utterly failing to protect us from Asteroids

Bunyard 2k. (Peter Bunyard is the science editor of The Ecologist. “A megation distraction”. The *Ecologist. Sturminster Newton: Nov 2000. Vol. 30, Iss. 8;*  pg. 46, 1 pgs. November 2000. http://proquest.umi.com/pqdweb?index=0&did=63967215&SrchMode=1&sid=1&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1309995588&clientId=10553 . TQ)

The scientists concerned with the dangers from asteroids may be sincere in urging us and governments to take the risks seriously. But what we are really talking about is space war technology, no less. And who do we trust with both the development of that technology and the means to deploy it? Will Russia and China, or anywhere else in the world accept that the United States is forging ahead with `Star Wars', simply to protect the rest of us? Or will we have to create a new role for an organisation such as the United Nations to be the guarantor that any such technology will be used for peaceful purposes only? The mind boggles as to the implications of a war on asteroids, and in this cynical world, it is easy to imagine that the United States will relish the newfound earth-saving justification for nuclear weapons, as indeed may Russia, Britain, France, China or even India and Pakistan, let alone Israel and Iraq. At the same time, the statistics, as put out by Duncan Steel and the task force, are not particularly fruitful, since they indicate that unless we achieve a virtually impregnable earth defence system, it really doesn't matter what we do, for all is likely to be blown away in the twinkling of an eye. And just imagine the US, or whoever, unleashing a bevy of missiles, supposedly on the pretext of defending us all, and what that would mean for trigger-happy defence systems. But should we really be comparing the statistics of dying in an air-crash with those of annihilation from an asteroid? If we had any sense, we should rather be comparing the likelihood of destroying our fellow creatures and ourselves in a series of climatically-induced waves of extinction than worrying about what was like to fall in on us from space. The reality is that we are rapaciously destroying ecosystems and burning fossil fuels as if there were no tomorrow. But, of course, concern over a Heaven-sent apocalyptic end to the earth is a powerful distraction from such mundane matters as fuel taxes, the World Trade Organisation and the occasional violent storm. Surely, before we start burying our heads in the stars we need to keep our feet on the ground and get our own house in order.

Our alternative is to reject the representations of asteroids causing extinction impacts. This is key to allow new scientific representations to emerge, free from militaristic ends

Mellor ‘7 (course leader of Imperial College’s Science Communication group, PhD in theoretical physics from Newcastle University, “Colliding Worlds: Asteriod Research and the Legitimization of War in Space”, Social Studies of Science, August 2007, Vol. 37 No. 4, pages 499-531 SH

But the focus onnarrative also begs a question: Which stories would we prefer to frame our science? Should science be driven by fear or by curiosity? Should it be aimed at creating technologies of war or cultures of compassion? These are normative questions, but they are also precisely the questions that make the military influence on science such an important issue**. Narratives are inherently ideological and a refusal to see them as such does no more to enhance the scholar’s objectivity than it does the scientist’s. The stories told by the asteroid scientists led them into collaborations with weapons scientists and helped fuel a discourse of fear that served a particular ideological purpose**. **This should be both recognized and challenged, not for the sake of regaining some impossible ideal of an undistorted science but because there are other stories, based on different ideological assumptions, that we could tell in order to guide science towards more peaceful ends.**

Link- Asteroid threat con leads to militarism

**This narrative of asteroid threat construction draws us towards militaristic ends**

Mellor ‘7 (course leader of Imperial College’s Science Communication group, PhD in theoretical physics from Newcastle University, “Colliding Worlds: Asteriod Research and the Legitimization of War in Space”, Social Studies of Science, August 2007, Vol. 37 No. 4, pages 499-531, NB)

Over the past 20 years a small group of astronomers and planetary scientists has actively promoted the idea that an asteroid might collide with the Earth and destroy civilization. Despite concerns about placing weapons in space, the asteroid scientists repeatedly met with scientists from the Strategic Defense Initiative to discuss mitigation technologies. This paper examines the narrative context in which asteroids were constructed as a threat and astronomy was reconfigured as an interventionist science. I argue that conceptualizing asteroids through narratives of technological salvation invoked a 'narrative imperative' that drew the astronomers towards the militaristic endings that their stories demanded. Impact-threat science thus demonstrates both the ways in which scientific research can be framed by fictional narratives and the ideological ends that such narratives can serve.

Link - aff constructs asteroids as nukes sent from Outer Space

**Science has been heavily influenced by post-cold war mentalities- the affirmatives narrative of apocalypse constructs asteroids as nuclear weapons that are apart of Outer Space’s violent bombing campaign.**

**Davis in 2001** (Doug, PhD in Literary and cultural theory and Britain Fellow @ the School of literature, communication and culture at the Georgia Institute of Technology, "A Hundred Million Hydrogen Bombs": Total War in the Fossil

Record, from Configurations Vol. Num. 3, Fall 2001, pg. 462-463, NB

http://muse.jhu.edu/journals/configurations/v009/9.3davis.pdf)

Armageddon is not a scientific film; it is a war film, and in particular **a nuclear war film, with Outer Space cast as the ruthless enemy behind an apocalyptic bombing campaign**. Disney Studios actually chose to raise Armageddon’s death-toll in order to compete at the box office, when their film was scheduled to open a month after another impact disaster film, Mimi Leder’s surprisingly popular Deep Impact. Director Bay flew crews to Paris and Shanghai less than a month before Armageddon’s opening in order to shoot extra location footage for additional bombardment sequences.2 The story told by the retooled Armageddon reiterates Cold War fears of nuclear escalation: a limited meteor strike (against where else but New York) is followed by increasingly destructive strikes against disparate nations’ cities; more and more countries are drawn into the fray until, finally, global destruction threatens. While Armageddon’s familiar tale of commando heroics may be simply one more instance of Hollywood’s reliance on the proven formula, the likeness of its asteroid threat to a Cold War story of nuclear destruction actually tells us as much about the science that inspired the film as it does about Hollywood. For **Armageddon serves as loud witness to how the Cold War continues to influence scientific representation.** The threat of a massive impact and the threat of a nuclear war indeed are, in many ways, the same thing, and the Doomsday Summer of 1998 thus enters the annals of the history of science as our most popular record of how the science of cataclysmic impacts has come to understand the threat of such impacts. Armageddon was inspired by the popularity of the science of impact extinction theory, the much-publicized theory that an asteroid or comet impact caused the mass extinction of the dinosaurs 65 million years ago. While it was hardly apparent at the time, with the publication of “the Alvarez thesis” in 1980 by the father-and-son team of Luis and Walter Alvarez and two nuclear chemists from the Berkeley Lawrence Radiation Laboratory, the Cold War had finally come to paleontology. Catastrophic impacts may look like World War III on the silver screen—but only, as I will argue, because by the summer of 1998 asteroid and comet impacts themselves already looked a good deal like World War III, visiting destruction upon the earth in a way very much like that threatened by the policy of strategic nuclear deterrence.

Link- Asserting NASA as a planetary defender

**The irrational fear of an asteroid collision is grounded in a cold war mentality. The affirmatives assertion of NASA as the planetary defender is a manifestation of fear rhetoric that views asteroids as modern era weapons.**

 **Davis in 2001** (Doug, PhD in Literary and cultural theory and Britain Fellow @ the School of literature, communication and culture at the Georgia Institute of Technology, "A Hundred Million Hydrogen Bombs": Total War in the Fossil Record, from Configurations Vol. Num. 3, Fall 2001, pg. 461-462, NB

http://muse.jhu.edu/journals/configurations/v009/9.3davis.pdf)

Doomsday Summer When Disney Studios threatened to destroy the world in the summer of 1998, only NASA could save it. Blockbuster producer Jerry Bruckheimer took an old movie and made it new for Disney’s Armageddon, strapping rocket engines on the Dirty Dozen and sending them on a suicide mission against the one foe left after the Cold War that could menace the entire continental United States—an asteroid “as big as Texas.” Bruckheimer hired a space-shuttle astronaut and NASA’s former director of advanced concepts to serve as the film’s scientific advisors, and Disney premiered the film at an exclusive gala at the Kennedy Space Center. Stars dined under the sublime exhaust nozzles of a Saturn V before heading out to a specially designed theater to watch a crew of oil-platform roughnecks blow up an incoming “global killer” with nuclear weapons. NASA loved it. As the agency’s publicist crooned: “we sort of save the planet. We at NASA team up with the oil drillers for the good of the planet. That’s not fiction. That sort of thing NASA is known for: overcoming obstacles, teaming up together.”1 **NASA, far from being an institution without a mission after the Cold War, got to play at being the first line of planetary defense**. Armageddon’s producers may have wrapped their product in Big Science, but as numerous critics quickly pointed out, there is very little science in the film. There is, however, a massive amount of conspicuous destruction. Throughout the film asteroids rain down like smart bombs, homing in on the world’s major urban areas, toppling landmarks such as New York City’s Chrysler Building, and incinerating the hub of Paris. People die just as they died in all of the twentieth century’s strategic bombing campaigns: as targets, and often without knowing what hit them. Director Michael Bay offers us quick views of the cosmic assault from vantage points reminiscent of war reporting, intercutting unsteady ground footage with static long shots familiar to atomic tests. The finest and most crowd-pleasing moments of Armageddon are its documentary scenes of death from above. That cities are the primary targets of Outer Space’s bombing campaign should come as no surprise, for (aside from being more exciting than blowing up fields of tundra) cities have been the presumed targets of strategic bombardment ever since German Zeppelins terrorized Londoners at the onset of the First World War—a presumption driven further home by the fire and atomic bombing campaigns of the Second World War. In a cruel coincidence, the first city utterly destroyed in Armageddon, Shanghai, also happens to be the one of the first cities ever subjected to a truly massive aerial bombardment, by the Japanese in the summer of 1937—the year when the aerial bombing of cities and civilians became a commonplace of modern warfare.

Link- Asteroid Impact Rhetoric/Fear politics

**The securitization of asteroid impacts validated fear projection, space weaponry, and continuation of the rhetoric used by the United States military.**

Mellor 7(Felicity PhD in theoretical physics from Newcastle University and was a lecturer in astronomy at Sussex University before deciding to focus on critical analyses of science, Social Studies of Science,

*Colliding Worlds : Asteroid Research and the Legitimization of War in Space*, 2007, pg. 522, MS)

The asteroid impact threat offered a scientifically validated enemy onto which **could** be projected the fears on which a militaristic culture depends. Far from providing a replacement outlet for weapons technologies, the promotion of the asteroid impact threat helped make the idea of war in space more acceptable and helped justify the continued development of spacebased weaponry. Arguably, with the Clementine and Deep Impact missions, the asteroid impact threat even facilitated the testing of SDI-style systems. The asteroid impact threat legitimized a way of talking, and thinking, that was founded on fear of the unknown and the assumption that advanced technology could usher in a safer era. In so doing, it resonated with the politics of fear and the technologies of permanent war that are now at the centre of US defence policy. In this post-Cold War period, scholars of the relation between military and civilian science need to examine carefully claims about ‘ploughshare’ or ‘conversion’ technologies. New technologies arise not just out of funding and policy decisions, but also out of the social imaginaries in which new weapons can be imagined and construed as necessary. Concepts such as ‘dual use’ or ‘cover’ also need to be assessed critically. One way of characterizing the Clementine missions would be as dual-use technologies whose scientific aims served as cover for the testing of SDI technologies. Yet this fails to reveal the ways in which these missions were just one concrete output of a more fundamental conceptual alliance between weapons designers and astronomers. In this paper, I have attempted to show that by also considering the narrative context in which such initiatives are located, it is possible to throw some light on the cultural web that binds civilian science to military programmes. But the focus on narrative also begs a question: Which stories would we prefer to frame our science? Should science be driven by fear or by curiosity? Should it be aimed at creating technologies of war or cultures of compassion? These are normative questions, but they are also precisely the questions that make the military influence on science such an important issue. Narratives are inherently ideological and a refusal to see them as such does no more to enhance the scholar’s objectivity than it does the scientist’s. The stories told by the asteroid scientists led them into collaborations with weapons scientists and helped fuel a discourse of fear that served a particular ideological purpose. This should be both recognized and challenged, not for the sake of regaining some impossible ideal of an undistorted science but because there are other stories, based on different ideological assumptions, that we could tell in order to guide science towards more peaceful ends

Link - Discourse of technological salvation from extinction based in cold war mentality

And even small amounts of fear produce a Cold War mentality towards asteroids and the rest of space

Mellor 7(Felicity PhD in theoretical physics from Newcastle University and was a lecturer in astronomy at Sussex University before deciding to focus on critical analyses of science, Social Studies of Science,

*Colliding Worlds : Asteroid Research and the Legitimization of War in Space*, 2007, pg. 499-500, MS)

 Since the late 1980s, a small group of astronomers and planetary scientists has repeatedly warned of the threat of an asteroid impacting with Earth and causing global destruction. They foretell a large impact causing global fires, the failure of the world’s agriculture and the end of human civilization. But, these scientists assure us, we live at a unique moment in history when we have the technological means to avert disaster. They call for support for dedicated astronomical surveys of near-Earth objects to provide early warning of an impactor and they have regularly met with defence scientists to discuss new technologies to deflect any incoming asteroids. The scientists who have promoted the asteroid impact threat have done so by invoking narratives of technological salvation – stories which, like the Strategic Defense Initiative (SDI), promise security through a superweapon in space. The asteroid impact threat can therefore be located within the broader cultural history of fantasies about security and power, which, Bruce Franklin (1988) has argued, is inextricably linked to the century-old idea that a new superweapon could deliver world peace. Howard McCurdy (1997: 78–82), in his study of the ways in which the US space programme was shaped by popular culture, has suggested that the promotion of the impact threat can be seen as the completion of Cold War fantasies, which had used a politics of fear to justify space exploration. McCurdy highlights the alignment between the promotion of the impact threat and works of fiction. In this paper, I consider the reconceptualization of asteroid science that this alignment entailed. It is beyond the scope of this paper to give a complete history of the science of planetary impacts. My focus is on how a group of scientists moved from seeing impacts as significant events in Earth history to seeing them as threatening events in the human future – a move from historical to futurological narratives. Nor is there space to give a full account of the empirical developments that were used to support the construal of asteroids as a threat. Rather, I wish to make the case that these empirical developments were given meaning within a specific narrative context which drew civilian astronomers into contact with defence scientists, especially those working on SDI.

Link- Security

Discourse on threats in the world invokes a discourse of danger in which the uncertainty of the world becomes grounded in an identity- this is proven by the way the affirmative constructs Outer Space as a threatening mastermind with Asteroids as its’ minions dedicated to violent destruction.

Campbell in 98, professor of international politics and the University of Newcastle, 98

(Campbell, Professor of international politics at the University of Newcastle, 1998 [David, Writing Security, p. 47-48])

To talk of the endangered nature of the modern world and the enemies and threats that abound in it is thus not to offer a simple ethnographic description of our condition; it is to invoke a discourse of danger through which the incipient ambiguity of our world can be grounded in accordance with the insistences of identity. Danger (death, in its ultimate form) might therefore be thought of as the new god for the modern world of states, not because it is peculiar to our time, but because it replicates the logic of Christendom's evangelism of fear.Indeed, in a world in which state identity is secured through discourses of danger, some low tactics are employed to serve these high ideals. These tactics are not inherent to the logic of identity, which only requires the definition of difference. But securing an ordered self and an ordered world—particularly when the field upon which this process operates is as extensive as a state—involves defining elements that stand in the way of order as forms of "otherness."50 Such obstructions to order "become dirt, matter out of place, irrationality, abnormality, waste, sickness, perversity, incapacity, disorder, madness, unfreedom. They become material in need of rationalization, normalization, moralization, correction, punishment, discipline, disposal, realization, etc."51 In this way, the state project of security replicates the church project of salvation. The state grounds its legitimacy by offering the promise of security to its citizens who, it says, would otherwise face manifold dangers. The church justifies its role by guaranteeing salvation to its followers who, it says, would otherwise be destined to an unredeemed death. Both the state and the church require considerable effort to maintain order within and around themselves, and thereby engage in an evangelism of fear to ward off internal and external threats, succumbing in the process to the temptation to treat difference as otherness.In contrast to the statist discourse of international relations, this understanding proffers an entirely different orientation to the question of foreign policy. In addition to the historical discussion above, which suggested that it was possible to argue that the state was not prior to the interstate system, this interpretation means that instead of regarding foreign policy as the external view and rationalist orientation of a preestablished state, the identity of which is secure before it enters into relations with others, we can consider foreign policy as an integral part of the discourses of danger that serve to discipline the state. The state, and the identity of "man" located in the state, can therefore be regarded as the effects of discourses of danger that more often than not employ strategies of otherness. Foreign policy thus needs to be understood as giving rise to a boundary rather than acting as a bridge. (47-48)

Link- Security

The epistemological grounding of the affirmatives drive for security from asteroids is based in a fear of the unknown. These notions of security suppress rather than confront the fears inherent to life and this forces society to live a devitalized life in which causality and rationality reign above everything else that makes life enjoyable.

**Der Derian** **95** (James, Professor of Political Science at Brown University, “The Value of Security: Hobbes, Marx, Nietzsche, and Baudrillard,” Chapter Two in On Security by Ronnie D. Lipschutz)

The will to power, then, should not be confused with a Hobbesian perpetual desire for power. It can, in its negative form, produce a reactive and resentful longing for only power, leading, in Nietzsche's view, to a triumph of nihilism. But Nietzsche refers to a positive will to power, an active and affective force of becoming, from which values and meanings--including self-preservation--are produced which affirm life. Conventions of security act to suppress rather than confront the fears endemic to life, for ". . . life itself is essentially appropriation, injury, overpowering of what is alien and weaker; suppression, hardness, imposition of one's own forms, incorporation and at least, at its mildest, exploitation--but why should one always use those words in which slanderous intent has been imprinted for ages." [35](http://www.ciaonet.org/book/lipschutz/lipschutz12.html%22%20%5Cl%20%22note35) Elsewhere Nietzsche establishes the pervasiveness of agonism in life: "life is a consequence of war, society itself a means to war."[36](http://www.ciaonet.org/book/lipschutz/lipschutz12.html%22%20%5Cl%20%22note36) But the denial of this permanent condition, the effort to disguise it with a consensual rationality or to hide from it with a fictional sovereignty, are all effects of this suppression of fear. The desire for security is manifested as a collective resentment of difference--that which is not us, not certain, not predictable. Complicit with a negative will to power is the fear-driven desire for protection from the unknown. Unlike the positive will to power, which produces an aesthetic affirmation of difference, the search for truth produces a truncated life which conforms to the rationally knowable, to the causally sustainable. In *The Gay Science* , Nietzsche asks of the reader: "Look, isn't our need for knowledge precisely this need for the familiar, the will to uncover everything strange, unusual, and questionable, something that no longer disturbs us? Is it not the *instinct of fear* that bids us to know? And is the jubilation of those who obtain knowledge not the jubilation over the restoration of a sense of security?"[37](http://www.ciaonet.org/book/lipschutz/lipschutz12.html%22%20%5Cl%20%22note37)The fear of the unknown and the desire for certainty combine to produce a domesticated life, in which causality and rationality become the highest sign of a sovereign self, the surest protection against contingent forces. The fear of fate assures a belief that everything reasonable is true, and everything true, reasonable. In short, the security imperative produces, and is sustained by, the strategies of knowledge which seek to explain it. Nietzsche elucidates the nature of this generative relationship in *The Twilight of the Idols* : The causal instinct is thus conditional upon, and excited by, the feeling of fear. The "why?" shall, if at all possible, not give the cause for its own sake so much as for a *particular kind of cause* --a cause that is comforting, liberating and relieving. . . . That which is new and strange and has not been experienced before, is excluded as a cause. Thus one not only searches for some kind of explanation, to serve as a cause, but for a particularly selected and preferred kind of explanation--that which most quickly and frequently abolished the feeling of the strange, new and hitherto unexperienced: the most *habitual* explanations.[38](http://www.ciaonet.org/book/lipschutz/lipschutz12.html%22%20%5Cl%20%22note38)A safe life requires safe truths. The strange and the alien remain unexamined, the unknown becomes identified as evil, and evil provokes hostility--recycling the desire for security. The "influence of timidity," as Nietzsche puts it, creates a people who are willing to subordinate affirmative values to the "necessities" of security: "they fear change, transitoriness: this expresses a straitened soul, full of mistrust and evil experiences." [39](http://www.ciaonet.org/book/lipschutz/lipschutz12.html%22%20%5Cl%20%22note39)

Link – Fear

The media overexaggerates data and discoveries. This puts a false idea in our head and distorts the image of an astronomer.

Peckyno 4(Robert Bachelor of Science, Middle Tennessee State University, The Sky is Falling, *Disaster Mitigation, Management, and Media regarding the Asteroid Hazard*, August 2004, Pg. 24-25, MS)

Nonetheless, despite the chance for errors, asteroid watchers are committed to open sharing of results with the world.114 Such openness is sometimes temporarily embarrassing as when the press play up a low probability prediction, but that is far better than trying to impose secrecy.115 Jonathan Tate, founder and director of Spaceguard UK agrees that the unrealistic specter of doom dominates some stories. He says scientists are trapped: "Withhold information and we are accused of conspiracy. Release raw data as soon as possible and the media either add two and two to make five or accuse us of scare mongering." However, Tate said scientists who provide colorful quotes "are doing so to generate action by the government, action that is sorely lacking."116 For sure, even the most attentive readers may not explicitly remember all of the individual events of bad headlines about potential impacts, but repetition of such misunderstandings has a toll.117 David Morrison (NASA/Ames Research Center) says that on the one hand, such reports do help raise public awareness of the issue, but they also have "demeaned the credibility of astronomers in the public's eye."118 This is mainly due to the process of NEO orbit determination. It is the usual course of events for any potentially hazardous NEO that a warning is issued, only to be later dropped (not retracted) as the orbit is refined and the uncertainty ellipse shrinks to exclude the Earth.119 Because of this, it is doubtful that asteroid scares can ever be completely avoided, and “false” warning rates will, in all likelihood, surge upward with future expanded surveys. Society’s response to these warnings (notwithstanding the scientific community’s attempts to influence that response) may well determine the preferred scope of future NEO survey and/or mitigation efforts.120

Findings are usually overexaggerated. The media distorts the facts, creating a false fear within the people.

Peckyno 4(Robert Bachelor of Science, Middle Tennessee State University, The Sky is Falling, *Disaster Mitigation, Management, and Media regarding the Asteroid Hazard*, August 2004, Pg. 29-30, MS)

Following this confirmation, the media stories took a different turn and the credibility finger pointing began. The media reported that the handful of false alarms, in which scientists said there was a remote threat that a particular asteroid would hit Earth in a certain year, have made headlines and frightened the public.135 Within the scientific community, it continued. "A number of people in the NEO community have issue with the way Brian handles observations and orbital predictions," said Kelly Beatty, senior editor of Sky & Telescope magazine and a contributor to the development of the Torino Scale.136 But Marsden says the announcement of XF11 was the very thing that brought out the additional data that eliminated the threat. In the end, he says, the publicity helped improve NEO research. To be sure, XF11 was a catalyst for scientific discourse that eventually contributed to the adoption of the very Torino Scale that Marsden criticizes. The publicity surrounding XF11, and the confusion generated in the scientist-journalist public communication pipeline, were key events that encouraged the NEO community to support the adoption of the Torino Scale. 137 Marsden says previous NEO announcements, regardless of their public effect, have increased awareness within the NEO community of the need to use all possible means to make additional calculations once an object has been discovered. "The public is more of a problem," Marsden says, "Because they have unfortunately received the message that astronomers make mistakes in their calculations (which is not true) and that they fight with each other (which is)."138 This particular event highlights the need for a better and more effective mechanism for communication between the asteroid science community, the media, and the general public.

Link - Modernization

Institutionalized Modernization result in manufactured risks for natural hazards

Williams 8 (Steward, Professor at the University of Tasmenia, Social Forces Volume 87, Number 2, December 2008,  *Rethinking the Nature of Disaster: From Failed Instruments of Learning to a Post-Social Understanding*, December 2008, [http://muse.jhu.edu/journals/so cial\_forces/v 087/87.2.willia ms.html](http://muse.jhu.edu/journals/so%20cial_forces/v%20087/87.2.willia%20ms.html), AG)

Such thinking accords with Beck’s (1992) risk thesis and primary claim that institutionalized scientific knowledge and technical expertise have contributed to the proliferation and worsening of risks rather than their amelioration. Published in high modernity, Beck’s thesis was timely. Technologies were advancing rapidly, economies destabilized with global restructuring, and incidents such as the Chernobyl reactor explosion, Challenger space shuttle, Exxon Valdez oil spill and Union Carbide chemical leak in the public consciousness, heralding new types of ecological threat. According to Beck, natural hazards have given way to manufactured risks of epic proportion as the unmanageable and not necessarily apparent side effects of modernization (epitomized by global warming). In reflexive modernity, however, scientific and institutional organizations can obscure the link between their generation and control of risks, and can counter prevailing mandates, thereby exacerbating rather than reducing risks. Individuals too are more likely to be aware and learn about their exposure to different risks, but have become more cynical about science, politics, business and the media. Revisiting his thesis with the notion of a world at risk, and adding terrorism to ecological and financial crises, Beck (2002, 2006) predicts further challenges and changes on a global scale. A new cosmopolitan realpolitik will inevitably result through force, conflict and catharsis, he suggests, with the reinvention or demise of nation-states as “global risks are producing ‘failed states’ – even in the West.” (Beck 2006:344)

Internal Link- fear of asteroid leads to space militarization

The irrational fear of asteroids invokes a narrative of technological salvation that assures safety through superweapons - the result of this is space militarization.

Mellor ‘7 (course leader of Imperial College’s Science Communication group, PhD in theoretical physics from Newcastle University, “Colliding Worlds: Asteriod Research and the Legitimization of War in Space”, Social Studies of Science, August 2007, Vol. 37 No. 4, pages 499-531, AG)

Since the late 1980s, a small group of astronomers and planetary scientists has repeatedly warned of the threat of an asteroid impacting with Earth and causing global destruction. They foretell a large impact causing global fires, the failure of the world’s agriculture and the end of human civilization. But, these scientists assure us, we live at a unique moment in history when we have the technological means to avert disaster. They call for support for dedicated astronomical surveys of near-Earth objects to provide early warn- ing of an impactor and they have regularly met with defence scientists to discuss new technologies to deflect any incoming asteroids.The scientists who have promoted the asteroid impact threat have done so by invoking narratives of technological salvation – stories which, like the Strategic Defense Initiative (SDI), promise security through a superweapon in space. The asteroid impact threat can therefore be located within the broader cultural history of fantasies about security and power, which, Bruce Franklin (1988) has argued, is inextricably linked to the century-old idea that a new superweapon could deliver world peace. Howard McCurdy (1997:78–82), in his study of the ways in which the US space programme was shaped by popular culture, has suggested that the promotion of the impact threat can be seen as the completion of Cold War fantasies, which had used a politics of fear to justify space exploration. McCurdy highlights the align- ment between the promotion of the impact threat and works of fiction. In this paper, I consider the reconceptualization of asteroid science that this alignment entailed.

Internal Link- cold war mentality --> space weaponization

Returning to the Cold War mentality results in an increase of the fear inside of people and is directly leads to the weaponization of space

Mellor 7(Felicity PhD in theoretical physics from Newcastle University and was a lecturer in astronomy at Sussex University before deciding to focus on critical analyses of science, Social Studies of Science,

*Colliding Worlds : Asteroid Research and the Legitimization of War in Space*, 2007, pg. 521-522, MS)

Even as the scientists themselves attempted to pull back from concrete proposals for weapons systems, their own discourse irresistibly drew them towards the militaristic intervention demanded by the narrative imperative. The identification of asteroids as a threat required a military response. Astronomer Duncan Steel (2000b), writing about the impact threat in The Guardian newspaper, put it most clearly when he stated that ‘we too need to declare war on the heavens’. Just as the overlap between science and science fiction was mutually supportive, so the overlap between impact science and defence helped legitimize both. The civilian scientists could draw on a repertoire of metaphors and concepts already articulated by the defence scientists to help make the case for the threat from space. They would no longer be a marginalized and underfunded group of astronomers, but would take on the ultimate role of defending the world. Similarly, in the context of the impact threat, the defence scientists could further develop their weapons systems without being accused of threatening the delicate nuclear balance of mutually assured destruction or, in the period between the fall of the Soviet Union and the 9/11 attacks, of irresponsibly generating a climate of fear in the absence of an identifiable enemy. The civilian scientists attempted to still their consciences in their dealings with the defence scientists by suggesting that, with the end of the Cold War and the demise of SDI, the latter had lost their traditional role. This argument was naive at best. In fact, as we have seen, the US defence scientists had taken an interest in the impact threat since the early 1980s, from the time that SDI had greatest political support during the defence build-up of the Reagan era. Even at the time of the fractious Interception Workshop, George H.W. Bush was maintaining SDI funding at the same level as it had been during the second Reagan administration. If outwardly the Clinton administration was less supportive when it took office in 1993 and declared that SDI was over, many of those involved in the programme felt that it would actually go on much as before (FitzGerald, 2000: 491). SDI was renamed, and to some extent reconceived, but funding continued and was soon increased when the Republicans gained a majority in Congress. After George W. Bush took office in 2001, spending on missile defence research was greatly increased, including programmes to follow on from Brilliant Pebbles (Wall, 2001a; 2001b). Thus the defence scientists had shown an interest in the impact threat from the time of the very first meeting onwards, regardless of the state of funding for missile defence, which in any case continued throughout the period. This is not to suggest that the impact threat was not used by the defence scientists as a means of maintaining the weapons establishment. Indeed, the impact threat offered a possible means of circumventing or undermining arms treaties. But it does mean that the attempt to access new sources of funding, while being an important factor in the promotion of asteroids as a threat, did not fully explain either the weapons scientists’ interests or the civilian scientists’ repeated meetings with them. The asteroid impact threat offered a scientifically validated enemy onto which could be projected the fears on which a militaristic culture depends. Far from providing a replacement outlet for weapons technologies, the promotion of the asteroid impact threat helped make the idea of war in space more acceptable and helped justify the continued development of spacebased weaponry. Arguably, with the Clementine and Deep Impact missions, the asteroid impact threat even facilitated the testing of SDI-style systems. The asteroid impact threat legitimized a way of talking, and thinking, that was founded on fear of the unknown and the assumption that advanced technology could usher in a safer era. In so doing, it resonated with the politics of fear and the technologies of permanent war that are now at the centre of US defence policy.

Internal Link --> fear leads to weaponized space

Weaponization and militarizing is justified through the fear perceived from space.

Mellor, 07. (Felicity Mellor is a theoretical physicist and lecturer in Science. PhD. “Colliding Worlds: Asteroid Research and the Legitimization of War in Space”*Social Studies of Science Vol. 37, No. 4 (Aug., 2007), pp. 499-531* Published by: *Sage Publications, Ltd.* <http://www.jstor.org/stable/25474533>. TQ)

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Internal Link- Cold war mentality --> Weaponization

**Cold war mentality leads to US weaponization and arm races**

Trevor Brown march 09 Soft Power and Space Weaponization http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=3e591ac0-628a-4497-a63b-f596e2f01638%40sessionmgr115&vid=1&hid=108

The Necessity of Defenses **Without a doubt, we must guard at all costs the celestial lines of communications that link society and the military. Consider the consequences if satellites that we use every day for military operations, financial transactions, com­munications, weather forecasting, and air navi­ gation failed without warning. devastating strikes on critical nodes in space not only could place the lives of millions at serious risk**, but also could result in incalculable economic losses to the nation. **Throughout the Cold War, the United States struggled to obtain a position of military supeiority over the Soviet Union in order to protect american values and interests. a legacy of that struggle is the United States’ current space capability. Should the United States per­mit security for its values and interests to lapse by discontinuing attempts to retain the military superiority that it has achiev**ed? are we to believe that US security could somehow in­ crease by forgoing military supremacy? Some people speak as if they believe that a country can choose whether to pursue national security through arms or through arms control. 10 **But Russia’s interest in banning space weapons is motivated by a desire to stunt the growth of US military space programs in or­ der to buy time for covertly advancing its own space-weapons program and achieving tech­ nological parity.** 11 Russia bases its opposition to space weaponization not on a scrupulous set of principles but on strategic objectives. Two scholars contend that “to understand whether Russia could indeed change its posi­ tion on the weaponization of space, we need to go beyond official statements and discussion among Russian military experts. The course of the military space program in Russia will be determined primarily by the availability of the resources required to support the program and by the ability of the industry and the mili­ tary to manage development projects for the military use of space.” 12 **despite China’s repeated calls for a ban on all space weapons, historical evidence suggests that little separates Chinese and Russian moti­ vations for such bans. “Because a broad inter­ pretation of space weapons would rule out al­ most all U.S. missile defense systems**, Chinese officials who want to limit U.S. missile defense deployments would advocate a ban that used this interpretation.” 13 interestingly, after the Clinton administration scrapped the Strategic defense initiative in 1993, China redoubled its efforts in military space and gained ground on the United States. 14 By 1999 “China’s test of a spacecraft intended for manned flight dem­ onstrated a low-thrust rocket propulsion sys­ tem that could be used to make warheads ma­ neuver to defeat a BMd [ballistic missile defense] system.” 15 defense] system.” 15 Perhaps there remains a belief in the US strategic community that “the deployment of U.S. space weapons is likely to make space as­ sets—including commercial communications and broadcast satellites—even more vulnerable, since no other country is pursuing, let alone deploying, space attack weapons.” 16 Such no­ tions were shattered when China conducted its first successful aSaT test in January 2007, suggesting that it had spent many years devel­ oping aSaT capabilities. The United States— as well as the rest of the world, for that mat­ ter—should not allow itself to be duped. The record shows that although officials in the Chinese Communist Party rail against military space as a threat to peace and stability, the People’s Liberation army busies itself with the acquisition of space weapons.

Internal Link – Creation of Nuclear Weapons

 **US fear of asteroids impacts  are even link backed to creation of nuclear weapons**

 **Davis in 2001** (Doug, PhD in Literary and cultural theory and Britain Fellow @ the School of literature, communication and culture at the Georgia Institute of Technology, "A Hundred Million Hydrogen Bombs": Total War in the Fossil

Record, from Configurations Vol. Num. 3, Fall 2001, pg. 467-468, NB

http://muse.jhu.edu/journals/configurations/v009/9.3davis.pdf)

With such institutional and theoretical ties, impact-extinction science begins to look like a species of Cold-War Big Science that owes a considerable debt to both the sciences and the institutions of nuclear arms production. The science is personally connected to atomic warfare through Luis Alvarez, who as a Manhattan Project scientist personally flew along with the Hiroshima atomic bombing mission to measure blast yield. Peering from his B-29 at the reified lifeworld of Target Japan, Alvarez had the Master’s view of atomic war. It would be a too-perfect Cold War story if, thirty-four years later, those unthinkable moments still haunted him and, like a postmodern Mary Shelley, the aged scientist was suddenly overcome in the buried halls of Lawrence Radiation Laboratory by a waking dream of nature’s own kind of monstrous strategic air war. That, however, is not what happened: “Dad worked hard at finding a global killing mechanism,” Walter Alvarez tells us. Luis Alvarez war-gamed new killing scenarios with his colleagues on a daily basis, devising and discarding ways to win a total war against dinosaurs with nature’s own arsenal, and finally came up with a plausible mechanism by making a clever—although ultimately flawed—analogy with a famous old volcano.59 While impact-extinction theory’s professional development has proceeded in the institutional footprints of Big Science, its conceptual development falls squarely within the domain of the metaphor theory of innovation. Geoscientists of course have access to only the imperfect traces of the K-T impact preserved in the geological record. Read in terms of nuclear war, those traces become a rich and violent text. As is common with metaphors in science, the mechanics of nuclear warfare serve a catachretic function in impact-extinction theory,60 providing a variety of potential referents for the ancient and largely unseen mechanics of catastrophic impacts—as in the above examples where nuclear fireball simulations were used to model the K-T impact fireball, airborne carbon 14 produced in nuclear tests served as a (failed) proxy for iridium dust, and ballistic transport provided a new means for global iridium distribution. The linguist Benjamin Hrushovski describes metaphors as working by merging conventionally distinct “frames of reference,” the continua of referents to which parts of any text relate.61 Nuclear war-fighting may be understood as one of the primary frames of reference within which impact-extinction researchers situate the geological text of the K-T world. Framing the K-T impact in the “continuum of referents”— cultural and scientific—of the nuclear threat makes a wide array of semantic resources available, from theoretical models and violent imagery to new literary devices and scenarios. The whole “world-experience”62 of the nuclear threat is at the geoscientist’s disposal to flesh out the remains of K-T world. As the effects of nuclear war are used to describe the K-T impact, the knowledge that is generated in that process often trades symmetrically between the geological and Cold War records. The two contexts of study interact, as Karin Knorr-Cetina states in her study of scientific innovation, “in a *literal way*, which means that the observed situation tends to be absorbed in the similarity class that is applied to it.”63

(Continued at next page)

Internal Link – Creation of Nuclear Weapons

Continued from previous page)

Precisely because of its sweepingly destructive claims, many paleontologists rejected the Alvarez thesis from its inception and continued to fight it throughout the 1980s. Volcanist-extinction theorists Charles Officer and Charles Drake, for instance, argued that the faunal transitions recorded in the K-T clay range over thousands of years,99 as do the deposition rates for iridium.100 Given the relative gradualism of these rates, “it seems more likely that an explanation for the changes during the transition will come from continued examination of the great variety of terrestrial events that took place at that time, including extensive volcanism, major regression of the sea from the land, geochemical changes, and paleoclimatic and paleoceanographic changes.”101 Others have been somewhat less constant, dubbing killer comets and asteroids dei ex machina conjured up by physicists,102 accusing prominent scientific journals of bias for splashy, simplistic theories, and charging influential physical scientists with tampering with peer reviews and blocking the promotions of their fossil-hunting foes. In a 1985 *New York Times* interview, the charismatic vertebrate paleontologist Robert T. Bakker railed against planetary scientists who make claims for his field: The arrogance of those people is simply unbelievable. They know next to nothing about how real animals evolve, live and become extinct. But despite their ignorance, the geochemists feel that all you have to do is crank up some fancy machine and you’ve revolutionized science. The real reasons for the dinosaur extinctions have to do with temperature and sea-level changes, the spread of diseases by migration and other complex events. But the catastrophe people do not seem to think such things matter. In effect, they’re saying this: “We high-tech people have all the answers, and you paleontologists are just primitive rock hounds.”103 Certainly there was a good deal of disciplinary gatekeeping involved in the paleontological community’s resistance to impactextinction theory. After all, here are chemists, physicists, and planetary scientists claiming to have found paleontology’s grail—and without the help of any paleontologists. Professional reputations were at stake. (Luis Alvarez calling paleontologists “stamp collectors” in a *New York Times* interview,104 and abusing his theory’s critics in his autobiography and elsewhere, certainly did not help matters either.) Beyond the paleontologists’ not wholly unjustified demands for professional jurisprudence, though, there are other, more conceptual reasons for their resistance to impact-extinction theory. Paleontologist David Raup uses a metaphor to describe why many of his colleagues did not accept the theory at first: “the Alvarez proposal was simply not within the accepted coordinate system governing inferences used to understand Earth history.”105 Mike Davis makes a similar argument in *New Left Review*: the neo-catastrophist reinterpretation of the stratigraphic record . . . is a lesson, of course, that many geologists, as well as geographers and historians, have great difficulty accepting. Even more than plate-tectonics, an “open system” view of the Earth that recognizes the continuum between terrestrial and extra-terrestrial dynamics threatens the Victorian foundations of classical geology. To cite only one example, a single impact event can compress into minutes, even seconds, the equivalent of a million years or more of “uniformitarian” process.10

Impact/Uniqueness- No weaponization now- weaponization ---> Prolif and nuke war

**Space isn’t weaponized now- but future weaponizaiton will be a catalyst for proliferation and nuclear war.**

Kislyakov. 06. (Andrei Kislyakov is a political commentator for the RIA Novosti news agency. “Weaponization Of Space Will Have Unpredictable Consequences” <http://www.spacewar.com/reports/Weaponization_Of_Space_Will_Have_Unpredictable_Consequences.html>. TQ)

Space-based laser and kinetic energy weapons will be used against those who create obstructions to U.S. satellites. Logically, this will lead to the creation of a space theater of war. Much has been written and said about the inadmissibility of space weaponization. In early March, Russia's Ambassador to the UN office in Geneva Valery Loshchinin said again that the placement of weapons in space would "provoke a new round of the race for nuclear missile and other arms, both in space and on the Earth, which would boost the proliferation of weapons of mass destruction and their delivery vehicles." Russia has reaffirmed that it would not become the first to orbit weapons of any type and called on all countries to follow its example. But appeals are quickly muffled when weapons are cocked. "Russia has the ability for an adequate response to the countries that orbit their weapons," Russia's Defense Minister Sergei Ivanov said during an official visit to China in late August 2005. "Both Americans and Russians are actively using space for military purposes. However, they have been observing certain limits so far, deploying only communications, targeting, intelligence and other [defense-related] spacecraft. These are not weapons. But the deployment of weapons in space will have unpredictable consequences."

Impact - securitizing discourse --> nuclear war, genocide, and torture

Their discourse of danger is preoccupied with eluding death, justifying atrocities and nuclear war in the name of avoiding security problems – This way of thinking reduces life to avoiding death, making it impossible to articulate a value to life

Campbell 98 (David- PHD, Prof of cultural & poli geog @ U of Durham, *Writing Security*, p.54-55)

It requires an emphasis on the unfinished and endangered nature of the world. In other words, discourses of 'danger' are central to the discourses of the `state' and the discourses of `man.'43 In place of the spiritual certitude that provided the vertical intensity to support the horizontal extensiveness of Christendom, the state requires discourses of 'danger' to provide a new theology of truth about who and what 'we' are by highlighting who or what `we' are not, and what 'we' have to fear. This is not to suggest that fear and danger are modern constructs which only emerged after the relative demise of Christendom. On the contrary, the church relied heavily on discourses of danger to establish its authority, discipline its followers, and ward off its enemies. Indeed, although this disposition was important to the power of the church throughout its history, for the three centuries between the Black Death of 1348 and the Peace of Westphalia in 1648, the agents of God propagated a woeful vision of life marked by a particular attitude towards death.' Thinking that western civilization was besieged by a horde of enemies (Turks, Jews, heretics, idolaters, and witches, to name but a few), the church saw the devil everywhere and encouraged introspection and guilt to such an extent that a culture of anxiety predominated. The literary tradition of contemptus mundi (`contempt for the world'), which was pivotal to the culture of anxiety and the acute sense of endangeredness it encouraged, bespoke hatred for the body and the world, the pervasiveness of sin, the fleeting nature of time, and the fragility of life. Moreover, it was this `evangalism of fear’ which produced a preoccupation with death. As the promise of an escape from earthly vices, the religious leitmotif of 'salvation' obliged all those who sought this transcendence 'to think continually about death in order to avoid sin, because sin plus death could land them in Hell.'" Meditation on death was thus the principal form of a moral pedagogy which sought to ensure salvation. In fostering an evangelism of fear, with death as its impetus and salvation as its goal, the cultural agents of the period were not simply responding to danger as an external condition. The required familiarity with death demanded of individuals an eternal vigilance against the self: 'One should always keep death in mind, just as one would always mount guard against an enemy who might suddenly appear' (indeed, for essayists like Montaigne, 'death' was a synonym for `enemy').47 But it was this vigilance against the self, encouraged by the experience of finitude, and required in the name of salvation, which constituted the conditions of contemptus mundi from which one sought salvation. In the Speculum peccatoris (`Sinner's Mirror') — a manuscript attributed to St Augustine — the author declares: `Consideration of the brevity of life engenders contempt for the world'; and Rethinking foreign policy continues: 'is there anything that can increase man's vigilance, his flight from injustice, and his saintly behavior in the fear of God more than the realization of his [future] alteration, the precise knowledge of his mortal condition and the consequent thought of his horrible death, when man becomes nonman?'48 The logic of the evangelism of fear thus ferments the very conditions which it claims necessitate vigilance against the enemies of the self; put simply, it produces its own danger. The evangelism of fear and its logic of identity is not a thing of the past, however. In our own time, argues Delumeau, we can witness its operation: Does not our own epoch help us to understand the beginnings of European modernity? The mass killings of the twentieth century from 1914 to the genocide of Cambodia — passing through various holocausts and the deluge of bombs on Vietnam — the menace of nuclear war, the ever-increasing use of torture, the multiplication of Gulags, the resurgence of insecurity, the rapid and often more and more troubling progress of technology, the dangers entailed by an overly intensive exploitation of natural resources, various genetic manipulations, and the uncontrolled explosion of information: Here are so many factors that, gathered together, create a climate of anxiety in our civilization which, in certain respects, is comparable to that of our ancestors between the time of the plague and the end of the Wars of Religion. We have reentered this 'country of fear' and, following a classic process of 'projection,' we never weary of evoking it in both words and images . . . Yesterday, as today, fear of violence is objectified in images of violence and fear of death in macabre visions.' To talk of the endangered nature of the modern world and the enemies and threats which abound in it is thus not to offer a simple ethnographic description of our condition; it is to invoke a discourse of danger through which the incipient ambiguity of our world can be grounded in accordance with the insistences of identity. Danger (death, in its ultimate form) might therefore be thought of as the new god for the modern world of states, not because it is peculiar to our time, but because it replicates the logic of Christendom's evangelism of fear.

Impact- fear and anxiety is the root cause of war

Security leads to anxiety and fear which we externalize on the Other – This is the root cause of war

Odyssesos 2 (Louiza, *Alternatives: Global, Local, Political* 27(3), Questia, no page numbers)JFS

Viewed phenomenologically, the subject's desire to secure itself against want indicates that the modern subject "wants to cover over its very being as needy, as Darbung," (95) In this vein, John Caputo suggests that "it is because factical life is disturbed by everyday concerns," because its Being is an issue for it, "that it seeks to secure itself against want"; the Hobbesian subject's will to making-secure arises from the need to "look whole not privatio ... as if it were without care, sine cura, secure--even though that very desire for security is itself a (deficient) mode of care [Sorge]." (96) Hobbesian subjectivity has a right to the world: man's natural right results in the creation of a perspective on the world as possessed and authored by the subject. This perspective denies an understanding of Dasein's Being as care (in the sense of concern and anxiousness for its being) and its ground as nothingness (in Heidegger's formulation "Being-the-basis-of-a-nullity"). The subject conceals the anxiety induce d both by being an entity thrown into a world not of its own making and by having no certain ground. It suppresses its anxiety about its Being by conceiving of the world as a state of nature, a "warre of all against all," whose structural conditions and the presence of widespread enmity lead to the externalization of anxiety about its own Being, and linking it to a fear of the other. When Heidegger's analysis of anxiety is brought to bear on the Hobbesian schema, Hobbes' schema becomes evident that it is confused, or better still, conflated with the phenomenon of fear. Anxiety, Heidegger insists, cannot be confused with the phenomenon of fear as, arguably, occurs in Leviathan. Heidegger agrees that "obviously these are kindred phenomena" and their confusion or conflation is further complicated "by the fact that for the most part they have not been distinguished from one another: that which is fear, gets designated as 'anxiety,' while that which has the character of the anxiety, gets called 'fear'." (97) While fear is an affect that corresponds to something in the world that is fearsome, and becomes more so as it approaches Dasein, what Heidegger designates as "anxiety" has no concrete worldly referent: "Anxiousness as attunement is a way of Being-in-the-world; that in the face of which we have anxiety is thrown Being-in-the-world; that which we have anxiety about is our ability to be in t he world. Thus the entire phenomenon of anxiety shows Dasein as factically existing Being-in-the-world." (98) Anxiety is generated from the general constitution of Dasein as care and as being-thrown, which cause Dasein to flee in the face of itself constituted as such. "In falling, Dasein turns away from itself. That in the face of which it thus shrinks back must, in any case, be an entity with the character of threatening; yet this entity has the same kind of Being as the one that shrinks back: it is Dasein itself." (99) It cannot, then, be fear that guides Dasein's falling, for fear is that affect that "comes from entities within-the-world." (100) The conflation of anxiety and fear in Hobbes results in the causal attribution of anxiety, which is related to Dasein's constitution as "care" (Sorge), to otherness. In seeking an external referent, fear is displaced toward the other. The encounter of the other-as-enemy and the assignment of fear to the other can be understood, then, within the framework of Dasein's inability to accept itself having no ground, as being the basis of a nullity. Othering is disclosed as an inauthentic response to Dasein's own anxious Being in an attempt to externalize the anxiety that emerges from Dasein's finitude and groundlessness and to direct it toward otherness. The heterophobia found in Hobbes's reworking of early modern subjectivity is shown to be displaced, from anxiety about Dasein's thrownness and care for its Being to the other. The assumption that the fear! anxiety is the result of the omnipresent other-as-enemy, moreover, leads to a political theory in which such fear/anxiety can be avoided through the right sort o f regulation and governance. "In the last instance," writes John Dunn, "humans' political authority is a rational response to the overwhelming motivational power of human fearfulness. It rests practically upon the systematization of the passion of fear." (101)

Impact- fear and anxiety is the root cause of war

Fear of asteroids make people think the worse of what could happen with such low probability

John Mueller February 6, 2007 Department of Political Science Ohio State University REACTING TO TERRORISM: PROBABILITIES, CONSEQUENCES, AND THE PERSISTENCE OF FEAR <http://polisci.osu.edu/faculty/jmueller/ISA2007T.PDF>

**Exactly why people have managed, by contrast, to remain uninvolved emotionally by the danger of death by asteroid is far from clear**. As astronomers Clark Chapman and David Morrison have pointed out**, that danger carries with it many of the components widely held to inspire great fear: it conjures up feelings of dread and is catastrophic, dramatic, involuntary, uncontrollable, inequitable, due to unobservable agents, difficult to assess, and easy to visualize**.11 Indeed, Judge Richard Posner has recently and eloquently laid out the case that, although low in probability, t**he potential disaster from such cosmic collisions justifies not only concern, but substantial expenditures to evaluate, and potentially to avert, them**.12

No fear now asteroid has never killed anyone records prove

Mark Bucknam and Robert Gold October 1, 2008 “Deputy Director for Plans in the Policy Planning Office of the Office of the US Secretary of Defense. Gold is the Chief Technologist for the Space Department at the Applied Physics Laboratory of Johns Hopkins University Asteroid Threat? The Problem of Planetary Defence http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=3b737713-d5c6-4f5c-ab15-bddc97ed1b4b%40sessionmgr10&vid=1&hid=24”

 **The chances of Earth being hit by a comet are even smaller than for asteroids. This is a very good thing: comets travel faster and would deliver about nine times as much energy as comparably sized asteroids.** When Comet Shoemaker–Levy 9 broke up and slammed into Jupiter in 1994, one of its fragments delivered energy equivalent to 6 million megatonnes of TNT, hundreds of times more energy than in all of the world’s nuclear arsenals combined. Long-period comets spend most of their existence in the outer regions of the solar system, beyond the orbits of Jupiter, Saturn, Uranus and even Neptune, infrequently visiting the neighbourhood of the inner planets. Unfortunately, such comets, unknown to us, would only become visible when they were within 6–18 months of possibly striking Earth, leaving little time to react. **There has not been a single recorded incident of a person being killed by a meteoroid, asteroid or comet, so it is understandable that most people, including scientists, have not traditionally worried about the threat posed by space objects**. It is to be hoped that Apophis will not pass through the ‘gravitational keyhole‘ that would put it on course to collide with Earth in 2036, and that there are no undetected asteroids or comets on such a course. **But hope is not a strategy, and and as small as the probabilities might be, the possible consequences of such an impact merit efforts to mitigate the risk.**

Impact- fear and anxiety is the root cause of war

**Fear of asteroids makes countries paranoid which leads to nuclear war and collapse of ILAW**

Hsu 9 Date: 28 April 2009 Time: 11:54 AM Staff Writer Asteroid Threat? Call the Space Lawyers <http://www.space.com/6624-asteroid-threat-call-space-lawyers.html>

 **Asteroids that might threaten Earth could pose a challenge beyond the obvious, if nations can't get their act together and figure out a unified plan of action. There are currently no known space rocks on a collision course with Earth**, but with ample evidence for past impacts, researchers say it's only a matter of time before one is found to be heading our way. **A swarm of political and legal issues bedevil any national or international response, whether it's responsibility for collateral damage from deflected asteroids or the possible outcry if one country decides to unilaterally nuke the space threat**. "The word 'unorganized' is spot on here," said Frans von der Dunk, space law expert at the University of Nebraska-Lincoln. "There is no such thing as even a platform for some level of coordination regarding possible responses — and, to be honest, some quarters very much would like it to remain that way." Legal experts discussed such problems last week at a University of Nebraska-Lincoln conference titled "Near-Earth Objects: Risks, Responses and Opportunities-Legal Aspects." Their talks underscored how underprepared the international community is to deal with policy and legal fallout from a potential asteroid threat. Saving Earth vs. scaring everybody Many scientists have already brainstormed a variety of ways to deflect or destroy rogue asteroids, such as sending out spacecraft to nudge the space rock aside for a near-miss or simply blasting it apart. But some solutions may have different levels of appeal for various nations, especially when they involve launching potential weapons into space. For instance, international concern surrounded a U.S. shoot-down of a failing satellite last year, not to mention China's 2007 knockout of its own aging weather satellite with a ballistic missile. **Both cases raised worries about the demonstration of potential missile defense systems or satellite-killer technologies. "The international political reactions to the U.S. shooting down of its own satellites a year ago to prevent presumably dangerous and toxic fuel from reaching Earth only fores**hadows what would happen if the U.S. would detonate nukes claiming to destroy an incoming asteroid," von der Dunk told SPACE.com. Other scenarios could highlight the question of international unity. A United Nations Security Council decision on a certain asteroid response would likely shield participating nations against any liabilities for collateral damage from a failed deflection or interception attempt, if the past serves as any guide — the U.S. and other coalition nations that kicked Iraq out of Kuwait in 1991 were not held responsible for damages to Iraq under Security Council mandate. Depends on who'll get hit Von der Dunk also posed the tricky question of what the international response would be if a smaller asteroid was headed for North Korea. **The politically isolated nation attempted but failed to put a communications satellite into orbit in April, and would almost certainly require assistance from the U.S., Russia or China to deal with an asteroid threat. Better international cooperation might also help in figuring out how to assess asteroid threats and release potentially scary info to the public**. "We have already seen scares raised by scientists ready to put out alarms out there, when either their data (fortunately quickly!) turned out to be considerably flawed, or later data allowed for a much more precise estimate of the risk — which turned out to be much lower," von der Dunk said. He pointed to the case of the Apophis asteroid, in which astronomers initially gave a one-in-37 chance of it striking Earth in 2029, but later refined chances of collision to almost zero. Experts at the conference agreed to keep pushing forward on legal issues, as well as focus on general education on the asteroid threat for policymakers. And they even discussed how private companies might join in the effort to monitor asteroids, potentially for the purpose of extracting mineral wealth from space rocks. Von der Dunk heads next to the Planetary Defense Conference in Spain April 27-30, where he will present the conference recommendations to the International Academy of Astronautics and the European Space Agency. Video - Asteroid Hunting Video - Killer Comets and Ominous Asteroids Images: Astero

Impact- fear and anxiety is the root cause of war

Regarding extinction is catastrophic—Constantly thinking about extinction only pumps it with suffering

Epstein 09 (Richard, and Y. Zhao, Laboratory of Computational Oncology, Department of Medicine, University of Hong Kong, Professorial Block, Queen Mary Hospital, Hong Kong, Perspectives in Biology and Medicine, Volume 52, Number 1, *The Threat that Dare not Speak its Name*, Winter 2009, [http://muse.jhu.edu/journals/pe rspectives\_ in\_biology\_and\_medicine/v052/52.1.epstein.html](http://muse.jhu.edu/journals/pe%20rspectives_%20in_biology_and_medicine/v052/52.1.epstein.html), AG)

Human extinction is 100% certain—the only uncertainties are when and how. Like the men and women of Shakespeare’s As You Like It, our species is but one of many players making entrances and exits on the evolutionary stage. That we generally deny that such exits for our own species are possible is to be expected, given the brutish selection pressures on our biology. Death, which is merely a biological description of evolutionary selection, is fundamental to life as we know it. Similarly, death occurring at the level of a species—extinction—is as basic to biology as is the death of individual organisms or cells. Hence, to regard extinction as catastrophic—which implies that it may somehow never occur, provided that we are all well behaved—is not only specious, but self-defeating. Man is both blessed and cursed by the highest level of self-awareness of any life-form on Earth. This suggests that the process of human extinction is likely to be accompanied by more suffering than that associated with any previous species extinction event. Such suffering may only be eased by the getting of wisdom: the same kind of wisdom that could, if applied sufficiently early, postpone extinction. But the tragedy of our species is that evolution does not select for such foresight. Man’s dreams of being an immortal species in an eternal paradise are unachievable not because of original sin—the doomsday scenario for which we choose to blame our “free will,” thereby perpetuating our creationist illusion of being at the center of the universe—but rather, in reductionist terms, because paradise is incompatible with evolution. More scientific effort in propounding this central truth of our species’ mortality, rather than seeking spiritual comfort in escapist fantasies, could pay dividends in minimizing the eventual cumulative burden of human suffering.

Epistemology Impact

Their obsession with Disaster representations mean all of their impact claims are suspect – only rejecting these representations will allow a truly radical change in our knowledge production to take place

Williams 8 (Steward, Professor at the University of Tasmenia, Social Forces Volume 87, Number 2, December 2008, *Rethinking the Nature of Disaster*, December 2008, [http://muse.jhu.edu/journals/so cial\_forces/v 087/87.2.willia ms.html](http://muse.jhu.edu/journals/so%20cial_forces/v%20087/87.2.willia%20ms.html), AG)

Learning from disasters is complex. It begins with the rational cognitive processes of individual actors, but is mostly considered in the context of organizational learning wherein disasters serve as focusing events that inform policy and practice. The process varies in type, is subjective, and most likely to happen only with the most extreme events (Birkland 2006; Gerber 2007; Solecki and Michaels 1994). This type of learning is highly contingent, and one strong advocate was compelled after Katrina to refer also to the antithetical process of "un-learning" because the durability of any knowledge which might have been gained from previous disasters was so evidently put in doubt (Birkland 2006). Gerber (2007:237) suggests that "even if learning does occur, its sustainability is unclear. Hazard mitigation is in many ways not a question of scientific understanding but of political will, a will that is found to be lacking in many instances." In describing the reports produced after Katrina as "fantasy documents," Tierney (2006a:22) warns against the rhetoric of disaster, stating: "These kinds [End Page 1116] of 'lessons learned' documents can result in sound recommendations as well as symbolic ones. The key question is whether those recommendations that are sound will lead to action and change." She alludes to others' work (Clarke 1999; Clarke and `Perrow 1996) which demonstrates how, in situations of high uncertainty, organizations deploy science and technology in combination with a misplaced faith in their capabilities (including presumed infallibility) so as to redefine risks as more manageable and acceptable. Their thesis suggests that accidents are routine, emphasizing the likelihood of disaster, rather than its improbability. The socio-technical complexity and concentration of modern urban life, including its dense populations, large institutional workplaces, and extensive communications and transport networks, increase vulnerability to organizational and even societal failure (whether arising from terrorism, for example, or collision with a near-Earth object such as an asteroid) (Clarke 1999, 2006; Clarke and Perrow 1996; Clarke and Short 1993; Perrow 1999, 2007). Indeed, these authors insist that more and worse catastrophes are yet to come.1 Such thinking accords with Beck's (1992) risk thesis and primary claim that institutionalized scientific knowledge and technical expertise have contributed to the proliferation and worsening of risks rather than their amelioration. Published in high modernity, Beck's thesis was timely. Technologies were advancing rapidly, economies destabilized with global restructuring, and incidents such as the Chernobyl reactor explosion, Challenger space shuttle, Exxon Valdez oil spill and Union Carbide chemical leak in the public consciousness, heralding new types of ecological threat. According to Beck, natural hazards have given way to manufactured risks of epic proportion as the unmanageable and not necessarily apparent side effects of modernization (epitomized by global warming). In reflexive modernity, however, scientific and institutional organizations can obscure the link between their generation and control of risks, and can counter prevailing mandates, thereby exacerbating rather than reducing risks. Individuals too are more likely to be aware and learn about their exposure to different risks, but have become more cynical about science, politics, business and the media. Revisiting his thesis with the notion of a world at risk, and adding terrorism to ecological and financial crises, Beck (2002, 2006) predicts further challenges and changes on a global scale. A new cosmopolitan realpolitik will inevitably result through force, conflict and catharsis, he suggests, with the reinvention or demise of nation-states as "global risks are producing 'failed states' – even in the West." (Beck 2006:344) Disaster researchers and managers continue systematic production and accumulation of knowledge for purposes of improving policy and practice, but work in the face of increased uncertainty, failure and skepticism. For example, practitioners refer to "adaptation" and "integration" of disaster policy "paradigms" (McEntire et al. 2002:267) and "the evolution of [End Page 1117] emergency management," (Britton 2002:45; O'Brien and Read 2005:353) but in reality, the progression implied does not always follow. Surprisingly, even Donahue and Tuohy (2006) who observe the mistakes made before, during and after disasters – rather than lessons learned – remain optimistic. Still, they do suggest that it is a specific type of organizational learning and radical transformation, and not the usual incremental type of learning, which is required. Whether its eventuation is possible within the current framework of disaster research and management is another matter.

\*\*\*ALTERNATIVES\*\*\*

**The alternative is to reject the securitizing logic of the affirmative and its’ domination of modern political discourse in favor of an acceptance that insecurity and danger are inherent aspects of our existence. The alternative is not a discarding of security, but a reconceptualization that allows us to break free of the narrow security paradigm based in the cold war mentality.**

Neocleous in 2008 (Mark, Professor of Critique of Political Economy at Brunel University (UK), 2008 (“Critique of Security.” Pg. 185-186. )

The only way out of such a dilemma, to escape the fetish, is perhaps to eschew the logic of security altogether – to reject it as so ideologically loaded in favor of the state that any real political thought other than the authoritarian and reactionary should be pressed to give it up. That is clearly something that cannot be achieved within the limits of bourgeois thought and thus could never even begin to be imagined by the security intellectual. It is also something that the constant iteration of the refrain ‘this is an insecure world’ and reiteration of one fear, anxiety and insecurity after another will also make it hard to do. But it is something that the critique of security suggests we may have to consider if we want a political way out of the impasse of security. This impasse exists because security has now become so all-encompassing that it marginalizes all else, most notably the constructive conflicts, debates and discussions that animate political life. The constant prioritizing of a mythical security as a political end – as the political end – constitutes a rejection of politics in any meaningful sense of the term. That is, as a mode of action in which differences can be articulated, in which the conflicts and struggles that arise from such differences can be fought for and negotiated, in which people might come to believe that another world is possible – that they might transform the world and in turn be transformed. Security politics is, in this sense, an anti-politics, dominating political discourse in much the same manner as the security state tries to dominate human beings, reinforcing security fetishism and the monopolistic character of security on the political imagination. We therefore need to get beyond security politics, not add yet more ‘sectors’ to it in a way that simply expands the scope of the state and legitimizes state intervention in yet more and more areas of our lives. Simon Dalby reports a personal communication with Michael Williams, co-editor of the important text Critical Security Studies, in which the latter asks: if you take away security, what do you put in the hole that’s left behind? But I’m inclined to agree with Dalby: there is no hole. The mistake has been to think that there is a hole and that this hole needs to be filled with a new vision or revision of security in which it is re-mapped or civilized or gendered or humanized or expanded or whatever. All of these ultimately remain within the statist political imaginary, and consequently end up re-affirming the state as the terrain of modern politics, the grounds of security. The real task is not to fill the supposed hole with yet another vision of security, but to fight for an alternative political language which takes us beyond the narrow horizon of bourgeois security and which therefore does not constantly throw us into the arms of the state. That’s the point of critical politics: to develop a new political language more adequate to the kind of society we want. Thus while much of what I have said here has been of a negative order, part of the tradition of critical theory is that the negative may be as significant as the positive in setting thought on new paths. For if security really is the supreme concept of bourgeois society and the fundamental thematic of liberalism, then to keep harping on about insecurity and to keep demanding ‘more security’ (while meekly hoping that this increased security doesn’t damage our liberty) is to blind ourselves to the possibility of building real alternatives to the authoritarian tendencies in contemporary politics. To situate ourselves against security politics would allow us to circumvent the debilitating effect achieved through the constant securitizing of social and political issues, debilitating in the sense that ‘security’ helps consolidate the power of the existing forms of social domination and justifies the short-circuiting of even the most democratic forms. It would also allow us to forge another kind of politics centered on a different conception of the good. We need a new way of thinking and talking about social being and politics that moves us beyond security. This would perhaps be emancipator in the true sense of the word. What this might mean, precisely, must be open to debate. But it certainly requires recognizing that security is an illusion that has forgotten it is an illusion; it requires recognizing that security is not the same as solidarity; it requires accepting that insecurity is part of the human condition, and thus giving up the search for the certainty of security and instead learning to tolerate the uncertainties, ambiguities and ‘insecurities’ that come with being

Rejection Alt

ALT --- Our alternative is to reject traditional conceptions of security based off of cold war mentality allowing a stance against US norms. This is crucial to open space for different views

Pinar Bilgin 2005, Associate Professor of International Relations at Bilkent University (“Conclusion,” Regional Security in the Middle East: A Critical Perspective, Published by Routledge, ISBN 0415325498, p. 205-207) SH

Emphasising the mutually interactive relationship between intellectuals and social movements should not be taken to suggest that the only way for intellectuals to make a change is to get directly involved in political action. They can also intervene by providing a critique of the existing situation, calling attention to what future outcomes may result if necessary action is not taken at present, and by pointing to potential for change immanent in regional politics. Students of security could help create the political space for alternative agents of security to take action by presenting appropriate critiques. It should be emphasised however that such thinking should be anchored in the potential immanent in world politics. The hope is that non-state actors (who may or may not be aware of their potential to make a change) may constitute themselves as agents of security when presented with an alternative reading of their situation. Thinking about the future becomes even more crucial once theory is [end page 205] conceptualised as constitutive of the 'reality' it seeks to respond to. In other words, our ideas about the future - our conjectures and prognoses - have a self-constitutive potential. What the students of Cold War Security Studies consider as a more 'realistic' picture of the future becomes 'real' through practice, albeit under circumstances inherited from the past. Thinking about what a 'desired' future would look like is significant for the very same reason; that is, in order to be able to turn it into a 'reality' through adopting emancipatory practices. For, having a vision of a 'desired' future empowers people(s) in the present. Presenting pictures of what a 'desired' future might look like, and pointing to the security community approach as the start of a path that could take us from an insecure past to a more secure future is not to suggest that the creation of a security community is the most likely outcome. On the contrary, the dynamics pointed to throughout the book indicate that there exists a potential for descent into chaos if no action is taken to prevent militarisation and fragmentation of societies, and the marginalisation of peoples as well as economies in an increasingly globalising world. However, these dynamics exist as 'threats to the future' to use Beck's terminology; and only by thinking and writing about them that can one mobilise preventive action to be taken in the present. Viewed as such, critical approaches present not an 'optimistic', but a more 'realistic' picture of the future. Considering how the 'realism' of Cold War Security Studies failed not only when judged by its own standards, by failing to provide an adequate explanation of the world 'out there', but also when judged by the standards of critical approaches, as it was argued, it could be concluded that there is a need for more 'realistic' approaches to regional security in theory and practice. The foregoing suggests three broad conclusions. First, Cold War Security Studies did not present the 'realistic' picture it purported to provide. On the contrary, the pro-status quo leanings of the Cold War security discourse failed to allow for (let alone foresee) changes such as the end of the Cold War, dissolution of some states and integration of some others. Second, notwithstanding the important inroads critical approaches to security made in the post-Cold War era, much traditionalist thinking remains and maintains its grip over the security practices of many actors. Third, critical approaches offer a fuller or more adequate picture of security in different parts of the world (including the Middle East). Cold War Security Studies is limited not only because of its narrow (military-focused), pro-status quo and state-centric (if not statist) approach to security in theory and practice, but also because of its objectivist conception of theory and the theory/practice relationship that obscured the mutually constitutive relationship between them. Students of critical approaches have sought to challenge Cold War Security Studies, its claim to knowledge and its hold over security practices by pointing to the mutually constitutive relationship between theory and practice and revealing [end page 206] how the Cold War security discourse has been complicit in constituting (in)security in different parts of the world.

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Rejection Alt

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The ways in which the Cold War security discourse helped constitute the 'Middle East' by way of representing it as a region, and contributed to regional insecurity in the Middle East by shaping security practices, is exemplary of the argument that 'theories do not leave the world untouched'. The implication of these conclusions for practice is that becoming aware of the 'politics behind the geographical specification of politics' and exploring the relationship between (inventing) regions and (conceptions and practices of) security helps reveal the role human agency has played in the past and could play in the future. An alternative approach to security, that of critical approaches to security, could inform alternative (emancipatory) practices thereby helping constitute a new region in the form of a security community. It should be noted, however, that to argue that 'everything is socially constructed' or that 'all approaches have normative concerns embedded in them' is a significant first step that does not by itself help one adopt emancipatory practices. As long as people rely on traditional practices shaped by the Cold War security discourse - which remains prevalent in the post-Cold War era - they help constitute a 'reality' in line with the tenets of 'realist' Cold War Security Studies. This is why seeking to address evolving crises through traditional practices whilst leaving a critical security perspective to be adopted for the long-term will not work. For, traditionalist thinking and practices, by helping shape the 'reality' 'out there', foreclose the political space necessary for emancipatory practices to be adopted by multiple actors at numerous levels. Hence the need for the adoption of a critical perspective that emphasises the roles human agency has played in the past and could play in the future in shaping what human beings choose to call 'reality'. Generating such an awareness of the potentialities of human agency could enable one to begin thinking differently about regional security in different parts of the world whilst remaining sensitive to regional actors' multiple and contending conceptions of security, what they view as referent(s) and how they think security should be sought in different parts of the world**.** After decades of statist, military-focused and zero-sum thinking and practices that privileged the security of some whilst marginalising the security of others, the time has come for all those interested in security in the Middle East to decide whether they want to be agents of a world view that produces more of the same, thereby contributing towards a 'threat to the future', or of alternative futures that try to address the multiple dimensions of regional insecurity. The choice is not one between presenting a more 'optimistic' or 'pessimistic' vision of the future, but between stumbling into the future expecting more of the same, or stepping into a future equipped with a perspective that not only has a conception of a 'desired' future but is also cognisant of 'threats to the future'.

**Anthropomorphism Alt**

Anthro Alt—Humans offer psychological resistance to extinction—changing anthropocentric world view only helps

Epstein 09 (Richard, and Y. Zhao, Laboratory of Computational Oncology, Department of Medicine, University of Hong Kong, Professorial Block, Queen Mary Hospital, Hong Kong, Perspectives in Biology and Medicine, Volume 52, Number 1, *The Threat that Dare not Speak its Name*, Winter 2009, [http://muse.jhu.edu/journals/pe rspectives\_ in\_biology\_and\_medicine/v052/52.1.epstein.html](http://muse.jhu.edu/journals/pe%20rspectives_%20in_biology_and_medicine/v052/52.1.epstein.html), AG)

Even if we accept that the extinction of our species is now worthy of serious contemplation, there is strong psychological resistance to any critical reevaluation of our anthropocentric world view. To admit that the human race has become a victim of its own success is chastening: consciousness has furnished us with our greatest satisfactions and achievements, but it has also hastened our extinction by exaggerating self-interest (Sella and Lachmann 2000).Those very traits that are celebrated in self-help books—a strong personal sense of confidence, purpose, immediacy, focus, and self-interest—are proving to be less advantageous for the species (Penn 2003).Table 2 summarizes some of these selfdefeating anthropocentric beliefs. Ecological crisis is probably an inevitable chapter in human evolution (Lode, Pereboom, and Berzins 2003). The critical turning point in the story comes when anthropocentric thinking attempts to shift from short-term aggrandizement of individuals to longer-term participation in the ecosystem (Murdy 1975).Making the transition to a postmaterialist philosophy requires individuals to become more secure and self-directed, however, which is a tough call in a fast-developing global community with intensifying competition and constraints (Wilson 2005).The same conflict that has pitted individualistic thinking against more utilitarian public healthcare allocation now bedevils even larger global issues of environmental sustainability (Bourdeau 2004; Dougherty 1992; Sagoff 1991; Wiseman 1998). If a solution exists, it presumably must lie in establishing new and economically credible notions of environmental ethics and “natural capital” (Fenech et al. 2003).

**Anthro Alt—View Disasters through the lens of society-environment interactions rather than through institutions and government officials**

Williams 8 (Steward, Professor at the University of Tasmenia, Social Forces Volume 87, Number 2, December 2008,  *Rethinking the Nature of Disaster: From Failed Instruments of Learning to a Post-Social Understanding*, December 2008, [http://muse.jhu.edu/journals/so cial\_forces/v 087/87.2.willia ms.html](http://muse.jhu.edu/journals/so%20cial_forces/v%20087/87.2.willia%20ms.html), AG)

Differences between the theorization of research and the practices of management reflect a long-running fracture in the discipline. It is noted, for example, by sociologists and disaster researchers conducting comprehensive and critical reviews of their fields (Quarantelli 2005; Tierney 2007). They identify the traditional focus on natural disasters, with origins in the physical environment and its processes, as limiting. The development of disaster studies within human ecology and the natural sciences, driven by the particular interests of institutions, government officials and technocrats, has created the paradigmatic view of disasters as non-routine, physical events that have a negative impact on humans and social systems. Although multi-disciplinary, it has been strongly empirical and focused on technical applications. It begets a sociological critique summarized as follows: “Disaster researchers must stop organizing their inquiries around problems that are meaningful primarily to the institutions charged with managing disasters and instead concentrate on problems that are meaningful to the discipline. They must integrate the study of disasters with core sociological concerns, such as social inequality, societal diversity, and social change. They must overcome their tendency to build up

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Anthropomorphism Alt

(Continued from Previous Page)

knowledge one case at a time and focus more on what disasters and environmental crises of all types have in common with respect to origins, dynamics, and outcomes. And they must locate the study of disasters within broader theoretical frameworks, including in particular those concerned with risk, organizations and institutions, and society-environment interactions.” (Tierney 2007:520-21) These observations also embed concerns about the definitions of disaster and the traditional approach, distinguishing natural from technological hazards as the primary means for classifying disaster. Briefly, natural disasters have long been accepted as “acts of God” whilst technological ones are attributed to human error or a technical failure. More nuanced distinctions now suggest that natural disasters tend to include visible damage to the built environment and have legitimate victims, garnering government response. With clear stages through to recovery in the short-term, too, they often result in improved outcomes for those people who are subsequently well-organized and supported within what are, in effect, “therapeutic” rather than just “affected” communities. In contrast, technological disasters are usually less visible, contaminating the biophysical environment often without warning, and they fail to follow a clear path of specific stages while also delaying any recovery. They tend to be protracted and litigious incidents, marked by an irresponsibility or “recreancy” (attributed most often to corporations and governments) as well as malfeasance and loss of trust; and they therefore cause chronic, secondary trauma for victims as they lack closure and produce “corrosive” communities (Erikson 1976, 1994; Freudenburg 1997, 2000; Kroll-Smith and Couch 1990; Kroll-Smith, Couch and Marshall 1997; Picou and Marshall 2007; Picou, Marshall and Gill 2004).

Anthro Alt—Humans offer psychological resistance to extinction—only changing anthropocentric world view only

Epstein 09 (Richard, and Y. Zhao, Laboratory of Computational Oncology, Department of Medicine, University of Hong Kong, Professorial Block, Queen Mary Hospital, Hong Kong, Perspectives in Biology and Medicine, Volume 52, Number 1, *The Threat that Dare not Speak its Name*, Winter 2009, [http://muse.jhu.edu/journals/pe rspectives\_ in\_biology\_and\_medicine/v052/52.1.epstein.html](http://muse.jhu.edu/journals/pe%20rspectives_%20in_biology_and_medicine/v052/52.1.epstein.html), AG)

Even if we accept that the extinction of our species is now worthy of serious contemplation, there is strong psychological resistance to any critical reevaluation of our anthropocentric world view. To admit that the human race has become a victim of its own success is chastening: consciousness has furnished us with our greatest satisfactions and achievements, but it has also hastened our extinction by exaggerating self-interest (Sella and Lachmann 2000).Those very traits that are celebrated in self-help books—a strong personal sense of confidence, purpose, immediacy, focus, and self-interest—are proving to be less advantageous for the species (Penn 2003).Table 2 summarizes some of these selfdefeating anthropocentric beliefs. Ecological crisis is probably an inevitable chapter in human evolution (Lode, Pereboom, and Berzins 2003). The critical turning point in the story comes when anthropocentric thinking attempts to shift from short-term aggrandizement of individuals to longer-term participation in the ecosystem (Murdy 1975).Making the transition to a postmaterialist philosophy requires individuals to become more secure and self-directed, however, which is a tough call in a fast-developing global community with intensifying competition and constraints (Wilson 2005).The same conflict that has pitted individualistic thinking against more utilitarian public healthcare allocation now bedevils even larger global issues of environmental sustainability (Bourdeau 2004; Dougherty 1992; Sagoff 1991; Wiseman 1998). If a solution exists, it presumably must lie in establishing new and economically credible notions of environmental ethics and “natural capital” (Fenech et al. 2003).

**\*\*\*A2\*\*\***

A2- No correlation between asteroid and cold war discourse

**The mimetic discourse that links asteroids and nukes has been present since the advent of nuclear war**

**Davis in 2001** (Doug, PhD in Literary and cultural theory and Britain Fellow @ the School of literature, communication and culture at the Georgia Institute of Technology, "A Hundred Million Hydrogen Bombs": Total War in the Fossil Record, from Configurations Vol. Num. 3, Fall 2001, pg. 469-470, NB

http://muse.jhu.edu/journals/configurations/v009/9.3davis.pdf

Impact-extinction theory may have originated in the summer of 1978, but it is also the interdisciplinary scion of the science of cratering developed in national laboratories during the first decades of the Cold War. The 2,500+ papers and books that have followed up on the Alvarez-Berkeley team’s work29 have been generated in Los Alamos supercomputers and NASA research laboratories as much as they have emerged from the warrens of relatively autonomous universities such as U.C. Berkeley (itself a prominent Big Science institution). An institutional beneficiary of the nuclear arms race, impact-extinction theory had also been a party to the Cold War ever since the Alvarez thesis became linked with theories of nuclear winter in the early 1980s. The study of impact-induced extinctions and nuclear winter fed back in support of one another throughout the 1980s, forging a scientific link between the death of the dinosaurs and the effects of nuclear war. Parallels between impacts and nuclear explosions were drawn at the very start of the atomic age. Captain William Parsons, who personally assembled the Little Boy uranium bomb while en route to Hiroshima, boasted upon his return: “if the Japs say a meteor has hit them, we can tell them we have more where this one came from.”30 The continued development of nuclear weapons over the following two decades would make a full-fledged science of that metaphor. In the planetary sciences, impact craters and explosive craters are now treated as basically the same object: the same general theory and a common kit of hydrodynamic equations are used to model each.

A2- Military and asteroid studies are unrelated

**The military has used asteroid studies to counter the cold war threat of nuclear war**

**Davis in 2001** (Doug, PhD in Literary and cultural theory and Britain Fellow @ the School of lIterature, communication and culture at the Georgia Institute of Technology, "A Hundred Million Hydrogen Bombs": Total War in the Fossil

Record, from Configurations Vol. Num. 3, Fall 2001, pg. 473-474, NB

http://muse.jhu.edu/journals/configurations/v009/9.3davis.pdf)

The military, of course, along with the space program, had good reason to be interested in the science of impacts and cratering during the Cold War. Two kinds of impact science in particular were developed for weapons design and defense: large-scale nuclear tests were studied to learn how to defend hardened installations from nuclear attack. Small-scale high-velocity-impact tests, in their turn, were used to refine armor-penetrating weapons, and were then expanded in institutions such as NASA’s Ames Research Center with its Vertical Gun Range to include studies of the meteoroid hazard to space vehicles, satellites, and ICBMs. Cratering research on the private front also did some of the work of nuclear defense. In 1947, the Panama Canal Company initiated a series of high-explosive tests to study the vulnerability of the Panama Canal to nuclear attack; it was from this and related high-explosives work commissioned by the National Research Defense Committee during World War II that C. W. Lampson developed a scaling law, published in 1950, that succeeded in correlating the dimensions of craters produced by different-sized charges.46 Scaling laws were refined by researchers at the Sandia Corporation and Lawrence Radiation Laboratory working with the latest high-explosive and nuclear-crater data sets,47 further honing the ability to extrapolate crater damage in different surface materials without having to do full-scale nuclear tests. To counter the threat of nuclear war, cratering had become a predictable science.

A2- Asteroids aren’t constructed as threats

**Asteroids have been constructed as threats comparable to rogue states, even in peer-reviewed journals.**

Mellor ‘7 (course leader of Imperial College’s Science Communication group, PhD in theoretical physics from Newcastle University, “Colliding Worlds: Asteriod Research and the Legitimization of War in Space”, Social Studies of Science, August 2007, Vol. 37 No. 4, pages 499-531, AG)

A sense of narrative agency was evoked even in texts that were not pri- marily narratival. Crucially, asteroids were no longer seen as signifiers of the mathematically exacting Newtonian system, distant objects moving through the empty backdrop of space. Rather, they were configured as proximate beasts, acting subjects that could turn against humanity at any moment. Thus in their many popular books on the subject, the scientists described asteroids as belonging to a ‘menagerie’ or a ‘cosmic zoo’ (Steel, 2000a: 120); they were ‘menacing’ (Kring, 2000: 171) and had ‘teeth’ (Clube & Napier, 1990: 154); they were ‘global killers’ (Lewis, 1997: 209) that could unleash ‘ferocious assaults’ (Steel, 1995: 247) on the Earth; they were the ‘enemy’ (Steel, 2000a: 153). Likewise, in their paper in Nature, Chapman & Morrison (1994: 33) stated that Earth ‘resides in a swarm of asteroids’.The construction of asteroids as the enemy was accompanied by a range of other militaristic metaphors. In the popular books, asteroids became ‘mis- siles’, ‘pieces of ordnance’ or ‘stealth weapons’ (Lewis, 1997: 37), which bombard the Earth with a ‘death-dealing fusillade’ (Clube & Napier, 1990: 7). In a technical paper, too, they were construed as ‘astral assailant[s]’ (Simonenko et al., 1994: 929). Where the military and the politicians talked of rogue states,27 the scientists talked of ‘rogue asteroids’ (Steel, 1995; Ailor, 2004: 3). This analogy was further reinforced by the construction of scenar- ios in which a small impact might be mistaken for the detonation of a nuclear warhead. One technical paper speculated on what would have happened dur- ing the first Gulf War if an atmospheric explosion that had been caused by a meteor burning up over the Pacific had actually occurred over Baghdad or Israel (Tagliaferri et al., 1994). The authors suggested that such an event would have been mistaken for a missile detonation by the opposing state. In such scenarios, the actions of interplanetary bodies were not just compared with those of rogue states but came to be identified with them.With the swarming asteroids filling space, space itself was also resigni- fied. What had been an abstract mathematical space became a narrative place, the location where particular and contingent events occurred. Although the scientists continued to appeal to the predictability of celestial dynamics – it was this that would enable a survey of near-Earth objects to identify any that might pose a threat – they also noted that chaotic processes disturbed the orbits of comets and also, to a lesser degree, aster- oids (for example, Yeomans & Chodas, 1994; Milani et al., 2000). The inherent unpredictability of the orbits was enhanced by the current state of scientific uncertainty. These chaotic and uncertain processes were pro- jected onto space itself, construed as a place of random violence. In the popular books, the Solar System became a ‘dangerous cosmic neighbour- hood’ (Sumners & Allen, 2000b: 3), ‘a capricious, violent place’ (Verschuur, 1996: 217), a place of ‘mindless violence’ (Verschuur, 1996: 18) and ‘wan- ton destruction’ (Levy, 1998: 13). Even in a peer-reviewed paper, Chapman (2004: 1) described space as a ‘cosmic shooting gallery’.

A2- Asteroids aren’t constructed as threats

Asteroid threats are constructed – the chances of one hitting the Earth are incredibly remote

Mark Bucknam and Robert Gold October 1, 2008 “Deputy Director for Plans in the Policy Planning Office of the Office of the US Secretary of Defense. Gold is the Chief Technologist for the Space Department at the Applied Physics Laboratory of Johns Hopkins University Asteroid Threat? The Problem of Planetary Defence http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=3b737713-d5c6-4f5c-ab15-bddc97ed1b4b%40sessionmgr10&vid=1&hid=24”

 **The chances of Earth being hit by a comet are even smaller than for asteroids. This is a very good thing: comets travel faster and would deliver about nine times as much energy as comparably sized asteroids.** When Comet Shoemaker–Levy 9 broke up and slammed into Jupiter in 1994, one of its fragments delivered energy equivalent to 6 million megatonnes of TNT, hundreds of times more energy than in all of the world’s nuclear arsenals combined. Long-period comets spend most of their existence in the outer regions of the solar system, beyond the orbits of Jupiter, Saturn, Uranus and even Neptune, infrequently visiting the neighbourhood of the inner planets. Unfortunately, such comets, unknown to us, would only become visible when they were within 6–18 months of possibly striking Earth, leaving little time to react. **There has not been a single recorded incident of a person being killed by a meteoroid, asteroid or comet, so it is understandable that most people, including scientists, have not traditionally worried about the threat posed by space objects**. It is to be hoped that Apophis will not pass through the ‘gravitational keyhole‘ that would put it on course to collide with Earth in 2036, and that there are no undetected asteroids or comets on such a course. **But hope is not a strategy, and and as small as the probabilities might be, the possible consequences of such an impact merit efforts to mitigate the risk.**

A2 – No Link

**State doesn’t value natural disasters as much as technological ones—Katrina proves**

Williams 8 (Steward, Professor at the University of Tasmenia, Social Forces Volume 87, Number 2, December 2008,  *Rethinking the Nature of Disaster: From Failed Instruments of Learning to a Post-Social Understanding*, December 2008, [http://muse.jhu.edu/journals/so cial\_forces/v 087/87.2.willia ms.html](http://muse.jhu.edu/journals/so%20cial_forces/v%20087/87.2.willia%20ms.html), AG)

During Hurricane Katrina, a problematic individualism was writ large because the state was deemed to have failed, as people fended for themselves. One local newspaper even declared: “Every Man for Himself.” (Tampa Tribune cited in Menzel 2006:812) In contrast to the reports of late and inadequate rescue and recovery operations, are the revelations of overly officious, zealous responses. Complications arose because, firstly, the Federal Emergency Management Agency had been gutted and made subsidiary to the Department of Homeland Security, which is concerned with the prevention of terrorist attacks rather than natural disaster mitigation. Secondly, the approach deployed was based not on the insights of any explicitly sociological understanding but focused instead more simply on providing surveillance and protective equipment (Tierney 2006b). The worst aspects of a militaristic response then arrived with the National Guard. Citizens were denied water. Those searching for family members or rescuing private property were accused of looting. Groups organizing food and shelter were deemed dangerous and broken up at gunpoint. And, many people were reported as being refused permission to leave or were, at least, encouraged to stay within the confines of the mass shelters (Smith 2006; Tierney 2007; Tierney and Bevq 2007). Over-policing during Katrina was at the expense of other responses, and discriminated against race and class (Smith 2006; Tierney 2007). Yet law enforcement agencies are claiming to have learned lessons after Katrina even though, as frequent first responders to disaster, they admit to a poor record of sharing information and experiences (Rojek and Smith 2007). Meanwhile, the mis-handling of individuals deemed out of place or a threat to themselves and/or others did not cease as former residents were excluded from New Orleans’ renewal. Many homes and even whole suburbs were assessed and earmarked for demolition because they had been deemed damaged or dangerous (sometimes based on questionable “expert” advice), and swathes of people were kept out of the city (Allen 2007; McKee 2008). Their exclusion, on the other hand, was in sharp contrast to the welcome extended to an elite group of planners and developers armed with visions of new urbanism and corporate opportunity (Tierney 2006a, 2008). Some, often poor, black Rethinking the Nature of Disaster • 1123 neighborhoods have also suffered further decline while waiting for the state to commence their redevelopment or, alternatively, for market forces to drive their gentrification (McKee 2008). Indeed, the market is another significant instrument in risk management. Its influence was evident in the provision (adequate or not) of housing and insurance before Katrina but added to the situation because the most disadvantaged, uninsured and rental households were worst hit. Despite not protecting, insurance is expected to have an even more important role in hazard mitigation in the future (Kunreuther 2006; Kunreuther and Pauly 2006).

A2 – No Link Impacts

**Only successful international cooperation can solve global warming**

Winchester, Director of the Center for the Study of Global Change, Indiana University—Bloomington, 9

N.Brian, Project Muse, “Emerging Global Governance”, Feb 2009, <http://muse.jhu.edu/journals/indiana_journal_of_global_legal_studies/v016/16.1.winchester.html>, 6.23.11, SH)

While environmental values have steadily gained widespread, even global, acceptance, they are often in conflict with economic interests and international politics. Environmentalism is further challenged by scientific uncertainty involving effects that will in some cases only become manifest far into the future. Nonetheless, accompanying this global environmental awakening has been an extraordinary number of international environmental agreements. It is these international regimes, involving a variety of non-state actors, which suggest movement toward an evolving, complex form of global environmental governance. "One idea now gaining political currency is to upgrade the U.N. Environment Programme into a World Environment Organization (WEO) on a par with the WTO,"61 but what is clear is that this is no longer a matter simply for states or intergovernmental organizations. Private firms, NGOs, subunits of governments, and the transitional and transgovernmental networks that result all play a role.62 Whatever the eventual global political dispensation, there is likely to be wider participation and more transparency and accountability, and that should please democrats everywhere. To forge a more coherent global environmental management policy, governments must be persuaded that their national self-interest is inextricably tied to the global common good and to act accordingly.

Global Warming causes extinction

Stein editor for The Guardian 06

(David, Science, 2006, “Global Warming Xtra: Scientists warn about Antarctic melting,” http://www.agoracosmopolitan.com/home/Frontpage/2008/07/14/02463.html)

Global Warming continues to be approached by governments as a "luxury" item, rather than a matter of basic human survival. Humanity is being taken to its destruction by a greed-driven elite. These elites, which include 'Big Oil' and other related interests, are intoxicated by "the high" of pursuing ego-driven power, in a comparable manner to drug addicts who pursue an elusive "high", irrespective of the threat of pursuing that "high" poses to their own basic survival, and the security of others. Global Warming and the pre-emptive war against Iraq are part of the same self-destructive prism of a political-military-industrial complex, which is on a path of mass planetary destruction, backed by techniques of mass-deception."The scientific debate about human induced global warming is over but policy makers - let alone the happily shopping general public - still seem to not understand the scope of the impending tragedy. Global warming isn't just warmer temperatures, heat waves, melting ice and threatened polar bears. Scientific understanding increasingly points to runaway global warming leading to human extinction", reported Bill Henderson in CrossCurrents. If strict global environmental security measures are not immediately put in place to keep further emissions of greenhouse gases out of the atmosphere we are looking at the death of billions, the end of civilization as we know it and in all probability the end of humankind's several million year old existence, along with the extinction of most flora and fauna beloved to man in the world we share.

A2 – No impact

Weaponization is inevitable with china and US preventing it does nothing to solve case

theresa Hitchens December 1, 2007 Director Center for Defense Information Debris, Traffic Management, and Weaponization: Opportunities for and Challenges to Cooperation in Space

**Along with concerns about vulnerabilities, U.S. military and intelligence officials also have become increasingly worried about the growing ability of potential enemies to use space in the same way the United States does**—that is, as a force multiplier by enabling rapid, long-distance communications, imaging, and precision targeting. At a 19 March 2002 hearing o f t he Senate Armed Services Committee, former Central Agency Intelligence director George Tenet said that the development of sophisticated reconnaissance satellites by countries such as China and India—as well as the growing commercial market in communications, navigation and imagery—is eroding the U.S. military edge in use of space.^ This worry was further cemented by the Chinese ASAT test. Senator John Kyi, in a 2007 speech to the conservative Heritage Foundation, said, "If targeting an adversary's satellites allows our military to achieve victory more quickly or at lower cost in blood, such attacks must be considered. The Chinese seem to understand this point much better than we do." ^^ Indeed, **the Space Commission report suggested that the United States should consider developing space-related weapons to deter and counter such threats—an idea that has been translated into both the Bush administrations National Space Policy and U.S. military doctrine**.^\* In addition, China's ASAT test has reenergized both the so-called "China hawks" in Congress and at conservative think tanks and those supporting space-based missile defenses (who increasingly cite China, Iran, and North Korea as not only missile threats but ASAT threats to the United States). For example, Jeff Kueter, president of the right-leaning George C. Marshall Institute, said on 22 January 2007, "If the international community is truly worried about the debris-generating affects of ASAT weapons, then it ought to embrace, indeed demand, development and deployment of boost-phase missile defenses capable of intercepting ASAT missiles long before they " •' reach their satellite targets."''^ Some senior U.S. military leaders, such as Ceneral James Cartwright, head of U.S. Strategic Command, have recendy attempted to dampen concerns about a U.S.-China arms race in space and to advocate for a multi-faceted approach that includes diplomacy."\*\* Perhaps Cartwright and others are responding to some of the harsher rhetoric; or perhaps they are more cognizant of the fact that, with regard to U.S. space weapons development, budgetary realities have not kept pace with declaratory policy. A study of the unclassified fiscal year 2008 Pentagon budget request by the World Security Institute's Center for Defense Information, in cooperation with the Secure World Foundation, could find only about $1 billion in potential space weapons-related research and development funding.^' Given that Democrats have traditionally opposed space weaponization and control both houses of Congress in 2007, a near-term ramp up in such funding seems improbable. **Further, a build up of space-based missile defenses and counter-space weapons would require a major investment at a time when the Pentagon budget is under pressure from the ongoing wars in Iraq and Afghanistan. Thus, the willingness of the United States to commit to a full-up strategy of space warfare continues to be somewhat in doubt. Nonetheless, a destabilizing ASAT and space weapons race between China and the United States—one characterized not by tit-for-tat matching of capabilities, but by asymmetric responses—cannot be ruled out.**

A2 – Link Turn

Fear only encourages the people to take action now and be more aware of the situation when it actually happens. Fear key to avoid any impact of an asteroid strike.

Peckyno 4(Robert Bachelor of Science, Middle Tennessee State University, The Sky is Falling, *Disaster Mitigation, Management, and Media regarding the Asteroid Hazard*, August 2004, Pg. 9-10, MS)

Risk communication plays a vital role in disaster reduction. Risk communication is the effort to convince people that a risk is real and describe what its characteristics are as10 well as providing information on what can be done about it. 48 However, effective risk communication alone, even if it is based on sound science, does not guarantee the most appropriate behavioral response. Risk perception is a major factor in this process. 49 Policymakers, public safety officials and the general public are poorly educated regarding the asteroid hazard and fill in their knowledge gaps with perceptions garnered from magazines, television and movies that are rarely accurate. The terrorist attacks of September 11, 2001 have dramatically illustrated that public reactions to disasters vary enormously compared with the "objective" destruction, as measured by loss-of-life and property. 50 People in the United States are still reeling from terrorist attacks that killed 3000 people that still receive regular media attention (even over two years after the event), compared with the estimated 20,000 victims of the 2001 Bhuj earthquake in India 51 or the over 42,000 victims of the 2003 Bam earthquake in Iran 52 , both of which barely registered in Western news media after the first day. Media coverage of anthrax attacks, which killed six people later in the autumn of 2001, overwhelmed efforts by the Centers for Disease Control to prevent (by publicizing vaccination programs for the susceptible) many of the over 30,000 deaths that would occur from the flu during the ensuing winter. 53 According to research in risk perception, a similarly exaggerated response may be expected from the public if even a small asteroid were to strike in the near future. 54 Compounding the problem, communication between asteroid scientists and the public -- as mediated through science journalists -- has not been good. 55 Indeed, most people in the world remain wholly oblivious to the asteroid hazard and its potential manifestations. In the course of an impact prediction, concerns by an agitated public have been presented11 to national leaders, emergency management agencies, and military and space departments; few governments have anyone in authority that can answer such questions. 56 Without answers, the public will, again, return to perceptions. Brief "mass panic" in China in December 1989 was ascribed to a mistaken, nationally televised news story about an impending asteroid impact. 57 The impact hazard involves its own peculiar suite of uncertainties. In some ways, asteroid impacts are more reliably predictable than any other natural disaster. Using orbital mechanics, it is possible to calculate precisely when and – to some extent - where an asteroid will hit, perhaps many years or decades in advance. But that is true only once its orbit has been precisely determined, which may take months or even many years after it is first discovered. 58 In the interim, an arcane suite of uncertainties clouds the reliability of predictions, and the ongoing highly technical work is difficult for science journalists to understand or translate to the public. 59 A public that does not understand the threat is unlikely to be motivated by a warning system in the event of an actual emergency. Public information and training is probably the most important area of disaster reduction 60 and, for the impact hazard, on of the primary tangible steps that can be started immediately. However, in the current world of terrorist threats, ongoing conflicts and diseases like AIDS and SARS, it will be difficult to convince the public that the risk of asteroid and cometary impacts is worth their attention. In fact, perhaps it is not.

A2 – Link Turn

Aff further projects panic – likelyhood of asteroid hitting Earth is close to none.

Stenger, 2k.( Richard Stenger is a CNN writer. “Scientists map space rock whereabouts

in case of collision course with Earth”. 6-29-2000. <http://archives.cnn.com/2000/fyi/news/06/29/asteroid/index.html> TQ)

The chances of an asteroid hitting Earth and killing off species are pretty slim, but an international team of scientists wants to be prepared juuuussst in case. So they have estimated the locations of as many as 900 large asteroids, some of which could eventually threaten Earth with disastrous collisions, and plotted them on a map. "The odds of one hitting us tomorrow are very small, but they're not zero. It behooves us to go out and find these objects," said William Bottke, lead author of the report published recently in Science magazine. Scientists estimate that on average, a killer asteroid hits the Earth once every 500,000 to 1 million years. Pretty remote, but still cause for concern, Bottke said. Researchers said an object 1 kilometer (0.6 miles), or larger in size, could conceivably run into the Earth some day.

Hype about asteroids is usually false

Ananthaswamy. 03. (Anil Ananthaswamy is a former Software engineer and a consultant editor of New Scientist. “Row erupts over asteroid scares” *New Scientist. Vol. 179, no. 2413, pp. 12-12. 20* Sept. 17, 2003. <http://www.eurekalert.org/pub_releases/2003-09/ns-reo091703.php>. TQ)

ASTRONOMERS are horrified by press scares over asteroids - including the recent furore over QQ47 - which briefly had a one-in-a-million chance of crashing into our planet in 2014. So much so that they are toning down the scale they use to rate the threat posed by asteroids in an attempt to discourage journalists from covering potential collisions. Some even want the way asteroids are assessed to be completely overhauled. The Torino scale, developed in 1999 by Rick Binzel of the Massachusetts Institute of Technology, is used to inform the public about potential impacts. It rates an asteroid's threat on a scale of 0 to 10, based on its speed, size and probability of impact with Earth (see Graphic).No asteroid has ever exceeded a hazard rating of 1- the same chance as a random object of the same size hitting Earth in the next few decades. Despite that, last week's category-1 asteroid made headlines. And as searches for near-Earth asteroids grow more systematic, sightings of potentially dangerous rocks are becoming routine. Even as the commotion over QQ47 was dying down, astronomers found another, even larger asteroid that earned a similar hazard rating. QQ104 is 2.7 kilometres across, and for a couple of days last week looked to be heading for a possible impact as early as 2009. While journalists insist they reported the information on QQ47 accurately, astronomers feel they were misrepresented. "That was certainly much ado about nothing," says Steve Chesley of NASA's Jet Propulsion Laboratory in Pasadena, California. "It was like a virus solely within the realm of the press." Binzel himself is so upset by the press coverage of asteroid scares that he is toning down the scale's wording. Instead of "requiring careful monitoring", a category-1 event will now be described as "normal". Brian Marsden of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Massachusetts, worries that the public will stop taking the asteroid threat seriously if false alarms continue. He says altering the scale isn't enough: "It's time we got rid of it." At the moment, newly discovered "threats" tend to start higher on the scale, when astronomers still have little information on them, and then drop down as further observations rule out the hazard.

No Actual threat to asteroids – the aff only instigates an irrational fear.

Schilling. 99. (Govert Schilling is a Dutch science writer and astronomy publicist and contributing editor of Sky and Telescope magazine. “And Now, the Asteroid Forecast...” *Science New Series, Vol. 285, No. 5428* (Jul. 30, 1999), p. 65. Published by: American Association for the Advancement of Science. Article Stable URL: <http://www.jstor.org/stable/2898447>. TQ)

Astronomers have devised a scale to rate the danger posed by asteroids headed for Earth, comparable to the Richter scale of earthquake fame. The so-called Torino scale, which ranges from 0 (no collision) to 10 (certain collision causing Earth-wide devastation), was developed by Richard Binzel of the Massachusetts Institute of Technology and presented to colleagues during a June workshop in Turin (Torino), Italy. The International Astronomical Union endorsed it last week. The topic of asteroids is "prone to sensationalism," says Binzel. Twice in recent years media hype erupted after astronomers discovered a rock that had a remote possibility of slamming into Earth (Science, 20 March 1998, p. 1843, and 23 April 1999, p. 565). "It's very hard to communicate extremely low probabilities to the general public," says Binzel. "The new scale gives us a common lexicon.55 The scale, which Binzel had been working on since 1994, takes into account the chances that an asteroid will hit as well as its size and speed rela- tive to Earth. Torino scale values of 8, 9, and 10 refer to certain collisions, with local, regional, and global consequences, respectively. But "the average citizen shouldn't .' be concerned about an aster- oid with a Torino value of 1," says Binzel. The two recently discovered asteroids both would have been rated 1 when they were first discovered, but subsequent observations would have placed them firmly in the 0 category. Binzel says he was advised by science writers

Impact Defense

**Asteroid Scares are mainly unfounded on evidence and only used periodically for media attention**

Britt 2003 (Robert, Senior Science Writer for Space.com, Space.com, *Asteroid Scares, Why They Won’t End*, September 3, 2003, <http://abob.libs.uga.edu/bobk/ccc/cc090903.html>, AG)

Earth is doomed, again Yates said received a request for information from a BBC radio reporter about a newfound asteroid whose chance of hitting Earth could not be ruled out. As project manager of the British government's Near Earth Object Information Center (NEOIC), Yates posted information and expert quotations about the space rock on the organization's web site. Newspapers and web sites around the world quickly warned of a treacherous asteroid called 2003 QQ47. It was on course to destroy the planet, many stories said. "Earth is doomed" was among the most outlandish of a slew of misleading headlines. Few of the publications bothered to mention a day later that the odds of impact had dropped to zero. The coverage was called "obsolete and overblown" by one asteroid researcher, the lack of retractions "shocking and reprehensible." The odds of collision were put 1-in-909,000 in the year 2014. The rock ranked a 1 on the Torino Scale, meaning it deserved "careful monitoring" by astronomers. Zero is the lowest and 10 is a worst-case scenario. In many stories, these truths were buried below a frosting of frightening adjectives and alarmingly active verbs. Yates, whose agency is barely a year old, became a lighting rod for criticism from his peers, astronomers and asteroid analysts who have been similarly bitten by the media in recent years. What Yates didn't fully understand, but what his colleagues did, was that any mention of an asteroid with miniscule odds of impact could become fodder for outlandish claims of impending Armageddon. Doom sells papers. By the end of the day -- and even before some of the stories were published -- more scientific observations had been gathered and the chance of collision was reduced to zero, "leaving many journalists with egg on their faces," wrote Leon Jaroff in Time Magazine. The scientific outcome, indeed the whole process, was routine. Three dozen other newfound asteroids this year have had similar long-term non-zero chances of impact. Of these, five still have not been ruled out. Three of the objects, in addition to 2003 QQ47, ranked 1 on the Torino Scale. But for whatever reasons the media didn't notice any these objects. Importantly, last week's episode was a virtual rerun of four others that have occurred since 1998. There is one key difference, however. Each time previously, astronomers worked diligently on ways to prevent a recurrence. This time, there are a predictable round of accusations and more suggestions for how to improve the system.

Asteroid impacts have zero probability and can be grouped with the same impact of natural disasters

DAVID MORRISON 10 Director, Carl Sagan Center for Study of Life in the Universe, SETI Institute Senior Scientist, NASA Ames Research Center Impacts and Evolution: Protecting Earth from Asteroids1http://www.amphilsoc.org/sites/default/files/1540404.pdf

 **Cosmic impacts are highly infrequent, and the largest (mass extinction level) events have characteristic time-scales of tens of millions of years. Even the smaller localized events have low probability relative to other more familiar natural hazards such as earthquakes, tsunami waves, and severe storms.** Until astronomers began to survey for potential impactors, the risk was perceived as random, and little, if any, warning could be expected. From the perspective of an elected official, the chances of having to deal with such a catastrophe within a term of office are extremely low, whether we are discussing local or global events. Yet the potential exists for an impact catastrophe at any time, in any country, with little or no warning. **Because the probability of a catastrophic impact is so low, governments and public are not generally interested in the precise probabilities of impacts.** It suffices to note that they are very rare, but potentially catastrophic. Much more relevant is information on specific future events. People want to know when and where the next asteroid impact will take place, and governments are motivated to make major defense investments when a clear and present danger has been identified. This discussion focuses on predicting impact events, and the logical follow on issue of what, if anything, we can do to prevent such catastrophes.

Impact Defense

No terminal impact status quo proves we will survive

DAVID MORRISON 10 Director, Carl Sagan Center for Study of Life in the Universe, SETI Institute Senior Scientist, NASA Ames Research Center Impacts and Evolution: Protecting Earth from Asteroids1http://www.amphilsoc.org/sites/default/files/1540404.pdf

 **Although the impact hazard was treated with substantial skepticism two decades ago when surveys were fi st proposed, it has become conventional wisdom that we should carry out the Spaceguard Survey for asteroids large enough to threaten global disaster** (e.g., Posner 2004; Clarke 2007; Slovic 2007; Morrison 2007). The question whether we need a much more expensive survey for sub-km asteroids is still being debated, however (Atkinson et al. 2000; Chapman 2000, 2007a; Morrison et al. 2003; Stokes 2003; Sidle 2007; NRC Report 2010). As the original Spaceguard Survey goals are within reach, the residual hazard lies in the few undiscovered asteroids larger than 1 km and in the sparsely sampled sub-km asteroids**. The largest hazard will be from tsunamis caused by impactors several hundred meters in diameter, but this is primarily a risk to property since fatalities can be greatly reduced by the application of tsunami warning system**s. The most life-threatening hazard from sub-km impacts is associated with airbursts over land. The survey results have already transformed our understanding of the impact risk. For asteroids with diameter of 5 km or more, which is roughly the threshold for an extinction event, our knowledge is complete today. **Astronomers have already assured us that we are not due for an extinction-level impact from an asteroid within the next century. Barring a very unlikely strike by a large comet, we are not about to go the way of the dinosaurs**. Thus, the rest of this paper focuses on the more frequent impacts by asteroids with diameters from 5 km down to the atmospheric cut-off at about 50 m diameter, spanning the range from global catastrophic disasters at the top end down to local endurable disasters at the lower end of the energy range.

Scientist agree the AFF can’t garner extinction claims from asteroids

 Harris 06“Alan W. Harris He received a BS degree from Caltech in 1966 and a PhD from UCLA in 1974, specializing in planetary dynamics. Chicken little was Right! The risk from an asteroid or Comet Impact http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=d2ed4fad-1fb7-4071-8647-630cb686e520%40sessionmgr115&vid=1&hid=107

 At a size between 1 to 2 km in diameter, an impact will loft enough debris to cause a global climatic disaster. Even an impact into the deepest ocean would punch through to the bottom and loft solid material, which would blow out of the atmosphere and rain back down at hypersonic speeds to burn up into micron-sized dust, like so many meteors. The resulting dust cloud would shut off sunlight, and hence plant photosynthesis, for months or years, destroying agriculture for at least one growing season. Thus, even though the zone of prompt destruction from the impact still would be small, the population of the entire planet would feel the consequences through famine and disease; perhaps a quarter of the entire world population might perish. **The final category, “global extinction,” is so infrequent that the risk, in terms of fatalities per year, is hardly significant. Furthermore, we have already discovered all (we think) asteroids that large, and none of those objects has our name on it in the foreseeable future (more than a century). So it seems likely that we are safe from extinction, at least from killer asteroids, for the time being**

Impact Defense

**NASA agrees no need to fear latest asteroid scare**

Beau Brendler Apr 21, 2011 – 4:27 PM Asteroid and Meteors on the Way, NASA Says 'Stay Calm' <http://www.aolnews.com/2011/04/21/asteroid-and-meteors-on-the-way-nasa-says-stay-calm/>

When the Lyrid meteor shower hits full strength Friday and Saturday morning, it will mark a sort of planetary triple crown: Earth Day, Good Friday and Passover. The Lyrids are one of the oldest known showers, creating a light show usually seen easily from Earth -- and completely harmless. Until recently, though, plenty of sky watchers thought Earth would now be starting a 25-year countdown to planetary holocaust -- April 13, 2036, when the 270-meter-wide asteroid dubbed 99942 Apophis would hammer our home world with the force of two Krakatoas. Not enough to crack Earth like a rotten coconut, but enough to ruin a lot of people's day. **Today, however, NASA officials are more likely to grumble in private that Apophis is the cosmic clod that just won't go away**. "**We are confident it will be a non-issue," said Don Yeomans, manager of NASA's Near Earth Object Program Office at the Jet Propulsion Laboratory in Pasadena, Calif.** Apophis looms in the public's imagination for good reason. In February, Russian scientists made a more-dire-than-necessary prediction: that Apophis, named for the Egyptian god of Chaos, would blast the planet to borscht in 25 years. Perhaps in the grip of Apophic apoplexy two years earlier, Russia had announced mission plans with the intent to deflect the rock away from Earth. That approach was criticized for fear it might actually have the opposite effect. Also, the French proposed sending a group of solar sails toward Apophis to reflect radiation at it, hoping to change its course. Even more confusing is the possibility that, in April 2029, Apophis -- with a similar orbit to Earth's around the sun -- might pass through a "gravitational keyhole," a section of space subject to concentrated gravity about twice its size. In theory, that could alter its orbit enough to swing it back to hit Earth in 2036. "Earth's gravitational tugs are just enough to modify [Apophis'] orbit," Yeomans told AOL News, but he added that the chances of this actually happening are 1 in 250,000 and likely to get smaller. That level of risk is in between dying in a flood -- 1 in 175,803 -- and getting blown up by fireworks, 1 in 386,766 (death by gunshot risk is 1 in 306, and that hasn't prompted the repeal of the Second Amendment, after all). Apophis doesn't even rate a highlighted color on the Near-Earth Object Program's risk charts. But before you cross astro-death off your list of things to worry about, think about this: NASA's budget request for 2012 for patrolling the skies has increased fivefold, from $4 million to $20 million, though the number is subject to change in current congressional debates. "We have far more immediate concerns than asteroid impacts," Yeomans said. "But they are the only natural disaster I know of that could quickly wipe out a civilization." While an asteroid hit is on the scale of bad things happening, it's highly improbable. "They are high-consequence events that we need to pay more attention to than we have been," Yeomans added. "**We don't need to mount an emergency campaign, but I think we should increase our search efforts."** Scientists have discovered about 900 potentially threatening space objects over 1 kilometer in size or larger -- that's 0.6 miles, about the distance you could go in a 10-minute walk. However, Congress recently revised the parameters for what it considered a hazardous space object down to a diameter of 140 meters -- about 1 1/2 times the size of a football field. That's big enough to cause a tsunami, depending on what the object is made of: Comet debris can be large balls of porous fluff, while others are slabs of solid iron or piles of rubble held together by gravity. Yeomans estimates NASA is only about 20 percent of the way to tracking these smaller but potentially deadly objects. It wants to reach 90 percent to relieve an element of worry from the public consciousness. "There are an extraordinary number of objects in space we need to track," Yeomans said. "For years, we were blissfully ignorant."

Impact Defense

Humans won’t die—Science can prove that there will be relation between the rate of extinction and impact size by asteroids

Gorman 03 (Rachael Moeller, award-winning journalist for writing and health, Science Magazine 2003, *EXTINCTION TRENDS: NO NEED TO FEAR THE ASTEROIDS?*,February 23, 2003, [http://web.ebscohost.com/ehost/detail?sid=4fb52ea5-46fc-4c93-9ce5-fd5ae604d20f%40sessio nmgr4&vid=12&hid=24&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=8977511](http://web.ebscohost.com/ehost/detail?sid=4fb52ea5-46fc-4c93-9ce5-fd5ae604d20f%40sessio%20nmgr4&vid=12&hid=24&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=8977511), AG)

Based on evidence that an asteroid impact helped to reduce the dinosaurs to dust 65 million years ago, scientists have reasoned that other large impacts might produce similar extinctions--and that humans could be next on the hit list. But John Alroy of the University of California at Santa Barbara finds that life may be surprisingly resilient. He examined the size and ages of major craters in North America and compared them with the mammalian fossil record over the past 65 million years. Contrary to the predictions of one prominent extinction model, known as Raup's Kill Curve, Alroy could detect no correlation between impact size and the rate of extinction (above). He argues that life is far more tenacious than some scientists make it out to be. Furthermore, mass extinctions are very unusual, he says, and are rarely caused by a single catastrophic event. They are much more likely to result from slower, less dramatic processes such as species migration, climate change, competition, and disease.

And the probability of an asteroid impact is very low. Granted it did hit, the impact is minimal.

Britt 05 (Robert Roy Managing Editor of LiveScience since its launch in 2004, LiveScience, *The Odds of Dying*, January 6, 2005, <http://www.livescience.com/3780-odds-dying.html>, MS)

Perceptions of risk factors can change over time simply because more is learned. The chances of an Earth-impacting asteroid killing you have dropped dramatically, for example, from about 1-in-20,000 in 1994 to something like 1-in-200,000 or 1-in-500,000 today. The new numbers -- their range reflecting the need for further research -- were offered up last week by Clark Chapman of the Southwest Research Institute and David Morrison at NASA's Ames Research Center. Why such a dramatic downgrade? Active intervention. "A significant part of it is that we have now discovered, in the last dozen years, a good fraction of the largest, most deadly asteroids and found that they won't hit the Earth," Chapman told LiveScience. Also, projections of the destruction a large space rock would cause have been revised downward a bit. Finally, since Earth is two-thirds water, asteroid risks include the possibility of an impact-induced tsunami. And Chapman says asteroid-generated tsunamis may not be as deadly as once presumed. Others contend the odds of death-by-asteroid are still about 1-in-50,000, until the remaining handful of expected large asteroids are found and determined not to be a near-term threat. "This is a matter of hot, ongoing debate and calculations, however, partly motivated by the recent Indian Ocean tsunami," Chapman said. Which brings up another huge margin of error. The death toll in Asia was greatly increased by the lack of a tsunami warning system, whereas there is one covering the Pacific Ocean. "Our risk exposure from impact tsunamis depends heavily on the existence of such warning systems," Morrison said. Both scientists stress that the asteroid risk is just an estimate. Like everything in this article. In the end, the only stat you can really count on is the overwhelming likelihood that you will, in fact, pass on.

Impact Defense

**Empirically proven – Asteroid scare is based off of unlikely probabilities.**

Morrison. 03. (David Morrison. the senior scientist at the NASA Astrobiology Institute . “Pointless Asteroid Scare” Sept. 3, 2003 <http://lawrencehallofscience.org/pass/TargetEarth/asteroid-scare.html>. TQ)

As I am sure you have all heard, the British NEO Information Centre has created another media flap over an asteroid, 2003 QQ47, that poses no danger of hitting the Earth. On August 24, the LINEAR search system in the Spaceguard Survey discovered 2003 QQ47. As is the case with many newly discovered NEAs, the initial orbit was highly uncertain and included several low-probability cases of possible future impacts. The orbit information was posted on the Internet by the JPL Sentry and Pisa NEODys systems. At one point, with only 6 days of observations reported, the formal odds of an impact in 2014 briefly rose slightly above one-in-a-million, and then went virtually to zero as more data were reported. This is standard operating procedure for dealing with newly discovered NEAs. Unfortunately, the UK NEO Information Centre decided that this asteroid deserved special attention, and on September 2 they issued a press release calling attention to the danger of collision in 2014. Since the NEO Information Center is supported by the UK government, this quasi-official "prediction" was widely reported in the British press. While most stories correctly noted the very small odds of hitting, they still treated this as a serious warning of a threat to Earth. The story was also reported in Europe, the USA, and Australia, but more moderately than in the UK. The result is another round of criticisms of astronomers, triggered by the NEO Information Centre release (which they withdrew on September 3). This is not the first time, of course. For your information, two background discussions follow: A story by Robert Britt from Space.com that deals with the media reactions to 2003 QQ47, and a section from a scientific paper in press that describes five previous cases where the supposed danger of impact was widely reported in the press.

No Chance of asteroid collision – it’s just hype.

Boyle 04. (Alan Boyle is a journalist specializing in science and technology news. “Astronomers rule out asteroid risk in 2029
 <http://www.msnbc.msn.com/id/6751433/ns/technology_and_science-space/t/astronomers-rule-out-asteroid-risk/> TQ. )

After issuing an unprecedented "yellow alert" for a potential cosmic collision, astronomers said further observations showed that a recently discovered asteroid had no chance of hitting Earth in the year 2029. Monday's announcement, issued by the Near Earth Object Program at NASA's Jet Propulsion Laboratory, capped a high-priority search for data about the space rock, which was discovered in June and designated 2004 MN4. At one point, astronomers said the uncertainty factor about 2004 MN4 allowed for a 1-in-40 chance of a collision on Friday, April 13, 2029. That led them to give the asteroid a rating of 4 on the 1-to-10 Torino scale that is used to gauge the threats posed by near-Earth asteroids and comets. Until 2004 MN4, no object had been graded higher than 1. The asteroid is thought to be about 1,400 feet (430 meters) long. That's not large enough to create a mass-extinction event, like the one that scientists say contributed to the demise of the dinosaurs 65 million years ago. But if the asteroid were to hit the wrong place at the wrong time, it could cause a giant tsunami wave or deliver a nuclear-scale blast. "When we added those five observations, the impact probability in 2029 went to zero," Yeomans told MSNBC.com.

Aff Answers

Impact Non-Uniqueness

**Humans won’t die—there is no relation between the rate of extinction and impact size by asteroids**

**Gorman 03** (Rachael Moeller, award-winning journalist for writing and health, Science Magazine 2003, *EXTINCTION TRENDS: NO NEED TO FEAR THE ASTEROIDS?*,February 23, 2003, [http://web.ebscohost.com/ehost/detail?sid=4fb52ea5-46fc-4c93-9ce5-fd5ae604d20f%40sessio nmgr4&vid=12&hid=24&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=8977511](http://web.ebscohost.com/ehost/detail?sid=4fb52ea5-46fc-4c93-9ce5-fd5ae604d20f%40sessio%20nmgr4&vid=12&hid=24&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=8977511), AG)

Based on evidence that an asteroid impact helped to reduce the dinosaurs to dust 65 million years ago, scientists have reasoned that other large impacts might produce similar extinctions--and that humans could be next on the hit list. But John Alroy of the University of California at Santa Barbara finds that life may be surprisingly resilient. He examined the size and ages of major craters in North America and compared them with the mammalian fossil record over the past 65 million years. Contrary to the predictions of one prominent extinction model, known as Raup's Kill Curve, Alroy could detect no correlation between impact size and the rate of extinction (above). He argues that life is far more tenacious than some scientists make it out to be. Furthermore, mass extinctions are very unusual, he says, and are rarely caused by a single catastrophic event. They are much more likely to result from slower, less dramatic processes such as species migration, climate change, competition, and disease.

Aff Answers—No Link—Asteroid Threat Real

Asteroids require attention now. The probability of impact is increasing and must be dealt with.

Semeniuk 7 (Ivan journalism degree and undergraduate degree in physics and astronomy, New Scientist, *Asteroid threat demands response, experts warn*, February 17, 2007, <http://www.newscientist.com/article/dn11207-asteroid-threat-demands-response-experts-warn.html>, MS)

Kamchatkans and Venezuelans beware. A 20-million-tonne asteroid could be heading your way. Californians have even more reason to worry - the asteroid is more likely to hit the Pacific Ocean, triggering a tsunami that could devastate the west coast of North America. These are among the scenarios projected for asteroid Apophis, which researchers now say has a 1 in 45,000 chance of hitting Earth on 13 April 2036. Calculations show it would strike somewhere along a narrow track that stretches eastward from Siberia to the west coast of Africa. Compared to earlier estimates, the new figure represents a further reduction in the threat posed by Apophis (see Risk of asteroid smashing into Earth reduced). But the threat is real enough, experts argue, to merit a United Nations protocol for dealing with the problem. "Someone will have to make a decision," says Russell Schweickart, a former Apollo astronaut and founder of the Association of Space Explorers. Because any plan for deflecting the asteroid away from Earth will need to be implemented well before an impact site is precisely known, he says, "this is inherently going to be an international decision".

And if we don’t take action right now it could become too late. The chances of an asteroid impact would increase greatly.

Semeniuk 7 (Ivan journalism degree and undergraduate degree in physics and astronomy, New Scientist, *Asteroid threat demands response, experts warn*, February 17, 2007, <http://www.newscientist.com/article/dn11207-asteroid-threat-demands-response-experts-warn.html>, MS)

In most cases, those threats will vanish with additional observations that will narrow the range of possible trajectories. However, in some cases the threat of an impact could persist long enough to require action. "If you wait to be certain, it could be too late," says Schweickart. Schweickart and others discussed options for dealing with Apophis and other asteroid risks at the annual meeting of the American Association for the Advancement of Science in San Francisco, California, US. "Apophis forces us to think about what we might do if [an impact threat] reaches our threshold of pain," say Ed Lu of NASA's Johnson Space Center in Houston, Texas, US. Lu, who led the discussion on asteroid deflection, warned that "simple methods are not so simple" when it comes to moving the mountain-sized chunks of rock that hurtle through our local region of the solar system. Among the least desirable options is the use of a nuclear warhead to blow up an approaching asteroid. "You could make life a lot worse," says Lu, by turning one potential impactor into many.

Aff Answers—No Link—Asteroid Threat Real

**There’s a high risk that asteroids will hit the earth and the terminal impact is extinction—previous assumptions that the risk of being hit by a space rock is low are just plain wrong—and if we get hit it could literally end life on the planet.—This justifies securitization**

**Easterbrook 8 (Gregg, lecturer, senior editor of The New Republic, “The Sky is Falling”, The Atlantic Magazine, June 2008, NB**

 **http://www.theatlantic.com/magazine/archive/2008/06/the-sky-is-falling/6807/)**

These standard assumptions—that remaining space rocks are few, and that encounters with planets were mainly confined to the past—are being upended. On March 18, 2004, for instance, a 30-meter asteroid designated 2004 FH—a hunk potentially large enough to obliterate a city—shot past Earth, not far above the orbit occupied by telecommunications satellites. (Enter “2004 FH” in the search box at Wikipedia and you can watch film of that asteroid passing through the night sky.) Looking at the broader picture, in 1992 the astronomers David Jewitt, of the University of Hawaii, and Jane Luu, of the Massachusetts Institute of Technology, discovered the Kuiper Belt, a region of asteroids and comets that starts near the orbit of Neptune and extends for immense distances outward. At least 1,000 objects big enough to be seen from Earth have already been located there. These objects are 100 kilometers across or larger, much bigger than whatever dispatched the dinosaurs; space rocks this size are referred to as “planet killers” because their impact would likely end life on Earth. Investigation of the Kuiper Belt has just begun, but there appear to be substantially more asteroids in this region than in the asteroid belt, which may need a new name.

Regardless of what we can actually do, we need to take action now. We will only be able to avoid an impact if we start planning now.

Peckyno 4(Robert Bachelor of Science, Middle Tennessee State University, The Sky is Falling, *Disaster Mitigation, Management, and Media regarding the Asteroid Hazard*, August 2004, Pg. 9, MS)

Currently there is no known way to definitively stop an asteroid or comet found to be on a direct collision course with Earth. Further, as stated above, smaller impact events will likely happen with little or no warning. Consequently, the best current option is to work concurrently to mitigate the hazard (long-term) and educate and equip disaster relief units to be both knowledgeable and prepared for the possibility, however unlikely (short-term). In the United States, a basic reality of the decentralized federal system is that much of the authority and capacity to cope with a threat is found at the state and local levels. 46 For instance, if a terrorist attack occurs, the “first responders” will necessarily be local fire, police and rescue personnel. If an impact were to occur, the first responders will likely not have the expertise and the wherewithal to cope effectively with the disasters that will accompany an impact. Funding for programs that help educate and equip first responders to be better able to react effectively to an impact disaster is critical because they (whether trained and equipped or not) will be on the front lines and the scientists, agencies, and search programs will, at least initially, be irrelevant. 47

Aff Answers—No Link—Asteroid Threat Real

And “near misses” of asteroids are increasing more and more. An impact is bound to happen soon.

Peckyno 4(Robert Bachelor of Science, Middle Tennessee State University, The Sky is Falling, *Disaster Mitigation, Management, and Media regarding the Asteroid Hazard*, August 2004, Pg. 23-24, MS)

Reports of possible impacts by comets or asteroids are not exactly a new thing. Edmond Halley, long before the comet that bears his name made its first predicted return, suggested that a comet might eventually strike Earth with possibly devastating results. It wouldn't be surprising if, back in 1690, a few press reports blew Halley's warning way out of proportion, and astronomers worried that their credibility would be undermined as a result. 112 As asteroid detection programs improve and "near misses" are more24 frequently reported, the most likely aspect of the impact hazard that a public official will encounter is not the actual impact by a dangerous asteroid but (a) the prediction of a possibility of an impact or threatening near miss or (b) a serious mistake by professional scientists or, more probably, by the purveyors of scientific information in the media. In general, human foibles are more likely than a rare asteroid impact, but they can have real social and political consequences. 113

Asteroid strikes destroy civilization

Garshnek et. al, 2k (Victoria Global Human Futures Research Associates, David Morrison, NASA Ames Research Center, Frederick M. Burkle Jr, Division of Emergency Medicine, Department of Surgery, John A. Burns School of Medicine “ The mitigation, management, and survivability of asteroid/comet impact with Earth,” Space Policy 16 (2000) 213 – 222, MS)

As far as we know, impacts are randomly distributed in time. Of the roughly 1500 (in number) kilometer-scale NEOs currently in Earth crossing orbits, some 30% have been found. Although we feel confident that Earth will not be struck in the foreseeable future by any of the known objects, we cannot say anything about the 70% that are not yet discovered. A comprehensive search has not yet been carried out and we must often speak in terms of probabilities. The chances of one of the undetected NEOs with a diameter of 1 km or more colliding with Earth in the next 50 years is about 1 in 20,000 [32]. The consequences would be catastrophic and global: there would be an impact winter, a collapse of agriculture and, possibly, the end of our civilization. However, chance is not really at work here. There either is or is not a NEO aimed to hit Earth in the next year or in the next century. There are those who believe that there is no escape from a large asteroid impact that would have global effects. A large object filling the atmosphere with dust, blotting sunlight, causing extreme cold and killing plants presents a complex emergency of unprecedented proportions. The disaster response problem can be immense. Smaller objects could cause continent wide destruction necessitating evacuation plans, which can be the ultimate logistic and public health nightmare. Staying in the projected area of devastation and being comfortable to the end does not "t with the human innate instinct to survive and most likely would not be the popular course of action. Hoping not to know about the impact coming is also not a solution. Other thoughts may center on hoping it does not hit in our lifetime \* let it be a problem for future generations to deal with. All of these viewpoints are missing the key issue: is human civilization worth saving? Is everything we have been a part of in our lifetime and historically evolved from worth preserving? It is the collapse of civilization \* the loss of thousands of years of the fruits of the arts, religion, and the sciences \* that we should fear the most. In his opening statement to the Congressional hearings on the NEO threat on 24 March 1993 [32], the late US Congressman George E. Brown Jr. stated: `If some day an asteroid does strike the Earth, killing not only the human race but millions of other species as well, and we could have prevented it but did not because of indecision, unbalanced priorities, imprecise risk definition and incomplete planning, then it will be the greatest abdication in all of human history not to use our gift of rational intellect and conscience to shepherd our own survival, and that of all life on Earth.

Aff Answers—No Link—Asteroid Threat Real

Data is not always correct. Incorrect data or ineffective searching always leave the chance of an accidental impact. Empirics prove.

Peckyno 4(Robert Bachelor of Science, Middle Tennessee State University, The Sky is Falling, *Disaster Mitigation, Management, and Media regarding the Asteroid Hazard*, August 2004, Pg. 43-44, MS)

"The MPC faced the embarrassing fact that they had effectively made the first-ever prediction of a near-term asteroid impact without even realizing it themselves. Marsden hastily tried to fix the web page. Supported by no new observations, he posted a new, non-impacting (actually receding) trajectory, which was also consistent with the data. **An hour later**, Spahr -- having finished dinner, gone home, logged in and discovered what was happening, and raced back to the MPC -- replaced Marsden's post with yet another trajectory, once again showing the asteroid headed toward the Earth, but this time narrowly missing an impact. None of the later postings reflected new data: Spahr and Marsden were simply frantically trying to figure out for themselves what the data meant and what was politically correct to display on their web site. With hindsight, it is clear that the highest priority should be to search for "virtual impactors" -- that is, the subset of asteroid trajectories allowed by the uncertainties in the fit to the data that would result in an impact; if no asteroid is found in the patch of sky that meets these criteria, then there is no longer a threat of impact. The second priority should be to find the NEO, wherever it might be within the spread of uncertainty, so that it isn't lost. Another priority, of course, is not to confuse, mislead, or frighten people by leaving an effective impact prediction posted on the web site (without appropriate caveats, especially for non-experts who might suddenly be alerted to this web page's existence). With hindsight, we can surely imagine better solutions than any of those implemented on the NEOCP in unplanned crisis-mode that night. But the chief blameworthy error is lack of thorough planning by the night. But the chief blameworthy error is lack of thorough planning by the NEO community for such a contingency, not in the spur-of-the-moment decisions actually made". 180 A few very important details come from this account. First, and perhaps foremost, is that the object caught everyone completely off-guard. Secondly, no ephemeris data was known on the object. At the time it was posted to the Minor Planet Center's NEO Confirmation Page (NEOCP) with LINEAR discovery designation AL00667, this object was thought too small to be hazardous. As Spaceguard U.K. put it: "probably smaller than a bus, and would certainly never make it through the atmosphere to hit the ground." However, it turned out to be bigger than anyone had thought. JPL puts 2004 AS1's absolute magnitude at H=20.29, which by standard formula converts to a diameter of 230 to 520 meters/yards, with 295 as best guesstimate.181 It is now known that it ultimately passed Earth on February 16, 2004 at just over 33 lunar distances (LD) and doesn't ever come closer than 8.56 LD.182 Third, no mention was made of attempting to contact the military to confirm and follow-up on the sighting with space-based assets. Would it not be sensible to contact them before calling the President? Unfortunately, no established relationship or chain of contact exists between the scientists and the military. This situation illustrates clearly the importance and usefulness of establishing that link. Fourth, none of the later internet postings reflected new data. Yet, a decision was made regarding “what was politically correct to display on the MPC web site.” In his account of the incident, Marden stated:

An asteroid impact is inevitable. We must be prepared for anything to prevent significant damage.

Peckyno 4(Robert Bachelor of Science, Middle Tennessee State University, The Sky is Falling, *Disaster Mitigation, Management, and Media regarding the Asteroid Hazard*, August 2004, Pg. 49, MS)

Secondly, it is only a matter of time before a small NEO approaches unannounced and airbursts or impacts near a populated center causing massive damage and loss of life. Currently, most of the current work regarding NEOs is focused on observation, however, the smaller objects that are statistically more likely to strike are rarely observed and would likely impact unannounced. If that were to happen, relief and public safety agencies (not to mention governments and media) would be utterly unprepared. Thus, it makes sense to also prepare for this possibility from a hazard mitigation standpoint. Many of the possible manifestations of a smaller body impact resemble the potential damage from other natural hazards and, while there are aspects of the asteroid hazard that are unique, an investigation of existing resources and capabilities regarding other natural hazards provides a valid starting point and model.

Aff Answers—No Link—Asteroid Threat Real

Aff Answers—No Link—Asteroid Threat Real

Asteroids impacts are inevitable. Only early preparations can save us.

Peckyno 4(Robert Bachelor of Science, Middle Tennessee State University, The Sky is Falling, *Disaster Mitigation, Management, and Media regarding the Asteroid Hazard*, August 2004, Pg. 72, MS)

One day a NEO will impact a populated area. Without the ability to destroy or otherwise redirect an incoming impacting body, it is certain to happen – it is just a matter of time. Consequently, while rare, NEOs are a legitimate addition to the list of possible civil disasters.280 The paramount issue in a hazard management strategy is the prevention of loss of life. Early detection and characterization (of structure, spin, composition, etc) of potentially hazardous NEOs is an important first step to quantify the risk Earth faces. However, if an impact occurs, plans must exist to minimize the mortality and economic destruction and, in extreme cases, to preserve civilization and the human species. While this generation may not face an incoming threat, there are things that can be done today to help insure a safer tomorrow.

**It is statistically inevitable that Earth will be struck by asteroids.**
**Chapman 4** (Clark R., Southwest Research Institute, March 4, 2004. “The hazard of near-Earth asteroid impacts on earth”, NB http://www.b612foundation.org/papers/Chapman\_hazard\_EPSL.pdf)

Even after discovery of the Chicxulub impact structure in Mexico and its temporal simultaneity with the Cretaceous–Tertiary (K–T) boundary and mass extinctions [18], it has taken some earth scientists a while to recognize and accept the statistical inevitability that Earth is struck by asteroids and comets. Each impact, occurring on timescales of tens to hundreds of Myr, liberates tens of millions to billions of megatons (Mt, TNT-equivalent) of energy into the fragile ecosphere, which must have had dramatic consequences every time. A few researchers still consider the Chicxulub impact to be only one of several contributing factors to the K–T extinctions (e.g., [19]) and direct evidence firmly linking other mass extinctions to impacts is so far either more equivocal than for the K–T, or altogether lacking. Some geoscientists still think of asteroid impacts as ad hoc explanations for paleontological changes and they resist the logic that earlier, even greater impact catastrophes surely occurred. If the great mass extinctions are not attributed to impacts (e.g., explained instead by episodes of volcanism or sea regressions), one must ask how the huge impacts that must have occurred failed to leave dramatic evidence in the fossil record.

Aff Answers—No Link—Asteroid Threat Real

**We’re overdue for our next big asteroid hit—the impact is billions of deaths.**

 **Ghayur 7** (A., Lecturer, University Institute of Information Technology, 5/3/2007, NB

 <http://www.aero.org/conferences/planetarydefense/2007papers/P5-1--Ghayur--Paper.pdf>)

1694 was the year when a man envisioned a bone chilling scenario after witnessing a Near Earth Object (NEO); “What if it would return and hit the Earth?” The man is now a world renowned scientist, Dr. Edmond Halley, and the object now one of the most famous comets, the Halley’s Comet has returned numerous times without any incident. Human civilization has come a long way since the Dark Ages of mid twentieth century, however, it is only now that the mankind is realizing the veracity of the apocalyptic scenario – a heavenly body colliding with earth – the Hellish nightmare which troubled Dr. Halley. Although the chances of Halley’s Comet plummeting into earth are nearly nonexistent, the chances nevertheless of another NEO colliding head on with earth are very much there. The battle-scared face of moon and the numerous impact craters on earth are a living testament to it. But all this evidence proved insufficient to turn any heads until 1994 when Shoemaker-Levy Nine crashed into Jupiter. The earth-sized storms created on Jupiter surface sent alarms through the echelons of bureaucracy and politics and suddenly a nonexistent apocalyptic nightmare had become a very much possible scenario. Today, we are sitting in the midst of ever increasing human population on this planet Earth, which in turn is sitting amidst ever increasing number of identified NEOs. We are already overdue for our next big hit; last one occurring 65 million years ago at Chixilub. Any impact of that scale would result in deaths and displacement of billions, if not more. Do we have a global network and an institution to respond timely and effectively

Aff Answer-No Solvency

the k cant solve as a whole the UN even agrees that this issue must be addressed

Mazlan Othman, 14 October 2010 – Director of the Office for Outer Space Affairs Possible threat to Earth by asteroids among issues at UN debate on outer space http://0077ww.un.org/apps/news/story.asp?NewsID=36449&Cr=general+assembly&Cr1=

**A United Nations working group is currently looking into how the Organization should respond to possible threats to the planet from near-earth objects, such as asteroids, a senior official with the world body said today**. Mazlan Othman, the Director of the UN Office for Outer Space Affairs (UNOOSA), told reporters at UN Headquarters in New York that the working group – within the UN Committee on the Peaceful Uses of Outer Space – is expected to come up with recommendations which would be presented to the General Assembly for Member States to make a decision on response to near-earth objects. “We now have a working group that has a multi-year work plan in the Committee to discuss this, and this working group will come up with a draft on how the UN should deal with this situation,” Ms. Othman, who is in New York to attend the Assembly’s discussions on international cooperation on the peaceful uses of outer space. She said the Vienna-based Committee is also discussing space debris, among other issues, and long-term sustainability of space exploration. “**Any space debris is very dangerous not only to satellites but also to human life because of the International Space Station,” said Ms. Othman. Other topics on the Committee’s agenda include benefits of space technology, space and water, and space and climate change. She said she could not rule out the possibility that some kind of life may exist somewhere in outer space, given the large number of galaxies and extra-solar planets out there. “It is not surprising that there could be life on one of the stars,” Ms. Othman said in response to a reporter’s question, adding that she believed that if that was indeed the case, the UN, through UNOOSA would then support Member States in discussing the issue.**

Aff--Even if the impact is unlikely it is still good to worry

 Harris 06 (Alan W., BS degree from Caltech in 1966 and a PhD from UCLA in 1974, specializing in planetary dynamics. “Chicken little was Right! The risk from an asteroid or Comet Impact”

 http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=d2ed4fad-1fb7-4071-8647-630cb686e520%40sessionmgr115&vid=1&hid=107 )

 **We can see that by far the major part of the impact risk comes from the largest remaining undiscovered asteroids. Current surveys have found and tracked more than half of the asteroids that are large enough to cause a global climatic catastrophe**, and we are on course to find most of those that remain within the next ten years or so. Thus, the impact hazard is rapidly moving down the chart to become only a minor risk, in the one-in-a-million category along with fireworks accidents and amusement park rides**. Until and only if an asteroid is found on a collision course, it seems inappropriate to take any further action**, other than perhaps paper studies to assure ourselves that we could take defensive action if an impactor were found and perhaps lay plans for civil defense measures to be ready for a small impact if one should occur**. The possibility of a civilization-ending impact catastrophe, although extremely unlikely, is worth worrying about but fortunately involves the largest and hence easiest to find asteroids**. Smaller impact events are little different from other natural disasters, such as earthquakes, floods, or tsunamis, and are vastly less frequent. Thus, it is inappropriate to invest much public attention in such impacts that pose an individual risk comparable to shark attacks or taking amusement park rides.

Asteroid Threat Reps key to International Cooperation

AFF answer --Asteroid threats bring the world together key to international cooperation

Atkinson 10 (Nancy, Senior editor at Universe Today, Universe Today, *Mitigatin Asteorid Threats Will Take Global Action*, October 29, 2010, <http://www.universetoday.com/76994/mitigating-asteroid-threats-will-take-global-action/>, AG)

During the past 24 hours, the Earth has been hit by about a million small meteoroids – most of which burned up in the atmosphere as shooting stars. This happens every day. And occasionally – once every 10,000 years or so — a really big asteroid (1 km in diameter or larger) comes along and smacks Earth with an extinction-level impact. That idea might cause some of us to lose some sleep. But in between are other asteroid hits that occur every 200-300 years where a medium-sized chunk of space rock intersects with Earth’s orbit, producing a Tunguska-like event, or worse. “Those are the objects we are concerned with,” said former Apollo astronaut Rusty Schweickart, speaking at a 3-day workshop in Darmstadt, Germany which focused on plans and recommendations for global coordination and response to an asteroid threat. “We need to take action now to bring the world together and recognize this as a global threat so that we can make a cooperative international decision to act to extend the survival of life on Earth.” There are likely about one million Near Earth Objects out there that could do substantial damage if one hit the Earth. This isn’t anything new – Earth has been in this same environment for billions years. “What’s new is that we have now opened our eyes via telescopes and are seeing something flying by our heads, so to speak,” said Schweickart during a media event at the workshop. “When you see something flying by your head, you duck. It turns out we have the capability of ducking and causing these objects to miss us. Because we now know about this threat and because we can in fact prevent an impact, we then have a moral obligation to do so.” Former astronaut Tom Jones, who also attended the workshop, told Universe Today that NASA hopes to find all the 500 meter objects within a few decades, “and thus through action be able to prevent an impact from that large an object, removing it from the overall asteroid hazard. Smaller objects are much more numerous (the approximately million NEOs mentioned above) and can cause city-size damage. We’ll have to search diligently for those in the coming decade and it’ll be several decades before we find those hundreds of thousands of 30-meter sized -subTunguskas.” Schweickart discussed in a recent Universe Today article that we do possess the technology to move asteroids or change their orbits, and that this technology does need to be tested, and tested soon. But since an impact event could affect the entire world, the decisions on policies and international agreements about asteroid mitigation could actually pose a bigger challenge in dealing with an asteroid threat than putting the technology together. “Bureaucracy is the most likely reason we will be hit with an asteroid in the future, not the technology,” said Schweickart. “That is an audacious statement to make, but if we can get past that and do our jobs right we should never be hit in the future by an asteroid that could threaten life on Earth. And it’s going to be a heck of a challenge.” The Mission Planning and Operations Group (MPOG) workshop included astronauts and space scientists and was the latest in a series of workshop designed to offer suggestions to the UN Committee on the Peaceful Uses of Outer Space. Included were representatives from NASA, ESA, the Secure World Foundation and the Association of Space Explorers. They are working on defining future planning tasks and studies for the Group that will later be merged with findings of other experts to create a final report to the UN committee. This report will recommend how to react to an impact threat. But there are issues such as, how changing an asteroid’s orbit could make it miss one area on Earth and instead hit another area. “The issue of NEOs is an issue that the United nations has been considering for 10 years or so,” said Sergio Camacho, representing the UN Committee. “The reason it has to go through the UN is that when we make a decision, whatever action is taken might affect others and put them at risk where they are not at risk at the beginning. That can’t be a unilateral decision, and we need to pool the resources of space agencies in order to address the problem. It will be within the framework of the UN that we will be able to master this cooperation.” Schweickart and the Association of Space Explorers, have been working on this issue for over 9 years and are just now beginning to see a little headway in the bureaucratic process. Everyone at the workshop agreed that political decisions and political awareness is something that has to be taken seriously. “Two weeks ago a small object passed in between the Earth and the Moon,” said Schweickart,“ and on Halloween an object half a kilometer in diameter Is going to pass within five lunar distances of Earth — in terms of astronomical distances, that is very close. These things are happening, but I hope we areable to act soon and act responsibly without having to have a reminder” – meaning the wake-up call of an actual impact and not being prepared for it.

Aff Answers—US Key to Asteroid Prevention

**Aff answer – Its US job to the rest of the world to alert of asteroid threat fear is inevitable**

by Jeremy Hsu Date: 21 October 2010 Time: 11:16 AM ET , SPACE.com Senior Writer U.S. Must Be Ready to Meet Asteroid Threat, White House Science Adviser Says http://www.space.com/9370-ready-meet-asteroid-threat-white-house-science-adviser.html

 **National emergency plans for natural disasters can also work in the unlikely scenario of an asteroid strike on the U.S., according to a letter to Congress by the White House's top science adviser**, SPACE.com has learned. The 10-page letter by John Holdren, director of the White House Office of Science and Technology Policy, adds that the **U.S. has a responsibility to the world as the country most capable of detecting space rocks that threaten Earth**. The Oct. 15 letter obtained by SPACE.com is addressed to the leaders of the House Committee on Science and Technology. Holdren states that NASA must continue leading efforts to close the gap in detecting and perhaps deflecting near-Earth objects (NEO). **The U.S. space agency already has the duty of alerting the rest of the government about any threatening space objects**. Holdren's letter also laid out the duties of other federal agencies in handling emergency communications and response. It called for a "senior-level interagency simulation exercise" to test impact-response plans before the United States is confronted with an actual asteroid impact**. "My immediate reaction is that it represents the most detailed consideration of the U.S. government's response to the NEO threat to date, more clearly delineating communication links and responsibilities than had previously been the case**," said Clark Chapman, space scientist at the Southwest Research Institute in Boulder, Colo. Going on alert According to Holdren's letter, the Federal Emergency Management Agency, under the Department of Homeland Security, has the main responsibility on the ground in the U.S. FEMA can rely in part upon the National Warning System, which was designed to alert U.S. citizens to a Cold War nuclear attack. The Department of Defense would work with NASA on possible mitigation or deflection scenarios that involved military resources. Meanwhile, the Department of State would help coordinate any international warnings or responses in a deep-impact scenario that affects more than just the U.S. It has experience notifying other countries about re-entering human-made space objects, including the defunct USA-193 spy satellite that was ultimately destroyed by a U.S. Navy missile. "**The United States is currently the world leader in NEO detection activities and will have a vital role to play in such communications, irrespective of whether the direct risk to the United States or its territories is considered low,"** Holdren said. A NASA advisory council recently suggested that the space agency set up an official Planetary Defense Coordination Office to lead protection efforts against threatening asteroids or comets. Finding the threat NASA has begun closing in on its congressionally directed goal of finding at least 90 percent of all NEOs with a diameter of 1 kilometer or greater. Search teams had discovered about 903 of an estimated 1,050 NEOs in that size category as of Oct. 1, and the space agency plans to reach its 90 percent detection goal by the end of this year. Just 149 of the discovered objects have orbits that could possibly bring them into collision with Earth, and none present an impact threat within the next 100 years. Another 993 objects less than one kilometer in diameter also have orbits that could someday pose a threat to our planet. Yet NASA estimates that the 6,416 known NEOs in the smaller size category, less than 1 kilometer wide, represent just five percent of the expected count. In other words, there are probably many more objects out there that represent a possible threat to Earth. Facing the future Some of those objects were discovered more recently by NASA's sky-mapping WISE mission, which is slated to end in January 2011. **But there are possible plans for ground-based telescopes that could join the hunt, such as the Air Force's Space Surveillance Telescope and the Large Synoptic Survey Telescope.** The National Research Council and NASA also suggested the possibility of a dedicated asteroid hunter that would fly in a Venus-trailing orbit. No firm plans have been made for this. President Barack Obama's new National Space Policy and plan for human spaceflight has also targeted a human mission to an asteroid by 2025. That could prove a useful dry run of sorts for any future efforts that might need to deflect an asteroid away from Earth. "The planning, required capabilities, and ultimate execution of such a mission also would parallel most aspects of a potential robotic asteroid-deflection mission, providing valuable experience in asteroid-rendezvous techniques," Holdren said.

Aff Answers—US Key to Asteroid Prevention

AFF ANSWER -Governments already preparing for Asteroid threats are real the alt cannot change mindset

By Leonard David, SPACE.com's / July 20, 2010 Space Insider Columnist Asteroid threat: Don't worry, Congress is looking into it http://www.csmonitor.com/Science/2010/0720/Asteroid-threat-Don-t-worry-Congress-is-looking-into-it

**Lawmakers are paying new attention to how best to shield Earth from a bad day — getting whacked by an asteroid or comet that has our planet in its cross-hairs.** Skip to next paragraph Gallery: Asteroids Related stories Asteroid 'Apophis' will miss us this time; but 2068? Stay tuned Protecting Earth from asteroids Who is responsible for averting an asteroid strike**? A new bill introduced to Congress proposes establishing a government-sponsored commission to study the threat of a major space rock collision with Earth and how prepared we are — as a country and a planet — to face such a danger**. There is a growing choir of concern regarding Near Earth Objects, or NEOs – spotting them and dealing with any Earth-threatening gatecrashers. IN PICTURES: Asteroids While the annual probability of the Earth being struck by a huge asteroid or comet is small, the consequences of such a collision are so calamitous that it is prudent to appraise the nature of the threat and prepare to deal with it, experts say. [Gallery: Holes in the Earth] Last month, Representative Dana Rohrabacher (R – CA) introduced the new bill before Congress, H.R. 5587, titled: "To establish a United States Commission on Planetary Defense and for other purposes**." The bill has been referred to the Committee on Science and Technology, on which Rohrabacher serves as a member**. Both sides of the aisle are now looking at the commission idea. **Planetary readiness "We need to take the next step**," Rohrabacher told SPACE.com. "Our NEO search and tracking program continues to move forward, but nobody is taking responsibility for protection. I am more confident than ever in our ability to identify potential threats from asteroids and comets, **but it is critical to the future of humanity that we develop the capabilities to protect ourselves from those threats**." Rohrabacher said that the Commission on Planetary Defense that he is proposing will review our planetary readiness for an impact event and make recommendations on how to develop an adequate response system to those threats. As outlined in the bill, the purposes of the commission would be to: Determine capabilities of United States Government entities, nongovernment organizations, foreign governments and entities, and international bodies to detect, characterize, and neutralize potentially dangerous Near Earth Objects; Identify and evaluate roles and responsibilities of United States Government entities to detect, characterize, and neutralize potentially dangerous NEOs; **Determine United States effectiveness in leading international efforts to detect, characterize, and neutralize potentially dangerous NEOs**; Build upon United States Government and foreign analyses, studies, and assessments, without duplicating efforts, to determine current and required NEO characterization and mitigation capabilities; Identify and report on technology development required to provide effective planetary defense from dangerous NEOs; and Investigate and report to the President and Congress on its findings, conclusions, and recommendations for corrective measures that can be taken to provide planetary defense. One function of the proposed seven-member commission is to assess the current ability of United States and foreign technology to defend our planet. Technologies that could aid the fight against a NEO threat include modeling and simulation capabilities, as well as nuclear devices, high order explosive systems, and laser systems. The bill also requests a budget "not to exceed" $2 million for the commission. Unexpected impact Rohrabacher's initiative joins a rising tide of interest in NEOs. For example, earlier this year, the prestigious National Research Council issued a report on Defending Planet Earth: Near-Earth Object Surveys and Hazard Mitigation Strategies. This study was carried out at the joint request of NASA and the U.S. Congress. The White House is engaged in identifying an agency to be responsible for NEO threat mitigation. Similarly, the NASA Advisory Council Ad-Hoc Task Force on Planetary Defense is also deliberating on next steps. Speaking at NASA's Kennedy Space Center in Florida last April, President Barack Obama outlined plans for NASA that included sending an astronaut expedition to an asteroid by 2025. Such a trip could teach scientists a great deal about space rocks, including knowledge that might help prevent a calamitous collision with one. Moreover, the Obama administration's just-issued National Space Policy calls for pursuing capabilities, in cooperation with other departments, agencies, and commercial partners, "to detect, track, catalog, and characterize near-Earth objects to reduce the risk of harm to humans from an unexpected impact on our planet and to identify potentially resource-rich planetary objects." From his view, Rohrabacher concluded: "**We know the threats are real. Earth has been hit many times with devastation ranging from local to regional, and even to planetary scales. It is just a matter of time until the threat appears again, and we must be ready."**