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"THE REALITY OF HUMAN-CAUSED CLIMATE DISRUPTION: THE TIME TO ACT IS NOW!"

 By Energy-Environmental Activist DENNIS R. NELSON

**MY BACKGROUND (EXPERIENCE AND CREDENTIALS**):

I am one of the original, modern environmental/energy/conservation/resource/population activists ever since around the very first "EARTH DAY Celebration" (Wednesday, April 22, 1970). I have a Bachelor of Science (B.S.) Degree in Biology and Environmental Studies from Dana College, Blair, Nebraska. I am the Vice President of the Chicago-based Nuclear Energy Information Service (NEIS), "Illinois' Nuclear Power Watchdog Group." NEIS has an ongoing educational campaign, entitled "You Cannot 'Nuke' Climate Disruption!," and promotes a technically and economically feasible "'Carbon-Free/Nuclear-Free' Energy Pathway" within 30-50 years.

**INTRODUCTION: WHY AM I DOING THIS PRESENTATION?**

I use "climate disruption" or "disruptive climate change," rather than "global warming" and merely "climate change." This is because my 'messaging' is still accurate, yet more dramatic, and better refers to what the adverse consequences are unless we take the necessary steps NOW to deal with it. HUMAN-CAUSED CLIMATE DISRUPTION IS PROBABLY THE MOST "DEFINING" ISSUE OF OUR TIME--IN DEFINING WHAT KIND OF SOCIETY (AND WORLD) WE ARE GOING TO HAVE, AND DEFINING HOW WE ARE GOING TO LIVE! On Saturday, September 27, 2014, a climate denier/delayer by the name of David Ramsay Steele did what I consider to be one of the most outrageous presentations given here at the College of Complexes. It was a compilation of one climate denier/delayer propaganda tactic after another. I thank the College (in particular, Tim Bolger) for giving me several extra minutes of "rebuttal time." I usually give only one major presentation here each year. However, I am here this evening because David's presentation deserves a full "rebuttal presentation." This is way too important an issue!

**My presentation has three major purposes: [1] TO EXPOSE THE UNDERLYING AND CONTRIVED CAMPAIGN TO DELIBERATELY MISLEAD US, AND TO CREATE "DOUBT," CONFUSION," AND "INACTION!" [2] TO REFUTE THE MYTHS AND "JUNK SCIENCE" OF THE CLIMATE DENIERS/DELAYERS! [3] TO DISCUSS WHAT POLICY INITIATIVES WE SHOULD (AND SHOULD NOT) BE TAKING!**

This Is Where We Should Be Right Now As a Society (and a World)! David's presentation pertained entirely to [2]. My rebuttal pertained to [1], mainly, and [3], some. [Please see "APPENDIX A." at the very end!] Let's consider an analogy: My [late] father owned a construction company, and built one of the houses that my family lived in when I was a kid. Our home was constructed on a solid foundation. You can honestly believe in what you are saying (and doing), but what if your "foundation" (basis) is crap? What does that do to your "belief structure?" Regardless, your case will crumble! What are the consequences to our society (and the rest of the world)?

**A BRIEF CLIMATE HISTORY LESSON: THE COLD WAR ROOTS OF CLIMATE DISRUPTION!**

Oceanographer Roger Revelle, the director of the Scripps Institution of Oceanography in La Jolla, California, designed an atmospheric-monitoring program for the 1957-58 International Geophysical Year (IGY). Hired in July, 1956, chemist Charles David Keeling was put in charge by Revelle of this new IGY atmospheric-monitoring program. Keeling constructed carbon dioxide-monitoring stations at the Mauna Loa Observatory in Hawaii and at a research post in Antarctica in order to establish a baseline of atmospheric carbon dioxide which might be used to measure future changes. During March, 1958, the amount of carbon dioxide in the atmosphere was around 315 PARTS-PER-MILLION (PPM). For an extremely important comparison, let's fast-forward to May, 2013, when the level of atmospheric carbon dioxide reached 400 PPM--AND IS STILL INCREASING! (THAT IS A REASON TO SOUND THE "CLIMATE ALARM

In the "annuals of climate history," here is Roger Revelle's famous "grand experiment" statement made in 1957: "Human beings are now carrying out a large scale geophysical experiment of a kind that could not have happened in the past nor be reproduced in the future. Within centuries we are returning to  
 the atmosphere and oceans the concentrated organic carbon stored in sedimentary rocks over hundreds of millions of years. This experiment, if adequately documented, may yield far-reaching insight into the processes determining weather and climate." Revelle's statement has been quoted as the starting point for the concern by scientists about climate disruption.

During the 1980s in the years of the Reagan Administration, the ongoing efforts of astronomer Carl Sagan, biologist Paul Ehrlich, and climatologist Steven Schneider to maneuver the science of 'nuclear winter' into our national defense policy did have a great effect upon the politics of climate disruption. In response to this campaign, long-time Republican science administrators like Robert Jastrow and S. Fred Singer, along with one-time National Academy of Sciences president Frederick Seitz, and scientists associated with the defense industry, formed the pro-hawkish/anti-governmental regulation George C. Marshall Institute. Being a right-wing think tank initially aimed at supporting Ronald Reagan's Strategic Defense Initiative ('Star Wars') fantasy and the "nuclear 'power failure'" (get it?), the George C. Marshall Institute soon became a vocal opponent of efforts to curb ozone depletion, acid rain, and climate disruption. So, ladies and gentlemen, here we have the rise of the "merchants of doubt

Let's continue with a modified summary that I use in my "action alerts" from a chapter in Donald R. Prothero's excellent book, entitled REALITY CHECK: HOW SCIENCE DENIERS THREATEN OUR FUTURE. (Donald R. Prothero is Emeritus Professor of Geology at Occidental College and Lecturer in Geobiology at the California Institute of Technology): To make things perfectly clear, there is no actual scientific debate over the reality of human-caused climate disruption. (around 98% of the scientists who actually do climate research agree about human-made disruptive climate change. "Every major scientific organization in the world has endorsed the idea of anthropogenic climate change as well.") The only "debate" is a political one, which is "largely polarized along party and cultural lines, with the right-wing media and their followers uniformly opposed and critical, and the rest of the developed world largely accepting the scientific evidence." ["Although some reefs like the Great Barrier Reef of Australia, are also suffering from problems like out-of-control predation by the crown-of-thorns sea star, the worldwide bleaching and dying of coral reefs can only be attributed to a global oceanographic change--and only ocean warming and acidification fits that description." Our space satellites have measured cooling in the stratosphere (the upper atmospheric layer above 6 miles) and warming in the troposphere (the bottom atmospheric layer below 6 miles), just as the computer models from the climate scientists have projected, and proving that it is due to our climate-disrupting pollution, not solar radiation. (In fact, solar heat has been decreasing since 1940. There is no measurable increases in cosmic radiation, natural methane, volcanic gases, or any other potential cause.) We have the irrefutable "human carbon fingerprint/smoking gun": The decreased ratio of the nuclides Carbon-13 (C-13)/Carbon-12 (C-12) in the atmosphere is coming directly from our inefficient combustion of fossil fuels.] Wanting to deliberately "cloud" (pun intended!) or confuse the issue, the climate deniers/delayers have been feeding lies, distortions, and misstatements to the general public. (For instance, in 2012, leaked documents showed that the Chicago-based Heartland Institute, "a libertarian think tank and the major sponsor of denialist propaganda and phony "scientific meetings," planned to try to get schools to teach its propaganda instead of the science of climate change

**LET'S DEFUSE THE "MYTH OF THE 1970s GLOBAL COOLING CONSENSUS!"**

When climate science was developing during the 1970s, a few scientists suggested that the most dangerous form of human-caused climate disruption might come, not from warming caused by carbon dioxide, but from scenarios that could send the "thermometer mercury" going the other way. The climate deniers/delayers often deliberately misuse this earlier uncertainty as "so-called 'evidence'" that climate scientists are playing 'Chicken Little' ("the sky is falling'), and claiming that this is based upon uncertain or insufficient evidence. Despite the overwhelming findings to the contrary since then, the climate deniers/delayers are still claiming that there is a "so-called 'big debate'" over the "global cooling theory." Actually, there is not! ;let's expose the "myth of the 1970s global cooling consensus": Only a few scientists supported that idea. As a whole, climate scientists never subscribed to  
 it.

**LET'S DEFUSE THE "MYTH OF 'SO-CALLED CLIMATEGATE' -- MORE CORRECTLY CALLED 'HACKERGATE!"**

Now, David did not mention this on September 27--and nobody brought it up. I am still going to defuse this myth because it is constantly repeated by the climate deniers/delayers in other places and circumstances--no matter how many times it is responded to and refuted. On November 17, 2009, a backup server of the Climatic Research Unit at the University of East Anglia in Great  
 Britain was hacked into. Thousands of e-mails involving dozens of climate scientists were stolen. Single words and phrases were taken out of context. The word "trick" is techno-slang for a clever (and legitimate) technique to solve a problem. The phrase "hide the decline" is more techno-slang referring to legitimately reconstructing temperatures. All of the nine independent investigations (from Penn State University and the United Kingdom House of Commons, to the U.S. Department of Commerce and the U.S. Environmental Protection Agency) have cleared the climate scientists of any wrongdoings. There is no massive conspiracy by the climate scientists to deliberately manipulate and cover up data. (The only thing that the climate scientists were guilty of was poor use of language.) A rule of successful advocacy is never allow the "others side" to define the terms of the discussion. That is why I call this entire "three-ring climate circus" by what the real crime is--'Hackergate.' My question is: Why aren't the "so-called 'law-and-order right wingers'" out there attempting to track down the actual criminal (or criminals) who did the hacking?

Let's go on to refute one of David's outrageous remarks: David was very nonchalant about saying that he "could live with a 2 degree increase" in the Earth's surface temperature--he treated it just like a "walk in the park!" I've got news for everybody--this is very serious business! Here is the title of one of the  
 handouts that you were given: "Earth Is Heating Faster Than We Realized, Making 2 Degree C Limit For Global Warming More Urgent." That is from 'ClimateProgress' (posted on October 6, 2014), the blog by Joseph Romm at the Center for American Progress. Romm is a physicist and the former Clinton-Gore Administration's Assistant Secretary of Energy for energy efficiency and renewable energy. "There is solid scientific basis for concluding that humanity should be working as hard as possible to keep total warming under 2 degrees C." Romm makes the convincing case that the 2 degree C target is a technically and economically feasible goal to achieve (when considering the benefits of energy efficiency), and is "scientifically defensible

**Let's move on to discuss WHY CLIMATE UNCERTAINTIES SHOULD BE AN EVEN GREATER CALL FOR IMMEDIATE ACTION!**

David passed out a piece of clap-trap from Steven Koonin that appeared in THE WALL STREET JOURNAL. (By the way, in case you didn't know, the JOURNAL has a notorious climate denying/delaying editorial policy.) Well, Joseph Romm wrote an excellent rebuttal, entitled "The Wall Street Journal Publishes Long-Debunked Myths to Promote Climate Inaction," which was posted on his 'ClimateProgress' blog (September 22, 2014). That was the basis behind my question to David: "Isn't uncertainty a major reason why climate action is so urgent?" Then Tim Bolger wanted me to clarify my question. I followed up by asking: "Why don't we take immediate action on policy because of the uncertainties about local weather so that we don't stick our heads in the sand?" You see, David doesn't think that we should have any climate protection policy! According to Joseph Romm: "Uncertainty increases the moral necessity of climate action for two main reasons." The first reason has to do with "how catastrophic the worst-case scenario is. That's because inaction makes the chances of a best-case scenario--tolerable or manageable impacts--very small." But Romm goes on to address the point raised by my clarifying question: "But uncertainty at the smaller-scale is also a key reason we must act. Critics of climate models like Koonin often note that they aren't able to make accurate predictions of local weather. That's true, and that makes waiting and adapting a far more costly proposition." We can briefly look at our own "WEATHER WEIRDNESS/EXTREME WEATHER" here in the 'Land of Lincoln': Two years ago, virtually all of our state (i.e., around 95%) was declared a "disaster area" because of a severe heat wave and a prolonged drought. Last winter, we experienced a pattern called the 'Polar Vortex'--an almost never-ending cycle of being pounded by sub-zero Arctic temperatures followed by huge snowstorms.

David deliberately did not discuss climate policy because he does not think that we should have one! But David did not stop here. In his "concluding remarks," he said that he or I "are not qualified" to make any recommendations about policy. He should speak for himself! My educational credentials in biology, environmental studies, and anthropology--combined with my 44(+) years of experience--makes me uniquely qualified to make policy recommendations about a wide range of environmental, energy, conservation, resource, and population issues. At the same time, activists from all "walks-of-life," with different backgrounds, speak up at public hearings and meetings, and send messages to governmental officials and agencies. They volunteer their own time, money, and talents to work to improve the quality of life for themselves, their families, and their friends by making our neighborhoods, cities, towns, country, and world safer and more healthier, more sustainable places to live. Quite frankly, climate deniers/delayers need to be responded to, refuted, and shut down! Climate deniers/delayers should get out of the way, and stop impeding real progress by committed climate activists, such as myself, in solving our climate crisis

**WELL, WHAT KIND OF CLIMATE PROTECTION POLICY SHOULD WE HAVE?**

Our paramount goal is to, first off, STABILIZE our climate-disrupting pollution within a 10-year period (that we are in the middle of) and then, secondly, RAPIDLY REDUCE our climate-disrupting pollution to the ATMOSPHERIC LEVEL OF 350 PPM. [1] An international agreement with a strict timetable for substantial cuts in our climate-disrupting pollution in order to reach the ultimate goal of at least a total 80% reduction by 2050--and we must include China. [2] A price on carbon. [3] Strict enforcement by the U.S. Environmental Protection Agency (USEPA) of its 'Carbon Rule' for current fossil fuel power plants--to cut their carbon emissions roughly 30% by 2030. (However, the 'Carbon Rule' must not be misused to help out financially troubled nuclear power plants. In my oral and written comments to the USEPA, I recommended that the 'Carbon Rule' should be the 'regulatory driver' to promote a non-fossil-fuel and non-nuclear energy strategy called "Carbon-Free/Nuclear-Free"--energy use reassessment; greatly increased energy efficiency; combined heat-and-power; appropriate renewable energy technologies; and a 'smart' electricity grid with advanced energy storage.) What would beneficially happen to our economy between 2010 and 2030 if we aggressively pursued these inherently cleaner energy choices to cut our carbon pollution to over 50% below 2005 levels? The savings on our energy bills (largely from greater energy efficiency) can more than make up for the cost of vehicle and building efficiency improvements and implementation of new renewable energy technologies. Businesses would save some $255 billion in energy costs; residential consumers nationwide would save about $900 per household on average [4] I'm very big on "'green' architecture"--ecologically sustainable buildings! (In fact, across the board, the "building sector" is our largest producer of climate-disrupting pollution.) 'Architecture 2030,' a nonprofit initiative supported by the American Institute of Architects and others, is promoting aggressive energy reductions, renewable energy use, and carbon pollution cuts within the building sector for cities around our nation and the world. Those cities which take up the challenge commit to construct newer buildings and renovate existing ones to reduce their carbon pollution and fossil fuel consumption by about 50%--and, by 2030, attain the goal of 'carbon neutrality' with all of their buildings. In May, 2006, 'Architecture 2030' worked with the mayors of Chicago, Seattle, Miami, and Albuquerque to introduce "Resolution #50--Adopting the '2030 Challenge' for All Buildings," which was adopted that same month by the U.S. Conference of Mayors. During June, 2006, "Resolution #50" was unanimously approved. [5] Modern Agriculture Is a "Successful Failure!" What Can We Do To "Grow a Better World?" Implemented intelligently, measures to transform farming can enhance profits, and make the agricultural sector a major contributor to solving our climate crisis. It is possible to feed a growing population by organic, lower-carbon-production farming techniques. A combination of no-till agriculture (farming without plowing) with organic agriculture is a great way to sequester carbon in the soil.

**Just Say "NO" to the Proposed Exelon Nuclear Bailout In Springfield!**

David said that "nuclear is making a comeback" without providing any further elaboration and substantiation. We must ask: "Why should nuclear make any comeback at all?" Nuclear power was given its "shot." All we have to show for it is a "nuclear 'power failure'" (my play-on-words again!)--one of the biggest governmental and business policy blunders in history with no net benefits for our society and the environment. We must take control of our energy present and future! We must critically examine the nuclear industry's "fuzzy math"--the numbers about the impact of Exelon's nuclear reactors on our state's economy by the Nuclear Energy Institute (NEI), the nuclear industry's trade group, simply do not add up! A deliberately biased report released early last month by the NEI used inflated numbers that are inconsistent with what the Illinois General Assembly was given, and completely leaves out critical and substantial information which would seriously contradict its findings. Exelon has publicly announced that at least five of its reactors here in the "Land of Lincoln" are uneconomical (the unprofitable culprits are Quad Cities 1 and 2, Byron 1 and 2, and Clinton). Exelon wants the Illinois General Assembly this spring to approve a rate increase that would put an initial $580 million bailout into Exelon's "huge pockets" to keep these financially troubled reactors running. These economically failing reactors simply cannot compete with lower-cost solar, wind, and efficiency. [Exelon is the beneficiary of the NEI report. Exelon contributes more than $7.2 million each year to the Nuclear Energy Institute. Exelon CEO Philip Crane is the NEI's current Chair. According to David Kraft, Director of the Nuclear Energy Information Service (NEIS): "These facts cast legitimate skepticism on the report's accuracy

Let's respond to several more of David's outrageous comments. David said that: "In 10 years, we aren't going to be hearing about it!" Of course, David is talking about climate disruption. It probably doesn't surprise anyone that I say the complete opposite: Our global climate crisis is not going to "magically disappear" in a decade! It is going to be around for a long time. The question is: What are we going to do about it? We are going to hear about it more (and more)! Of course, David also had to take a "swipe" at one of the climate deniers/delayers' favorite "whipping boys"--Al Gore! According to David, Al Gore "got the science wrong" in "An Inconvenient Truth." (What else is he going to say?) The climate scientists who say the movie disagree, but David doesn't accept what they say anyway. I saw the movie, and read the book. The movie presented the issue accurately enough for the general movie-viewing audience. At the same time, the movie "An Inconvenient Truth" could have spelled out more clearly at the end what actions we can take. The book goes into much more detail about what you (and I) can do

 I'm going to wrap this up by quoting journalist/researcher, Nobel prizewinner, and former Vice President Al Gore, founder and chair of the Climate Reality Project and Generation Investment Management: "In the struggle to solve the climate crisis, a powerful, largely unnoticed shift is taking place. The forward journey for human civilization will be difficult and dangerous, but it is now clear that we will ultimately prevail. The only question is how quickly we can accelerate and complete the transition to a low-carbon civilization." While some serious (and irreversible) damage to our planet's ecological system is unavoidable, the "truly catastrophic damages that have the potential for ending civilization as we know it can still--almost certainly--be avoided. Moreover, the pace of the changes already set in motion can still be moderated significantly

**RECOMMENDED READING LIST: Guy Dauncey, THE CLIMATE CHALLENGE: 101 SOLUTIONS TO GLOBAL WARMING**,

The Solutions Project, Gabriola Island, British Columbia, Canada: New Society Publishers, 2009, 307 pages. Ross Gelbspan, THE HEAT IS ON: THE CLIMATE CRISIS, THE COVER-UP, THE PRESCRIPTION, Updated Edition, Reading, Massachusetts: Perseus Books/Perseus Books Group, 1998, 278 pages. Jeff Goodell, "China, the Climate & the Fate of the Planet," ROLLING STONE, Issue 1218, September 25, 2014, pp. 52-59, 74. Al Gore, "The Turning Point," ROLLING STONE, Issue 122/1213, July 3-17, 2014, pp. 84-93. Mark Hertsgaard, HOT: LIVING THROUGH THE NEXT FIFTY YEARS ON EARTH, Boston, Massachusetts: Houghton Mifflin Harcourt, 2011, 339 pages  James Hoggan, with Richard Littlemore, CLIMATE COVER-UP: THE CRUSADE TO DENY GLOBAL WARMING, Vancouver, British Columbia, Canada: Greystone Books/D&M Publishers, Inc., 2009, 250 pages. Joshua P. Howe, BEHIND THE CURVE: SCIENCE AND THE POLITICS OF GLOBAL WARMING, Seattle, Washington: University of Washington Press, 2014, 290 pages. Amory B. Lovins and the Rocky Mountain Institute, REINVENTING FIRE: BOLD BUSINESS SOLUTIONS FOR THE NEW ENERGY ERA, White River Junction, Vermont: Chelsea Green Publishing, 2013, 352 pages. L. Hunter Lovins and Boyd Cohen, CLIMATE CAPITALISM: CAPITALISM IN THE AGE OF CLIMATE CHANGE, New York, N.Y.: Hill and Wang/Farrar, Straus and Giroux, 2011, 390 pages. Arjun Makhijani, CARBON-FREE AND NUCLEAR-FREE: A ROADMAP FOR U.S. ENERGY POLICY, 3rd Edition, A Joint Project of the Nuclear Policy Research Institute (NPRI) and the Institute for Energy and Environmental Research (IEER), Takoma Park, Maryland: IEER Press, 2010, 257 pages. Michael E. Mann, THE HOCKEY STICK AND THE CLIMATE WARS: DISPATCHES FROM THE FRONT, New York, N.Y.: Columbia University Press, 2014, 423 pages. Linda Marsha, FEVERED: WHY A HOTTER PLANET WILL HURT OUR HEALTH--AND HOW WE CAN SAVE OURSELVES, Emmaus, Pennsylvania: Rodale Books/Rodale, Inc., 2013, 256 pages. Bill McKibben, THE GLOBAL WARMING READER: A CENTURY OF WRITING ABOUT CLIMATE CHANGE, New York, N.Y.: Penguin Books/Penguin Group (USA) Inc., 2012, 425 pages. William Nordhaus, THE CLIMATE CASINO: RISK, UNCERTAINTY, AND ECONOMICS FOR A WARMING WORLD, New Haven, Connecticut: Yale University Press, 2013, 378 pages. Naomi Oreskes and Eric M. Conway, MERCHANTS OF DOUBT: HOW A HANDFUL OF SCIENTISTS OBSCURED THE TRUTH ON ISSUES FROM TOBACCO SMOKE TO GLOBAL WARMING, New York, N.Y.: Bloomsbury Press, 2010, 355 pages. Fred Pearce, WITH SPEED AND VIOLENCE: WHY SCIENTISTS FEAR TIPPING POINTS IN CLIMATE CHANGE, Boston, Massachusetts: Beacon Press, 2007, 278 pages. Donald R. Prothero, REALITY CHECK: HOW SCIENCE DENIERS THREATEN OUR FUTURE, Bloomington, IN: Indiana University Press, 2013, 369 pages; please check out Chapter 5: "Hot Enough for You? The Heated Debate Over a Warming Planet," pp. 67-104, 334-338. Anna Rose, MADLANDS: THE JOURNEY TO CHANGE THE MIND OF A CLIMATE SKEPTIC, Victoria, Australia: Melbourne University Press, 2012, 355 pages. Steven H. Schneider, SCIENCE AS A CONTACT SPORT: INSIDE THE BATTLE TO SAVE EARTH'S CLIMATE, Washington, D.C.: National Geographic Society, 2009, 295 pages. Seth Shulman, Jeff Deyette, Brenda Ekwurzel et al., COOLER SMARTER: PRACTICAL STEPS FOR LOW-CARBON LIVING, Expert Advice from the Union of Concerned Scientists, Washington, D.C.: Island Press, 2012, 321 pages. Godo Stoyke, THE CARBON BUSTERS HOME ENERGY HANDBOOK: SLOWING CLIMATE CHANGE AND SAVING MONEY, Gabriola Island, British Columbia, Canada: New Society Publishers, 2007, 171 pages

**APPENDIX** . MY REBUTTAL TO "The End of the Global Warming Delusion" by David Ramsay Steele, College of Complexes, Saturday, September 27, 2014. David, thanks for your presentation! But, quite frankly, we should hear about: "ATTENTION: REALITY CHECK NEEDED--END THE DELUSION THAT HUMAN-MADE CLIMATE DISRUPTION DOESN'T EXIST, ACCEPT THE SOUND SCIENCE THAT IT DOES!" "JUST LIKE A KID RIDING A BICYCLE, PLANET EARTH NEEDS A 'SAFETY HELMET!'" I am a long-time "free-speech" advocate. (For example, I have submitted on-line comments in support of 'Internet neutrality' to the Federal Communications Commission and President Barack Obama--a free and open Internet.) But David acts as the 'de facto mouthpiece' for a well-orchestrated, deliberately deceptive misinformation/disinformation campaign funded by the large fossil-fuelish (or, you can also say, fossil-foolish) polluters. They only want to DENY the scientific consensus and reality behind human-caused climate disruption, and DELAY any immediate and meaningful national (and international) actions to deal with it. That is why I call them CLIMATE DENIERS/DELAYERS. Their purpose is to deliberately create "DOUBT," "CONFUSION," and "INACTION

This is a morally and ethically bankrupt, unscientific, ideologically-driven campaign. It is well-documented in books like MERCHANTS OF DOUBT, CLIMATE COVER-UP, SCIENCE AS A CONTACT SPORT, THE HEAT IS ON, BEHIND THE CURVE, and THE HOCKEY STICK AND THE CLIMATE WARS. (I particularly want to discuss the last book by climate scientist Dr. Michael Mann at Penn State University.) The 'hockey stick' graph has especially been attacked by the climate deniers/delayers. It shows a dramatic upward spike in the average surface temperature of the Earth that directly coincides with our modern industrialization and inefficient burning of fossil fuels. Rather than being "totally discredited" or "broken," the 'hockey stick' graph has been reaffirmed by the National Academy of Sciences, the UN Intergovernmental Panel on Climate Change, and over 12 independent peer-reviewed scientific studies. But you'll never hear that from avid , It takes considerable time and effort of Dr. Mann and his colleagues to respond, point-to-point, to the fabricated, bogus, flawed, and inaccurate criticisms from climate deniers/delayers. You can tell how effective the climate scientists are by how their case is being attacked by the climate deniers/delayers. David "cherry-picked" several public statements about what some people think should happen to climate deniers/delayers (behavior that I don't condone). But this is even more important: However, now, climate scientists are being personally harassed and intimidated. They are fighting back: Michael Mann has filed a defamation lawsuit against the right-wing NATIONAL REVIEW. (I refer to this well-written "viewpoint" by Gene Lyons, entitled "Climate Change Deniers Resort to Character Attacks," that appeared in the CHICAGO SUN TIMES, Saturday, August 16, 2014.) Climate deniers/delayers, such as TV and radio commentators, and the NATIONAL REVIEW, will rant and rave about their right to "free speech!" But do they have the "so-called 'right'" to "poison" the airwaves and print media with slanderous and libelous, politically motivated smears against the professional integrity and private character of a prominent climate scientist like Dr. Mann? (This is at the same time that the big "fossil-foolish" polluters are poisoning our atmosphere

 As a long-time participant here at the College of Complexes, I understand that the College practices "free speech" and respect for contrarian points-of-view. But, in this case, I am recommending that, from now on, the College practices "responsible speech" when it comes to the subject of human-caused climate disruption. Time would be much better spent with DISCUSSIONS ABOUT CLIMATE POLICY. I would be willing to help set that up. (This is because there is NO ACTUAL DEBATE OVER CLIMATE SCIENCE.) DAVID'S JUNK SCIENCE-FILLED PRESENTATION MERELY SHOWS THAT THE CLIMATE DENIERS/DELAYERS DO NOT HAVE A LEG TO STAND ON. We are "behind the 'climate 8-ball,'" and we need to move forward PRONTO with constructive solutions for mitigation (our top priority) and adaptation (our second priority). Otherwise, the College should schedule someone from the International Flat Earth Society (which claims that satellite photos taken of our planet are faked), or a representative from the tobacco industry (which claims that second=hand smoke is "harmless").  I'm ending my rebuttal on a positive note: We can PREVENT the worst effects of climate disruption. We can SUCCEED in fully implementing technically and economically feasible non-fossil-fuel/non-nuclear energy strategies around the world by 2050. Only energy efficiency and "micropower" (consisting of co-generation and appropriate renewables) can make the larger-scale and deeper, meaningful and timely cuts in our carbon pollution. This will be much more preferable in protecting our public health, maintaining our ecological health, enhancing our economic well-being, and strengthening our energy security.