

Tucson Forward, Inc.
c/o Kathleen Williamson, Vice President
PO Box 249
Tucson, AZ 85702

May 11, 2018

VIA E-MAIL

Mr. Hamid Kamalpour
United States Air Force, AFCEC/CZN
2261 Hughes Ave, Ste. 155
Lackland AFB, Texas 78236-9853

Re: Request for Extension for Comment Period and Comments on the US Air Force Reserve Command F-35A Operational Beddown Environmental Impact Statement

To Whom It May Concern:

We preface this comment with a request for additional time in this scoping period for the community to provide comments. The public is being asked to comment on incomplete information. The City of Tucson failed to notify its citizens in a timely fashion about this comment period, with its official notice only being published on May 7, 2018 and with council members' newsletters to their constituents failing to notify citizens of the comments period. While the April Air Force public gathering on April 24, 2018 was reported in the Daily Star, for most people who attended, that was the first time they were informed that the scoping period had already been opened and the deadline to file these comments was May 11, 2018. Hence, insufficient notice was provided to the public in order for the public to be informed and have time to respond with an informed comment. We request an additional 60 days, to July 11, 2018.

These comments are submitted on the Tucson - US Air Force Reserve Command F-35A Operational Beddown Environmental Impact Statement. The mission of the Tucson Forward is to participate in this and other important decisions affecting public resources in Tucson. Tucson Forward, Inc. is a non-profit Arizona corporation located in Tucson. Our purpose is to educate the public about the impact of low flying military training over the metropolitan Tucson area and to help represent over 600 members, supporters, and/or participants in our group. We hereby submit our comments on the United States Air Force proposed Environmental Impact Study (EIS) to assess the environmental consequences that could result from the beddown and operation of 24 F-35A jets in Tucson, Arizona. We intend these comments to apply whether this plan is involving the beddown at or use of Davis-Monthan Air Force base or the Arizona Air National Guard at Tucson International Airport or both, as they are both located in and fly jets over the

densely populated metropolitan areas of greater Tucson. These comments are intended to be part of the official record for the Environmental Impact Statement in compliance with the National Environmental Policy Act of 1969, 42 U.S.C. § 4331, et seq., (NEPA).¹

These comments are submitted during the first requisite comment scoping period. The Commenters request that Kathleen Williamson, Vice-President of Tucson Forward, Inc. be placed on the recipient list to receive notice of any developments in the USAF NEPA review process for this EIS proposal and any related documents issued by the USAF in the course of its NEPA review of this proposal. The Commenters further request that these comments be included as part of the administrative record. Members of this organization, its officers, and other interested citizens associated with the organization may also submit additional comments separately. We submit the following comments at this time in order to maintain our standing to challenge in a court of law any process or decision which is in violation of the NEPA.

Tucson Forward is primarily addressing serious, fundamental problems with the proposed Operational Beddown to inform the EIS and the numerous ways in which the proposed beddown of F35s in Tucson fails to meet the goals and requirements of the NEPA.

Recommendation: Withdraw consideration of the Tucson area for the Beddown of the F35A.

¹ (a)The Congress, recognizing the profound **impact** of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource **exploitation**, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares that it is the continuing policy of the Federal Government, in cooperation with State and **local governments**, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

(b)In order to carry out the policy set forth in this chapter, it is the continuing responsibility of the Federal Government to use all practicable **means**, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, **functions**, programs, and **resources** to the end that the Nation may—

(1)

fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2)

assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

(3)

attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4)

preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(5)

achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6)

enhance the quality of renewable **resources** and approach the maximum attainable recycling of depletable **resources**.

(c)

The Congress recognizes that each **person** should enjoy a healthful environment and that each **person** has a responsibility to contribute to the preservation and enhancement of the environment.

The proposed F-35A presence in the Tucson area is an assault on many already affected communities, which is comprised of a densely populated urban area that surrounds both the DMAFB as well as TIA. Furthermore, the flights and training overhead are over the same densely populated areas, including directly over the campuses of the University of Arizona, the Pima Community College, and uncountable high schools and elementary schools; especially notable is the Julia Keen neighborhood. To beddown F35s in this metropolitan area makes a mockery of the NEPA mandate. The jets will be taking off and flying over heavily populated and numerous churches, parks, recreation areas, stadiums, pedestrian areas, and downtown areas. As we are all aware, the F35 is a terribly loud (up to 121db) jet. Tucson is a very outdoors environment. Furthermore, Tucson is located in and spans a valley ringed by mountains on all sides that creates a reverberating noise environment. While attending the public scoping meeting on April 24, 2018, Air Force representatives were overheard and gave direct responses to citizens' questions understating the noise impact of the F35 in one-on-one conversations with citizens. The handout materials were flawed in that they failed to inform the public about the impacts of the F35 jets. These handouts touted the war capacities of the F35 but failed to inform the public about the specifications relevant to Tucsonans and its visitors of the amount of pollution in fuel and fumes it would contribute to the population below the flights, failed to inform the public about the various decibel levels of the F35, and failed to inform about the fumes the jets would deposit as well as the serious safety risks over this area. This is a serious flaw in the scoping process. We are confident you already have the April 24, 2018 Air Force Reserve handout titled "Air Force Reserve Command F-35A Operational Beddown," but enclose it as an exhibit. The public is being asked to comment on a jet based on a handout from the Air Force for the F-35A, which is more like an advertisement for purchasers of the F-35. The air pollution from the jets' fumes also accumulates and creates pollution inversions in such valleys, especially with the type of climate, cumulative valley-enclosed air quality issues we already have here. Concerning safety issues, this is a single engine jet which increases the danger to the metropolis below and the public is being asked to comment on environmental impacts of a single-engine plane that is still under development and has proven safety hazard risks.

ENVIRONMENTAL RESOURCES

Tucson is very negatively impacted by this beddown. The proposed Beddown would deplete various environmental resources crucial to the Tucson valley. First, our groundwater is our lifeline. Increased jets, especially those as large and sophisticated, expensive to maintain, such as the F35 and the increased infrastructure it would require would deplete precious groundwater. Tucson citizens abide by conservative water usage practices because we have already gravely depleted our groundwater supply. While the CAP (Central Arizona Project) now helps provide non-groundwater from the Colorado River, that too is an increasingly finite resource and projections are that Lake Mead will dry up within ten years. Not only does the increased jet presence and attendant infrastructure require more water, it also will pollute more groundwater as the fuels and cleaners and other chemicals required for jet ability and maintenance are stored, leaked, or dumped into our groundwater and environment.

Air quality will be negatively impacted by the beddown of F35 jets in the valley that holds Tucson and surrounding communities. It would be a large increase to an already precarious air quality situation.

AIRCRAFT OPERATIONS

Tucson would be seriously negatively impacted by the Aircraft Operations that would result from the F35 Beddown. First of all, the skies are already too loud and too crowded with

A-10s, F-16s, C-120s, Blackhawks, and many other military jets from DMAFB, TIA-ANG, as well as the USA and international military flight training visitors to Tucson. The valley skies now perpetually bear military jets circling or coming or going with attendant unhealthy noise levels.² People are complaining all the time. Adding more jets, especially, the F35s, would cumulatively make too many homes, workplaces, outdoor areas, etc., uninhabitable and unhealthy for people of all ages and conditions. There is no sound remediation available to fix this because people don't live inside their homes 24/7 with doors and windows shut tight (especially in Tucson where at least half of the year the outdoor temperatures permit open windows rather than heating/cooling systems in our homes and outdoor recreation and rest). What already exists in Tucson in terms of military over flights, makes for interrupted classroom lectures, indoor phone calls, and more serious health problems due to military flight noise, the F35 would radically contribute to the accumulated problem as well as create a whole new insufferable attack of noise by itself. We have already seen how communities have changed their positions from support to rejection after they have been exposed to the F35s over their populations (egs., Burlington, Boise, Valparaiso). Tucson doesn't want this and the temperature extremes and valley environment will only exacerbate the noise and fumes pollution. It is undisputed that thousands of homes would immediately become officially uninhabitable³ once the F35s arrive and many times more would become unofficially uninhabitable. We already have large blighted sections of Tucson due to DM and the TIA/ANG flights but the F35 aircraft operations would tip the scales extremely, resulting in economic, blight and health impacts. Furthermore, this single engine jet, with known safety issues, flying over the Tucson metropolis with no room for error (such as we recently saw with the C-120 that crashed in Savannah, GA and narrowly missed crashing into a population and a large dangerous chemical manufacturing plant) would be a grave risk for the Air Force to impose on the citizens and visitors of Tucson.⁴ Again, the valley air quality would also be

² According to the Environmental Protection Agency:

"The traditional definition of noise is 'unwanted or disturbing sound.' Sound becomes Unwanted when it either interferes with normal activities such as sleeping, conversation, or disrupts or diminishes one's quality of life." (<http://www.epa.gov/air/noise.html>)

"Studies have shown that there are direct links between noise and health. Problems related to noise include stress related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption and lost productivity. Noise Induced Hearing Loss (NIHL) is the most common and often discussed health effect, but research has shown that exposure to constant or high levels of noise can cause countless adverse health effects." (<http://www.epa.gov/air/noise.htm>.)

³ " The official phrase is "not compatible for residential use" for properties within the 65 dB DNL contour. That phrase--and that definition--is used by DoD and several other federal agencies.

⁴ In 1978, a DMAFB single-engine A-7 crashed sixty feet from Mansfeld Junior High, which was filled with hundreds of students. The A-7 killed two sisters, both students at the nearby University of Arizona. Following the crash, the Air Force made a commitment to the residents of Tucson that only two-engine fighter craft would be bedded at DMAFB.

The base's A-10s, which have two engines and which can fly with one engine disabled, are the aircraft with which the Air Force maintains its commitment to the safety of Tucsonans.

If the Air Force replaces A-10s with single-engine F-35s, it will renege on its commitment. The F-35 is—in the language of the aircraft industry—"immature." DoD's latest Operational Test and Evaluation report refers to hundreds of "unresolved performance deficiencies," with additional problems being discovered at the

severely damaged by these flight operations in Tucson, which involves safety risks and health damages.

Neither the Department of Defense nor any of the military services participating in the Joint Strike Fighter program have any actual data about the F-35 in any of its variants, including the F-35A. As recently as March 6, 2012 it was reported that a test flight of the F-35 was aborted after 15 minutes as a result of a possible fuel leak. (“Tuesday's curtailed flight was another setback for the \$382 billion F-35 program, which the U.S. Defense Department is restructuring for a third time to allow more time for development and testing.” Source: <http://www.reuters.com/article/2012/03/07/lockheed-fighter-idUSL2E8E70SR20120307> accessed March 12, 2012). This recent fuel leak is only one of hundreds of publicly reported problems with the aircraft in question. Specific details of additional mechanical failures of this aircraft have been documented repeatedly by the Governmental Accountability Office, most recently in May 2011 testimony to the US Senate (GAO-11-677T). The Department of Defense conducted a recent review, which concluded that there was a “Lack of confidence in the design stability... supports serious reconsideration of procurement and production” *F-35 Joint Strike Fighter, Concurrency Quick Look Review, 2011* (Ahern Report).

In particular, much self-serving AF and Lockheed data on noise, air quality and safety are pure conjecture based on different aircraft, not the F-35A or its variants. Problems with safety and software have plagued the F35 for years and persist well into 2018. See <https://vtdigger.org/2018/02/28/problems-plagued-f-35-since-proposed-20-years-ago/>

It has been acknowledged that the F35 has safety and flying issues in thunder and lightening storms. Tucson has an extensive monsoon that lasts from June through September with dramatic intense lightening and stormy weather.

NATURAL RESOURCES

We have already commented on the water depletion and pollution the F35 would require. The release of fuels and fumes would also degrade water and soil quality, which thereby harms many microorganisms in the air, water, and ground and has slow, exponential effects that course throughout the environment. Because this is a metropolis, the F35 would be too much of a contribution to the cumulative effect we are already trying to reduce and or repair. Furthermore, we have many endangered species that are migratory or indigenous to this area, which would be negatively impacted by the Beddown flights and infrastructure by itself and in a cumulative relationship with the extant flight operations of military, commercial, and other agencies.

CULTURAL RESOURCES

The DM and TIA-ANG beddown and flights for the F35 would negatively impact local cultural, traditional, architectural, and archaeological resources. The Tohono O’Odham and Pascua Yaqui tribe’s reservations contiguous to Tucson. The military flights already fly over and often buzz Tohono O’Odham school buses and farmers. The sound of the flights is disruptive to the quieter and simpler lifestyles of the Tohono O’Odham. There are also archeological, cultural, and archaeological resources right in downtown Tucson that are currently negatively impacted by the military over flights, however, the increased decibels of the F35, as well as its increase in over flight frequency will negatively impact the archaeological history of Chukshon area, a prehistoric birthplace of Tucson which is the west downtown area along the Santa Cruz river, which has been continuously inhabited for over 4,000 years as a residential agricultural community and which hopes to attract scholars, visitors and tourists from all over the world as the historic San Juan trails, Sentinel Peak, the popular Tumamoc Mountain (a UA biological science area next to Sentinel Peak)

rate of about twenty per month.

which hosts hikers all day every day, the downtown Presidio which is the historic birthplace of Tucson with the arrival of Spaniards and their missions and fortifications. The University of Arizona, with its campus dating back to the late 1800s is the first college campus in the State of Arizona and is a significant educational, arboreal, outdoor, educational and historic attraction over which the F35 would dissect in a low flying training pattern (some visiting F35s have already been doing so and the noise level is ear splitting, both inside and outside).

ENVIRONMENTAL JUSTICE

The noise of F-35s using DMAFB will have its greatest impact on the neighborhoods of Alvernon Heights, Julia Keen, Barrio Centro, and Arroyo Chico. If the Air Force Reserve employs the additional use of the Tucson International Airport for F35s, it will also disproportionately impact neighborhoods between South Tucson and Barrio Kroeger Lane Neighborhood. These are low-income and minority neighborhoods. An analysis of census tracts will yield specific data regarding the ethnic and economic makeup of these and other neighborhoods impacted by F- 35 noise.

HUMAN RESOURCES

Tucson has a climate that is conducive to health and outdoors activities, from barbecues to hiking, tennis to swimming, commuter walking to mountain climbing, and is one of the nations top cities for bicyclists. Equestrians abound in the greater Tucson area with stables frequently found in metropolitan areas from the wealthy foothills to the lower income Mexican families along the southside's Santa Cruz. Children are often outside due to our climate. There are only a few months, which are very hot from May to September, when Tucson is less conducive to midday outdoor activity, however, the mornings and nights, even during the summer extremes are perfect outdoor weather for recreational activity. The F35s would seriously negatively impact this. The decibel levels are too loud and enduring, causing stress, health problems, deafness, anxiety, increased blood pressure, and disruptions. Furthermore, the air pollution caused by the F35s would decrease the health benefits of the air quality while outside, causing more days with air quality warnings for people to stay indoors. Children must especially be protected from the harms of the noise extremes caused by the F35. Furthermore, the areas where flights are the loudest, take off and landing proximities close to the base (DM or TIA/ANG) are poorer income and more ethnic minorities. Furthermore, the tourist industries bring in more than military spending in the Tucson area and that needs to be protected. We will experience not only losses in tourism with the beddown of F35s screaming across our skies but also the brain-drain of recent graduates, and the undoing of decades long upgrades and development in the downtown and west-downtown areas.

COMMUNITY INFRASTRUCTURE

Tucson needs more clean, green, local and less polluting community infrastructure. Tucson would be harmed by increased military infrastructure, pollution, and military influx. The Department of Defense has already acknowledged that climate change is a national security issue. Increasing Tucson's pollution by introducing the F35 and the large infrastructure that requires would only contribute to Tucson's challenges in terms of climate change and it's already 116-degree summer temperatures. Also, within this valley-closed densely populated environment, transportation of hazardous materials for fueling, cleaning, and servicing these jets, as well as their ordinance, would cause significant health and safety issues for the surrounding urban density/metropolitan population. DM already has a history of polluting the

groundwater and causing a cancer epidemic near the base. TIA has already been superfund site. The F35 would create myriad risks and problems with its waste as well. The simplistic assumption that the increase in number of aircraft and/or number of flights is linear and that there are no cumulative changes or effects as the numbers increase for an already over-taxed metropolis would be gravely short-sighted for Tucson's future.

DOD Must Develop a Comprehensive Baseline for All of Its Activities

For the purpose of establishing a baseline from which to address cumulative affects, the Department of Defense (DOD) should initiate a Continent-wide EIS for all military flights and training, whether manned or unmanned, by any and all branches of the military. Wildlife, water and air quality, and avian flyways are just a few of the potentially affected natural systems in Tucson, but which also exist in very large bioregions not defined by lines drawn on a map around a single base.

Council on Environmental Quality (CEQ) policy states that actions which are:

(1) closely related, i.e., are interdependent parts of a larger action and depend on the larger action for their justification; or (2) are cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts; or (3) are similar actions that have similarities that provide a basis for evaluating their environmental consequences together, such as common timing and geography, need to be considered in one EIS. *See* 40 C.F.R. § 1508.25. Based on this policy, the numerous training areas and activities, or operations, throughout the western United States, and indeed the entire country, should be considered in one, single programmatic or comprehensive EIS.

Much of the information typically presented in Air Force EAs or EISs violate this policy by providing no recognition of adjacent activities. Even when the Air Force and Marines, or Tucson and Davis-Monthan share a range, such as Goldwater, the proposed Air Force activity is effectively considered alone.

Without question, all of the areas proposed in the F-35A Training Basing DEIS are closely related as they involve the same impacts to resources and are part of a larger, programmatic plan to train US and foreign pilots and related military staff within the USAF and the other branches of the DOD. When viewed with other proposed actions, there are cumulatively significant impacts on human communities and wildlife populations and habitat. These projects qualify as "similar actions" that provide a basis for evaluating their environmental consequences together, such as common timing and geography. These projects therefore must be analyzed at a minimum in terms of the natural areas surrounding Tucson, such as the San Pedro River areas, the Ironwood National Monuments, Saguaro National Monuments, the Tohono O'Odham reservation, the Organ Pipe National Monument, the Tonto National Parks, Chiricahua National Monument, in one, regional programmatic EIS.

Preparing a national single comprehensive or programmatic EIS is the only way the USAF genuinely can explore and evaluate a reasonable range of alternatives with varying over flight frequency and alternate locations, as well as alternative methods of training (including virtual flight simulation). Commenters believe the DOD does not want the public to learn all of the

negative environmental impacts of its activities. We are aware that at one time the DOD had initiated a programmatic EIS for its entire low-altitude training program on a nationwide basis, and then abruptly discontinued the process after early administrative drafts revealed the presence of very significant cumulative impacts across the country.⁵

The USAF is required to comply with all of the requirements of NEPA assuring an independent and complete EIS.⁶ The statute requires that the following range of issues must be included and subjected to independent, in depth analysis:

Direct Impacts.

A NEPA-compliant EIS must analyze the direct impacts of the proposed action. This includes but is not limited to: impacts to the health and socioeconomic and psychological wellbeing of Native American tribes, other residents of the area, and all those who live in and visit the proposed impacted areas from within the United States and around the world; impacts to livestock and other domestic animals; impacts to wildlife and wildlife habitat; impacts to wilderness areas, Areas of Critical Environmental Concern, and other environmentally sensitive areas; air quality impacts;⁷ impacts to archaeologically, anthropologically, historically, spiritually, and culturally significant areas, impacts to scenic areas, impacts to recreation areas; and impacts to tourism.

Tucson and its surrounds support an abundant and diverse array of wildlife including prime habitat for many species listed as threatened and/or endangered under the Endangered Species Act, and irreplaceable in many respects. F-35A Training Basing is likely to cause irreparable damage to wildlife populations and habitat in this area. Because of the extent of the terrain to be affected, detailed independent, current analysis must be done for each proposed locality as well as each bioregion/ecosystem.

Indirect Impacts.

The NEPA review process is required to carefully analyze the indirect effects of the proposed action. Indirect effects are effects that are caused by the action but occur later in time or are further removed in distance. *See* 40 C.F.R. § 1508.8 (b). Indirect effects “may include

⁵ Since World War II in the United States, the impacts in areas where military activities have occurred has been staggeringly fatal to humans and environment. See <http://www.cpeo.org>

⁶ <https://vtdigger.org/2018/05/06/former-air-force-leaders-demand-probe-unethical-conduct-air-guard-officials-f-35-basing/>

⁷ As the Sierra Club Rincon Group comments have noted: Cumulative impacts, particularly for the metropolitan area of Tucson, must be a part of the analysis. In the past, Tucson has been in non-attainment status for carbon monoxide, and now must adhere to a federally imposed Limited Maintenance Plan for CO. The F-35's emission of carbon monoxide will be of particular concern. Pima County, in which DMAFB and Tucson are situated, is now at 99 percent of EPA's allowable ozone concentration of 0.070 ppm. On some days, ozone in Tucson climbs to unhealthy levels. The F-35's emission of nitrogen oxides, which are a precursor to ground level ozone, is of particular concern. South Tucson has exceeded EPA's allowable coarse particulate concentration of 150 µg/m³. The F-35's emission of coarse particulates should be included in the analysis.

growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.” *Id.* Here, the indirect effects shall include, but are not limited to, negative socioeconomic impacts, environmental injustice impacts, and the negative impacts to tourism, public health, hunting, and recreation that will result from the proposal.

The effects on the real estate market, both home and land values, could be devastating and, although raised repeatedly at the community meetings, must be addressed in the EIS.

Cumulative Impacts.

The Commenters urge that attention be seriously paid to identifying or analyzing any cumulative impacts in the EIS. In fact, a failure to consider cumulative impacts makes the EIS faulty. It must take into account the requirements of cumulative impacts analysis in settled case law, regulation and policy.

The Federal courts have ruled that the government “cannot isolate a proposed project, viewing it in a vacuum.” This is exactly what the Air Force must do with the Reserve Command F-35A Operational Beddown Environmental Impact Statement. Do not separate scenarios in a vacuum, isolating one from the other as well as from adjacent or shared airspace and/or range. Any failure to address cumulative impacts will support a withdrawal of an EIS as a document not in full compliance with law and policy to be developed.

The NEPA review process requires taking a hard look at the cumulative impacts of the proposed action. A cumulative impact is “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. § 1508.7.

With respect to the proposed F-35A Training Basing, properly analyzing cumulative effects must include: (1) identifying the significant cumulative effects issues associated with the proposed action; (2) establishing the proper geographic scope for the analysis; (3) establishing an appropriate time frame for the analysis; and (4) identifying other actions affecting the resources, ecosystems, and/or human communities of concern.

In this case, establishing the proper geographic scope or boundary for a cumulative impacts analysis is extremely important because the proposed action will have direct, indirect, and “additive” effects on resources *beyond the immediate* area, possibly as far as the Gila Wilderness Area in New Mexico. To determine the appropriate geographic boundaries for a cumulative effects analysis, therefore, the USAF environmental analysis should first: (1) determine the area and resources that will be affected by their proposed action (the “project impact zone”); (2) make a list of resources within that area or zone that could be affected by the proposed action; and (3) determine the geographic areas occupied by those resources outside the immediate area or project impact zone. In most cases, the largest of these areas will be the appropriate area for the analysis of cumulative effects. By way of example, for resident or migratory wildlife, the appropriate geographic area for the cumulative impacts analysis will be the species habitat or breeding grounds, migration route, wintering areas, or total range of affected population units. *See e.g., NRDC. v. Hodel*, 865 F.2d 288, 297 (D.C. Cir. 1988).

Another important aspect of a cumulative impacts analysis that the USAF will need to consider is an assessment of other past, present, and reasonably foreseeable actions affecting the

resources, ecosystems, and/or human communities of concern. According to the CEQ, the “most devastating environmental effects may result not from the direct effects of a particular action, but from the combination of individually minor effects of multiple actions over time.” Council on Environmental Quality, *Considering Cumulative Effects Under the National Environmental Policy Act* 1 (January 1997) available at <http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm> (last visited November 2, 2011). The requirement to consider cumulative impacts, therefore, is designed to avoid the “combination of individually minor” effects situation – to avoid the “tyranny of small decisions” or death by a thousand cuts scenario. *See e.g., Grand Canyon Trust v. FAA*, 290 F.3d 339, 346 (D.C. Cir. 2002).

The USAF must conduct a NEPA review that takes into account and analyzes state, private, and other federal actions as well as natural occurrences or events that have taken place, are taking place, or proposed to take place that will similarly impact the region’s wildlife populations and habitat, and human communities. Individually, each flyover – though serious – may not rise to the level of posing a significant risk. Collectively, however, the impacts of all of these and other activities – whether conducted by private individuals, state agencies, or other federal agencies – may be significant and must be analyzed. *See e.g., Grand Canyon Trust*, 290 F.3d at 346 (discussing collective impacts to Zion National Park); *NRDC v. Hodel*, 865 F.2d 288 (D.C. Cir. 1988). As the D.C. Circuit Court noted, federal agencies must “give a realistic evaluation of the total impacts [of the action] and cannot isolate a proposed project, viewing it in a vacuum.” *Grand Canyon Trust*, 290 F.3d at 342. Even “a slight increase in adverse conditions . . . may sometimes threaten harm that is significant. One more factory . . . may represent the straw that breaks the back of the environmental camel.” *Id.* at 343 (*quoting Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972)).

The USAF cannot analyze the direct and indirect effects of the proposed F-35A Training Basing in isolation, but must examine the cumulative effects of the proposed project together with all other Department of Defense training areas and operations in and around New Mexico, Idaho, Arizona and all adjacent states. As explained below, this comprehensive analysis is required by NEPA and mandates the preparation of a programmatic EIS that addresses the entirety of training programs.

Establish a Baseline.

The USAF NEPA review process must establish in this EIS a proper baseline upon which to base its impacts analyses and conduct the requisite “trends analysis,” i.e., an assessment of the environmental impacts of all activities affecting the various resources over an extended period of time. By failing to properly define the baseline and from the baseline engage in a trends analysis, the USAF will be unable to track any effects and changes that will occur over time. At a minimum, baseline data on locations of wildlife and migratory bird paths, and the current exposure of animal populations and human communities to sudden heightened noise levels is needed in order to properly analyze the impacts (direct, indirect, and cumulative) of the proposed action.

Alternatives.

The USAF NEPA review process will need to consider a reasonable range of alternatives. Under NEPA, federal agencies must “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning

alternative uses of available resources.” 42 U.S.C. § 4332(2)(E); *see also* 40 C.F.R. § 1508.9(b). The discussion of reasonable alternatives section is the “heart” of any environmental analysis under NEPA. 40 C.F.R. § 1502.14.

Meaningful Public Comment.

The goal of the NEPA review process is to “provide full and fair discussion of significant environmental impacts [of a proposed action]” and to “inform decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.” 40 C.F.R. § 1502.1. With this mandate in mind, and in order to enable meaningful public comment, the USAF NEPA analysis for the proposed Beddown EIS needs to be well organized, easy to read and understand, and include proper references and citations to all relevant scientific studies and data.

Dissemination of the Draft EIS to the public must be noticeable and extensive in both English and Spanish. Public notice for so-called “community forums” must be effective.

Best Scientific Information.

All agencies, including the USAF “shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements.” 40 C.F.R. § 1502.24. Information “must be of high quality.” 40 C.F.R. § 1500.1(b). Accurate “scientific analysis [is] essential to implementing NEPA.” *Id.* The USAF must review and collect sufficient scientific data. Data cannot be old and/or unrelated to the specific project. Topics for study must include watershed impacts from accumulated perchlorates and other jet fuel pollutants, fire danger in drought-ridden forests, effects on wildlife as well cattle and ranching. Additionally effects on current and future eco- tourism and renewable energy development must be studied.

Socioeconomic Factors and Environmental Justice.

The Draft EIS must establish a baseline, consider cumulative impacts, and present science regarding potential impacts to humans or natural systems.

The Commenters are in support of the excellent study prepared by Kevin E. Cahill, PhD, *Expert Economic Assessment of the USAF Socioeconomic Impact Analysis for Boise AGS*, March 3, 2012 as a guideline or standard for evaluating whatever EIS results from this proposed Beddown of F35s in Tucson. This study was previously submitted as comment to an EIS and Dr. Cahill also testified at the Boise meeting. The public is grateful to Dr. Cahill for the amount of research that forms the basis of his thirty-page comment. Cahill states that, “the Air Force’s socioeconomic analysis is not reliable or informative in any way,” concluding, “The socioeconomic analysis contained in the Air Force’s Draft F-35A Training Basing Environmental Impact Statement is fundamentally flawed and grossly insufficient.”

While Cahill wrote the report specifically to the Boise option, the underlying research and analysis applies to all of the scenarios. Cahill’s critique of the IMPLAN model used by the Air Force and the DEIS failure to consider quality of life, lost productivity, impacts on learning at affected schools, property values and other economic impacts applies to the other proposed communities as well.

A comprehensive study of socioeconomic and environmental justice impacts is needed at the county level as well as at the regional market/services level, many of which cross state and county lines.

In conclusion, we ask that that the DOD allow a 60 day extension for comments in this phase due to a lack of notice to the general population. Second, we recommend that the AF first complete an EIS for all continental low, middle and high altitude flights both manned and unmanned for all DOD branches. We believe the public will be outraged to learn how much airspace, how many flights, how much pollution, and how much money is literally burned overhead by the DOD and that the public will demand that military airspace and training contract and not expand. Lastly, we urge the AF to conduct an objective, outside, in-depth EIS and diligently take into account the negative impact an F35 beddown will have on the Greater Tucson area.

We hope you find these comments to be helpful, informative, and useful in your efforts to comply with the NEPA and other substantive statutes. If you have any questions or comments, or wish to discuss the issues raised in this comment in greater detail, please do not hesitate to contact Tucson Forward, Inc. representative listed below.

Sincerely,

s/Kathleen G. Williamson/s
Vice-President

On *Behalf* of:

Tucson Forward, Inc.
c/o Kathleen G. Williamson
PO Box 249
Tucson, AZ 85702