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PENNSYLVANIA

December 30, 2021

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VIA ELECTRONIC FILING

Re: Draft Environmental Assessment for Modification of Duke MOA

Dear National Guard NEPA Review Team:

The Sierra Club Pennsylvania Chapter respectfully submits these comments on the Draft Environmental Assessment for Modification of the Duke Military Operations Area (Duke Low MOA) by the Maryland Air National Guard (MD ANG), 175th Wing.^{1*}

After reviewing the Draft Environmental Assessment (Draft EA) and supporting documents, we respectfully ask that a full Environmental Impact Statement (EIS) be completed

^{1*} Prepared with assistance of Certified Legal Interns Alex Patterson and Jesse Lamp, University of Pittsburgh School of Law Environmental Law Clinic.

on this project to acknowledge insufficient data and to take appropriate steps to acquire or produce relevant data before moving forward with any decision on this action. As detailed below, the Draft EA does not address the concerns of our organization nor the concerns of citizens across the Commonwealth of Pennsylvania.

Specifically, Sierra Club asks that the following deficiencies be addressed in a full EIS:

- The Draft EA outlined insufficient notice procedures to citizens residing or recreating under the modification zone. The MD ANG must provide sufficient notice to citizens in *all* counties underlying the proposed modification to promote robust public involvement as required by NEPA. The MD ANG must also address lack of notice provided to local communities if the Duke Low MOA is activated. We request that these notice deficiencies be addressed or remedied in a full EIS.
- The purpose and need cited for the Duke Low MOA are inadequately explained and future or likely effects are unclear. The MD ANG must address these needs with more transparency and evaluation in an EIS to enable the general public to engage with the proposal and understand how the Duke Low airspace will be used. The MD ANG must also justify why its use of the airspace will have “no significant impact” on the surrounding environment beyond citing short numerical timeframes. Further, the MD ANG does not discuss if the use of the Duke Low MOA would expand to include other airframes or units if approved, we request this be addressed in an EIS.
- The MD ANG must reconsider alternatives to the proposed action. The MD ANG’s analysis of reasonable alternatives was less than adequate and did not fully evaluate the

merits of various alternatives, we request the MD ANG reassess the reasonable alternatives and additional alternatives in a full EIS.

- The Draft EA leaves open questions about civilian aircraft safety and notice, availability of emergency services, and possible harm/damage done by spooked wildlife and livestock. We request the MD ANG fully address safety concerns in drafting a full EIS to ensure a maximum safety level for the communities and residents in the areas impacted by the proposed action.
- The Draft EA contains erroneous/misguided analysis of noise effects and fails to fully consider other effects such as visual disturbances. Since the MD ANG is tasked with thoroughly assessing the impacts of noise and other disturbances created by the proposed Duke Low MOA, we request the MD ANG to complete an EIS to more thoroughly consider all impacts created by their proposed airspace.
- Mitigation measures do not provide adequate safety buffers and reassurances, nor are they responsive to numerous concerns presented to the agency during interagency coordination. We request the MD ANG to further evaluate realistic, enforceable, and effective mitigation measures in a full EIS before approving the proposed Duke Low MOA. In particular, we request the MD ANG to fully consider the impact of the proposal on wildlife, the wild character of the area, and historic sites in the area.
- The impact of the proposed Duke Low MOA on the local economies of the area is not fully addressed and does not account for tourism or recreation. We request the MD ANG adequately address how noise and visual disturbances could impact the economies of the surrounding areas that rely on tourism for significant income.

- The Draft EA inadequately addresses potential impacts to National Register-Listed Properties beneath the proposed Duke Low MOA. We respectfully request the MD ANG address impacts to fragile historic sites by vibration and noise in a full EIS.
- The MD ANG did not consider Pennsylvania’s Constitutional Environmental Rights Amendment as required by NEPA. We request the MD ANG address the Pennsylvania Environmental Rights Amendment (ERA) in a full EIS as required by NEPA under 40 C.F.R. §§ 1502.16(a)(5), 1506.2(d), and 1508.27(b)(10).

Statutory Authority and Procedural Requirements

An agency must have a valid Congressional delegation of authority to act, and the agency must act within the scope of that delegation.² While the (MD ANG) did not expressly state under what authority the Duke Low MOA is being proposed, we assume you are operating under the Federal Aviation Act, 49 U.S.C. § 40103(b)(3)³ which allows for the creation of “airspace the Administrator decides are necessary in the interest of national defense”⁴ and to restrict or prohibit flights accordingly.⁵ We ask first that, upon completion of a full Environmental Impact Statement (EIS), that the MD ANG state expressly what authority they are acting under and what procedural requirements accompany that authority to better aid interested parties in understanding and engaging with the MD ANG’s proposal.

Operating under the Federal Aviation Act requires that the MD ANG follow various procedural rules in the promulgation of rules and creating of designated airspace. First, as

² See 1 Administrative Law § 3.03 (2021).

³ See *Sierra Club v. Lehman*, 648 F. Supp. 252, *254, 1986 U.S. Dist. LEXIS 19313, **6-7 (D. Nev. 1986) (explaining statutory authority of the Department of Transportation, Federal Aviation Administration, and the Department of the Navy regarding allocation of airspace for military use).

⁴ 49 U.S.C. § 40103(b)(3)(A).

⁵ *Id.* § 40103(b)(3)(B).

discussed in the Draft EA,⁶ the MD ANG must comply with the requirements of the National Environmental Policy Act (NEPA).⁷

The goals of NEPA are to “encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.”⁸ The procedural requirements of NEPA are set forth in Title 40 of the Code of Federal Regulations, Part 1500. “The purpose and function of NEPA is satisfied if Federal agencies have considered relevant environmental information, and the public has been informed regarding the decision-making process.”⁹

To fulfill its requirements under NEPA, the MD ANG’s Environmental Assessment must “provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.”¹⁰ In collecting evidence to make such a finding, it is not enough to conduct the analysis “in generic fashion by looking to environmental impacts across the board,” but must instead “conduct[] a site-by-site analysis” specific to the location of the proposed action.¹¹ Moreover, courts have rejected agency claims that “its examination of past [environmental impacts] properly demonstrated that the potential for

⁶ See Draft EA, at 1-1, 1-5–1-6.

⁷ 42 U.S.C. §§ 4331-4347.

⁸ *Id.* § 4321.

⁹ 40 C.F.R. § 1500.1(a) (2020).

¹⁰ *Id.* § 1501.5(c)(1).

¹¹ See *New York v. NRC*, 681 F.3d 471, 479 (D.C. Cir. 2012) (finding that the Nuclear Regulatory Commission’s “EA and resulting FONSI are not supported by substantial evidence on the record because the Commission failed to properly examine the risk of leaks in a forward-looking fashion and failed to examine the potential consequences of pool fires.”).

[future] environmental harm...is negligible..”¹² The MD ANG must, therefore, tailor the current EA and our requested EIS specifically to the unique circumstances of and impacts to the areas under and around the proposed Duke Low MOA. The MD ANG must also “discuss the purpose and need for the proposed action, alternatives..., and the environmental impacts of the proposed action and alternatives.”¹³

The Air Force has codified its NEPA process, the Environmental Impact Analysis Process (EIAP), in the Federal Register.¹⁴ The EIAP generally follows the requirements of the Council on Environmental Quality’s regulations and incorporates various military directives to facilitate the NEPA/EIAP process.¹⁵

Public participation in rulemaking and decision making are key elements of both NEPA¹⁶ and EIAP¹⁷ and is also encouraged by the Policies and Procedures of the Federal Aviation Administration.¹⁸ We respectfully request that the MD ANG extend the available comment period to provide a more robust opportunity for the public to engage in this process. Pursuant to FAA Order 1050.1F, we further request that, during the extended period, public hearings be held in the numerous communities connected to the areas around the proposed Duke Low MOA and the PA Wilds to ensure the MD ANG has properly received and heard the concerns of

¹² *Id.* at 480-81 (“Despite giving our ‘most deferential’ treatment to the Commission’s application of its technical and scientific expertise, we cannot reconcile a finding that past leaks have been harmless with a conclusion that future leaks at all sites will be harmless as well.”).

¹³ 40 C.F.R. § 1501.5(c)(2). *See also* Federal Aviation Administration, Environmental Impacts: Policies and Procedures, FAA Order 1050.1F § 6-2.1(c) (“The purpose and need for the proposed action must be clearly explained and stated in terms that are understandable to individuals who are not familiar with aviation or commercial aerospace activities.”).

¹⁴ 32 C.F.R. Part 989.

¹⁵ *See id.* § 989.1(b).

¹⁶ *See* 40 C.F.R. § 1506.6.

¹⁷ *See* 32 C.F.R. § 989.24.

¹⁸ Fed. Aviation Admin., *Environmental Impacts: Policies and Procedures*, FAA Order 1050.1F § 2-5.3(a) (July 16, 2015).

those most likely to be affected by this proposal¹⁹ and to allow the MD ANG to make a reasoned decision concerning the proposal.

In addition to NEPA/EIAP, actions under the Federal Aviation Act are usually subject to the Administrative Procedure Act.²⁰ Because this action involves the creation of military operations area, the military exemption of Section 553(a)(1) likely applies; however the creation or modification of an MOA has previously been published in the Federal Register,²¹ so it is reasonable to assume that the MD ANG should have and will published notice of the Duke Low MOA proposal in the Federal Register. If not, we urge publication in the Federal Register and adequate time for comment before any proposals become final.

At this stage of rulemaking, the MD ANG has presented a Draft Environmental Assessment and Finding of No Significant Impact for public comment. As the remainder of this comment will make clear, we are requesting that the MD ANG conduct a full Environmental Impact Statement to adequately address the numerous concerns expressed by us and other commenters throughout this proposal process. Under the EIAP, “[c]ertain classes of environmental impacts normally require preparation of an EIS,”²² among them is when there is “[s]ubstantial environmental controversy concerning the significance or nature of the environmental impact of a proposed action.”²³ The volume and tone of the comments collected,

¹⁹ *Id.* (“The FAA should hold public meetings, workshops, or hearings, when appropriate. Such events can provide timely opportunities to discover potential controversial issues.”).

²⁰ 49 U.S.C. § 40103(B)(4) (“Notwithstanding the military exception in section 553(a)(1) of title 5, subchapter II of chapter 5 of title 5 applies to a regulation prescribed under this subsection.”).

²¹ *See e.g.*, Establishment of Restricted Areas 5802C, D, and E; Fort Indiantown Gap, PA, 69 Fed. Reg. 47358 (Aug. 5, 2004) [hereinafter Kiowa MOA].

²² 32 C.F.R. § 989.16(a).

²³ *Id.* § 989.16(a)(3).

including our own, clearly establishes the “controversy concerning the significance”²⁴ of this proposal.

Additionally, in preparing the full EIS on the proposed Duke Low MOA, we remind the MD ANG of their duty under NEPA that they must acknowledge where information is incomplete or lacking and take appropriate actions to acquire or produce the relevant data before making decisions on this action.²⁵

The MD ANG Failed to Provide Adequate Public Notice of the Proposed Duke Low MOA

The National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality (CEQ) regulations implementing NEPA call for robust public involvement in the assessment process implemented through adequate notice and active participation. Yet MD ANG failed to notify at least five counties within the impact area of the proposed Duke Low MOA. Additionally, the draft EA fails to address that at least three of the listed newspapers are published only once per week, providing notice in two printings as opposed to a longer time period. Finally, the EA does not address the population that occupies the region seasonally which received no notice.

The MD ANG failed to provide notice to at least five counties potentially impacted by the proposed modification. The newspapers listed by the MD ANG only included Potter, Cameron, and McKean Counties. Populations in Tioga, Clinton, Elk, Cattaraugus, and Allegany Counties were left wholly unnotified though each county has at least one, if not two, print newspapers in circulation. Examples of the newspapers in circulation are: *The Wellsboro Gazette* (Tioga), *The*

²⁴ *Id.*

²⁵ 40 C.F.R. § 1502.21.

Express (Clinton), *The Daily Press* (Elk), *The Ridgway Record* (Elk), *Olean Times Herald* (Cattaraugus), *Salamanca Press* (Cattaraugus), and the *Wellsville Daily Reporter* (Allegany).

Even where the MD ANG attempted to notify the public, it fell short. The *Potter-Leader Enterprise*, *Endeavor News*, and *Cameron County Echo*, covering only Potter and Cameron Counties, are each published once per week, so the running of the notice in October and November only occurred twice. Though this may be considered to cover a week of notice, it does not address the fact that members of the public may not read the weekly newspaper thoroughly and would easily miss a notice proposing to modify the Duke MOA that they only saw twice. There were no other methods of notice provided to the residents of Potter and Cameron Counties, though 32 C.F.R. § 989.24 and 40 C.F.R. § 1506.6 suggest other methods agencies may utilize for notification such as publication in newsletters, direct mailing to affected property owners, or notice through other local media, though the agency is not limited to only those listed. Though the *Bradford Era*, covering McKean County, is a daily newspaper, the EA makes it appear as though the notice was only published in two editions: on October 19, 2021, and November 12, 2021. Wholly different from the weekly newspapers, the notice in the *Bradford Era*, if correctly listed in the draft EA, would have occurred only twice out of nearly 25 printings.

A factor the MD ANG ignored in the notice section of its draft EA is that many of the residents in the impact area are seasonal, only occupying the region in the spring and summer months or traveling to the region for various hunting seasons. These members of the potentially impacted population received no notice of the proposed modification. In fact, review of one member group on Facebook – “Potter County, PA” – reveals that many seasonal residents (and

current residents) of the region had no notice until links were posted on the page, some well after the comment period was already nearing expiration. An overwhelming number of comments on only a few posts indicates that the proposed modification was a complete surprise for many who regard the region as a place to abandon “city fatigue” and seek “peaceful calm.”²⁶ Reactions on the posts make clear that many of these individuals received no notice outside a Facebook post, something not envisioned by NEPA’s requirements.

MD ANG’s attempt at notifying the public regarding the proposed Duke Low MOA was wholly inadequate, arbitrary, and capricious. The notices about the draft EA leave entire counties within the impact area unnotified, fail to address weekly newspaper circulation as opposed to daily circulation, and fail to address or attempt to notify the seasonal population of the PA Wilds region.

The MD ANG Proposes to Give No Notice to the General Public When the Duke Low MOA is Activated

According to the MD ANG, activation times of the Duke Low MOA would be intermittent and separate from the existing Duke MOA, accomplished by Notice to Airmen (NOTAM).²⁷ The NOTAM would give local and regional airports at least a 4-hour advance notice of the activation of the Duke Low MOA, but the general public would receive no notice of its use. Many commissioners and representatives in the region expressed concern over the lack of notice afforded the public when the Duke Low MOA is activated, also citing concerns with notification

²⁶ *Potter County, PA*, FACEBOOK.COM, <https://www.facebook.com/groups/223710080136>; For examples of posts regarding the proposed Duke Low MOA see Appendix A.

²⁷ Draft EA, at 2-1.

to emergency management personnel throughout the counties underlying the MOA.²⁸ The MD ANG should delineate a system for notifying the public about proposed activation of the Duke Low MOA or further clarify the days/times it would be activated.

Purpose and Need for this Proposal are Inadequately Explained / Future Use and Likely Effects are Unclear and Require More Transparency and Evaluation

Multiple comments filed during the interagency coordination phase questioned the purpose and need for the proposed Duke Low MOA and asked why this particular site was chosen.²⁹ The proposal states many times that the site is needed, essentially, to ensure pilots are trained and maintain qualifications for various types of missions³⁰; however, the proposal does not adequately explain what those training requirements are. It is not our responsibility to seek out this information ourselves, and the MD ANG should have provided this information in the EA to allow the general public to intelligently engage with the EA.

However, using the A/OA-10 Aircrew Training Instruction³¹ and Air Operations Rules and Procedures³² as our guide, we understand the MD ANG's needs to be as follows:

²⁸ See e.g., Letter from Jeremy S. Morey, Director, McKean County Planning Commission, to Ramon Ortiz, dated Sept. 5, 2019; Email from Shaw Siglin, Grand Canyon Airport Authority, to Ramon Ortiz, dated Sept. 11, 2019, at 10:50 AM; Email from Nancy Grupp, Chair, Potter County Commission, to Lt. Col. Christopher J. Mayor, dated April 29, 2021, at 13:11; Email from Nancy Grupp, Chair, Potter County Commission, to Maj. Jeffrey Andrieu, dated May 7, 2021, at 1:03 PM; Email from Kay Aumick, Tioga County Planning Specialist, to Lt. Col. Christopher Mayor, dated April 23, 2021, at 1:26:45 PM.

²⁹ See e.g., Email from Cliff Clark, Cameron County Office of Community and Economic Development, to Ramon Ortiz, dated Sept. 6, 2019, 9:10AM (“there is no explanation in the letter as to why this particular [area] was chosen.”); Email from Barbara Rudnick, NEPA Program Coordinator, Office of Communities, Tribes and Environmental Assessment, US EPA Region III, Philadelphia, PA, to Ramon Ortiz, dated Sept. 26, 2019 (“it is important that the purpose and need be clearly identified in the EA.”).

³⁰ See e.g., Draft EA, at 1-1 (“The Eastern Air Defense Sector requires low-altitude airspace to provide ANG units an environment to accurately train and prepare for current and future conflicts.”). See also *id.* at 1-4 (“The purpose of the proposed action is to establish low-level airspace beneath the existing Duke MOA to train and prepare military pilots and aircrews for current and future conflicts.”).

³¹ U.S. Air Force, *A/OA-10 Aircrew Training*, AFI 11-2A/OA-10 (Aug. 31, 2006).

³² U.S. Air Force, *Air Operations Rules and Procedures*, AFI 11-214 (June 15, 2021).

- Low Altitude Step-Down Training (LASDT). Category I requires pilot proficiency at low altitudes down to 500 ft AGL.³³
 - This is required of all “Combat Mission Ready” and “Basic Mission Capable” pilots.³⁴
- LASDT, Categories II/III. This qualification involves progressively lower flights in accordance with altitudes listed in Table 6.1, including the lowest block of “300-100” ft AGL.³⁵
- Forward Air Controller (Airborne) (FAC(A)) Upgrade Training requires completion of tasks within various mission parameters, none of which include a 100 ft AGL requirement.³⁶
 - Mission parameters include activities at a height that is not defined more specifically than at “low altitude.”³⁷
 - “Low altitude” is, however, defined in Appendix A as “Performing realistic, mission-oriented low altitude operations while in a certified LOWAT altitude block,”³⁸ which includes ranges down to “300-100” AGL.³⁹
- Combat Search and Rescue (CSAR). This training does not include altitudinal requirements.⁴⁰

Additionally, pilots must qualify in weapons delivery and employment qualifications that include various strafing runs, the lowest of which has a minimum recovery altitude of 75 ft AGL.

³³ U.S. Air Force, *A/OA-10 Aircrew Training*, AFI 11-2A/OA-10 § 3.4.5 (Aug. 31, 2006).

³⁴ *Id.*

³⁵ *Id.*, Table 6.1.

³⁶ *See id.* at § 6.3.5.2.

³⁷ *See id.* § 6.3.5.2.4.

³⁸ *Id.* at § A2.4.17.

³⁹ *Id.* at Table 6.1.

⁴⁰ *See id.* at § 6.9.

⁴¹ However, all these weapon qualifications involve actual gun runs with hit percentages required for qualifications.⁴² Because these involve live fire and the proposed Duke Low MOA is not an ordinance range, this is not a valid justification for a 100 ft AGL.

If, however, the MD ANG plans to use the proposed Low MOA for simulated weapons delivery runs, they must state so expressly in the full EIS to allow a full understanding by the general public of what kinds of maneuvers are planned in the airspace. For example, because the GAU-8/A Avenger Autocannon is optimized for a slant range of 4,000 ft with the A-10 in a 30-degree dive,⁴³ the public must be informed of the MD ANG's intentions to practice these kinds of runs because it likely affects the public's perceptions of the foreseeable impacts the proposed use of airspace will have.

The A/OA-10 Aircrew Training Instructions also mention, on numerous occasions, the requirements of the Ready Aircrew Program (RAP); however, the RAP memo is not readily available to the public. Therefore, any additional requirements used to justify the proposal must be more explicitly stated by the MD ANG to allow for accomplishment of the public involvement purposes of NEPA analysis.

With this background and understanding in place, we understand the MD ANG's need for a low altitude training area; however, we question the integrity of the entire Environmental Assessment. We also challenge the MD ANG's justification and reasoning for proposing the Duke Low MOA.

The MD ANG's EA justifies almost every dismissal of significant environmental impact by stating:

⁴¹ See *id.* at § 5.5.

⁴² See *id.*

⁴³ See Dennis R. Jenkins, FAIRCHILD-REPUBLIC A/OA-10 WARTHOG 64-73 (1998).

Under the Proposed Action, aircraft would spend approximately 10 minutes or less below 1,000 ft AGL in a given hour of usage during a 2-hour activation window, aircraft operations below 500 ft AGL would occur for 2-3 minutes per activation. Notably, the LASDT training down to 100 ft AGL would be only several seconds and less than 0.5 miles overland in the 2-3 minutes of flight in low altitude ranges. Approximately 95 percent of aircraft operations would be conducted above 1,000 ft AGL. In addition, a 1,000 ft AGL floor or a 500 ft AGL floor would be implemented over sensitive areas of concern in the southern portions of the Duke Low MOA....⁴⁴

This explanation discusses the approximate time of LASDT training during each mission, but fails to address low altitude FAC(A) operations which are also performed with ranges down to “300-100” AGL.⁴⁵ We are also left guessing whether simulated gun runs will occur in the airspace which allows for recovery below the 100 ft AGL floor.⁴⁶ To intelligently engage with the MD ANG, this information is essential to understanding the activities that will occur in the proposed airspace and adequately respond to the MD ANG and allow for reasoned analysis by the agency during final decision-making. The full EIS must include express statements of the activities planned in the area.

Additionally, the MD ANG limited consideration of training areas to those within 200 miles of Martin State Airport, citing maintenance and transit times.⁴⁷ But there is no evidentiary justification for such a limitation. While “[t]he Air Force may expressly eliminate alternatives

⁴⁴ See e.g., Draft EA, at 3-57 (This is from p. 3-57, § 3.5.4, but closely, if not exactly, resembles the response in nearly every other section.)

⁴⁵ U.S. Air Force, *A/OA-10 Aircrew Training*, AFI 11-2A/OA-10, Table 6.1 (Aug. 31, 2006).

⁴⁶ See *id.* at § 5.5.

⁴⁷ Draft EA, at 2-1.

from detailed analysis, based on reasonable selection standards... they must not so narrowly define these standards that they unnecessarily limit consideration to the proposal initially favored by proponents.”⁴⁸ We disagree, given the absence of substantial evidence to justify the distance restriction, that a 200-mile limitation is a reasonable selection standard, especially in light of the MD ANG’s regular use of training sites far outside the proposed 200-mile range.⁴⁹ The MD ANG must more thoroughly explain this limitation on MOA selection.⁵⁰

In addition to the nature of activities planned in the airspace we, and many other comments,⁵¹ question the amount of use stated in the proposal: 170 days per year, twice per day, two hours at a time, and up to six aircraft.⁵² Is the 170 days a maximum or an expected amount with no actual cap? Is the six aircraft maximum at one time or per day? What does the “limited” language regarding nighttime operations⁵³ and the mixed signals the MD ANG sends in various documents regarding the amount of nighttime usage that will occur⁵⁴ actually mean? Finally, it is unclear whether the creation of the low MOA will increase the total number of aircraft using the whole Duke MOA airspace or whether the same number of operations will occur but be divided between the existing MOA and proposed low MOA.

⁴⁸ 32 C.F.R. § 989.8(c).

⁴⁹ See *infra* “Request for Consideration of Additional Alternatives”.

⁵⁰ Others have asked similar questions. See *e.g.*, Email from Cliff Clark, Cameron County Office of Community and Economic Development, to Ramon Ortiz, dated Sept. 6, 2019, 9:10AM.

⁵¹ See *e.g.*, Letter from Jeremy S. Morey, Director, McKean County Planning Commission, to Ramon Ortiz, dated Sept. 5, 2019; Email from Cliff Clark, Cameron County Office of Community and Economic Development, to Ramon Ortiz, dated Sept. 6, 2019, 9:10AM; Letter from Lori J. Reed, Chair, Cameron County Board of Commissioners, to Ramon Ortiz, dated Sept. 25, 2019; Letter from Douglas McLearn, Chief Division of Environmental Review, Pennsylvania State Historic Preservation Office, Pennsylvania Historical and Museum Commission, to Lt. Col. Christopher Mayor, dated April 27, 2021.

⁵² Draft EA, at 2-1.

⁵³ *Id.* at 2-3.

⁵⁴ See *e.g.*, Letter to Andrea MacDonald, PA Historical & Museum Commission, from Jennifer L. Harty, Resources Program Manager, National Guard Bureau, Joint Base Andrews, dated Aug. 26, 2019 (“The 175 WG flies one weekend per month with one week per month consisting of routine night training.”).

The language in the proposal also makes it unclear whether the Proposed Duke Low MOA will be used by only A-10s from the MD ANG or whether the F-16s and C-130s mentioned will also use the lowered ceiling.⁵⁵ Data is included in a few areas stating that F-16s and C-130s may use the area⁵⁶; however, data on those airframes is almost, if not entirely, absent from the MD ANG's EA evaluation.

It seems clear, however, that even if the lowered ceiling is not *designed for* use by F-16s and C-130s, there is reasonably foreseeable⁵⁷ *actual use* by those airframes.⁵⁸ Therefore, because use of the proposed airspace by these airframes is likely to occur, the MD ANG *must* include those airframes in the EA while making their decision⁵⁹ or expressly omit them/prohibit them from use in the proposed Duke Low MOA if it is approved.

We are further concerned about the real goals of the MD ANG in establishing the Duke Low MOA given the turbulent history⁶⁰ and questionable future of the A-10 airframe.⁶¹ While

⁵⁵ See e.g., Draft EA, Appx. C, *Aeronautical Proposal*.

⁵⁶ See e.g., Draft EA, at 2-8, 2-9, and 3-15.

⁵⁷ *Sierra Club v. FERC*, 827 F.3d 36, 46 (D.C. Cir. 2016) (citations omitted) (“NEPA obligated the [agency] to factor into its environmental analysis not just the direct, but also the indirect, environmental effects of the [proposal]—that is, those effects that are later in time or farther removed in distance, yet reasonably foreseeable.”)

⁵⁸ See Draft EA, Tables 2-2 & 2-3; Draft EA, Appx C § (e)(1)(A) (listing proposed sorties of all three airframes in the area that includes both F-16s and C-130s flying in the Low MOA airspace).

⁵⁹ 40 C.F.R. § 1508.1(aa) (“Reasonably foreseeable means sufficiently likely to occur such that a person of ordinary prudence would take it into account in reaching a decision.”).

⁶⁰ See Stephen Losey, *A-10 re-winged completed, will keep Warthog in the air until late 2030s*, AIR FORCE TIMES (Aug. 13, 2019),

<https://www.airforcetimes.com/news/your-air-force/2019/08/13/a-10-re-winging-completed-will-keep-warthog-in-the-air-until-late-2030s/> (“The A-10 has had a bumpy ride in recent years, and at one point its future appeared in doubt. The Air Force sought to retire the A-10 around 2015 as it dealt with tight budgets and prepared to bring on the F-35, which needed crucial maintenance personnel and other resources. Some A-10 supporters also said the Air Force was no longer interested in its close-air support mission, but former Chief of Staff Gen. Mark Welsh strongly denied that claim.”).

⁶¹ See Dan Grazier, *New Document Shows How the Air Force is Starving the A-10 Fleet*, PROJECT ON GOVERNMENT OVERSIGHT (Sept. 13, 2021),

<https://www.pogo.org/analysis/2021/09/new-document-shows-how-the-air-force-is-starving-the-a-10-fleet/> (explaining that a large percentage of current A-10 aircraft within the Air Force's arsenal are currently undeployable, how that number is expected to rise, and that this is a result of Air Force officials undermining funding efforts that would restore and preserve the force).

Congress has stepped in on numerous occasions to keep the A-10 fleet alive against the wishes and goals of Air Force officials,⁶² the continued longevity of the aging airframe continues to be a point of contention. If the A-10 is retired in the near future, it will most likely be replaced, either by another existing airframe or by a new aircraft designed to replicate the A-10's capabilities. If the Duke Low MOA is approved under the analysis provided by the MD ANG in this proposal, we question whether and to what extent the impacts of that future replacement aircraft will be considered when employing it in the airspace. The MD ANG must – in addition to the other foreseeable airframes that will likely use the proposed airspace – consider all those airframes currently being considered to replace the A-10 in the EIS for the Duke Low MOA. Given the A-10's questionable future, all those airframes being considered as replacements are reasonably foreseeable airframes utilizing the proposed Duke Low MOA.

Finally, we are concerned about, and the MD ANG does not discuss, whether the Duke Low MOA's use can expand to include other airframes or units if the area is approved. We could find no rules in the Federal Aviation Administration's regulations nor in any Air Force policies that would prohibit the controlling unit from opening the airspace to users other than the MD ANG. Because of the regular sharing of training areas between various military aviation units, we ask that the MD ANG address this concern in their full EIS. Will the airspace be limited only to MD ANG A-10s, or will it be used by other units and airframes? If sharing and use by other units is likely or planned, we ask that the MD ANG openly discuss any planned uses by other units. We also ask that the EIS include analysis of all airframes stationed within 200 miles (or a

⁶² See e.g., Brian Everstine, *More lawmakers press to keep the A-10*, AIR FORCE TIMES (Mar. 30, 2015), <https://www.airforcetimes.com/news/your-air-force/2015/03/30/more-lawmakers-press-to-keep-the-a-10/>.

legally justifiable distance based on substantial evidence and reasoned analysis) of the proposed airspace, as those aircraft are reasonably foreseeable users of the MOA.

The MD ANG Must (Re)Consider Alternatives to the Proposed Action

The purpose and the need for a new training location, as stated by the MD ANG, are fulfilled if another location or considered alternative meets the MD ANG's needs and requirements. As discussed above, we disagree with the MD ANG's analysis of its needs and the arbitrary and capricious⁶³ 200-mile limitation it has imposed on its site selection criteria, especially given that the MD ANG has used locations thousands of miles from their home base. We therefore urge the MD ANG to reconsider sites it has previously dismissed and consider additional sites discussed below.

The MD ANG "must analyze reasonable alternatives to the proposed action and the 'no action' alternative in all EAs and EISs, as fully as the proposed action alternative."⁶⁴ Because we believe the MD ANG's analysis of reasonable alternatives was less than adequate and did not fully evaluate the merits of various alternatives, we request that the MD ANG reassess the reasonable alternatives and additional alternatives in the full EIS.

MD ANG Must Reevaluate Evers MOA as an Alternative

The MD ANG dismisses use of Evers MOA because of the existing 1,000 ft AGL floor, sparse radio coverage, mountainous terrain, and the presence of the national quiet zone.⁶⁵ This dismissal too quickly dismisses use of the Evers MOA and must be reconsidered.

⁶³ 5 U.S.C. § 706(2)(a).

⁶⁴ 32 C.F.R. § 989.8(a).

⁶⁵ See Draft EA, at 2-9.

The existing 1,000 ft AGL floor could be modified through a modification process similar to that presented here to modify the Duke MOA. Therefore, MD ANG's first claim is erroneous and must be reconsidered.

Regarding sparse radio coverage, the MD ANG provides no data or sources to substantiate this claim. The MD ANG must present substantive evidence demonstrating a reasoned analysis to dismiss Evers MOA as an alternative option. They have not done so.

Further, the presence of the national quiet zone does not eliminate Evers MOA as an option. In their comment to the recent modification of Evers MOA, Michael J. Holstine with the Green Bank Observatory, asked simply that "a 'no-fly' zone be created around the [Green Bank Observatory (GBO)] facility at a distance of 3 miles in radius from the center of the [Green Bank Telescope]" to "protect the operation of the GBO from spurious radio noise that would affect astronomical observations and...protect our employees from potential physical harm during routine operation and maintenance of the telescopes."⁶⁶ Therefore, the radio quiet zone does not prevent expansion of the Evers MOA.

Additionally, because the 104 FS is specifically listed as an expected user of the Evers MOA in the Final Noise Study for the airspace,⁶⁷ we request that the MD ANG reevaluate the use of the Evers MOA in lieu of expanding the Duke MOA.

The MD ANG Must Demonstrate Due Diligence in Dismissing the Option of Creating a Stand-Alone MOA

⁶⁶ Letter from Michael J. Holstein, Business Manager, Green Bank Observatory, to Ramon E. Ortiz, Nat'l Guard Bureau, dated July 2, 2019, *Final EA for Airspace Modification and Addition of Evers MOA*, District of Columbia Air Nat'l Guard, Appendix A (Dec. 2020), <https://www.113wg.af.mil/Portals/12/Evers%20FINAL%20EA%20Volume%20II%20Appendices.pdf?ver=V2ezSTq7qF0yHPwkFT8FMA%3d%3d>.

⁶⁷ Final Noise Study for Modification and Addition of Evers Military Operations Airspace, District of Columbia Air National Guard (Apr. 2, 2020).

While we appreciate the congested nature of the airways, especially over the northeastern United States, we disagree with the MD ANG's cursory dismissal of a stand-alone MOA as an alternative option. The MD ANG simply states that "[n]o area was identified that would impose minimum impact on nonparticipating aircraft and ATC operations because of the congested airspace in the northeast region."⁶⁸ The MD ANG provides no information about what process they used, what areas might have been considered, or what parameters were employed to dismiss this option. We also recognize that there is a significant difference between "no area was identified" and "there were no possible areas found." The former can be accomplished by simply not looking. The latter requires the MD ANG to actually engage with the available options or positively affirm the lack of options. We ask that the MD ANG reevaluate the availability of airspace, and, if it is determined that none exists, to explicitly describe how that determination was reached.

The Patuxent River Restricted Area Should be Reevaluated for Viability as an Alternative Option

The Patuxent River RA "has been the primary airspace used by the 175 WG for CAS, CSAR, SAT, AI, and other training missions."⁶⁹ However, the MD ANG explains, the Navy has recently begun limiting use of the area by non-Navy aircraft.⁷⁰ The MD ANG also explains that use of the airspace for the proposed action was denied by Washington Center and Cleveland Center (ATCCs).⁷¹

We first ask that MD ANG, in their full EIS, elaborate further on what actions the Navy has taken to limit non-Naval aircraft in the Patuxent River RA. An extensive search was

⁶⁸ See Draft EA, at 2-9.

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.*

conducted in preparing this comment, but no information was found discussing this action by the Navy. We ask that the MD ANG more fully explain the Navy's actions and expressly discuss the qualitative and quantitative impacts these actions have had on the MD ANG's ability to accomplish its training missions. We also ask that, as an alternative to creating the Duke Low MOA, that the MD ANG consider its options regarding the Navy's actions and the refusal by the ATCCs. We read into the information provided in the Draft EA that MD ANG may better meet its needs by working with the Navy and the ATCCs either in an adversarial nature (taking legal action against the Navy and/or ATCC) or by working cooperatively to provide airspace for all users to accomplish their training needs with the airspace resources currently available.

We ask that the MD ANG more fully explain the factual and legal situation regarding the use of the Patuxent River RA so that we and other interested parties can more fully appreciate and respond to the MD ANG's contention that Patuxent River RA is not a viable alternative.

The Kiowa MOA – Bollen Range – is a Viable Alternative to the Duke Low MOA

The Kiowa MOA, Bollen Range, in Fort Indiantown Gap, Pennsylvania, is a viable alternative that the MD ANG should have – and must now – more thoroughly consider in lieu of expanding the Duke MOA. The 175 WG has previously used the Kiowa MOA,⁷² but dismisses it as an option, stating only that it is “currently used by all four military services for various air and ground training exercises,” and that it is “approximately 70 NM north of Martin State Airport.”⁷³ Neither of these statements demonstrates a reason to reject the site. In fact, both support the

⁷² William Johnson (Airman 1st Class), *Team Dover participates in joint training exercise, 436th Airlift Wing Public Affairs* (Feb. 18, 2014), <https://www.dover.af.mil/News/Article/762114/team-dover-participates-in-joint-training-exercise/>; Angela King-Sweigart, *A-10s train at PNG's Bollen Range at Fort Indiantown Gap*, DVIDS (Feb. 10, 2016), <https://www.dvidshub.net/image/2397732/10s-train-pngs-bollen-range-fort-indiantown-gap>.

⁷³ See Draft EA, at 2-11.

use of the site: It is used for various purposes, and it is well within the stated distance from the MD ANG's home base. While the Kiowa MOA may need to be modified to meet the full spectrum of the MD ANG's stated needs, the changes needed would be far less drastic than those proposed for the Duke Low MOA.

Currently, the Kiowa MOA "extend[s] from 500 feet AGL to but not including 17,000 feet MSL,"⁷⁴ with additional designated airspace above the Kiowa MOA "extending from 17,000 feet MSL to but not including FL 220, and [another] extend[ing] from FL 220 to FL 250."⁷⁵ The Kiowa MOA currently has time restrictions in place that, when the last modification was proposed, were to be removed, but were excluded from the final modification because of a lack of need and opposition during the comment period.⁷⁶ However, because this range is already in use and meets many of the needs the MD ANG states they need, the Kiowa MOA should be considered as a reasonable alternative to the creation of the Duke Low MOA.

Moreover, the Range has previously been used by MD ANG's A-10 fleet to perform close air support,⁷⁷ one of the stated needs for which the Duke Low MOA is proposed to facilitate.⁷⁸ Additionally, Kiowa MOA "is [a] realistic [experience] to what you can expect to encounter down range in Afghanistan,"⁷⁹ thereby providing real-world training opportunities for the MD ANG's pilots. Because the temporal and special modifications needed to fully accommodate the stated

⁷⁴ Kiowa MOA, *supra* note 20.

⁷⁵ *Id.*

⁷⁶ *See id.* at 47358.

⁷⁷ William Johnson (Airman 1st Class), *Team Dover participates in joint training exercise, 436th Airlift Wing Public Affairs* (Feb. 18, 2014), <https://www.dover.af.mil/News/Article/762114/team-dover-participates-in-joint-training-exercise/>.

⁷⁸ *See* Draft EA, Section 2.2.

⁷⁹ William Johnson (Airman 1st Class), *Team Dover participates in joint training exercise, 436th Airlift Wing Public Affairs* (Feb. 18, 2014), <https://www.dover.af.mil/News/Article/762114/team-dover-participates-in-joint-training-exercise/>.

needs are significantly less impactful than those proposed in the Duke Low MOA, MD ANG must evaluate use of the Kiowa MOA as an alternative to the Duke Low MOA.

We also believe that a change to the Kiowa MOA would likely be “a routine matter that will only affect air traffic procedures and air navigation, [and therefore be] certified that [a rule change], when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.”⁸⁰ Therefore, in addition to ensuring no harm is done to the areas under the existing Duke MOA, altering the lower portion of the Kiowa airspace from 500 ft AGL to the stated desired 100 ft AGL is a more efficient, expedient, and appropriate means of accomplishing the MD ANG’s stated goals.

Request for Consideration of Additional Alternatives

We respectfully request that the MD ANG provide a legally sufficient explanation for the implementation of a 200-mile radius limitation, that the MD ANG reconsider the various alternatives stated above, and that the MD ANG evaluate the option of opposing the Navy’s actions that lead to the need for new airspace.

We further ask that the MD ANG evaluate the option of dividing training requirements over multiple training areas. For example, many training requirements can be achieved in existing MTRs.⁸¹ While MTRs do not allow certain types of random combat maneuvering, using existing MTRs to conduct training would reduce the amount of activity in the Duke MOA. Using other pre-existing training sites – like those presented here – to train tasks supported by those areas will further reduce or eliminate the need for the creation of the Duke Low MOA. We ask that, in preparing a full EIS, the MD ANG consider this option as well.

⁸⁰ See Kiowa MOA, *supra* note 20.

⁸¹ See Draft EA, at 2-11.

We also ask that, in addition to reevaluating the previously dismissed alternatives, the MD ANG address the following alternatives that they have used for similar or other purposes during the past year:

- Warfield Air National Guard Base, Middle River, Maryland⁸²
- Warren Grove Gunnery Range, Warren Grove, New Jersey⁸³
- Bollen Range, Indiantown Gap, Pennsylvania⁸⁴
- Moody Air Force Base, Georgia⁸⁵
- Hill Air Force Base, Utah⁸⁶
- Hardwood Range, Volk Field Air National Guard Base, Camp Douglas, Wisconsin⁸⁷
- Nellis Air Force Base, Nevada⁸⁸

Pursuant to the Air Force Environmental Impact Analysis Process, “[t]he Air Force must also consider reasonable alternatives...suggested by others, as well as combinations of

⁸² Benjamin Hughes (Capt.), *Maryland Air National Guard Conducts Mission Generation Exercise*, 175th Wing (Nov. 3, 2021),

https://www.175wg.ang.af.mil/News/Article-Display/Article/2831796/maryland-air-national-guard-conducts-mission-generation-exercise/fbclid/IwAR3pNWhQjvtn_PVlgHT_buLHpfGOBPFOMIVCbvct_4b6wZRQT8CDEmeuybc/.

⁸³ Christopher Schepers (Master Sgt.), *Maryland National Guard A-10 crews train with Estonian JTACs*, Maryland National Guard (Dec. 15, 2020),

<https://www.nationalguard.mil/News/Article/2447029/maryland-national-guard-a-10-crews-train-with-estonian-jtacs/>. See also 175th Wing, *Fresh wings with a side of #BRRT*, Facebook (May 5, 2021),

https://www.facebook.com/permalink.php?story_fbid=10159326333504214&id=92466934213.

⁸⁴ Angela King-Sweigart, *A-10s train at PNG’s Bollen Range at Fort Indiantown Gap*, DVIDS (Feb. 10, 2016),

<https://www.dvidshub.net/image/2397732/10s-train-pngs-bollen-range-fort-indiantown-gap>.

⁸⁵ Idaho Nat’l Guard, *Idaho is 2021 Hawgsmoke Champions*, Facebook (Apr. 19, 2021),

<https://www.facebook.com/idahonationalguard/posts/4218195891525951>. See also 175th Wing, *Facebook Post re: Hawgsmoke 2021*, Facebook (May 20, 2021),

https://www.facebook.com/permalink.php?story_fbid=10159364005109214&id=92466934213.

⁸⁶ 175th Wing, *A-10C Thunderbolt II aircraft from the 104th Fighter Squadron, 175th Wing, participated in a weapons system evaluation program known as Combat Hammer*, Facebook (Mar. 19, 2021),

https://www.facebook.com/permalink.php?story_fbid=10159218230104214&id=92466934213.

⁸⁷ 175th Wing, *We want all the [smoke] this #WarthogWednesday*, Facebook (Sept. 22, 2021),

https://www.facebook.com/permalink.php?story_fbid=10159614661524214&id=92466934213.

⁸⁸ 175th Wing, *Facebook Post re: Nellis Air Force Base and Green Flag 22-02*, Facebook (Nov. 17, 2021),

<https://www.facebook.com/175wing/posts/197920662514355>.

alternatives.”⁸⁹ We therefore encourage the MD ANG to consider all of our proposed alternatives, reevaluate those previously dismissed in light of the additional information and arguments we have raised, and look at all of the options individually and in combination to determine whether an alternative to the proposed action meets the needs of the MD ANG.

Safety is Inadequately Evaluated and Leaves Open Questions about Civilian Aircraft Safety and Notice, Availability of Emergency Services, and Possible Harm/Damage Done by Spooked Wildlife and Livestock

Safety discussion is inadequately discussed in the proposal and must be addressed as the MD ANG prepares a full EIS.

While the proposal states that in-flight mishaps are rare,⁹⁰ there is no qualitative discussion of what mishaps have occurred, what has caused them, whether altitude-related factors affect the rate of occurrence, and what the extent of damage is when incidents do occur. The MD ANG must address this concern fully.

Community members have raised valid concerns that the EA fails to address. For example, because accidents do occur, we and the communities surrounding the proposed Duke Low MOA need to know what resources are available to respond to an incident and whether there is or will be a services agreement in place.⁹¹

⁸⁹ 32 C.F.R. § 989.8(b).

⁹⁰ Draft EA, at § 3.6.

⁹¹ See e.g., Letter from Jeremy S. Morey, Director, McKean County Planning Commission, to Ramon Ortiz, dated Sept. 5, 2019; Email from Kaye Aumick, Tioga County Planning Specialist, to Lt. Col. Christopher Mayor, dated April 23, 2021, at 1:26:45 PM.

The EA is also silent on various safety precautions of interest to community members. These concerns include questions regarding ordinance, chaff, and flares⁹²; dissemination of NOTAMs to local emergency management services,⁹³ local pilots sharing the airspace,⁹⁴ and residents⁹⁵; and procedures and contact information should an incident occur.⁹⁶ Exacerbating the potential impacts of any mishaps is the unpreparedness of local, small emergency response units that are unprepared to respond to incidents on the scale needed if an accident occurs.⁹⁷

The presence of other, local aviation operators in the region presents a significant hazard. Many have expressed concerns that NOTAM is insufficient notice of MOA activation because of numerous pilots in the area and that an authoritative contact person “that can provide timely and accurate range status” be available.⁹⁸ Further, medical helicopter usage in the area is unplanned, creating an additional aerial hazard that is insufficiently addressed in the EA.⁹⁹ Likewise, local pilots do not file flight paths when they go out to check on crops or livestock or go out for a joy ride, creating a dangerous situation.¹⁰⁰

⁹² See *e.g.*, Letter from Jeremy S. Morey, Director, McKean County Planning Commission, to Ramon Ortiz, dated Sept. 5, 2019 (asking whether aircraft will have inert ordinance mounted during operations in the area and whether chaff and flares will be removed to prevent accidental discharge).

⁹³ See *e.g.*, Letter from Jeremy S. Morey, Director, McKean County Planning Commission, to Ramon Ortiz, dated Sept. 5, 2019.

⁹⁴ See Email from Shaw Siglin, Grand Canyon Airport Authority, to Ramon Ortiz, dated Sept. 11, 2019, 10:50AM.

⁹⁵ Email from Kaye Aumick, Tioga County Planning Specialist, to Lt. Col. Christopher Mayor, dated April 23, 2021, at 1:26:45 PM.

⁹⁶ Letter from Jeremy S. Morey, Director, McKean County Planning Commission, to Ramon Ortiz, dated Sept. 5, 2019.

⁹⁷ See Email from Nancy Grupp, Chair, Potter County Commissioner, to Maj. Jeffrey M. Andrieu, dated May 7, 2021, at 1:03 PM.

⁹⁸ See *e.g.*, Email from Shaw Siglin, Grand Canyon Airport Authority, to Ramon Ortiz, dated Sept. 11, 2019, 10:50AM.

⁹⁹ See Email from Nancy Grupp, Chair, Potter County Commissioner, to Lt Col Christopher J Mayor, dated April 29, 2021, at 13:11.

¹⁰⁰ Email from Nancy Grupp, Chair, Potter County Commissioner, to Lt Col Christopher J Mayor, dated April 29, 2021, at 13:11.

Finally, and as will be discussed in more detail below, numerous other safety concerns exist, including possible hazards to people, wildlife, and livestock using the area under the MOA.

¹⁰¹ The U.S. EPA Region III Program Coordinator also requested information regarding the likelihood of wildlife and livestock being startled by low-flying aircraft that could cause injuries or damage if the animals flee. These concerns were never addressed.

There is no discussion of these concerns by the MD ANG in the Draft EA. These concerns deserve and require a more substantial review. We therefore request that, in drafting the full EIS, the MD ANG include substantive discussions addressing all of these concerns to ensure a maximum safety level for the communities and residents in the areas surrounding the proposed airspace.

Erroneous/Misguided Analysis of Noise Effects and Failure to Fully Consider other Effects Such as Dark Sky and Visual Disturbances

“Aircraft overflights...have the potential to produce sound levels that may cause annoyance, speech interference, sleep disturbance, or damage to structures (i.e., broken windows).”¹⁰² As such, the MD ANG is tasked with thoroughly assessing the impacts of noise created by the proposed Duke Low MOA. Because we believe the EA’s noise analysis was deficient, we encourage the MD ANG to complete a full EIS to more thoroughly consider the impacts of noise created by their proposed airspace. We also encourage the MD ANG to more thoroughly consider the effects of visual disturbances and vibrations caused by the proposed action.

¹⁰¹ See *e.g.*, Email from Barbara Rudnick, NEPA Program Coordinator, Office of Communities, Tribes and Environmental Assessment, US EPA Region III, Philadelphia, PA, to Ramon Ortiz, dated Sept. 26, 2019.

¹⁰² U.S. Air Force, *Air Force Noise Program*, AFI 32-7070 § 1.3 (Apr. 21, 2016).

The MD ANG makes quick work of discounting the potential impacts of noise, relying on what is effectively an Air Force/FAA template for noise analysis.¹⁰³ While we appreciate that the methods used by the MD ANG are generally accepted practices for the Air Force and FAA,¹⁰⁴ the MD ANG does have flexibility within the FAA's rules to more appropriately and accurately assess the unique circumstances involved in the area around the proposed airspace.

While "DNL is the best available metric to relate aircraft noise to long term annoyance..., [i]t should be noted that the dose-response relationship between DNL and annoyance varies over a wide range and is extremely location dependent."¹⁰⁵ It is therefore advised to consider other, locally-oriented factors in determining the threshold for annoyance in a given instance.¹⁰⁶ The MD ANG acknowledges the unique character of the area surrounding the proposed airspace, stating that "special consideration needs to be given to the impacts of noise in areas where other noise is very low, and a quiet setting is a generally recognized purpose and attribute."¹⁰⁷ However, following that statement, the MD ANG does not pursue discussing the subject. That must be addressed in the full EIS. Moreover, noise exposure levels and annoyance parameters were established with airports in mind.¹⁰⁸ That is not the case here, even though the Air Force has used these arguments in similar remote noise analyses.

The use of DNL levels is also called into question by the FAA's recent regulatory undertakings seeking to reevaluate aircraft noise analysis.¹⁰⁹ The FAA has undertaken to

¹⁰³ See generally Draft EA, Section 3.2.

¹⁰⁴ See Fed. Aviation Admin., *Environmental Impacts: Policies and Procedures*, FAA Order 1050.1F, Appx. B-1.4 (July 16, 2015).

¹⁰⁵ Technical Bulletin: Using Supplemental Noise Metrics and Analysis Tools, Department of Defense Noise Working Group 16 (Dec. 2009).

¹⁰⁶ *Id.*

¹⁰⁷ Draft EA, at 3-32.

¹⁰⁸ Fed. Aviation Admin., *Aviation Noise Abatement Policy* (1976).

¹⁰⁹ See generally Overview of FAA Aircraft Noise Policy and Research Efforts: Request for Input on Research Activities to Inform Aircraft Noise Policy, 86 FED. REG. 2722 (Jan. 13, 2021).

redesign the noise analysis program, acknowledging that the DNL and Dose-Response Curve are not the only – or even the best – options for evaluating aviation noise impacts.¹¹⁰ While DNL “was developed and validated to identify significant aviation noise exposure for land use and mitigation planning as well as for determining significant change in noise exposure under NEPA,” “it can be useful to supplement DNL with the use of other noise metrics.”¹¹¹ These other metrics “often can provide opportunities to communicate the specific characteristics of noise changes due to the unique aspects of a proposed action.”¹¹² The PA Wilds and areas under the proposed Duke Low MOA are unique wild areas worthy of more thorough environmental analysis. While we understand that “[t]he latest FAA-approved model must be used for both air quality and noise analysis,”¹¹³ we implore the MD ANG to use additional noise metrics to fully understand the impacts their proposal will have on the area.

More importantly, when the data discovered by the MD ANG clearly indicates a negative impact that requires evaluation by the MD ANG, they must undertake to address it. According to the MD ANG’s own analysis, the proposed action will actually permit the most annoying kinds of overflights to occur.¹¹⁴ Yet the EA completely ignores this finding, clearly indicating an arbitrary and capricious¹¹⁵ choice on the part of the MD ANG to move forward without

¹¹⁰ *Id.* at 2726 (“Earlier work to understand community response to noise, including Schultz’s dose-response analysis, was based on the premise that the annoyance from any source of noise would be the same for a given DNL noise level. However, more recent work has shown that aircraft noise often results in higher levels of annoyance compared to the same level of noise from ground transportation sources.”).

¹¹¹ *Id.* at 2727.

¹¹² *Id.*

¹¹³ Fed. Aviation Admin., *Environmental Impacts: Policies and Procedures*, FAA Order 1050.1F, ¶ 4-2(b) (July 16, 2015).

¹¹⁴ See Draft EA, at 3-70 (“Low-altitude, high-speed aircraft (i.e., military tactical aircraft) were reported as[] the most annoying type of aircraft to see or hear.”).

¹¹⁵ 5 U.S.C. § 706(2)(a).

addressing this concern. Likewise, even given the stated sound levels,¹¹⁶ it cannot be said that sounds that affect normal speech from over a mile away¹¹⁷ can be considered insignificant.

Additionally, the EA provides data only for sound levels emitted at set engine loads.¹¹⁸ If, as discussed above, the actual use of the airspace involves random, combat maneuvering or simulated gun runs, the tables are wholly inaccurate at representing reasonably foreseeable sound levels. For example, an A-10 conducting an optimal gun run will descend in a 30-degree dive.¹¹⁹ At the bottom of the descent, the pilot will need to recover from the dive, driving up the power required by the engine and causing an increase in sound level. This is not discussed and will occur at the lowest altitudes allowed within the proposed airspace. Anything less than a full spectrum analysis of the actual and proposed activities within the proposed airspace and the sound levels caused by those activities is inadequate. This discussion must also include thorough discussions of sound levels emitted by all planned aircraft (C-130s and F-16s) and reasonably foreseeable users of the airspace.

Finally, the MD ANG skirts its duty to rely on the best scientific data available,¹²⁰ citing the “lack of published studies on quantifiable impact from aircraft overflights in MOAs to local economies related to outdoor recreation and tourism.”¹²¹ Instead, the MD ANG relies on a series of studies with questionable applicability to the area under and around the proposed Duke Low MOA.¹²² It is this absence of scientific data that is to be remedied by the NEPA process, and we

¹¹⁶ See Draft EA, Tables 3-8, 3-10.

¹¹⁷ See *id.* at Table 3-11.

¹¹⁸ See *e.g., id.* at Tables 3-8, 3-10.

¹¹⁹ See Dennis R. Jenkins, *Fairchild-Republic A/OA-10 Warthog* 64-73 (1998).

¹²⁰ See 40 C.F.R. § 1502.21.

¹²¹ Draft EA, at 3-71.

¹²² See *e.g., id.* at 3-69–3-70.

therefore reinforce our request that the MD ANG conduct a full EIS before moving forward with this proposal.

In addition to noise effects, we urge the MD ANG to consider both visual disturbances and the effects of vibrations the proposal will create. “[V]isual effects are broken into two categories: 1) Light Emission Effects; and 2) Visual Resources and Visual Character. These two categories are defined in more detail [in Section 13 of the FAA 1050.1F Desk Reference Manual] and should be discussed separately in a National Environmental Policy Act (NEPA) document.”¹²³ “Visual character refers to the overall visual makeup of the existing environment where the proposed action and alternative(s) would be located.”¹²⁴ “When the potential for annoyance exists, information should be included in the analysis such as the location of lights or light systems, pertinent characteristics of the lighting (e.g., intensity, flashing sequence for strobe lighting, and color) and its intended use (e.g., security lighting, runway lighting), and mitigation measures that could be implemented to lessen any annoyance, such as shielding or angular adjustments.”¹²⁵

While “[v]isual resources and visual character impacts are typically related to a decrease in the aesthetic quality of an area resulting from development, construction, or demolition,”¹²⁶ in the case of the PA Wilds and area under the proposed Duke Low MOA, the presence of aircraft creates “the potential to obstruct a visual resource,”¹²⁷ that resource being the dark skies which draw tourists to the area, and the general wild character of the area.

¹²³ Fed. Aviation Admin., *1050.1F Desk Reference* 13-1 (Feb. 2020).

¹²⁴ *Id.* at 13-2.

¹²⁵ *Id.* at 13-4.

¹²⁶ *Id.* at 13-5.

¹²⁷ *Id.*

Unfortunately, none of these concerns were addressed in the EA. We request that, in completing a full EIS, the MD ANG fully investigate and evaluate the negative impacts low-flying aircraft will have on the wild character of the areas in and around the proposed airspace.

Mitigation Measures Do Not provide Adequate Safety Buffers and Reassurances, Nor Are They Responsive to Numerous Concerns Presented to the MD ANG During Interagency Coordination

To every concern during Section 106 coordination, the MD ANG's response was that noise was not significant and did not last long, and they instituted an altitude mitigation map to address sensitive area concerns.¹²⁸ This one-size-fits-all mitigation plan does not sufficiently address many of the concerns presented to the agency during interagency coordination. We are especially disappointed in the MD ANG's cursory dismissal of the effects the proposal will have on wildlife and the wild character of the area around the proposed Low MOA.

Moreover, where the MD ANG acknowledged standard mitigation practices, they created a loophole to avoid complying with those practices. For example, the MD ANG acknowledged their awareness of FAA Advisory Circular 91-36 which encourages – though does not comply – “Pilots operating noise producing aircraft...over noise-sensitive areas [to] make every effort to fly not less than 2,000 feet above ground level (AGL), weather permitting.”¹²⁹ However, the EA states that “Aircrew are aware of FAA Advisory Circular 91-36, Visual Flight Rules Flight Near Noise-Sensitive Areas, and would not overfly wilderness areas at less than 2,000 ft AGL **unless doing so would be expedient to accomplishing their mission.**”¹³⁰ It begs the

¹²⁸ See e.g., Draft EA, § 3.5.4.

¹²⁹ Fed. Aviation Admin., *Visual Flight Rules (VFR) Flight Near Noise-Sensitive Areas*, FAA Advisory Circular 91-36D, ¶ 8(b) (Sept. 17, 2004).

¹³⁰ Draft EA, at 3-25.

question: what is the point of having mitigating measures if you concurrently create a loophole that allows your aviators to avoid compliance with the mitigation measure?

We encourage the MD ANG to further evaluate realistic, enforceable, and effective mitigation measures to include in the full EIS before approving the proposed Duke Low MOA. We especially encourage the MD ANG to fully consider the impacts the proposal will have on wildlife, the wild character of the areas around the proposed airspace, and historic sites in the area.

The Proposed Duke Low MOA Will Have Negative Effects on Wildlife and the Area's Wild Character

The MD ANG must complete a full EIS to evaluate the effects the proposal will have on wildlife and the wild character of the areas around the proposed airspace. Especially in light of the previous discussion addressing the inadequacies of the Draft EA's evaluation of noise effects, the MD ANG must reconsider all aspects of the proposal's effects on the area.

Moreover, because the Draft EA's discussion about the effects of the proposal on wildlife was wholly inadequate and unresponsive to numerous commenters' concerns,¹³¹ we implore the MD ANG to commit itself to a more thorough analysis and evaluation of these effects. This analysis must include evaluations of visual disturbances and effects of vibrations in addition to analysis of noise.

The MD ANG's one-size-fits-all response to nearly every concern speaks volumes about the overall inadequacy of the proposed remedy.¹³² Likewise, as discussed above, mitigation

¹³¹ See e.g., Email from Cliff Clark, Cameron County Office of Community and Economic Development, to Ramon Ortiz, dated Sept. 6, 2019, 9:10AM.

¹³² See e.g., Draft EA, at § 3.5.4.

measures designed to avoid harm to the environment¹³³ become wholly ineffective if they are accompanied by a loophole that allows aviators to avoid compliance with the mitigation strategy.¹³⁴ The proposed MOA demands a thorough analysis accompanied by a comprehensive, tailored plan to address and minimize environmental impacts caused by the creation of the airspace.

The MD ANG's reliance on the U.S. Forest Service's 1992 Report to Congress¹³⁵ to show that forest visitors were not appreciably annoyed by aircraft overflights¹³⁶ is exceptionally erroneous as the study indicates on numerous occasions that data collection methods and the study's reliability were both questionable.¹³⁷ The MD ANG must substantiate its decisions with valid sources of authority. A study that states its own significant shortcomings is inadequate to establish substantial evidence needed to support reasoned analysis for rulemaking.

We appreciate the incorporation of the Bird/Wildlife Aircraft Strike Hazard (BASH) Management Program¹³⁸ into the Draft EA; however, we also are aware that even under the BASH program thousands of bird strikes happen annually.¹³⁹ Likewise, the incorporation of the Avian Hazard Advisory System is promising, yet "[b]ecause birds are dynamic creatures whose migratory behavior is initiated by weather events in any given year, the model cannot be said to predict the exact movement of bird species through space and time beyond the biweekly

¹³³ Fed. Aviation Admin., *Visual Flight Rules (VFR) Flight Near Noise-Sensitive Areas*, FAA Advisory Circular 91-36D, ¶ 8(b) (Sept. 17, 2004).

¹³⁴ See Draft EA, at 3-25.

¹³⁵ U.S. Forest Serv., *Report to Congress: Potential Impacts of Aircraft Overflights of National Forest Service System Wildernesses* (1992).

¹³⁶ Draft EA, at 3-69–3-70.

¹³⁷ See generally U.S. Forest Serv., *Report to Congress: Potential Impacts of Aircraft Overflights of National Forest Service System Wildernesses* (1992).

¹³⁸ U.S. Air Force, *Air Force Guidance Memorandum to AFI 91-212, Bird/wildlife Aircraft Strike Hazard (BASH) Management Program*, AFI 91-212 (June 1, 2021).

¹³⁹ See generally T. Adam Kelly, *Managing Birdstrike Risk with the Avian Hazard Advisory System*, FLYING SAFETY (Sept. 2002).

timeframe.”¹⁴⁰ We request that the MD ANG consider further measures to prevent bird strikes in furtherance of the Nation’s goals of protecting migratory birds.¹⁴¹

Preventing bird strikes is an even more pressing concern in the areas surrounding the proposed airspace because of the presence of Bald Eagles and two species of bat, one of which is endangered, the other threatened. While Bald Eagles are no longer listed as endangered under the Endangered Species Act (ESA),¹⁴² they are still granted protection by the Bald and Golden Eagle Protection Act (BGEPA). The Indiana Bat is listed as Endangered under the ESA,¹⁴³ while the Northern Long-Eared Bat is listed as Endangered by Pennsylvania and Threatened under the Endangered Species Act.¹⁴⁴ Additionally, the areas around the proposed Duke Low MOA are home to many other threatened and endangered species that the MD ANG must fully consider before approving this proposal.¹⁴⁵ Therefore, the MD ANG must take extra precautions in ensuring the proposal does not create risks to these species.

Both the ESA and the BGEPA provide protections against takings,¹⁴⁶ though protection of habitat under the BGEPA is less certain than it is under the ESA.¹⁴⁷ The protection of the Indiana Bat’s habitat requires a consideration, as urged by the U.S. Fish and Wildlife Service (USFWS),¹⁴⁸

¹⁴⁰ *AHAS Frequently Asked Questions: How to Use AHAS*, U.S. Avian Hazard Advisory System, (last accessed Dec. 27, 2021), <https://www.usahas.com/faq.html>.

¹⁴¹ See Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*.

¹⁴² Draft EA, at 3-42.

¹⁴³ See *id.* at Table 3-12.

¹⁴⁴ See *id.*

¹⁴⁵ Other species of concern in the Duke Low MOA area may be identified using the Pennsylvania Natural Heritage Program’s Environmental Review List, available at <https://www.naturalheritage.state.pa.us/Species.aspx>. The tool allows the user to select individual counties of concern and lists species that are federally endangered/threatened as well as species Pennsylvania has designated as special concern species. Additionally, the tool lists species that are proposed by Pennsylvania DCNR as special concern species. We encourage the MD ANG to use this tool to evaluate all species of concern underlying the impact area of the Duke Low MOA when completing the full EIS.

¹⁴⁶ See 16 U.S.C. § 1538(a)(1)(B); 16 U.S.C. § 668(a)

¹⁴⁷ See *What Happens to the Bald Eagle Now that it is Not Protected Under the Endangered Species Act?*, CRS Report for Congress, CONG. RES. SERV. CRS-5 (Sept. 17, 2007).

¹⁴⁸ Letter from Sonja Jahrsdoerfer, Project Leader, US Dept of the Interior, US Fish and Wildlife Service, State College, PA, to Ramon Ortiz, dated Sept. 16, 2019.

of the effects of vibrations from low-flying aircraft on the bat's habitat. The USFWS specifically requested such analysis during the scoping phase of this proposal,¹⁴⁹ yet vibrational effects were wholly ignored. After hibernation in caves, Indiana bats migrate to their summer habitats under loose bark on dead and dying trees.¹⁵⁰ In this habitat, the female bats give birth to one pup each year and nurse the young.¹⁵¹ Not only sound, but vibrations can disturb this ritual, compromising the ability of the Indiana Bat to survive. It is reckless and irresponsible for the MD ANG to not consider the effects of both sound and vibration on the Indiana Bat's habitat. This must be thoroughly discussed in the MD ANG's full EIS before approval of the proposed airspace occurs.

Likewise, the Northern Long-Eared Bat, recognized as Endangered by Pennsylvania and Threatened under the Endangered Species Act, deserves the MD ANG's attention. Like the Indiana Bat, the Northern Long-Eared Bat roosts under the bark of trees¹⁵² and is therefore susceptible to both noise and vibrational disturbances.

The National Bald Eagle Management Guidelines¹⁵³ set forth recommendations for providing adequate protections and buffer zones to ensure bald eagles' habitats are not compromised. Failure to follow the guidelines could cause harm to bald eagles and their habitats which can also cause eagles to "inadequately construct or repair their nest, ...expend energy defending the nest rather than tending to their young, or...abandon the nest

¹⁴⁹ Letter from Sonja Jahrsdoerfer, Project Leader, US Dept of the Interior, U.S. Fish and Wildlife Service, State College, PA, to Ramon Ortiz, dated Sept. 16, 2019 ("You state that there will be no ground-disturbing activities throughout the project area. However, more information concerning your project will be necessary in order to assess possible impacts to bats associated with ground vibrations. During preparation of the [EA], please include an analysis of the ground vibrations associated with airspace use at 100 ft [AGL] to 7,999 ft above [MSL].").

¹⁵⁰ U.S. Fish & Wildlife Serv., *Indiana Bat (Myotis Sodalis)* (Dec. 2006).

¹⁵¹ *Id.*

¹⁵² U.S. Fish & Wildlife Serv., *Northern Long-Eared Bat: Myotis Septentrionalis* (Apr. 2015).

¹⁵³ U.S. Fish & Wildlife Serv., *National Bald Eagle Management Guidelines* (May 2007).

altogether.”¹⁵⁴ Any of these responses will likely result in direct or indirect harm to nestlings¹⁵⁵ which in turn compromises the continued health of the bald eagle population.

The Guidelines recognize that individual eagles will respond to human activities in different ways, depending on an array of factors, “including visibility, duration, noise levels, extent of the area affected by the activity, prior experiences with humans, and tolerance of the individual nesting pair,” though sensitivity is increased during breeding periods.¹⁵⁶ Because of sensitivity fluctuations throughout the year, the Guidelines suggest both spatial and seasonal restrictions to protect eagles and their nesting sites.¹⁵⁷ We encourage the MD ANG, in completing a full EIS, to more thoroughly evaluate their proposal in regards to activities around bald eagle habitat and nesting areas. We also encourage the MD ANG to consider additional seasonal limitations and buffer zones before approving the proposed airspace.

Additionally, the MD ANG must consider the effects of visual disturbances on eagles and other wildlife. Eagles, for example, “are more prone to disturbance when an activity occurs in full view.”¹⁵⁸ Given the low altitude proposal, the likelihood of visual disturbances is significantly increased, leading to a foreseeable increase in disturbances to eagles. Likewise, as discussed above, given the random, combat maneuvering – and possibility of simulated gun runs – the likelihood of visual disturbances that affect eagles is almost certain to occur. It is reasonable to extrapolate, too, that these disturbances will lead to fright responses which will likely also increase the risks of bird strikes. This chain of likely events must be considered by the MD ANG when completing a full EIS.

¹⁵⁴ *Id.* at 8.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.* at 7.

¹⁵⁷ *See id.* at 9-10.

¹⁵⁸ *Id.* at 10.

Further, while we appreciate the MD ANG's decision to incorporate various elevation and lateral buffer zones around nesting areas and sensitive areas, we do not believe the zones go far enough, especially during times of the year when wildlife are most sensitive to anthropogenic disturbances. "In general, wild animals do respond to low-altitude aircraft overflights."¹⁵⁹ Because "[m]any animal biologists maintain that excessive stimulation of the nervous system can amount to chronic stress, and that continuous exposure to aircraft overflights can be harmful for the health, growth and reproductive fitness of animals,"¹⁶⁰ we request that the MD ANG reconsider the stated buffer zones and fly-over distances around eagle and bat habitat throughout the year to ensure wildlife, especially eagles and bats, are not harmed by continued exposure to aircraft noise, vibrations, and visual disturbances.

We are not just concerned with these effects as they affect eagles and bats, however. Numerous studies have shown issues with collision with aircraft, flushing of birds from nests or feeding areas, alteration in movement and activity patterns of mountain sheep, decreased foraging efficiency of desert big horn sheep, panic running by barren ground caribou, decreased calf survival of woodland caribou, increased heartrate in elk, antelope, and rocky mountain big horn sheep, and adrenal hypertrophy in feral house mice.¹⁶¹ While the MD ANG sites studies showing "[e]scape behavior would represent a strong startle response, but it is rarely observed in response to overflights above 500 ft AGL,"¹⁶² the MD ANG is proposing to fly at altitudes below 500 ft AGL, and, presumably, in random, combat-evasive patterns likely to draw additional attention by wildlife. Such activity at such low levels cannot be cursorily dismissed by

¹⁵⁹ Nat'l Park Serv., *Report to Congress: Report on Effects of Aircraft Overflights on the National Park System* 103 (1994), <https://www.nonoise.org/library/npreport/intro.htm>.

¹⁶⁰ *Id.* at 105.

¹⁶¹ *See id.* at 104.

¹⁶² *See* Draft EA, at 3-47.

acknowledgement that a study showed minimal startle response under much less startling conditions.

Additionally, Section 7¹⁶³ consultation between the MD ANG and the USFWS is required under the ESA and must be conducted in accordance with 50 C.F.R. Part 402.¹⁶⁴ The MD ANG explains that “Bald Eagles are no longer protected under the ESA and Section 7 consultation with the USFWS is no longer necessary.”¹⁶⁵ However, the MD ANG fails to address the Consultation requirement for any of the numerous other endangered and threatened species likely to be affected by the proposed action.¹⁶⁶ Section 7 requires that “[w]hen an agency plans to undertake action that might ‘adversely affect’ a protected species, the agency must consult with the U. S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS)...before proceeding.”¹⁶⁷ This process allows the USFWS to assess the project’s impacts on the species and habitats protected under the ESA and make a determination (“biological opinion”) regarding those impact’s potential to “jeopardize the continued existence of threatened or endangered species.”¹⁶⁸ The MD ANG has failed to comply with the ESA Section 7 consultation mandate and must immediately begin consultation with the USFWS, especially in

¹⁶³ See 16 U.S.C. § 1536.

¹⁶⁴ 50 C.F.R. § 402.01(a) (“Section 7(a)(1) of the Act directs Federal agencies, in consultation with and with the assistance of the Secretary of the Interior or of Commerce, as appropriate, to utilize their authorities to further the purposes of the Act by carrying out conservation programs for listed species. * * * Section 7(a)(2) of the Act requires every Federal agency, in consultation with and with the assistance of the Secretary, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or results in the destruction or adverse modification of critical habitat.”). See also U.S. Fish & Wildlife Serv., *S7 Consultation Technical Assistance* (Dec. 3, 2019), <https://www.fws.gov/midwest/endangered/section7/s7process/7a2process.html>.

¹⁶⁵ Draft EA, at 3-42.

¹⁶⁶ See *supra* note 144 and accompanying text.

¹⁶⁷ *U.S. Fish & Wildlife Serv. v. Sierra Club, Inc.*, 141 S. Ct. 777, 783-84 (2021).

¹⁶⁸ *Id.*

light of the vast number of species likely to be affected by the proposal¹⁶⁹ and the USFWS's stated concerns¹⁷⁰ regarding these species.

The full EIS must also consider effects to the elk herds of Pennsylvania. "PA's elk management area is beneath almost all of the Duke Low MOA."¹⁷¹ For over a century, the elk herd in Pennsylvania has been reestablished at great expense to the Commonwealth, and has recently developed into a valuable resource, promoting outdoors involvement and hunting activities in the area.¹⁷² The MD ANG must consider the effects their activities will have on the elk herd. The Draft EA dismisses concerns regarding the herd; however, as this comment has made clear, the likely effects of this proposal reach much farther than the Draft EA would lead one to believe, and the studies used to dismiss these concerns are inapplicable or insufficient to truly analyze the unique characteristics of the areas around the proposed Low MOA. The MD ANG must consider the noise, vibration, and visual disturbance effects that will follow approval of the proposed airspace.

The MD ANG must also critically evaluate and engage with the recommendation of the Pennsylvania Department of Conservation and Natural Resources (PA DCNR).¹⁷³ Specifically, the PA DCNR proposed that the MD ANG prohibit activities on weekends and federal holidays and that activities avoid interference with enumerated recreational days associated with hunting seasons, elk tourism, and elk calving season.¹⁷⁴ These are reasonable requests from the PA

¹⁶⁹ See *supra* note 144.

¹⁷⁰ See Letter from Sonja Jahrsdoerfer, Project Leader, US Dept of the Interior, US Fish and Wildlife Service, State College, PA, to Ramon Ortiz, dated Sept. 16, 2019.

¹⁷¹ Draft EA, at 3-41.

¹⁷² See *id.*

¹⁷³ See Letter from Cindy Adams Dunn, Secretary, PA DCNR, to Ramon Ortiz, dated Oct. 1, 2019.

¹⁷⁴ See *id.*

DCNR, and we encourage the MD ANG to critically engage with these recommendations and implement them to protect the natural resources and wild character of the PA Wilds.

Because effects of overflight noise are species specific,¹⁷⁵ they cannot be written off in broad strokes as the MD ANG proposes to do with the Draft EA of the proposed Duke Low MOA. In fact, the 1994 study cited by the MD ANG is ripe with examples of how wildlife are negatively affected by aircraft noise and visual disturbances.¹⁷⁶ What is most egregious is that the MD ANG clearly had access to this report – given that it was cited in the Draft EA – yet they failed to fully appreciate the potential and likely harms presented in the study. Such dismissal is clearly an arbitrary and capricious decision on the part of the MD ANG, and it must be remedied.¹⁷⁷ Therefore, the MD ANG must complete a full EIS to evaluate the real, foreseeable effects wildlife will experience with the expanded use of the Duke Low MOA.

The MD ANG, in further evaluating the effects caused by noise, vibrations, and visual disturbances must also fully evaluate the ways in which these effects will impact the wild character of the area around the proposed airspace.

The policy of the United States is to make a “special effort... to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites”¹⁷⁸ To that end, the use of public lands is prohibited unless there is no prudent

¹⁷⁵ See Nat'l Park Serv., *Report to Congress: Report on Effects of Aircraft Overflights on the National Park System* § 5.3 (1994).

¹⁷⁶ The study explains that “low-altitude overflights can cause excessive arousal and alertness, or stress,” and that continued exposure can negatively affect the overall health of wildlife. *Id.* at 103. Overflights can also affect the relationship of parents with their young, use of habitats, and regulation of “physiological energy budgets.” *Id.* Increased stress levels have been proven across multiple species exposed to low-altitude overflights which in turn increases the likelihood of disease development, toxemia, and abnormal births. *Id.* at 105.

¹⁷⁷ See *id.* at 119 (“One relationship between aircraft and animals is clear: the closer the aircraft, the greater the probability that an animal will respond, and the greater the response.”).

¹⁷⁸ 23 U.S.C. § 138(a). See also Policy on Lands, Wildlife, and Waterfowl Refuges, and Historic Sites, 49 U.S.C. § 303.

alternative or “such program includes all possible planning to minimize harm.”¹⁷⁹ This includes a finding that any impact is *de minimus*.¹⁸⁰ Clearly, as discussed throughout this comment, the MD ANG cannot claim that their proposal creates a *de minimus* impact. Therefore, it is incumbent upon the MD ANG to conduct a more comprehensive analysis and account for the wild nature of the area – a more qualitative, individualized analysis – as opposed to the one-size-fits-all analysis completed for the Draft EA.

Moreover, as an investment-backed tourism and recreation project,¹⁸¹ the PA Wilds has been invested in to grow its wild character. The MD ANG fails to consider how its actions will disrupt that character. These likely impacts have, however, been clearly proclaimed to the MD ANG,¹⁸² and the MD ANG must therefore evaluate the likely negative effects approval of the proposed airspace will have on Pennsylvania’s investment-backed project.

The Proposed Duke Low MOA Will Negatively Impact the Economy of the Pennsylvania Wilds

Region

The Pennsylvania Wilds (PA Wilds) region covers nearly 2.1 million acres of the Commonwealth.¹⁸³ Though the region covers roughly a quarter of the Commonwealth, it is home to only 4% of Pennsylvania’s population. The PA Wilds is a recreation destination that

¹⁷⁹ 23 U.S.C. § 138(a).

¹⁸⁰ See 23 C.F.R. § 774.3(b).

¹⁸¹ See Draft EA, at 3-66.

¹⁸² See Email from Barbara Rudnick, NEPA Program Coordinator, Office of Communities, Tribes and Environmental Assessment, US EPA Region III, Philadelphia, PA, to Ramon Ortiz, dated Sept. 26, 2019 (“The Pennsylvania Wilds is an outdoor recreation destination that attracts tourists, residents, and part-time residents who come to experience the undeveloped nature of the region and enjoy nature-based activities.... * * * [T]he impacts from low altitude flying could be substantial, and both impacts and alternatives should be carefully evaluated.”); Letter from Cindy Adams Dunn, Secretary, PA DCNR, to Ramon Ortiz, dated Oct. 1, 2019 (“The proposed activity would drastically change the character of this region and the numerous state parks and forests that shape its unique conservation landscape and wilderness.”); Letter from Clinton County Commissioners to Lt. Col. Mayor, dated April 15, 2021 (citing negative impacts to tourism, wild and scenic waterways, and quality of life).

¹⁸³ *Community and Business*, PAWILDS.COM, <https://pawilds.com/community-business/> (last visited Dec. 19, 2021).

attracts tourists, residents, and seasonal residents who visit the region to experience its wild character and undeveloped natural attractions. The region sees robust activity in hiking, biking, hunting, fishing, birdwatching, camping, skiing, watersports, astronomy, and stargazing. The region contains over 29 Pennsylvania State Parks, eight Pennsylvania State Forests, 50 state game lands, and one of the few certified Gold Tier International Dark Sky Parks in the United States at Cherry Springs State Park.¹⁸⁴

In the PA Wilds, an estimated \$1.8 billion is generated per year by nearly 7.2 million day-visitors alone. Across the region, tourism accounts for 11% of the local economy.¹⁸⁵ The PA Wilds region is economically depressed and has seen steady population decline after the end of the lumber boom that built the area. The PA Wilds designation was created through a partnership of local, state, and federal entities to establish the outdoor recreation destination to boost rural economies, create jobs, and improve quality of life in the region. The impact of the proposed Duke Low MOA would be detrimental to the delicate balance of nature and tourism created in the region by disturbing the region's foremost quality: peace and quiet.

The MD ANG Failed to Consider That the Local Economy is Not Driven Solely by Public Lands in the Region, But Also by Those Areas Outside Public Lands

The MD ANG claims a buffer zone around public lands and sensitive areas of concern in its proposal for the Duke Low MOA but fails to recognize that the income from tourism and recreation in the region is also driven by places outside public lands, if not primarily from outside public lands. The economic foundation of the region is primarily farming and lumber,

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

but tourism and recreation have carved out an important place in the region's workforce and income.¹⁸⁶ If tourists and recreators are driven out by unnecessary and intrusive noise generated by the MD ANG, it would render a significant, devastating impact on a region that only recently started efforts to economically recover.

The MD ANG reports that "noise effects would be intermittent over any given area, and no areas would be exposed to noise effects for an extended period," but fails to recognize that the people flocking to the region do so for tranquility and peace.¹⁸⁷ Loud military flights overhead for nearly half a year for multiple hours a day does not preserve the tranquility of the region. Immediately after making the claim that the noise would have little impact, the MD ANG details their plan to mitigate noise over recreational public lands and areas of special concern. This is not enough. Even the MD ANG acknowledges, by citing a 1992 U.S. Forest Service Study, that "Low-altitude, high-speed aircraft (i.e. military tactical aircraft) were reported as, the most annoying type of aircraft to hear or see" and "Although many respondents were not exposed to noise from low-altitude, high-speed flights, those who were exposed were often annoyed by them."¹⁸⁸ If MD ANG willingly includes data that indicates noise disrupts user experience, it cannot rationally claim there is less than a significant impact of noise in the region. Additionally, much of the data relied upon in the studies is nearly 30 years old and did not specifically address noise generated by tactical military aircraft training in rural, recreational areas. If the MD ANG does not have current data on which to rely, it should conduct its own studies in an

¹⁸⁶ *History*, POTTERCOUNTYPA.NET, <https://pottercountypa.net/post.php?pid=7> (last visited Dec. 19, 2021).

¹⁸⁷ Draft EA, at 3-67.

¹⁸⁸ *Id.* at 3-71.

Environmental Impact Statement (EIS) on the noise generated by its aircraft and potential impact on the PA Wilds region considering its economy, geography, and character.

The MD ANG admits that A-10 and F-16 operations below 7,000 ft MSL “would be loud enough to interfere with communication on the ground for approximately 0.7 to 1.2 miles in all directions.”¹⁸⁹ The MD ANG does not acknowledge the potential for echo of the noise disturbance outside the zone they prescribe. At every instance when the Duke Low MOA is activated, 170 days a year for multiple hours a day, there would be substantial noise disturbance in the region. This disturbance, while slightly mitigated around public lands, would be rendered almost exclusively on those areas outside public lands that have an immense influence on the region’s economy.

Though many visit the PA Wilds region to recreate in the Commonwealth’s public lands, the tourism economy is grounded in lodging and dining. These enterprises are driven by peaceful recreation and various hunting and fishing seasons throughout the year. Disturbing the getaways of persons visiting the PA Wilds will cause decreasing visitation and loss of income to the local economy through declines in dining, lodging, and retail spending.

Lodging alone contributes a substantial sum to the local economy. In the area covering the impact zone of the Duke Low MOA, Airbnb generates results of over 300 short-term rental properties.¹⁹⁰ The short-term rental site VRBO generates a list of nearly 100 properties.¹⁹¹ On both sites, many titles of the listings contain the words “quiet,” “peaceful,” and “silence.” The impact of loud, military training would disrupt how the locals market their properties, and

¹⁸⁹ *Id.*

¹⁹⁰ <https://www.airbnb.com> (using map tool around Duke Low MOA).

¹⁹¹ <https://www.vrbo.com> (using map tool around Duke Low MOA).

seemingly deter visitors from coming to the region if their goal was relaxation. Small, family-owned motels dot the region, and some of the larger towns have commercial hotels. Nearly all these properties lie outside the mitigation zones created by the MD ANG surrounding public lands. The MD ANG recognized that there is substantial number of rental units, for seasonal recreation, in the region in section “3.7.2.3 Housing” of its Draft EA, but arbitrarily failed to account for the income generated by these units in section “3.7.2.5 Tourism” or “3.7.4.3 Outdoor Recreation and Tourism.” Visitors to the region come to experience the wildness of the area. If they wanted to hear those sounds usually reserved for cities or desert training grounds, they would not flock to the PA Wilds.

Lodging and retail spending are also driven by hunting and fishing seasons throughout the year. Hunting visitors to the region often stay in either rented homes for weeks at a time or their own seasonal cabins. This is the same for trout fisherman, who come to the region in early April for the start of trout season. Regardless of their respective choices in lodging, these sportsmen spend a substantial amount of money in the region through dining and other retail spending. It is not uncommon to see “Welcome Hunters” or “Welcome Fisherman” signs posted outside bars and restaurants in the region during the busiest seasons of the year, including deer, bear, and turkey seasons.

The MD ANG acknowledged that the PA DNCR made recommendations to the MD ANG to mitigate use during prime hunting seasons to further lessen the impact on the region’s economy.¹⁹² The MD ANG declined to make any adjustments to its flight schedule, citing that the noise would have less than significant impacts on game, and therefore no impact on hunting

¹⁹² Letter from Cindy Adams Dunn, Secretary, PA DCNR, to Ramon Ortiz, dated Oct. 1, 2019.

if the Duke Low MOA was activated during any given season. MD ANG's contention that the proposed time of use coincides with the time of day where animals are least active and would therefore not interfere with hunting is unpersuasive. Considering that hunters are usually active from dawn to dusk, or until they bag an animal, the Duke Low MOA would have an extreme impact on hunting. Hunters whose game is startled by loud flights in the Duke Low MOA may choose to spend their seasons in other regions, resulting in loss to the local economies of the PA Wilds.

The local economy of the region would be negatively impacted by night activation of the Duke Low MOA

The local economy would also be negatively impacted by night training in the Duke Low MOA. The PA Wilds region is home to Cherry Springs State Park which is “nearly as remote and wild today as it was two centuries ago.”¹⁹³ Cherry Springs has exceptionally dark skies and is recognized as a Gold Tier International Dark Sky Park (IDSP) by the International Dark-Sky Association (IDA). IDA recognizes three tiers of Dark Sky Parks: Bronze, Silver, and Gold. Gold Tier Dark Sky Parks have “pristine or near-pristine night skies that average close to natural conditions.”¹⁹⁴

The Cherry Springs IDSP is situated 700 meters above sea level within the Susquehannock State Forest. It is ideally positioned beneath the nucleus of the Milky Way, making it a destination for viewing nebulae and star clusters. On perfect nights, the Milky Way is

¹⁹³ *Cherry Springs State Park*, DCNR.PA.GOV, <https://www.dcnr.pa.gov/StateParks/FindAPark/CherrySpringsStatePark/Pages/default.aspx> (last visited Dec. 18, 2021).

¹⁹⁴ Erin L. Gavlock, *Pennsylvania's Dark Secret*, PENNSYLVANIA CENTER FOR THE BOOK (Summer 2009), <https://pabook.libraries.psu.edu/literary-cultural-heritage-map-pa/feature-articles/pennsylvanias-dark-secret>.

so bright it casts shadows.¹⁹⁵ Cherry Spring’s “Astronomy Field” offers an unobstructed 360-degree view that extends for miles in all directions and is available by reservation, in addition, a public viewing field is also available. Twice a year, the park hosts two major star parties that draw hundreds of astronomers from across the world for several nights.¹⁹⁶ Reservations for star parties at Cherry Springs often must be made a year in advance due to popularity. Many visitors to the region come just for star viewing at Cherry Springs, whether it be in the Astronomy Field or the public viewing area. Many vacation homes and inns within 20 miles of Cherry Springs State Park advertise “dark skies” or reference proximity to Cherry Springs.¹⁹⁷

Cherry Springs takes special precautions in mitigating even temporary light pollution in its Astronomy Field, always requiring shielding or red lighting. No cars are permitted access after dusk and are not permitted to exit until dawn. Campfires are prohibited and flashlights must be always pointed down in the viewing field. Any interruption to the darkness of Cherry Springs would put the Gold Tier IDSP at risk.

If the Duke Low MOA is activated at night there is potential for light interference from the aircraft, even with the proposed buffer zone around the park. Even the smallest light or sight interference would impact user experience at Cherry Springs. If activated often enough, assumingly on clear nights also perfect for stargazing, it may deter astronomers and amateur stargazers from visiting the region, impacting income from visitor spending. The MD ANG does

¹⁹⁵ *Id.*

¹⁹⁶ *Cherry Springs State Park (U.S.)*, DARKSKY.ORG, <https://www.darksky.org/our-work/conservation/idsp/parks/cherrysprings/> (last visited Dec. 18, 2021).

¹⁹⁷ *See infra* Appendix B.

not adequately address potential impact from light pollution on user experience in Cherry Springs or the surrounding areas and must address the potential for this issue.

The MD ANG Inadequately Addressed Potential Impacts to National Register-Listed Properties

Beneath the Proposed Duke Low MOA

The Austin Dam, also known as the Bayless Paper Mill Dam, is a ruin resulting from the 1911 breaking of the dam that unleashed nearly 400 million gallons of water and wiped out everything in its path for 8 miles. The ruins of the structure were placed on the National Register of Historic Places in 1987 and stand to this day. The site is surrounded by a 76-acre memorial park.¹⁹⁸

The impact of the Duke Low MOA, even with a buffer zone surrounding the site, violates the National Historic Preservation Act (NHPA) of 1966 (54 U.S.C. § 300101 et seq). NHPA requires the agency to identify and assess the effects its actions may have on historic sites or buildings. Section 106 of NHPA (54 U.S.C. 306108) details the steps each agency must undertake to assess the effects of its proposed action. Determining potential adverse effects on historic resources is guided by “Criteria of Adverse Effects” (36 CFR § 800) in the Advisory Council on Historic Preservation’s (ACHP) regulations. One of the criteria is triggered by use of the Duke Low MOA: “Introduction of visual, atmospheric, or auditory elements that diminish the integrity of a property’s historic features.”¹⁹⁹ The introduction of loud, unnecessary noise would diminish the integrity and significance of the Austin Dam ruins.

¹⁹⁸ *Austin Dam Memorial Park*, VISITPA.COM, <https://www.visitpa.com/region/pennsylvania-wilds/austin-dam-memorial-park> (last visited Dec. 20, 2021).

¹⁹⁹ Draft EA, at 3-56.

Though the MD ANG proposes to lessen the impact on the Austin Dam in section “3.5.4 Environmental Consequences of the Proposed Action,” it nevertheless acknowledges that flights in the vicinity could impact the ruins.²⁰⁰ The MD ANG states that the flights would be “intermittent and not for any extended period of time” and it would implement a 500 ft AGL floor around the dam to lessen any impact.²⁰¹ This effort to mitigate is simply not enough. The concrete structure of the Austin Dam is over 110 years old and continually exposed to the elements in north central Pennsylvania. The MD ANG must mitigate by creating a no-fly zone containing the entire Austin Memorial Dam Park that accounts for any impact the flight activity may have on the historic site.

The noise created by activation of the Duke Low MOA would also hinder the solemnity and significance of the Austin Dam Memorial Park. The dam failure resulted in at least 78 deaths and thousands of dollars in property damage. After the break and resulting flood, the population of the once booming lumber town dwindled to a few hundred.²⁰² The park surrounding the Austin Dam site is a memorial to the lives lost on the day of the failure. The atmosphere is quiet and respectful. The introduction of military aircraft noise would ruin the solemnity of the memorial.

MD ANG Failed to Consider Pennsylvania’s Constitutional Environmental Rights Amendment as Required by NEPA

²⁰⁰ *Id.* at 3-58.

²⁰¹ *Id.*

²⁰² *History – Austin Dam Memorial Park*, AUSTINDAM.MAILCHIMPRESS.COM, <https://austindam.mailchimpsites.com/history> (last visited Dec. 20, 2021).

NEPA requires agencies to consider state laws and policies when evaluating the impact of a proposed action on the environment.²⁰³ In 1971, Pennsylvania passed its Environmental Rights Amendment (ERA), set out in Article I, Section 27 of the Commonwealth's Constitution. The environmental rights of Pennsylvania's citizens are set out as follows:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

PA. CONST. art. I, § 27. The Pennsylvania Supreme court has held that the right put forth by the ERA is "neither meaningless nor merely aspirational."²⁰⁴ The Pennsylvania Constitution's preservation of broad environmental values "protects the people from governmental action that unreasonably causes actual or likely deterioration of these features."²⁰⁵

Since NEPA requires agencies to consider state laws, it logically must encompass state constitutions, which trump state laws. In the context of MD ANG's Duke Low MOA, the Commonwealth's citizens' rights to the preservation of natural, scenic, historic, and

²⁰³ 40 C.F.R. § 1502.16(a)(5) "The discussion shall include: (5) Possible conflicts between the proposed action and the objectives of Federal, regional, State, Tribal, and local land use plans, policies, and controls for the area concerned."; *Id.* at § 1506.2(d) ". . . environmental impact statements shall discuss any inconsistency of a proposed action with any approved State, Tribal, or local plan or law (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law."; *Id.* at § 1508.27(b)(10) "Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment" [reserved].

²⁰⁴ *Yaw v. Del. River Basin Comm'n*, 2021 WL 2400765 (E.D. Pa. 2021) (quoting *Robinson Twp. v. Commonwealth*, 83 A.3d 901 (Pa. 2013)).

²⁰⁵ *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 953 (Pa. 2013).

esthetic values are at risk. The intrusive noise potentially created by the activation of the Duke Low MOA will disrupt the quiet quality of the PA Wilds and violate the rights of Pennsylvania's citizens.

During the scoping phase, the Pennsylvania Department of Conservation and Natural Resources (DCNR), filed comments concerned with the interplay between the proposed action and the Commonwealth's position as trustee of the state's natural resources.²⁰⁶ The Commonwealth is "obligated to conserve and maintain the corpus of the trust for future generations."²⁰⁷ The MD ANG failed to consider the ERA when evaluating the impact of low military training flights on the citizens and natural qualities of the PA Wilds region, even after DCNR raised the issue. MD ANG must consider Pennsylvania's ERA and the impact of the MD ANG's action on the natural, scenic, and esthetic values protected by the Commonwealth's constitution.

Conclusion

For all the foregoing reasons, we respectfully request the MD ANG prepare a full Environmental Impact Statement for the proposed modification of the Duke MOA to adequately address the key issues outlined above and fully investigate the impacts the proposed action may have on the Pennsylvania Wilds region.

Thank you for your consideration.

²⁰⁶ Letter from Cindy Adams Dunn, Secretary, PA DCNR, to Ramon Ortiz, dated Oct. 1, 2019.

²⁰⁷ *Id.*

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Sarah Corcoran', with a long, sweeping underline.

Sarah Corcoran
Conservation Program Manager
Sierra Club, Pennsylvania Chapter

Appendix A

Examples of Facebook posts regarding the proposed Duke Low MOA:

[https://www.facebook.com/groups/223710080136/posts/10165451158035137/;](https://www.facebook.com/groups/223710080136/posts/10165451158035137/)

[https://www.facebook.com/groups/223710080136/posts/10165548039150137/;](https://www.facebook.com/groups/223710080136/posts/10165548039150137/)

[https://www.facebook.com/groups/223710080136/posts/10165919176685137/;](https://www.facebook.com/groups/223710080136/posts/10165919176685137/)

[https://www.facebook.com/groups/223710080136/posts/10165923926420137/;](https://www.facebook.com/groups/223710080136/posts/10165923926420137/)

[https://www.facebook.com/groups/223710080136/posts/10165930741805137/;](https://www.facebook.com/groups/223710080136/posts/10165930741805137/)

[https://www.facebook.com/groups/223710080136/posts/10165962449785137/;](https://www.facebook.com/groups/223710080136/posts/10165962449785137/)

[https://www.facebook.com/groups/223710080136/posts/10165996212130137/.](https://www.facebook.com/groups/223710080136/posts/10165996212130137/)

Appendix B

For examples of vacation homes that advertise dark skies or proximity to Cherry Springs:

https://www.airbnb.com/rooms/45709143?guests=1&adults=1&s=67&unique_share_id=59c32f26-b701-4198-b97a-b6a7105e8b7a;

https://www.airbnb.com/rooms/43792937?guests=1&adults=1&s=67&unique_share_id=f2b80d80-1a0b-434c-83ba-0f9185e07493.