

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued April 11, 2002 Decided May 24, 2002

No. 01-1154

Grand Canyon Trust,
Petitioner

v.

Federal Aviation Administration,
Respondent

On Petition for Review of an Order of the
Federal Aviation Administration

Robin Cooley argued the cause and filed the briefs for petitioner. Mary-Lynn Sferrazza entered an appearance.

Ellen J. Durkee, Attorney, U.S. Department of Justice, argued the cause for respondent. With her on the brief was Alice B. Thurston, Attorney.

Before: Edwards, Rogers and Tatel, Circuit Judges.

Opinion for the Court filed by Circuit Judge Rogers.

Rogers, Circuit Judge: The Grand Canyon Trust petitions for review of the decision of the Federal Aviation Administration ("FAA") approving the federal actions necessary to allow the city of St. George, Utah, to construct a replacement airport near Zion National Park. The Trust challenges the adequacy of the FAA's environmental assessment under s 102(2)(C) of the National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. s 4332(C) (1970), and the FAA's conclusion that there would be no significant environmental impacts from the project necessitating preparation of an environmental impact statement under NEPA. Focusing on the noise impacts on the Park, the Trust principally contends that the FAA failed adequately to consider the cumulative impact on the natural quiet of the Park and instead addressed only the incremental impact of the replacement airport. We grant the petition.

I.

In 1995, the FAA began working with the City of St. George, Utah, to determine the feasibility of continuing use of the existing airport as compared to development of a new airport at a new site. A growing retirement community and projected air-traffic demand was outstripping the capacity of the existing airport, which could not be expanded due to geographic constraints. Three sites in addition to a no-action alternative were examined. In response to comments on a draft environmental assessment, the FAA conducted a Supplemental Noise Analysis on the potential noise impacts of the replacement airport on Zion National Park ("the Park"). The Park is located approximately 25 miles northeast of St. George and is the preferred replacement airport alternative.

The FAA concluded that the noise impacts on the Park from the replacement airport would be negligible and insignificant. On January 30, 2001, the FAA approved the final environmental assessment, concluding that an environmental impact statement was unnecessary, and issued the record of decision, setting forth actions, determinations, and approvals that will allow St. George to construct the replacement air-

port. It is the determination underlying this record of decision, that the proposed action will not significantly affect the environment of the Park, that the Trust challenges.

II.

The essential disagreement between the parties is whether the FAA was required in its environmental assessment to address more than the incremental impact of the replacement airport as compared to the existing airport. NEPA requires federal agencies to prepare an environmental impact statement ("EIS") for "every ... major Federal action[] significantly affecting the quality of the human environment." 42 U.S.C. s 4332(2)(C). An environmental assessment ("EA") is made for the purpose of determining whether an EIS is required. See 40 C.F.R. s 1508.9. "If any 'significant' environmental impacts might result from the proposed agency action then an EIS must be prepared before agency action is taken." *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983) ("Peterson").

An agency decision that an EIS is not required may be overturned "only if it was arbitrary, capricious or an abuse of discretion." *Sierra Club v. United States Dep't of Transportation*, 753 F.2d 120, 126 (D.C. Cir. 1985) ("Transportation"). Under the long-established standard in this circuit, the court reviews an agency's finding of no significant impact to determine whether:

First, the agency [has] accurately identified the relevant environmental concern. Second, once the agency has identified the problem it must have taken a 'hard look' at the problem in preparing the EA. Third, if a finding of no significant impact is made, the agency must be able to make a convincing case for its finding. Last, if the agency does find an impact of true significance, preparation of an EIS can be avoided only if the agency finds that the changes or safeguards in the project sufficiently reduce the impact to a minimum.

Id. at 127; see also Maryland-Nat'l Capital Park and Planning Comm'n v. U.S. Postal Serv., 487 F.2d 1029, 1040 (D.C. Cir. 1973).

The Trust does not dispute that the FAA properly defined the relevant environmental concern of noise impacts from aircraft on the Park. Rather, the Trust contends that the FAA cannot be said to have taken a "hard look" at the problem when it considered only the incremental impacts of the replacement airport and not the total noise impact that will result from the relocated airport. The Trust notes that the EA does not address the cumulative impact in light of other air flights over the Park, air tours in or near the Park, and reasonably foreseeable future aircraft activity and airport expansions that will contribute to the cumulative noise impact on the Park. Indeed, the EA's statement on cumulative impact is, in full: "There are no known factors that could result in cumulative impacts as a result of the proposed St. George Replacement Airport." Further, the Trust notes, the FAA's Supplemental Noise Analysis disregards cumulative impacts. The FAA responds that it adequately considered the cumulative impact when it compared noise impacts associated with the replacement airport with the no-action alternative of continued use of the existing airport. It rejects the Trust's position that it was required in an EA to compare the project to an environmental baseline of natural quiet and to consider the total impact of aircraft noise on the Park.

The issue dividing the parties is settled by regulations promulgated by the Council on Environmental Quality ("CEQ") to implement NEPA and by case law applying those regulations.* "The CEQ regulations, which ... are entitled to substantial deference, impose a duty on all federal agencies." *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 372 (1989) (citations omitted); see also *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 200 (D.C. Cir. 1991). The CEQ regulations define each term within NEPA's requirement of an EIS for "every ... major Federal action[] significantly affecting the quality of the human environment."

* Neither party challenges the regulatory authority of the CEQ, and hence we have no occasion to question the binding effect of the regulations on the FAA. See *City of Alexandria v. Slater*, 198 F.3d 862, 866 n.3 (D.C. Cir. 1999).

42 U.S.C. s 4332(2)(C); 40 C.F.R. s 1502.3. The term "significantly" is defined as those actions "with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment." 40 C.F.R. s 1508.27(b)(7). "Cumulative impact," in turn, is defined as:

the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. s 1508.7. Although federal agencies have discretion to decide whether a proposed action "is significant enough to warrant preparation of an EIS," the court owes no deference to the FAA's interpretation of NEPA or the CEQ regulations because NEPA is addressed to all federal agencies and Congress did not entrust administration of NEPA to the FAA alone. *Citizens Against Rails-to-Trails v. Surface Transportation Board*, 267 F.3d 1144, 1150 (D.C. Cir. 2001); see *Amfac Resorts, LLC v. United States Dep't. of Interior*, 282 F.3d 818, 835 (D.C. Cir. 2002); cf. *Al-Fayed v. CIA*, 254 F.3d 300, 307 (D.C. Cir. 2001).

The courts, in reviewing whether a federal agency has acted arbitrarily and capriciously in finding no significant environmental impact, have given effect to the plain language of the regulations. While the factual settings differ in some respects from the instant case, the consistent position in the case law is that, depending on the environmental concern at issue, the agency's EA must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum. For example, in *Coalition on Sensible Transportation v. Dole*, 826 F.2d 60 (D.C. Cir. 1987) ("Dole"), this court stated that the CEQ regulations on cumulative impact "provide a distinct meaning to the concept" separate and apart from the notion of improper segmentation of agency action. *Id.* at 70. Noting that the regulatory definition of cumulative impact specifies that the " 'incremental impact of the action' [at issue]" must be considered " 'when added to other past, present, and reasonably foreseeable future ac-

tions,' " *id.* (quoting 40 C.F.R. s 1508.7), the court observed that, consistent with the regulation and purpose of NEPA, "[i]t makes sense to consider the 'incremental impact' of a project for possible cumulative effects by incorporating the effects of other projects into the background 'data base' of the project at issue." *Id.* at 70-71. The point, the court stated, was to provide in the EA "sufficient [information] to alert interested members of the public to any arguable cumulative impacts involving [] other projects." *Id.* at 71. Further, the court concluded that insofar as *Kleppe v. Sierra Club*, 427 U.S. 390 (1976), "may bear on an agency's duty to consider impacts in a context that realistically includes other pending projects, the [agency] fully complied by planning on the basis of ... ultimate completion of the related projects." *Id.* (citing *Kleppe*, 427 U.S. at 415 n.26). Similarly, the court in *Peterson*, without regard to any particular NEPA regulation, reversed a finding of no significant impact and a decision to issue certain oil and gas leases in national forests without preparing an EIS, remanding the case because the agency had failed, as NEPA requires, to "fully assess[] the possible environmental consequences" of activities "which have the potential for disturbing the environment." 717 F.2d at 1415. *NRDC v. Hodel*, 865 F.2d 288 (D.C. Cir. 1988), is to the same effect. There, the agency had failed to consider the cumulative impact, as defined in the CEQ regulations, of simultaneous development in the region on "species, particularly whales and salmon, that migrate through the different planning areas" when it considered only the effect on those species "within the Planning Area" rather than "the inter-regional effects." *Id.* at 297-99. Other circuits take a similar

approach in applying the regulations. See, e.g., *Fritiofson v. Alexander*, 772 F.2d 1225 (5th Cir. 1985), rev'd on other grounds, *Sabine River Auth. v. Dep't of the Interior*, 951 F.2d 669 (5th Cir. 1992). Although the FAA would distinguish *Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972), on which the Trust relies, on the ground that it preceded the regulations, the court was addressing the requirements of NEPA, and the FAA can point to nothing in the regulations that would suggest the court erred in holding that NEPA requires review of a proposed action in light of

the cumulative harm that results from [the action's] contribution to existing adverse conditions or uses in the area.... [E]ven a slight increase in adverse conditions that form an existing environmental milieu may sometimes threaten harm that is significant. One more factory ... may represent the straw that breaks the back of the environmental camel.

Id. at 831.

The FAA, in finding that the St. George replacement airport would have no significant impact on the environment of the Park, concluded that "there is little discernable increased noise intrusion to the Park" from the proposed replacement airport as compared to the existing airport, and that "the increase in noise levels that would result from the development of a replacement airport is negligible [because] aircraft traffic will increase even if the replacement airport is not constructed." The FAA's analysis appears principally in a Supplemental Noise Analysis attached to the EA, and proceeds on the basis of a comparison of the noise impacts from predicted air traffic at the existing airport and predicted air traffic at the larger replacement airport. At the existing airport, the FAA predicted that flight activity would increase due to normal traffic growth from 46,193 flights in 1998 to 59,640 flights in 2008 (more than 80 departures and 80 arrivals every day), and to 78,490 in 2018 (more than 100 departures and 100 arrivals each day). At the replacement airport, traffic would increase to 63,290 flights in 2008 (more than 85 departures and 85 arrivals every day), and to 79,220 flights in 2018 (more than 105 departures and 105 arrivals each day). Comparing the predicted noise impact on the Park from the existing and replacement airports, the FAA found that Day-Night Noise Level ("DNL")¹ would increase "due to the implementation of the replacement airport over

¹ Day-Night Noise Level ("DNL") is a 24-hour, time-weighted energy average noise level based on the A-weighted decibel. It is a measure of the overall noise experienced during an entire day. "Time-weighted" refers to the fact that noise occurring during

the use of the existing airport" by no more than 3.5 dBA² in 2008 and 3.2 dBA in 2018, which the FAA characterized as "extremely low" increases. The FAA concluded that "there will be little difference associated with the replacement airport, as compared with the existing airport, in the long-term based on the DNL metric."

The FAA also examined in the Supplemental Noise Analysis the peak hour Equivalent Noise Level ("LEQ")³ based on a threshold of 45 dBA, when aircraft would be clearly audible and noticeable in the Park. The FAA assumed that typical background noise levels in the Park would be 20 dBA during quiet times and locations and in the low 30 dBA in less quiet times and locations. Based on its own data and on research sponsored by the National Park Service ("NPS"), the FAA found that only one flight path from the replacement airport would present noise greater than 45 dBA for more than one minute an hour in 2008, which represented only a 0.7% increase over the predicted traffic at the existing airport. In 2018, three of eleven flight paths from the replacement airport would present noise greater than 45 dBA for more than one minute per hour, a change of no more than 0.9% from the predicted traffic at the existing airport. Using a lower noise annoyance threshold of 35 dBA, the FAA predicted that no flight path would have noise above 35 dBA for

certain sensitive time periods is penalized for occurring at these times.

2 The standard unit of measurement of sound is the decibel ("dB"). Because the human ear is not equally sensitive to all frequencies, with some frequencies judged to be louder for a given signal than others, the most common method of frequency weighting is the A-weighted noise curve ("dBA"). The A-weighted decibel scale discriminates between frequencies in a manner approximating the sensitivity of the human ear. In the A-weighted decibel scale, everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud).

3 Equivalent Noise Level ("LEQ") measures the energy average noise level resulting from the sound level corresponding to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given sample period.

more than 7 minutes per hour in 2008 and 7.7 minutes each hour in 2018. Based on this data, the FAA found that while 2% to 7% of Park visitors would experience moderate to extreme annoyance due to aircraft noise from the existing St. George Airport, the number would only increase to 2% to 8% with the replacement airport using the 45 dBA threshold. Using a 35 dBA threshold, the FAA interpreted the data to mean that between 3% and 15% of Park visitors would be annoyed by aircraft noise from the existing airport, compared to 4% to 15% of visitors who would be annoyed by aircraft from the replacement airport, with a 3% increase (from 11% to 14%) of Park visitors experiencing moderate to extreme annoyance from the aircraft noise on the loudest flight path. The FAA concluded that "there will be little difference in noise between the existing and replacement airport."

In a section of the EA entitled "Impacts to Natural Quiet of the Park," the FAA did acknowledge the existence of "overflights" that pass over the Park. Noting that NPS had completed ambient noise monitoring in Zion National Park, the FAA stated that the results showed that "the background or ambient noise levels vary, but are often in the low 20 dBA." Finding that the typical peak or maximum noise levels from aircraft from either the existing or proposed St. George airport sites ranged from 45 to 65 dBA when passing directly overhead, the FAA concluded that, because "these aircraft are at or near cruise altitude, or in the case of jets [are] above 20,000 feet, the peak or maximum noise levels will remain the same for either airport site." While recognizing that these overflights constitute noise events that are higher than background natural quiet during periods when ambient noise levels are low, the FAA focused on the incremental impact, stating that it was "important to illustrate that the development of the St. George replacement airport has little effect on the overall aircraft noise levels in the Park." The FAA referred to the 250 overflights following established flight paths near or over the Park⁴ that are not associated

⁴ Instrument flight rules ("IFR") designate flights using established flight paths, as distinct from aircraft operating under visual flight rules ("VFR").

with St. George Airport in concluding that "the replacement airport has very little contribution to the cumulative number of aircraft over flights over Zion National Park." The FAA observed that St. George Airport contributed only 31 flights using instrument flight rules over Zion, a number that was expected to increase to 48 in 2008 at the existing airport and 54 at the replacement airport, and to 67 in 2018 at the existing airport and 69 at the replacement airport. The FAA then found that the replacement airport would add only six additional flights using instrument flight rules per day in 2008 and only two additional such flights in 2018. In addition, the FAA predicted that less than four aircraft per day would fly over Zion using visual-flight-rules routes, a number the FAA predicted would remain the same for either the existing or the replacement site. The FAA concluded that the existing St. George airport would contribute only 11% of all existing flights using instrument flight rules over or near the Park, and that the increased flights from the replacement airport would represent only approximately 2% of the total aircraft flights using instrument flight rules over or near the Park.

The FAA's noise analysis in the EA, including the Supplemental Noise Analysis, may, in fact, be a splendid incremental analysis, but it fails to address what is crucial if the EA is to serve its function. While, as the FAA stresses, the EA is not intended to be a lengthy document, see 40 C.F.R. s 1508.9(a)(1), it must at a minimum address the considerations relevant to determining whether an EIS is required. NEPA regulations require that an agency consider cumulative impacts and the FAA's EA fails to address the total noise impact that will result from the replacement airport. Indeed, the FAA's own NEPA policy calls for consideration of cumulative impact, parroting the language of the NEPA regulations to include proposed projects and past, present, and reasonably foreseeable future actions. See Policies and Procedures for Considering Environmental Impacts, FAA Order 1050.1D. Comments on the draft EA called the FAA's attention to the need to consider mitigation measures in view of the results of the study of noise-annoyance to persons in the Park; the EA does not respond and provides no analysis

of the 2% to 9% or the 4% to 15% level of annoyance shown in the NPS study. Yet, as the FAA was aware, the NPS had identified Zion National Park as among the nine national parks of "highest priority" for attention to noise impact on their natural quiet from overflights. See U.S. Department of the Interior/National Park Service, Report on Effects of Aircraft Overflights on the National Park System: Report to Congress (July, 1995). Comments also expressed concern about the total impacts of noise on the Park and on Park visitors, yet the EA contains no analysis of the impact of 54 daily flights in 2008 and 69 in 2018 associated with St. George.

The Trust maintains that each flight may be responsible for a noise level of 45 to 65 dBA and points to expert testimony that an increase of 10 dBA correlates to a doubling of loudness such that a commercial jet overflight at the Park may be 4 to 23 times as loud as the natural soundscape. Even in the absence of the regulatory definitions it would be difficult to understand how an agency could determine that an EIS is not required if it had not evaluated existing noise impacts as well as those planned impacts that will exist by the time the new facility is constructed and in operation. As the Trust gleans from case law:

a meaningful cumulative impact analysis must identify (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions--past, present, and proposed, and reasonably foreseeable--that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate.

Petitioner's Reply Br. at 3, citing *Fritiofson*, 772 F.2d at 1245 (citing *Cabinet Mountains Wilderness/Scotchman's Peak Grizzly Bears v. Peterson*, 685 F.2d 678, 683-84 (D.C. Cir. 1982)); see also *Hodel*, 865 F.2d at 297-99; *City of Carmel-by-the-Sea v. DOT*, 123 F.3d 1142, 1160 (9th Cir. 1997).

The analysis in the EA, in other words, cannot treat the identified environmental concern in a vacuum, as an incre-

mental approach attempts. Although the replacement airport may contribute only a 2% increase to the amount of overflights near or over the Park, there is no way to determine from the FAA's analysis in the EA whether, deferring to the FAA's expert calculations, a 2% increase, in addition to other noise impacts on the Park, will "significantly affect[]" the quality of the human environment in the Park. At no point does the FAA's EA aggregate the noise impacts on the Park. The analysis in the EA does not address the accumulated, or total, incremental impacts of various man-made noises, such as the 250 daily aircraft flights near or over the Park that originate at, or have as their destination, airports other than that in St. George. Neither does the EA consider in any manner the air tours near and over the Park originating from the St. George airport. Nor does the EA address the impact, much less the cumulative impact, of noise in the Park as a result of other activities, such as the planned expansions of other regional airports that have flights near or over the Park. Without analyzing the total noise impact on the Park as a result of the construction of the replacement airport, the FAA is not in a position to determine whether the additional noise that is projected to come from the expansion of the St. George airport facility at a new location would cause a significant environmental impact on the Park and, thus, to require preparation of an EIS.

In defense of its incremental approach in the EA, the FAA make three arguments. First, it relies on several phrases in the NEPA regulations. The FAA points to the phrase "incremental impacts" in 40 C.F.R. s 1508.7 to contend that it is obligated to consider only the incremental impact of any project. The difficulty with this position is that it ignores the rest of the sentence in s 1508.7 directing an agency to consider that incremental impact "when added to other past, present, and reasonably foreseeable future actions regardless of what agency ... or person undertakes such other actions." The FAA also relies on the phrase "related to" in the definition of "significantly" in 40 C.F.R. s 1508.28(b)(7) to contend that it need not consider either the overflights not associated with St. George or the proposed expansion at Las

Vegas Airport and the proposals for new airports at Mesquite and Cedar City because they are "not related" to the St. George's airport expansion. Again, the FAA ignores other language in the regulation that "[s]ignificance exists if it is reasonable to anticipate a cumulatively significant impact on the environment." 40 C.F.R. s 1508.28(b)(7).

Second, the FAA points to 40 C.F.R. s 1508.25(a) and *Kleppe*, 427 U.S. at 409-10 & n.20, to contend that it need consider only other projects that are "inextricably intertwined" and not those that are "substantially independent." Both the regulation and the opinion address the proper scope of an EIS, not an EA, but to the extent the former influences the latter, nothing in *Kleppe* suggests that the FAA could ignore the total noise impact in the area of identified environmental concern. See *Dole*, 826 F.2d at 71.

Third, the FAA, quoting CEQ guidance on preparation of an EIS, contends that the no-action alternative is properly viewed as a "benchmark against which decisionmakers may compare the magnitude of environmental effects" of actions. See 46 Fed. Reg. 18,026, 18,027 (March 23, 1981). Neither the guidance nor the cases cited by the FAA relieve it of the duty to consider cumulative impact in the EA. Although the court stated in *Allison v. DOT*, 908 F.2d 1024 (D.C. Cir. 1990), that 40 C.F.R. s 1508.25(a) did not require the FAA to consider unconnected single actions that are neither related to nor dependent on the proposed new airport for Denver, Colorado, the court was not addressing the requirements of 40 C.F.R. s 1508.7 on cumulative impact. *Id.* at 1030. In contrast, here, the FAA responded to comments that baseline data and cumulative impact was lacking in the draft EA by stating, on the basis of its incremental analysis, that "The current noise levels in Zion National Park will not be adversely affected by either the existing or future noise levels associated with aircraft." Because there is no analysis of cumulative noise impact on the Park against which the additional noise impact of the replacement airport can be evaluated, the FAA's error in ignoring cumulative impact of man-made noise is not harmless, see *Allison*, 908 F.2d at 1029, for the FAA has impermissibly taken "a foreshortened view of

the impacts which could result from the act" of constructing the replacement airport. Peterson, 717 F.2d at 1413.

Accordingly, we grant the petition without reaching the Trust's contention that an EIS is required because the project is "highly controversial," 40 C.F.R. s 1508.27(b)(4); *Fund for Animals v. Frizzell*, 530 F.2d 982, 988 n.15 (D.C. Cir. 1976). We remand the case because the record is insufficient for the court to determine whether an EIS is required. On remand, the FAA must evaluate the cumulative impact of noise pollution on the Park as a result of construction of the proposed replacement airport in light of air traffic near and over the Park, from whatever airport, air tours near or in the Park, and the acoustical data collected by NPS in the Park in 1995 and 1998 mentioned in comments on the draft EA. See 42 U.S.C. s 4332(2)(C); *Marsh*, 490 U.S. at 371; *Transportation, 753 F.2d at 129* (citing *Committee for Nuclear Responsibility, Inc. v. Seaborg*, 463 F.2d 783, 787 (D.C. Cir. 1971)). Other data may also prove relevant. Although the FAA explained in responding to comments that it does not use "natural ambient noise levels," because they exclude human sounds and are therefore not a true reflection of the existing noise environment, and rejected the "L90" methodology⁵ used by NPS to calculate natural ambient noise levels, because 90% of sounds in the Park would be considered noisier than the "natural" ambient level, the FAA in fact did consider NPS data in its Supplemental Noise Analysis and fails to demonstrate that this information is not relevant to the cumulative impact analysis to be prepared for the EA. See *Allison*, 908 F.2d at 1029; *Transportation, 753 F.2d at 129*.

⁵ Under the "L90" methodology, the natural ambient level is based on the quietest 10% of noise data statistically derived from noise monitoring.