

ATTACHMENT C

Final Air Tour Management Plan for Hawai'i Volcanoes National Park

FINAL AIR TOUR MANAGEMENT PLAN HAWAI'I VOLCANOES NATIONAL PARK

SUMMARY

This Air Tour Management Plan (ATMP) provides the terms and conditions for commercial air tours conducted over Hawai'i Volcanoes National Park (Park) pursuant to the National Parks Air Tour Management Act (Act) of 2000.

1.0 INTRODUCTION

The Act requires that commercial air tour operators conducting or intending to conduct commercial air tours over a unit of the National Park System apply to the Federal Aviation Administration (FAA) for authority before engaging in that activity. The Act further requires that the FAA in cooperation with the National Park Service (NPS) establish an ATMP for each National Park System unit for which one or more applications has been submitted, unless that unit is exempt from this requirement.¹

The objective of this ATMP is to develop acceptable and effective measures to mitigate or prevent the significant adverse impacts, if any, of commercial air tour operations on the Park's natural and cultural resources, Native Hawaiian sacred sites and ceremonial areas, Wilderness character, and visitor experience.

2.0 APPLICABILITY

This ATMP applies to all commercial air tours over the Park and commercial air tours within ½ mile outside the boundary of the Park as depicted in **Figure 1** below. A commercial air tour subject to this ATMP is any flight, conducted for compensation or hire in a powered aircraft where a purpose of the flight is sightseeing over the Park, or within ½ mile of the Park boundary, during which the aircraft flies:

- (1) Below 5,000 feet above ground level (except solely for the purposes of takeoff or landing, or necessary for safe operation of an aircraft as determined under the rules and regulations of the FAA requiring the pilot-in-command to take action to ensure the safe operation of the aircraft); or
- (2) Less than one mile laterally from any geographic feature within the Park (unless more than ½-mile outside the Park boundary).

¹ The Act provides an exemption to the ATMP requirement for parks with 50 or fewer commercial air tour operations each year unless the exemption is withdrawn by the Director of the NPS. *See* 49 U.S.C. § 40128(a)(5). As an alternative to an ATMP, the agencies also have the option to execute voluntary agreements with all operators operating at any of the parks.

See 14 CFR § 136.33(d). The area subject to the ATMP is also referred to as the area within the ATMP boundary.

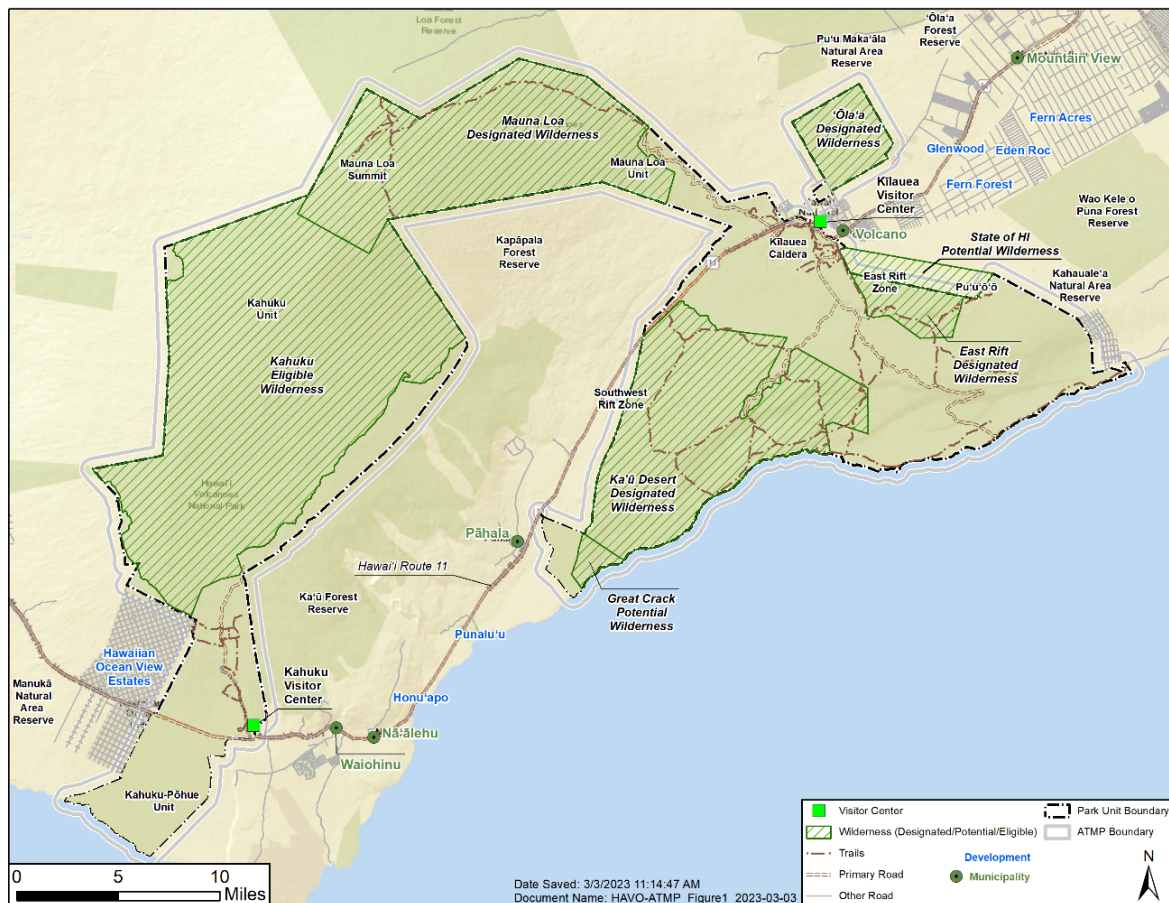


Figure 1. Map of area subject to the ATMP for Hawai'i Volcanoes National Park

2.1 Park Overview

The Park is on the southern end of the Island of Hawai'i, the southernmost island of the Hawaiian Archipelago. The Park was established by Congress on August 1, 1916, as Hawaii National Park (subsequent legislation separated Hawai'i Volcanoes National Park and Haleakalā National Park). The Park protects approximately 354,461 acres² of public land, which includes some of the most unique geologic, biologic, and cultural landscapes in the world.

The Park protects and interprets the largest and most continuously active shield volcanoes in the United States and provides the best physical evidence of island building processes that continue to form the 2,000-mile-long Hawaiian archipelago. Extending from sea

² This number refers to the official deeded acreage including the 9,679-acre 'Ōla'a property. 'Ōla'a is outside of the Park's official designated boundary, but has been managed by the NPS since federal acquisition in 1952.

level to the summit of Mauna Loa at 13,677 feet (ft.), the Park encompasses the summits and rift zones of two of the world's most active shield volcanoes—Kīlauea, representing the newest land in the Hawaiian Islands chain, and Mauna Loa, the largest volcano in the world. The Park's active volcanoes serve as a living laboratory for scientific investigations that began more than a century ago and continue to advance global understanding of volcanic processes, while providing opportunities for visitors to approach and experience active volcanic eruptions including fountains, fissures, and flows.

The Park plays a unique role in preserving and interpreting the history of human development on the Hawaiian Islands and remains an important home to living cultures in Hawai'i. Over five centuries before the establishment of the Park, Native Hawaiians lived, worked, and worshipped on this sacred ground. Volcanic landscapes and all active flows and products of eruptive events are the representation of Pelehonuamea, deity of Hawaiian volcanoes. The entire Park landscape and all of its inhabitants and features, including the sky as a layered extension of the landscape, are sacred to Native Hawaiians, particularly Halema'uma'u Crater (home of Pelehonuamea), Mauna Loa's Moku'āweoweo caldera (a focal point for the greater Hawaiian relationship to the universe-stars, sun, moon), and mauka forested areas. Later, in the 18th, 19th and early 20th centuries, adventurers, explorers, scientists, philanthropists, and individuals also left their mark on the landscape. Today, ancient villages, petroglyphs, stone walls, and footpaths remain between massive lava flows. Historic housing districts, historic structures, and historic roads dot the developed corridors of the Park, together revealing the diverse cultures and history that have been, and continue to play, an integral role on this landscape.

While Kīlauea and Mauna Loa are the primary features of the Park and the principal reason for its establishment, this volcanic topography also supports one of the most fascinating biologic landscapes in the world, sustaining highly diverse populations of plant and animal communities across seven ecological life zones. Located more than 2,000 miles from the nearest continent, Hawaiian plants and animals have evolved in almost complete isolation for the past 30 million years. As a result, more than 90% of the native terrestrial flora and fauna in Hawai'i are endemic to this small archipelago. The Park provides habitat for 62 federally listed endangered or threatened species, many of which are noise sensitive avian species, and nine species that are proposed for listing. Included among these species are the nēnē (Hawaiian goose), 'i'iwi, and 'āhinahina (Mauna Loa silversword). Considering this diversity of life and its distinction on the planet, the Park is both a laboratory for the study of biogeography and evolution within the Pacific Islands and a cornerstone for recovery of native Hawaiian species found nowhere else in the world.

The Park encompasses the largest and most ecologically diverse Wilderness in the Pacific Islands. The Park contains 123,100 acres (official deeded acreage) or 130,950 acres (GIS estimate of acreage due to lava flows and recent land acquisitions) federally designated as

Wilderness and 7,850 acres designated as potential Wilderness in 1978. In 2012, the NPS determined an additional 121,015 acres to be eligible for preservation as Wilderness in the Kahuku Unit, and it is therefore managed as Wilderness. There are an additional 19,201 acres of the Park that have not yet been evaluated for Wilderness eligibility and will be managed as Wilderness until evaluation is completed. In 1980, Hawai‘i Volcanoes and Haleakalā National Parks were jointly designated as “Hawaiian Islands International Biosphere Reserve” by United Nations Educational, Scientific and Cultural Organization (UNESCO). Seven years later, in 1987, the Park was inscribed on the UNESCO World Heritage List. Very few areas in the United States and the world are designated as both a UNESCO Biosphere Reserve and a UNESCO World Heritage Site.

The purposes of the Park are to protect, study, and provide access to Kīlauea and Mauna Loa, two of the world’s most active volcanoes, and perpetuate endemic Hawaiian ecosystems and the traditional Hawaiian culture connected to these landscapes. One of the principal reasons for its establishment by Congress is that the volcanic topography creates large variations in precipitation that, in turn, sustain incredibly diverse populations of plant and animal communities across seven ecological life zones.

The following Park management objectives relate to the development of this ATMP:

- Protect biological resources. The Park perpetuates native ecosystems and communities, many of which are unique to the Park, and provides a refuge for endemic plants and animals that span seven ecological zones ranging from seacoast to alpine. The Park contains an extraordinary assemblage of native plants and animals—more than 90% of which are endemic to the Hawaiian Islands and many of which are rare, endangered, and threatened with extinction.
- Protect natural sounds. Park soundscapes are protected from many human-caused sounds and are dominated by the sounds of wind, ocean, volcanic activity, and native species.
- Protect Wilderness character. The Park promotes opportunities for visitors to experience solitude, primitive conditions, and challenge. From the mountain to the ocean, ensure that vast expanses of the Park’s Wilderness have been affected primarily by the forces of nature—retaining their primeval character.
- Protect cultural resources and traditional uses. Native Hawaiian traditional uses in the Park perpetuate traditional practices, knowledge, and the cultural importance of this area. These practices, including chants and dances, depend upon natural sounds, unobstructed views of mountain summits, and an environment that has not been greatly altered by human-caused changes. The entire Park landscape and all of its inhabitants and features, including the sky as a layered extension of the landscape, are sacred to Native Hawaiians.

3.0 CONDITIONS FOR THE MANAGEMENT OF COMMERCIAL AIR TOUR OPERATIONS

3.1 Commercial Air Tours Authorized

Under this ATMP, 1,548 commercial air tours are authorized per year. Appendix A identifies the operators authorized to conduct commercial air tours and annual flight allocations.

3.2 Commercial Air Tour Routes and Altitudes

Commercial air tours authorized under this ATMP shall be conducted on the designated air tour routes and altitudes in **Figure 2** below.³ Altitude expressed in units above ground level (AGL) is a measurement of the distance between the ground surface and the aircraft.

This ATMP designates three routes that avoid the summit of Kīlauea, the heart of the Park, key cultural and visitor use areas, and designated Wilderness. With the exception of the Coastal Route, flight routes are represented in **Figure 2** by a line with a ¼-mile buffer on either side of the route that indicates the acceptable range of deviation that would not trigger enforcement action. The route details are described below:

- The Pu‘u‘ō‘ō Route consists of a counterclockwise route on the east rift of Kīlauea in the Pu‘u‘ō‘ō area with a single entry and exit over the ocean. As described in Section 3.8, Quiet Technology Incentives, operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours using quiet technology aircraft in an expanded fly zone directly west of this route near Pu‘u‘ō‘ō (i.e., the “Pu‘u‘ō‘ō QT Zone”). The Pu‘u‘ō‘ō QT Zone avoids the designated Wilderness boundary at Nāpau. Commercial air tours conducted on the Pu‘u‘ō‘ō Route and in the Pu‘u‘ō‘ō QT Zone must maintain a minimum altitude of 1,500 ft. AGL over land and 2,000 ft. AGL over water. Hovering, loitering, and/or circling for no more than one minute in a given location, up to five minutes total per air tour, is allowed on the Pu‘u‘ō‘ō Route and in the Pu‘u‘ō‘ō QT Zone.
- The Kahuku Route runs bi-directionally across the south side of the Kahuku Unit following Highway 11. Air tours on Kahuku Route must maintain a minimum altitude of 1,500 ft. AGL.
- The Coastal Route runs bi-directionally offshore along the edge of the Park boundary, but within the ATMP boundary. Air tours on the Coastal Route must maintain minimum of 2,000 ft. lateral distance from shore at all times. Air tours on the Coastal Route must maintain a minimum altitude of 2,000 ft. AGL when

³ Appendix B contains an enlarged Figure 2.

flying southwest-to-northeast and a minimum altitude of 3,000 ft. AGL when flying northeast-to-southwest. The Coastal Route is available for use only if commercial air tour operators can safely adhere to the required altitude and distance from the shore. If an operator is not able to safely fly offshore in accordance with the prescribed altitude and distance requirements, the operator shall not utilize that route.

If pilots are on or entering a route and encounter weather that does not allow them to proceed further along the route at the prescribed altitude, they must safely exit the route and either follow another route where weather conditions allow or exit the ATMP boundary.

Operators may not deviate from the designated routes and altitudes except as necessary for safe operation of an aircraft as determined under Federal Aviation Regulations requiring the pilot-in-command to take action to ensure the safe operation of the aircraft. The pilot-in-command should return to designated route and altitude as soon as safely possible after the hazard has passed.

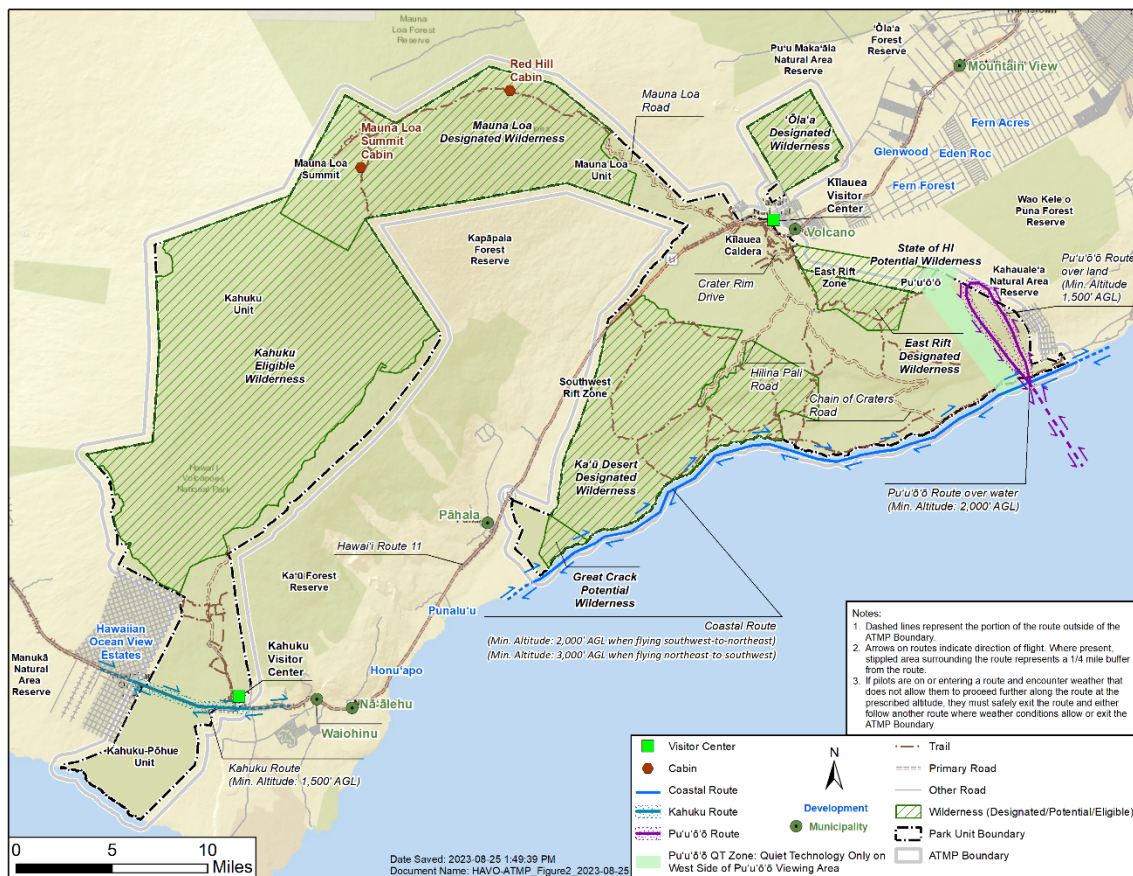


Figure 2. Commercial air tour routes over Hawai'i Volcanoes National Park

3.3 Aircraft Type

The aircraft types authorized to be used for commercial air tours are identified in Appendix A. Any new or replacement aircraft must not exceed the noise level produced by the aircraft being replaced. In addition to any other applicable notification requirements, operators will notify the FAA and the NPS in writing of any prospective new or replacement aircraft and obtain concurrence before initiating air tours with the new or replacement aircraft.

3.4 Day/Time

Except as provided in Section 3.8, Quiet Technology Incentives, air tours may operate from 10:00 AM to 2:00 PM local time on Monday, Tuesday, Thursday, Friday, and Saturday. Air tours are not allowed on Sundays. As described in Section 3.8, operators that have converted to quiet technology aircraft may request to be allowed to conduct air tours on Wednesdays.

3.5 Restrictions for Particular Events

This ATMP establishes six no-fly days per year for commercial air tours based on days that follow the Hawaiian Moon Calendar and Makahiki Season, and which vary from year to year and will be determined through outreach with Native Hawaiian Organizations and confirmed during the annual meeting provided for in Section 3.7B, Annual Meeting, of this ATMP. The NPS will provide at least two months' notice of the commercial no-fly dates to all air tour operators. These no-fly days are generally as follows:

- End of Makahiki (typically in January)
- Zenith Noon (typically in May)
- Summer Solstice (June)
- Zenith Noon (typically in July)
- Start of Makahiki (typically in October)
- Winter Solstice (December)

This ATMP also establishes two no-fly days per year to honor and acknowledge important Hawai'i Island ali'i which do not vary year to year and are as follows:

- Ruth Ke'elikōlani (February 9th)
- Bernice Pauahi Bishop (December 19th)

The NPS can establish additional temporary no-fly periods that apply to commercial air tours for special events or planned Park management. Absent exigent circumstances or emergency operations, the NPS will provide a minimum of two months' notice to the

operators in writing in advance of the no-fly period. Special events could include Native Hawaiian events or other natural and cultural resource programs. A mandatory 5-mile standoff distance is required for special events that could be impacted by overflights, limited to the day of the event. The standoff does not extend outside the ATMP boundary. If the standoff overlaps with a route, that route cannot be utilized while the standoff is in effect.

3.6 Required Reporting

Operators will submit to the FAA and the NPS semi-annual reports regarding the number of commercial air tours within the ATMP boundary that are conducted by the operator. These reports will also include the flight monitoring data required under Section 4.1, Aircraft Monitoring Technology, of this ATMP and such other information as the FAA and the NPS may request. Reports are due to both the FAA and the NPS no later than 30 days after the close of each reporting period. Reporting periods are January 1 through June 30 and July 1 through December 31. Operators shall adhere to the requirements of any reporting template provided by the agencies.

3.7 Additional Requirements

3.7A Operator Training and Education: When made available by Park staff, operators/pilots will take at least one training course per year conducted by the NPS. The training will include Park information that operators can use to further their own understanding of Park priorities and management objectives as well as enhance the interpretive narrative for air tour clients and increase understanding of parks by air tour clients. In addition, helicopter pilots must complete the FAA Introduction to Fly Neighborly training within 180 days of the effective date of this ATMP and retain certificates of completion on file. This training is available at the FAA Safety website here:

https://www.faasafety.gov/gslac/ALC/course_content.aspx?cID=500&sID=841&preview=true&d=1. Additional information is available from Helicopter Association International (HAI) at the HAI Fly Neighborly website (<https://rotor.org/fly-neighborly/>).

3.7B Annual Meeting: At the request of either of the agencies, the Park staff, the local FAA Flight Standards District Office (FSDO), and all operators will meet once per year to discuss the implementation of this ATMP and any amendments or other changes to the ATMP. This annual meeting could be conducted in conjunction with any required annual training. The agencies can invite other stakeholders with relevant subject matter expertise to attend as well.

3.7C In-Flight Communication: For situational awareness when conducting tours of the Park, the operators will utilize frequency 122.85 and report when they enter and depart a route. The pilots should identify their: company and aircraft, name and location of route when entering, direction of travel, altitude, and name of

route when departing. Pilots may identify their location along the route for awareness to other operators as needed.

3.7D Hovering, Loitering, and Circling: Hovering, loitering, and/or circling for no more than one minute in a given location, up to five minutes total per air tour, is permitted on the Pu‘u‘ō‘ō Route and in the Pu‘u‘ō‘ō QT Zone. Circling aircraft must turn away from the advancing blade as much as possible to minimize noise. Hovering, loitering and/or circling is prohibited on the Kahuku Route and the Coastal Route.

3.7E Non-transferability of Allocations: Operations under this ATMP are non-transferable. An allocation of annual operations may be assumed by a successor purchaser that acquires an entity holding allocations under this ATMP in its entirety. In such case, the prospective purchaser shall notify the FAA and the NPS of its intention to purchase the operator at the earliest possible opportunity to avoid any potential interruption in the authority to conduct commercial air tours under this ATMP. This notification must include a certification that the prospective purchaser has read and will comply with the terms and conditions in the ATMP. The FAA will consult with the NPS before issuing new or modified operations specifications (OpSpecs)⁴ or taking other formal steps to memorialize the change in ownership.

3.7F Emergency Landings: In the event of an emergency landing inside the Park, once the aircraft has safely landed and any medical or other emergency issues have been addressed, the operator shall immediately notify the NPS through Park Dispatch at (808) 985-6170 of the incident and location. Prior approval from the Park superintendent or designee is required for the removal or take off of the landed aircraft in order to coordinate joint resources for the safety of Park visitors and resources (36 CFR 2.17). Prior approval from the Park superintendent or designee is required for any non-emergency landing of aircraft within the Park boundaries, including replacement aircraft deployed to retrieve passengers who are not able to exit via ground transportation.

3.7G Daily Air Tour Limitation: The maximum number of air tours each operator may conduct in a single day are as follows:

- Helicopter Consultants of Maui, Inc. (Blue Hawaiian Helicopters) may conduct a maximum of 4 commercial air tours per day, up to the limit of 1,176 per year, with only one flight on a route at a time.

⁴ OpSpecs are issued by the FAA to each operator and prescribe the authorizations, limitations, and procedures under which air tour operations must be conducted and require certain other procedures under which each class and size of aircraft is to be operated.

- Mokulele Flight Service, Inc. (Mokulele Airlines) may conduct a maximum of 1 commercial air tour per day up to the limit of 1 per year.
- K&S Helicopters (Paradise Helicopters) may conduct a maximum of 1 commercial air tour per day up to the limit of 77 per year.
- Safari Aviation, Inc. (Safari Helicopter Tours) may conduct a maximum of 1 commercial air tour per day up to the limit of 185 per year.
- Sunshine Helicopters, Inc. may conduct a maximum of 1 commercial air tour per day up to the limit of 109 per year.

These restrictions are also identified in **Table 1** included in Appendix A.

3.8 Quiet Technology Incentives

This ATMP incentivizes the use of quiet technology aircraft by commercial air tour operators conducting commercial air tours within the ATMP boundary. Operators that have converted to quiet technology aircraft, or are considering converting to quiet technology aircraft, may request to be allowed to conduct air tours using quiet technology aircraft:

- 1) from 9:00 AM to 5:00 PM local time on Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday, and
- 2) within the Pu‘u‘ō‘ō QT Zone from 9:00 AM to 5:00 PM local time on Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday.

Because aviation technology continues to evolve and advance and the FAA updates its noise certification standards periodically, the aircraft eligible for this incentive will be analyzed on a case-by-case basis at the time of the operator’s request to be considered for this incentive. The NPS will periodically monitor Park conditions and coordinate with the FAA to assess the effectiveness of this incentive. If implementation of this incentive results in unanticipated effects to visitor experience and Park resources, including Native Hawaiian traditional practices and sacred sites, further agency action may be required to ensure their protection.

4.0 COMPLIANCE

No later than one hundred and eighty days after the effective date of this ATMP, all commercial air tours within the ATMP boundary will be required to comply with the terms of this ATMP in all respects. The NPS and the FAA are both responsible for the monitoring and oversight of the ATMP. If the NPS identifies instances of noncompliance, the NPS will report such findings to the FAA’s FSDO with geographic oversight of the Park. The public may also report allegations of noncompliance with this ATMP to the FSDO. The FSDO will investigate and respond to all written reports consistent with applicable FAA guidance.

FAA determination of noncompliance may result in loss of authorization to conduct commercial air tours authorized by this ATMP. Any violation of OpSpecs shall be treated in accordance with FAA Order 2150.3, *FAA Compliance and Enforcement Program*.

4.1 Aircraft Monitoring Technology

Operators are required to equip all aircraft used for air tours with flight monitoring technology, to use flight monitoring technology during all air tours under this ATMP, and to report flight monitoring data as an attachment to the operator's semi-annual reports. The required flight monitoring data shall be provided in a file format approved by the agencies, such as a .csv or .xlsx format. Data must include the following information for each row of data (i.e., each ping):

- Unique flight identifier
- Latitude
- Longitude
- Geometric altitude
- Tail number
- Date
- Time stamp
- Operator and Doing Business As (DBA), if different
- Aircraft type
- Aircraft model

The ping rate should be set to a maximum of 15 seconds. Operators already using aircraft equipped with flight monitoring technology shall ensure it meets the performance standards listed above or acquire and install acceptable flight monitoring technology within 180 days of the effective date of this ATMP. For aircraft not already equipped with flight monitoring technology, within 180 days of the effective date of this ATMP, operators shall equip those aircraft with suitable flight monitoring technology.

5.0 JUSTIFICATION FOR MEASURES TAKEN

The provisions and conditions in this ATMP are designed to protect visitor experience and Park resources, including Native Hawaiian traditional practices and sacred sites, from the effects of commercial air tours, and to support NPS management objectives for the Park.

The Park has the highest visitor use among the nine NPS units in the State of Hawai‘i. Noise from low flying air tours can have notable impacts on visitor experience. A 2007 survey conducted at the Park found that the majority of people who reported hearing aircraft considered it either unacceptable or annoying and reported negative emotions or feelings associated with aircraft sound.⁵

Further, helicopter noise detrimentally affects physiology, pairing and breeding success, and territory size of birds by limiting communication between individuals.^{6, 7, 8, 9} These effects could have a greater impact on critically endangered Hawaiian endemics, which already face a number of additional stressors.

Under the Act, the FAA was required to grant Interim Operating Authority (IOA) for commercial air tours over the Park as a temporary measure until an ATMP could be established. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day, etc.) for air tours other than an annual limit.

The NPS determined that current levels of air tours have created unacceptable impacts to Park natural and cultural resources, including Native Hawaiian traditional practices and sacred sites, Wilderness character, and visitor enjoyment. The current level of air tours is also inconsistent with the Park’s purpose and values including perpetuating the traditional Hawaiian cultural connections to the Park’s landscapes. The terms and conditions in this ATMP are included to mitigate these impacts accordingly.

The Park’s ambient acoustic environment is very low (below 35 decibels in many places, which is comparable to a low whisper). These low ambient background levels, coupled with the high number of annual air tours flying at low altitudes, make helicopter noise intrusions very noticeable and difficult to mitigate at current levels. This ATMP uses a combination of designated routes, minimum altitudes, flight-free days, an 86% reduction in annual air tours from current levels, condensed operating hours, and quiet technology incentives to reduce the noise footprint (average sound level over a 12-hour day) from existing levels of air tours from 13% of the ATMP planning area to 3% of the ATMP

⁵ Lawson, S., K. Hockett, B. Kiser, N. Reigner, A. Ingram, J. Howard, & S. Dymond. (2007). *Social Science Research to Inform Soundscape Management in Hawaii Volcanoes National Park, Final Report*. Department of Forestry, College of Natural Resources, Virginia Polytechnic Institute and State University.

⁶ Habib, L., Bayne, E. M., Boutin, S. (2007). *Chronic industrial noise affects pairing success and age structure of ovenbirds *Seiurus aurocapilla**. *Journal of Applied Ecology* 44(1), 176-184. <https://doi.org/10.1111/j.1365-2664.2006.01234.x>.

⁷ Nemeth, E., Brumm, H. (2010). *Birds and Anthropogenic Noise: Are Urban Songs Adaptive?* *The American Naturalist* 176(4). <https://doi.org/10.1086/656275>.

⁸ Halfwerk, W., Holleman, L. J. M., Lessells, C. M., & Slabbekoorn, H. (2011). *Negative impact of traffic noise on avian reproductive success*. *Journal of Applied Ecology* 48(1), 210-219. <https://doi.org/10.1111/j.1365-2664.2010.01914.x>.

⁹ Kleist, N. J., Guralnick, R. P., Cruz, A., & Francis, C. D. (2018). *Chronic anthropogenic noise disrupts glucocorticoid signaling and has multiple effects on fitness in an avian community*. *Proceedings of the National Academy of Sciences of the United States of America* 115(4), E648-E657. <https://doi.org/10.1073/pnas.1709200115>.

planning area on standard days and 2% of the ATMP planning area on quiet technology-only days, and reduces average sounds levels to zero or near zero for locations near the heart of the Park (e.g., Halema'uma'u Crater and the Kīlauea Visitor Center) and over endangered forest bird habitat.

The routes defined under this ATMP shift air tours away from key avian habitat. The Pu'u'ō'ō Route was established to provide expansive views of historic volcanic activity along the East Rift Zone, with additional west side viewing of volcanic landscapes west of Pu'u'ō'ō for quiet technology aircraft. The Kahuku Route was established to allow expansive views of Mauna Loa from the summit to the sea and past volcanic activity while protecting endangered birds found at higher elevations and eligible Wilderness in Kahuku. The Coastal Route was established for protection of Wilderness, cultural, and sensitive resources, while providing expansive views of the coastal areas, and the required altitudes for commercial air tour operators are also safety measures necessary to de-conflict the airspace given the minimum altitudes identified for resource protection. All routes have been established to avoid flying over Wilderness.

Hovering, loitering and/or circling on the Kahuku Route and the Coastal Route are prohibited because they could negatively impact visitor experience and cultural and natural resources, including sensitive sites.

The number of flights authorized per year was selected to avoid or minimize unacceptable impacts to Wilderness values, cultural resources including Native Hawaiian traditional practices and sacred sites, the natural acoustic environment, and visitor experience. The initial allocation of commercial air tours for each operator is based on the proportional number of each operator's average reported total flights per year from 2017-2019.

The minimum altitudes will reduce air tour noise in order to protect Park resources, Native Hawaiian traditional practices and sacred sites, and visitor experience. The altitude requirements reduce the likelihood of a bird strike with aircraft and also contribute to improved habitat conditions for the nēnē.

Noise modeling indicates that the ATMP will reduce the noise footprint of commercial air tours from 13% of the ATMP planning area to 3% of the ATMP planning area on standard days and 2% of the ATMP planning area on quiet technology-only days. In approximately 25% of the Park, the percent time audible (how long an aircraft can be heard at all even at extremely low decibels) will be reduced to less than 150 minutes, which means that air tour noise will not be heard for approximately 9.5 hours of a 12-hour day in that area of the Park. And it will reduce average sounds levels to zero or near zero for locations near the heart of the Park (e.g., Halema'uma'u Crater and the Kīlauea Visitor Center) and over endangered forest bird habitat. The time above 35 decibels from air tour noise will be decreased by more than an hour per day at Pu'u'ō'ō.

Additional measures in this ATMP include time of day restrictions that limit the amount of noise spread throughout the day while still respecting known weather patterns that could restrict air tour operations. Sunrise and sunset are important times of the day for Native Hawaiian traditional cultural practices and ceremonies, wildlife, and visitor use and experience. Biologically important behaviors for many species occur during this time, such as prime foraging, mating, and communication. These restrictions help protect critically endangered forest birds by providing noise free times for critical activity which is highest one hour before and two hours after sunrise, and help protect crepuscular activity of federally listed seabirds. They also allow the NPS to conduct acoustic based bird surveys which are done by active listening.

The no-fly days identified in Section 3.5, Restrictions for Particular Events, are intended to prevent noise interruptions of Park events or some Native Hawaiian practices or ceremonies. The Sunday no-fly day provides opportunities for visitor enjoyment, such as bird watching. Sunday was selected as a no-fly day for consistency with the Park's Mission Critical Administrative Aviation Plan and Environmental Assessment and allows for one weekend flight-free day at the Park. This no-fly day also addresses comments and requests from the local community and Native Hawaiian cultural practitioners.

The Act requires that each ATMP include incentives for the use of quiet technology. Under this ATMP, the quiet technology incentive allows commercial air tours between 9:00 AM and 5:00 PM, with quiet technology only flights on Wednesdays to provide visitors with an opportunity to experience the Park with lower noise levels mid-week. An additional flight area, the Pu'u'ō'ō QT Zone is available only to quiet technology aircraft. The Pu'u'ō'ō QT Zone only flies over a small amount of forest habitat and is close to but not directly over designated Wilderness. Allowing only quiet technology aircraft will reduce the impacts to native species, visitor use and experience, and Wilderness character.

Operator training and education will provide opportunities for operators to enhance their interpretive narrative for air tour clients and increase understanding of Park natural and cultural resources by air tour companies and their clients. The annual meeting between Park staff, local FAA FSDO, and all operators will facilitate effective implementation of the ATMP because it will be used to review and discuss issues related to the implementation of this ATMP. The meeting will also serve to ensure that air tour operators remain informed regarding the terms and conditions of this ATMP, including any adaptive management measures or amendments, and that operators are made aware of new or reoccurring concerns regarding Park resources. Allowing agencies to invite other stakeholders with relevant subject matter expertise to attend the annual meeting will provide opportunities for stakeholders to provide input to the agencies and the operators. For example, during the annual meeting, Native Hawaiian Organizations or individuals can inform agencies of the dates on which the no-fly days identified in Section 3.5, Restrictions for Particular Events, occur in order to provide the maximum amount of

advance notice, and also advance understanding, respect, and appreciation for culturally significant Native Hawaiian days.

The requirements to equip aircraft with flight monitoring technology, to use flight monitoring technology during all air tours under this ATMP, and to report flight monitoring data as an attachment to the operator's semi-annual reports are necessary to enable the agencies to appropriately monitor operations and ensure compliance with this ATMP.

6.0 NEW ENTRANTS

For the purposes of this ATMP, a "new entrant" is a commercial air tour operator that has not been granted any operations under this ATMP or that no longer holds operations under this ATMP at the time of the application. New entrants must apply for and be granted operating authority before conducting commercial air tours over the lands and waters covered by this ATMP.

The FAA and the NPS will publish additional information for interested parties about the form and required content of a new entrant application. The FAA and the NPS will jointly consider new entrant applications and determine whether to approve such applications. Review of applications submitted prior to the effective date of this ATMP will commence within 180 days of the effective date. Applications submitted after that time will be considered no less frequently than every three years from the effective date of this ATMP.

If any new entrant is granted operating authority under this ATMP, the FAA will issue OpSpecs in a timely manner (and, if necessary, will amend OpSpecs of operators whose allocation of operating authority changes due to accommodation of a new entrant).

7.0 COMPETITIVE BIDDING

When appropriate, the FAA and the NPS will conduct a competitive bidding process pursuant to the criteria set forth in 49 U.S.C. § 40128(a)(2)(B) and other criteria developed by the agencies. Competitive bidding may be appropriate to address, for example, a new entrant application; a request by an existing operator for additional operating authority, or consideration by the agencies of Park-specific resources, impacts, or safety concerns.

The agencies will request information necessary for them to undertake the competitive bidding process from operators. Operators who do not provide information in a timely manner may be disqualified from further consideration in the competitive bidding process.

Competitive bidding may necessitate an amendment to this ATMP, additional environmental review, and/or the issuance of new or amended OpSpecs. If OpSpecs are required, they will be issued by the FAA.

8.0 ADAPTIVE MANAGEMENT

Adaptive management allows for minor modifications to this ATMP without a formal ATMP amendment if the impacts of such changes are within the impacts already analyzed by the agencies under the National Environmental Policy Act, the National Historic Preservation Act, the Coastal Zone Management Act, and the Endangered Species Act. Adjustments to the number of commercial air tours allocated to individual operators as a result of the competitive bidding process and minor changes to routes, altitudes, or other operating parameters are examples of adaptive management measures that may not require a formal ATMP Amendment. Such modifications may be made if: 1) the NPS determines that they are necessary to avoid adverse impacts to Park resources, values, or visitor experiences; 2) the FAA determines the need for such changes due to safety concerns; or 3) the agencies determine that appropriate, minor changes to this ATMP are necessary to address new information (including information received through Native Hawaiian input and/or consultation) or changed circumstances. The FAA and the NPS will provide additional information for interested parties about the notice and process for adaptive management changes.

The NPS will conduct monitoring to ensure that the terms and conditions of this ATMP remain consistent with Park management objectives.

9.0 AMENDMENT

This ATMP may be amended at any time: if the NPS, by notification to the FAA and the operator(s), determines that the ATMP is not adequately protecting Park resources, Wilderness, Native Hawaiian traditional practices and sacred sites, and/or visitor enjoyment; if the FAA, by notification to the NPS and the operator(s), determines that the ATMP is adversely affecting aviation safety and/or the national aviation system; or, if the agencies determine that appropriate changes to this ATMP are necessary to address new information or changed circumstances that cannot be addressed through adaptive management.

The FAA and the NPS will jointly consider requests to amend this ATMP from interested parties. Requests must be made in writing and submitted to both the FAA and the NPS. Requests must also include justification that includes information regarding how the requested amendment: is consistent with the objectives of this ATMP with respect to protecting Park resources, Native Hawaiian traditional practices and sacred sites, or visitor use and enjoyment; and would not adversely affect aviation safety or the national aviation system. The FAA and the NPS will publish additional information for interested parties about the form and manner for submitting a request.

Increases to the total number of annual air tours authorized under this ATMP resulting from accommodation of a new entrant application or a request by an existing operator will require an amendment to this ATMP and additional environmental review.

Notice of all amendments to this ATMP will be published in the Federal Register for notice and comment.

10.0 CONFORMANCE OF OPERATIONS SPECIFICATIONS

All IOA for the Park terminates by operation of law 180 days after the establishment (effective date) of this ATMP, 49 U.S.C. § 40128(c)(2)(E), after which time no operator may continue to rely on any OpSpec issued under IOA as authority to conduct commercial air tours within the ATMP boundary. Amended OpSpecs that incorporate the operating parameters set forth in this ATMP shall be issued within 180 days of the effective date of this ATMP.

11.0 EFFECTIVE DATE

This ATMP is established and effective on the date it is signed by all required signatories. Operators will be permitted to continue to conduct air tours within the ATMP boundary up to the limit of their IOA until their OpSpecs are amended to incorporate the ATMP's operating parameters, which will occur no later than 180 days after the effective date of the ATMP.

12.0 RIGHT OF APPEAL

The Record of Decision for this ATMP constitutes a final order of the FAA Administrator and is subject to exclusive judicial review under 49 U.S.C. § 46110 by the U.S. Circuit Court of Appeals for the District of Columbia or the U.S. Circuit Court of Appeals for the circuit in which the person contesting the Record of Decision resides or has its principal place of business. Any party having a substantial interest in this order may seek judicial review of the Record of Decision for this ATMP by filing a petition for review in the appropriate U.S. Court of Appeals no later than 60 days after the order is issued in accordance with the provisions of 49 U.S.C. § 46110.

13.0 COMPLIANCE WITH ALL LAWS

The FAA and the NPS will implement this ATMP in accordance with all applicable Federal laws including but not limited to 44 U.S.C. § 3501 et seq.

RHONDA LOH
Digitally signed by RHONDA LOH
Date: 2023.12.19 12:17:40 -10'00'

Rhonda Loh
Superintendent
Hawai'i Volcanoes National Park
National Park Service

Date

RAQUEL GIRVIN
Digitally signed by RAQUEL GIRVIN
Date: 2023.12.20 07:31:43 -08'00'

Raquel Girvin
Regional Administrator
Western-Pacific Region
Federal Aviation Administration

Date

RANDOLPH LAVASSEUR
Digitally signed by RANDOLPH LAVASSEUR
Date: 2023.12.19 19:01:37 -08'00'

Randolph Lavasseur
Acting Regional Director
Interior Regions 8, 9, 10, & 12
National Park Service

Date

JULIE ANN MARKS
Digitally signed by JULIE ANN MARKS
Date: 2023.12.20 12:07:15 -05'00'

Julie Marks
Executive Director (A)
Office of Environment & Energy
Federal Aviation Administration

Date

RAYMOND SAUVAJOT
Digitally signed by RAYMOND SAUVAJOT
Date: 2023.12.20 09:57:15 -05'00'

Raymond M. Sauvajot
Associate Director
Natural Resource Stewardship and
Science Directorate
National Park Service

Date

APPENDIX A

1.0 COMMERCIAL AIR TOUR ALLOCATIONS

Table 1 provides allocations of the annual operations along with authorized aircraft type by operator. IOA for the Park terminates by operation of law 180 after the effective date of this ATMP.

Table 1. Air Tour Operations and Aircraft Type by Operator

Air Tour Operator	Annual Operations	Maximum Daily Operations	Aircraft Type
Helicopter Consultants of Maui, Inc. (Blue Hawaiian Helicopters)	1,176	4, with only one flight on a route at a time	AS-350-B2, EC-130-B4, EC-130-T2 (helicopter)
Mokulele Flight Service, Inc. (Mokulele Airlines)	1	1	C208B (fixed-wing)
K&S Helicopters (Paradise Helicopters)	77	1	BHT-407-407, BHT-430-430, MD-369-D, MD-369-E (helicopter)
Safari Aviation, Inc. (Safari Helicopter Tours)	185	1	AS-350-B2 (helicopter)
Sunshine Helicopters, Inc.	109	1	AS-350-BA, EC-130-B4 (helicopter)

2.0 DAY/TIME RESTRICTIONS

Table 2 lists the time-of-day and day-of-week when air tours may occur.

Table 2. Air Tour Authorizations by Time-of-Day and Day-of-Week

Air Tour Operator	Time and Day (Non-Quiet Technology)	Time and Day (Quiet Technology Incentive*)
Helicopter Consultants of Maui, Inc. (Blue Hawaiian Helicopters)	10:00 AM to 2:00 PM on Monday, Tuesday, Thursday, Friday, and Saturday. Air tours are not allowed on Wednesday and Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.	9:00 AM to 5:00 PM on Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. Air tours are not allowed on Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.
Mokulele Flight Service, Inc. (Mokulele Airlines)	10:00 AM to 2:00 PM on Monday, Tuesday, Thursday, Friday, and Saturday. Air tours are not allowed on Wednesday and Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.	9:00 AM to 5:00 PM on Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. Air tours are not allowed on Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.
K&S Helicopters (Paradise Helicopters)	10:00 AM to 2:00 PM on Monday, Tuesday, Thursday, Friday, and Saturday. Air tours are not allowed on Wednesday and Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.	9:00 AM to 5:00 PM on Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. Air tours are not allowed on Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.
Safari Aviation, Inc. (Safari Helicopter Tours)	10:00 AM to 2:00 PM on Monday, Tuesday, Thursday, Friday, and Saturday. Air tours are not allowed on Wednesday and Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.	9:00 AM to 5:00 PM on Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. Air tours are not allowed on Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.
Sunshine Helicopters, Inc.	10:00 AM to 2:00 PM on Monday, Tuesday, Thursday, Friday, and Saturday. Air tours are not allowed on Wednesday and Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.	9:00 AM to 5:00 PM on Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. Air tours are not allowed on Sunday. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.

* The quiet technology incentive for air tours conducted with quiet technology aircraft is only applicable to those aircraft that the agencies have determined, on a case-by-case basis, qualify for the quiet technology incentive. This appendix will be updated to identify any aircraft that the agencies have determined qualify for the incentive.

APPENDIX B

Enlarged Figures 1 and 2

