### ATTACHMENT C

Final Air Tour Management Plan for Haleakalā National Park

# FINAL AIR TOUR MANAGEMENT PLAN HALEAKALĀ NATIONAL PARK

#### **SUMMARY**

This Air Tour Management Plan (ATMP) provides the terms and conditions for commercial air tours conducted over Haleakalā 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.<sup>1</sup>

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 tours on the Park's natural and cultural landscapes and resources, areas of historic and spiritual significance to Native Hawaiians, 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).

<sup>1</sup> 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to the ATMP requirement for parks with 50 or fewer commercial air tour operations each year unless the exemption is withdrawn by the Director of the NPS.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.

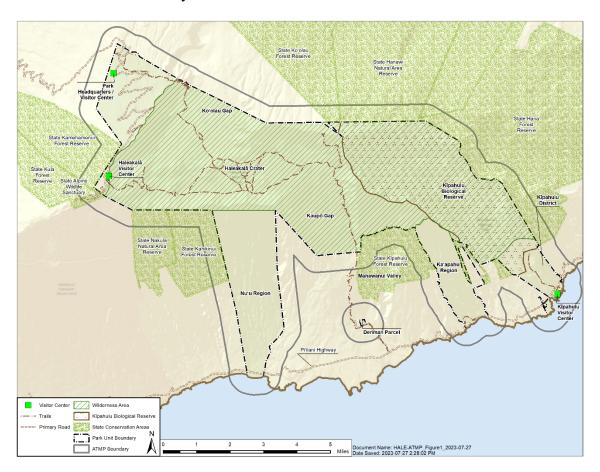


Figure 1. Map of area subject to the ATMP for Haleakalā National Park

#### 2.1 Park Overview

The Park spans over 33,000 acres of land on the eastern side of Maui, the second largest island in the Hawaiian chain. The Park was originally established in 1916 as part of Hawaii National Park. At that time lands on both the islands of Hawai'i (now part of Hawai'i Volcanoes National Park) and Maui were included in a single park. The Park was established as a separate NPS unit in 1961 (PL 86-744, 74 Stat. 88).

The Park is part of the East Maui volcano and features a large erosional depression, Haleakalā Crater, at the summit and then opening to the northeast and southeast forming large valleys that extend to the coast. There are two districts in the Park: the Summit District and the Kīpahulu District. The Summit District includes a portion of Haleakalā Highway (known as Crater Road within the Park), Haleakalā Crater, Kaupō Gap, and Nu'u. The Kīpahulu District includes 'Ohe'o Gulch, Kīpahulu Valley, Manawainui, and Ka'āpahu. The northern and eastern slopes of Haleakalā and the rainforests of the Kīpahulu Valley are among the richest biological regions in Hawai'i. More than 90% of

the native biota found in the Park is endemic to the Hawaiian Islands and nearly 50% is endemic to Maui. In 1980, the United Nations Educational, Scientific and Cultural Organization (UNESCO) designated the entire Park, together with Hawai'i Volcanoes National Park, as the Hawaiian Islands International Biosphere Reserve. The Park protects native Hawaiian ecosystems, providing a home for diverse threatened and endangered species, including some that exist nowhere else in the world.

The Kīpahulu District of the Park protects Kīpahulu Valley and scenic free-flowing stream systems, some of which outlet near 'Ohe'o Gulch. From east of the volcano rim, the valley drops thousands of feet down to the coast. The Kīpahulu coastal area is set atop a seaside cliff and was first farmed by early Hawaiians more than 800 years ago, distinguishing it as both ecologically and historically significant. The upper Kīpahulu Valley is managed as a biological reserve and is home to a vast profusion of flora and fauna, including some of the world's rarest birds, plants, and invertebrates.

The Park is a sacred place to kānaka maoli (Native Hawaiians) and is fundamentally linked to their traditional and contemporary beliefs, practices, and way of life. The concept of kuleana (responsibility) is central to these beliefs, passed on from kūpuna (ancestors) to future generations to ensure stewardship and respect for all things spiritual and physical. Closely connected to kuleana is the concept of mālama 'āina, caring for and nurturing the land so it continues to provide the essential means and resources necessary to sustain life for present and future generations. For Native Hawaiians, the summit of Haleakalā is the Wao Akua ("Place of the Gods") where the demigod Maui snared the sun. Tangible and intangible cultural resources and values, place names, oral traditions/history, and features of the landscape are invaluable parts of Hawaiian culture. At the piko (navel) of East Maui, traditional Hawaiian land districts (moku) converge at a place called Pohaku Palaha. From ancient times to the present, Native Hawaiians have used particular areas, sites, and features within the current park boundaries for a broad range of activities, cultural practices, and protocols including ceremonies, spiritual training, practices related to birth and burial, resource collection, and travel across East Maui.

The Park has 24,719 acres (74% of the Park) of federally designated Wilderness. The Haleakalā Wilderness provides a panorama of exceptional grandeur where people may find solitude and inspiration within a vast and colorful landscape, and is part of a historic district listed in the National Register of Historic Places in recognition of its significant archeological resources and historic sites. The summit of Haleakalā, including Kīpahulu Valley and Kaupō Gap, is also eligible for listing in the National Register as a traditional cultural property (TCP) for its association with the cultural landscape of Maui and because of its known uses, oral history, *mele* (chants or poems), and legends. It remains a source of traditional materials and sacred uses, and a place of profound spiritual power.

Over the years 2017-2019, an average of 1,050,289 visitors annually came to the Park to experience its natural and cultural wonders. The majority of Park visitors who travel to

the summit and headquarters / visitor center are drawn there to witness the awe-inspiring sunrise. Hiking is available along 38 miles of trails. Visitors to the Park enjoy a broad spectrum of natural sounds, including a rare opportunity to experience intense quiet inside the Haleakalā Crater. Sound levels in the crater are among the lowest recorded in any national park. The NPS 1995 Report to Congress on the Effects of Aircraft Overflights on the National Park System identified the Park as a top priority for maintaining or restoring natural quiet.

The purpose of the Park is to inspire current and future generations, to protect a wild volcanic landscape with a wide array of fragile and diverse native ecosystems, including species found nowhere else on Earth, and to perpetuate the unique connections between Hawaiian culture and this sacred and evolving land.

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

- Protect natural sounds. Natural sounds contribute to Haleakalā's unique sense of place. Ambient sound levels in the Haleakalā Crater are so low that they approach the threshold of human hearing. Natural soundscapes are vital components of a healthy, intact, biological community, and play an important role in wildlife communication and behavior. The preservation of natural sounds is also critical to effective Wilderness management.
- Protect Wilderness character. The Wilderness area protects one of the most intact rainforest ecosystems in the Hawaiian Islands and has cultural and spiritual significance to Native Hawaiians. Visitors have opportunities to participate in Wilderness experiences—from expansive views across undeveloped lands to primitive recreation and solitude.
- Protect cultural and historic resources. The Park has cultural and spiritual value for Native Hawaiians. Traditional cultural activities include ritual ceremonies, spiritual training, and practices related to birth and burial. Sustaining the connections and interrelationships between Native Hawaiians and culturally significant Park resources and places is an important objective of Park managers. The Park preserves pre-Contact and historic archeological resources that include Native Hawaiian temples (heiau), shelters, trails, altars, fishing shrines, house platforms, and other features. Historic resources such as historic agricultural sites and trail systems are also preserved by the Park. Some of these resources are still used today as part of the vibrant Hawaiian culture.
- Protect biological resources. The Park protects endemic and iconic species including the nēnē (Hawaiian goose), 'āhinahina (Haleakalā silversword), 'ākohekohe (the critically endangered crested honeycreeper), and many other threatened and endangered species. The upper Kīpahulu Valley is a key refuge for native Hawaiian plant and animal species that are disappearing elsewhere the NPS manages this area as the Kīpahulu Biological Reserve.

# 3.0 CONDITIONS FOR THE MANAGEMENT OF COMMERCIAL AIR TOUR OPERATIONS

#### 3.1 Commercial Air Tours Authorized

Under this ATMP, 2,224 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 Route and Altitudes

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

This ATMP designates a single one-way route from west to east over the southern area of the Park. Vertical separation ("stacking") of aircraft along the route is prohibited.<sup>3</sup> Minimum altitudes are 2,000 feet (ft.) AGL over land and 3,000 ft. AGL over the ocean. Route segments 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. Additional route details are described below:

- The first segment of the route enters the ATMP boundary at the southern boundary of the State Kahikinui Forest Reserve at a minimum altitude of 2,000 ft. AGL. Aircraft must maintain a minimum altitude of 2,000 ft. AGL across the Nu'u area until they exit the ATMP boundary.
- The second segment of the route re-enters the ATMP boundary within ½ mile from the northern edge of the Park's Denman parcel in Kaupō at a minimum altitude of 2,000 ft. AGL. Aircraft must maintain a minimum altitude of 2,000 ft. AGL until they exit the ATMP boundary.
- The third segment of the route re-enters the ATMP boundary ½ mile from the Park's Ka'āpahu area at a minimum altitude of 2,000 ft. AGL. Aircraft must maintain a minimum altitude of 2,000 ft. AGL until they exit the ATMP boundary.
- The fourth segment of the route re-enters the ATMP boundary offshore from Kīpahulu at a minimum altitude of 3,000 ft. AGL. Aircraft must maintain a minimum altitude of 3,000 ft. AGL until they exit the ATMP boundary.

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<sup>&</sup>lt;sup>2</sup> Appendix B contains an enlarged Figure 2.

<sup>&</sup>lt;sup>3</sup> Vertical separation occurs when aircraft following the same route are "stacked," or separated from each other by a vertical buffer.

Aircraft are not required to fly the entirety of the route as long as they comply with the altitude requirements and follow the designated route over the parcels overflown.

If pilots are entering or on the designated route and weather conditions do not allow them to follow the route at the prescribed altitude, they must not proceed further on the route. Pilots must safely exit the ATMP boundary.

Operators may not deviate from the designated route 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.

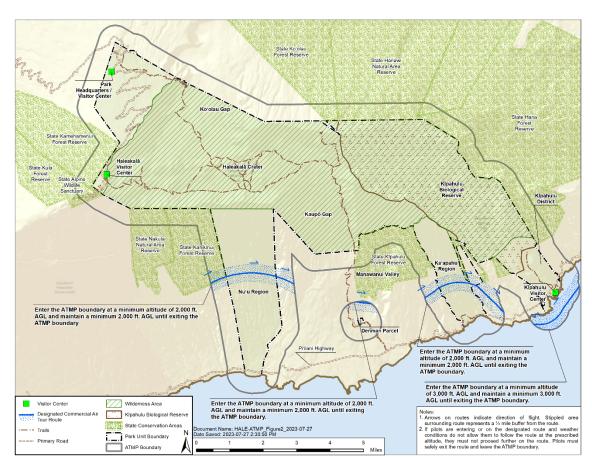


Figure 2. Commercial air tour route over Haleakalā National Park

#### 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. As described in Section 3.7F, Transition to Quiet Technology Aircraft, all commercial air tours must utilize exclusively quiet technology aircraft by 2033.

#### 3.4 Day/Time

Except as provided in Section 3.8, Quiet Technology Incentives, air tours may operate from 11:00 AM to 2:00 PM local time. Commercial air tours are permitted on all days of the week except Sundays and Wednesdays, and except as provided in Section 3.5, Restrictions for Particular Events.

#### 3.5 Restrictions for Particular Events

This ATMP establishes six no-fly days per year for commercial air tours based on the Park's existing commercial-free days<sup>4</sup> that follow the Hawaiian Moon Calendar and Makahiki Season, and which vary from year to year. The NPS will provide at least two months' notice of the six 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 includes up to six additional no-fly days of important cultural significance to Native Hawaiians that will be determined through consultation with Native Hawaiian Organizations and individuals 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 all no-fly dates to all air tour operators.

This ATMP establishes two no-fly days per year for commercial air tours based on culturally significant Hawai'i State holidays. These no-fly days, which do not vary from year to year<sup>5</sup>, are as follows:

- Prince Jonah Kūhiō Kalaniana'ole Day (March 26)
- King Kamehameha I Day (June 11)

<sup>4</sup> Commercial-free days provide opportunities for Kānaka Maoli (Native Hawaiians) to conduct traditional cultural practices in the Park without commercial tours present.

<sup>&</sup>lt;sup>5</sup> Unless a holiday falls on the weekend and the holiday is observed on the nearest weekday.

In addition to the above no-fly days that follow the Hawaiian Moon Calendar and Makahiki Season and the no-fly days based on Hawaiian State holidays, the NPS can establish additional temporary no-fly periods that apply to commercial air tours for other 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. Events may include Native Hawaiian ceremonies or other similar events.

#### 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.

Air tour fee payment is required for commercial air tour operations conducted over the Park under 54 U.S.C. § 100904(f). In order to streamline the payment process, reduce administrative costs, avoid accounting errors, and make it easier for private sector partners doing business with the NPS, the NPS uses the Pay.gov system, which is the U.S. Department of the Treasury's electronic payment system. Each air tour operator allocated commercial air tour operations under this ATMP will report the total number of air tours conducted in the previous month to the NPS via email to <a href="maileonmercial\_manager@nps.gov">hale\_commercial\_manager@nps.gov</a> no later than the 30th day of the following month. For example, the total number of air tours conducted in March must be submitted to the NPS no later than April 30th. The email should also include the name and contact information for the person who is responsible for the fee payment, including their email address, to ensure that the bill is sent to the correct person. Upon receipt of this information from an air tour operator, the NPS will send an electronic bill, via email, to the contact provided for fee payment. Detailed directions for fee payment through Pay.gov will be included with the electronic bill.

#### 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 the ATMP boundary to begin the route and upon completion of the route. The pilots should identify their: company, aircraft, and location on route when entering and when departing. Pilots may identify their location along the route for awareness to other operators as needed.
- 3.7D Daily Air Tour Limitation: The maximum number of air tours each operator may conduct in a single day are as follows:
  - Aris, Inc. (Air Maui Helicopter Tours) may conduct a maximum of 3 commercial air tours per day up to the limit of 417 per year.
  - Helicopter Consultants of Maui, Inc. (Blue Hawaiian Helicopters) may conduct a maximum of 6 commercial air tours per day up to the limit of 1,224 per year.
  - Sunshine Helicopters, Inc. may conduct a maximum of 3 commercial air tours per day up to the limit of 393 per year.
  - Alika Aviation, Inc. (Alexair, Maverick) may conduct a maximum of 2 commercial air tours per day up to the limit of 190 per year.

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

- 3.7E Hovering/Circling: Hovering and/or circling of aircraft is prohibited.
- 3.7F Transition to Quiet Technology Aircraft: All commercial air tours must use quiet technology aircraft by 2033.
- 3.7G 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)<sup>6</sup> or taking other formal steps to memorialize the change in ownership.

3.7H 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 or emergency contacts 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.

#### 3.8 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 from 11:00 AM to 4:00 PM on all days that flights are authorized. 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 on Park resources, visitor experience, or Native Hawaiian use, further agency action may be required to ensure the protection of Park resources, visitor experience, and Native Hawaiian use.

As described in Section 3.7F, Transition to Quiet Technology Aircraft, all commercial air tours must use quiet technology aircraft by 2033.

<sup>&</sup>lt;sup>6</sup> 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.

#### 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. The NPS will address any issues related to commercial tour use fees.

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 Park resources and visitor experience from the effects of commercial air tours, and to support NPS management objectives for the Park.

The Summit of Haleakalā, including Kīpahulu Valley and Kaupō Gap, is a TCP that includes the entire Park and is part of the cultural landscape of Maui. This area has known oral history, mele (songs), legends, and sacred uses. The exceptional stillness and serenity of the Summit of Haleakalā are significant characteristics of the TCP that allow Native Hawaiians to continue conducting traditional ceremonies, which require a quiet setting.

Noise from low flying air tours can have notable impacts on visitor experience. A survey conducted at the Park found that the majority of people who reported hearing aircraft considered it either unacceptable or annoying.<sup>7, 8</sup>

The Park has 66 federally listed threatened and endangered species (49 plants, 17 wildlife). Of these, 28 species (42%) are found only on Maui. Helicopter noise could detrimentally affect physiology, pairing and breeding success, and territory size of birds by limiting communication between individuals. <sup>9,10,11,12</sup> These effects could have a greater impact on critically endangered Hawaiian endemics, which already face a number of additional stressors. At least two federally endangered forest bird species within the Park, the kiwikiu and 'ākohekohe, are at imminent risk of extinction, with fewer than 200

<sup>&</sup>lt;sup>7</sup> Lawson, S. R., Hockett, K., Kiser, B. C., Reigner, N. R., Ingram, A., Barnes, C., & Dymond, S.F. (2008). *Research to support visitor use management and resource protection at the 'Ohe'o Pools in Haleakalā National Park: Final report.* Virginia Polytechnic Institute and State University, Department of Forestry.

<sup>&</sup>lt;sup>8</sup> Lawson, S., Kiser, B., Hockett, K., Reigner, N., Howard, J., Ingram, A., & Dymond, S. (2007). *Social Science Research to Inform Soundscape Management in Haleakalā National Park*, Department of Forestry, College of Natural Resources, Virginia Polytechnic Institute and State University.

<sup>&</sup>lt;sup>9</sup> 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. <a href="https://doi.org/10.1111/j.1365-2664.2006.01234.x">https://doi.org/10.1111/j.1365-2664.2006.01234.x</a>.

<sup>&</sup>lt;sup>10</sup> Nemeth, E., Brumm, H. (2010). *Birds and Anthropogenic Noise: Are Urban Songs Adaptive?* The American Naturalist 176(4). <a href="https://doi.org/10.1086/656275">https://doi.org/10.1086/656275</a>.

<sup>&</sup>lt;sup>11</sup> 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.

<sup>&</sup>lt;sup>12</sup> 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.

and 1,800 individuals, respectively, left in the wild. In addition to impacts to the birds themselves, aircraft noise adversely impacts the NPS's ability to monitor federally protected Hawaiian forest birds, which is done primarily by acoustic-based surveys to detect birdsongs.

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.

Noise from the current level of air tours negatively impacts existing sacred sites within the Park associated with Native Hawaiian people, visitor experience, and may impact endemic bird species. The NPS determined that the current level of air tours creates unacceptable impacts under NPS Management Policies and is inconsistent with the Park's purpose and values including perpetuating the traditional Hawaiian cultural connections to the Park's landscapes.

The Park's ambient acoustic environment<sup>13</sup> 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. The terms and conditions in this ATMP were included to substantially mitigate the impacts of commercial air tours, while also providing the opportunity to experience expansive views of the Park from the air. In particular, the ATMP uses a combination of designating a single route, minimum altitudes, no-fly days, a 54% reduction in air tours from current levels, substantially condensed operating hours, and quiet technology incentives to reduce the average sound levels (over a 12-hour day) by over 30 decibels for many of the most noise sensitive regions of the Park.

The number of flights authorized per year was selected to reduce impacts to noise sensitive areas in the Park (including those with Wilderness values), cultural resources, natural acoustic environment, wildlife, and visitor experience while also providing air tour customers with the opportunity to experience expansive views of the Park from the air. Noise sensitive areas of the Park are areas where a quiet setting is a generally recognized feature or attribute. The initial allocation of commercial air tours for each operator is based on the proportional number of total flights per year from 2017-2019 reported by the five air tour companies.

<sup>&</sup>lt;sup>13</sup> The NPS defines the ambient acoustic environment as the aggregate of all sounds within an area; it is the total acoustic environment in the park. In a national park setting, the ambient acoustic environment can be composed of both natural ambient sound and a variety of human-made sounds (NPS Management Policies Section 4.9, 2006).

The daily flight limits are intended to manage the daily noise footprint from commercial air tours and to protect Park natural and cultural resources, TCPs, designated Wilderness and visitor experience. The daily limits do not allow operators to exceed annual proportional allocations and can be verified by the required flight tracking.

The designation of a single flight path enhances visitor experience in areas without air tour overflights, and protects Wilderness values by avoiding the Keonehe'ehe'e (Sliding Sands) Trailhead near the visitor center, Waimoku Falls and lower Kīpahulu area including the Visitor Center, and the Halemau'u Trail switchback areas. The single flight path also avoids identified culturally significant areas, including those used by cultural practitioners, the Kīpahulu Historic District, Crater Historic District, the Kapahu Living Farm, and cultural fishing access and use in certain coastal areas. Hovering and/or circling, and the prohibition on the vertical separation ("stacking") of aircraft along the route, are prohibited because they increase noise levels and duration and negatively impact visitor experience and noise sensitive cultural and natural resources. Additionally, the single flight path avoids the bioreserve and reduces impacts to forest birds, and nesting 'ua'u by maintaining mid-slope elevations (i.e., staying below 4,000 ft. contour line elevations). Thus, the designated route shifts air tours away from key avian habitat. Restrictions on time-of-day protect birds during times when they are most active. The minimum altitudes will reduce air tour noise in order to protect Park resources, Native Hawaiian traditional practices and sacred sites, and visitor experience, as well as marine threatened and endangered species.

Noise modeling indicates that the noise impacts from air tours under the ATMP will be substantially reduced compared to current conditions. Specifically, implementation of the ATMP will result in reduction of up to three hours of audible air tour noise each day, with the largest reduction at Haleakalā Visitor Center, and an average of 113 minutes across all noise sensitive locations. <sup>14</sup> The amount of time that air tour noise is above 35 decibels is expected to decreases by an hour each day near the crater rim at Nu'u (7,500 ft. elevation), a culturally significant area, when compared to existing conditions. Noise will also decrease at Haleakalā Visitor Center at the crater rim, which is one of the most used Native Hawaiian cultural areas in the Park. In addition, noise modeling indicates the designated route reduces noise impacts to the Civilian Conservation Corps Haleakalā Crater Trails Historic District Cultural Landscape and the Kīpahulu Historic District. The time that air tour noise is above 52 decibels, which is a level of noise at which speech interference occurs between two people five meters apart, is estimated to decrease by as much as 24 minutes per day near the crater rim at Nu'u (7,500 ft. elevation) which is a noise sensitive cultural resource.

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<sup>&</sup>lt;sup>14</sup> See Appendix F, *Noise Technical Analysis*, of *Environmental Assessment for an Air Tour Management Plan for Haleakalā National Park*.

Further, noise modeling indicates that under the ATMP, the area of the Park with aircraft noise above 35 decibels will be 42% less than existing conditions. The amount of time air tours are audible will be reduced across all locations analyzed in development of this ATMP, as compared to existing conditions. The largest reductions are estimated to be at key visitor use areas, Kalahaku Overlook (166-minute reduction) and the Haleakalā Visitor Center (194-minute reduction). The smallest reductions are predicted at Waimoku Falls (37-minute reduction) and Lelekea Stream Bridge (52-minute reduction), which are closer to the coastal segment of the route. While some noise sensitive areas will experience a minimal increase in noise intensity, they are near the coast where the median natural ambient sound level is higher, and the time that air tours are audible would decrease compared to current conditions. Therefore, overall impacts in these noise sensitive areas would be reduced in duration.

Additional measures in this ATMP include time-of-day restrictions which were included to protect wildlife resources. Sunrise and sunset are important times of the day for wildlife and visitor use and experience. Behaviors critical for survival of many species occur during this time, such as foraging, mating, and communication. Eliminating air tours before 11:00 AM is critical for acoustic surveys and song meter recordings of endangered forest birds.

The no-fly days identified in Section 3.5, Restrictions for Particular Events, are intended to prevent noise interruptions to Native Hawaiian cultural practices. The non-consecutive no-fly days comprising one weekend day and one weekday offer a range of visitor access to the natural acoustic environment and the renowned quiet of the Haleakalā Crater. In addition, Park stewardship actions (i.e., song meter recordings of endangered forest birds) will benefit from these no-fly days where stewardship actions can be conducted unhindered by air tour noise interruptions.

The Act requires that each ATMP include incentives for the use of quiet technology. Under this ATMP, the quiet technology incentive allows visitors to experience lower noise levels in the latter part of day when Park visitation numbers are higher.

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 the 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, including Native Hawaiians 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 nofly 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 to appreciate the cultural significance of these days for Native Hawaiians.

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 individuals and Native Hawaiian Organizations, 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.

Date



RAQUEL GIRVIN
Date: 2024.01.09 08:59:06 -08'00'

Natalie B. Gates Superintendent Haleakalā National Park National Park Service Raquel Girvin Date
Regional Administrator
Western-Pacific Region
Federal Aviation Administration

DAVID
Digitally signed by DAVID
SZYMANSKI
Date: 2024.01.08 19:10:57 -05'00'

JULIE ANN
MARKS
Date: 2024.01.09 12:31:16 -05'00'

David Szymanski Date Regional Director Interior Regions 8, 9, 10, and 12 National Park Service

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

RAYMOND
SAUVAJOT
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SAUVAJOT
Date: 2024.01.09 09:49:09 -05'00'

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

#### 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 days 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
Aris, Inc. (Air Maui Helicopter Tours)	417	3	AS350BA
Helicopter Consultants of Maui, Inc. (Blue Hawaiian Helicopters)	1,224	6	AS350B2, EC130 T2, EC130 B4
Sunshine Helicopters, Inc.	393	3	AS350BA
Alika Aviation, Inc. (Alexair, Maverick)	190	2	EC130B4

#### 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*)
Aris, Inc. (Air Maui Helicopter Tours)	11:00 AM to 2:00 PM on all days of the week except Sunday and Wednesday. Commercial air tours are permitted on all other days of the week except as prohibited according to the no-fly days established in Section 3.5. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.	11:00 AM to 4:00 PM on all days of the week except Sunday and Wednesday. Commercial air tours are permitted on all other days of the week except as prohibited according to the no-fly days established in Section 3.5. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned park management.
Helicopter Consultants of Maui, Inc. (Blue Hawaiian Helicopters)	11:00 AM to 2:00 PM on all days of the week except Sunday and Wednesday. Commercial air tours are permitted on all other days of the week except as prohibited according to the no-fly days established in Section 3.5. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.	11:00 AM to 4:00 PM on all days of the week except Sunday and Wednesday. Commercial air tours are permitted on all other days of the week except as prohibited according to the no-fly days established in Section 3.5. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned park management.
Sunshine Helicopters, Inc.	11:00 AM to 2:00 PM on all days of the week except Sunday and Wednesday. Commercial air tours are permitted on all other days of the week except as prohibited according to the no-fly days established in Section 3.5. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.	11:00 AM to 4:00 PM on all days of the week except Sunday and Wednesday. Commercial air tours are permitted on all other days of the week except as prohibited according to the no-fly days established in Section 3.5. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned park management.
Alika Aviation, Inc. (Alexair, Maverick)	11:00 AM to 2:00 PM on all days of the week except Sunday and Wednesday. Commercial air tours are permitted on all other days of the week except as prohibited according to the no-fly days established in Section 3.5. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.	11:00 AM to 4:00 PM on all days of the week except Sunday and Wednesday. Commercial air tours are permitted on all other days of the week except as prohibited according to the no-fly days established in Section 3.5. The NPS can establish temporary no-fly periods that apply to air tours for special events or planned park management.

<sup>\*</sup> 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

