

**AIR TOUR
MANAGEMENT PLAN
ARCHES NATIONAL PARK**

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SUMMARY

This Air Tour Management Plan (ATMP) provides the terms and conditions for commercial air tours conducted over Arches 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 tours on natural and cultural resources, visitor experiences and tribal lands.

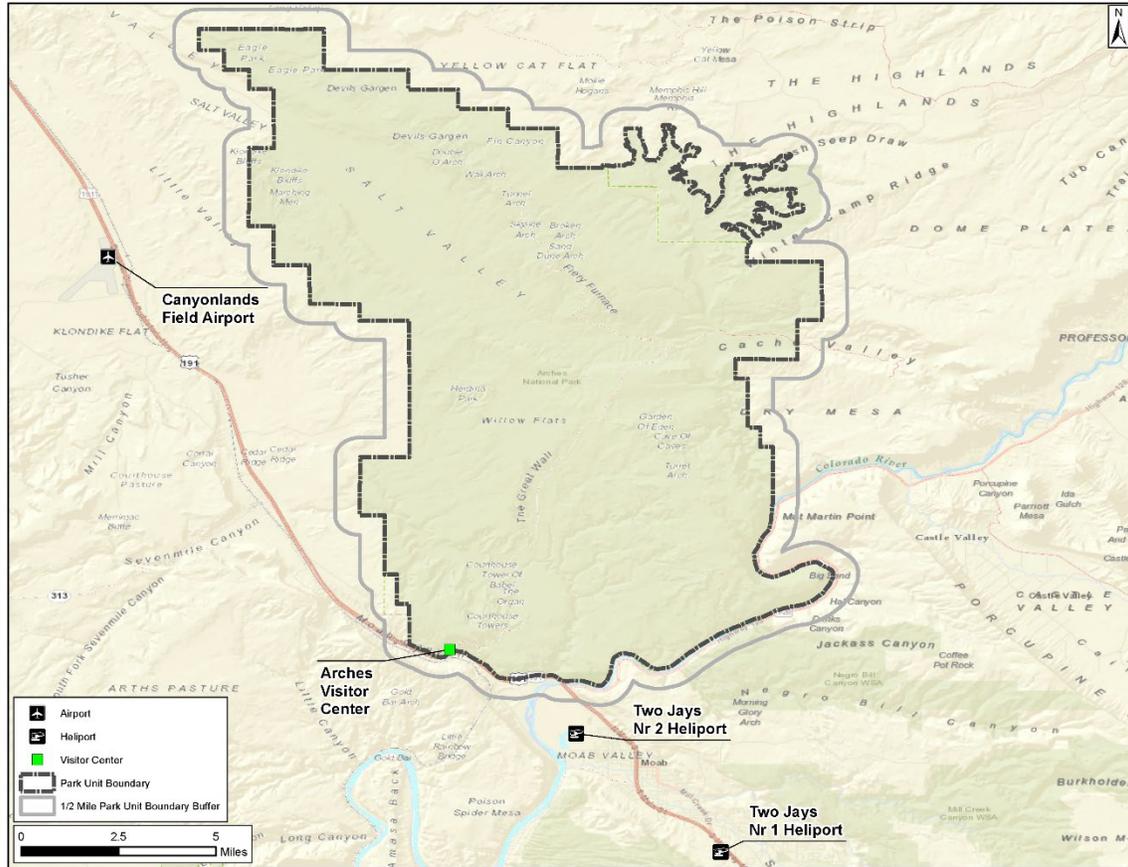
2.0 APPLICABILITY

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, 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).

See 14 CFR § 136.33(d).

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to the ATMP requirement for parks with 50 or fewer commercial air tour operations each year unless the exemption is withdrawn by the Director of the NPS.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 prepare a voluntary agreement for the Park.



32
33 **Figure 1.** Map of area subject to this ATMP for Arches National Park

34 **2.1 Park Overview**

35 The Park is comprised of a landscape of contrasting colors, land forms, and textures
36 unlike any other in the world, with over 2,000 natural stone arches and hundreds of
37 soaring pinnacles, massive rock fins, and giant balanced rocks. The Park consists of
38 76,679 acres of high desert on the Colorado Plateau in southeastern Utah. The Park's
39 distinctive landscapes are products of multiple geologic processes operating over
40 hundreds of millions of years. Approximately 96% of the land area of the Park is
41 recommended wilderness which is managed as designated wilderness by the NPS,
42 pursuant to the 2006 NPS Management Policies.

43 Elevations in the Park range from 4,085 to 5,653 feet above sea level and contain
44 vegetation such as pinyon pine, juniper, and many species of grasses, cacti, and shrubs.
45 Moisture-dependent plants like cottonwoods, willows, and cattails are found along the
46 rare perennial streams, in washes, or in alcoves with dripping springs. Notable wildlife
47 includes mule deer, coyotes, desert bighorn sheep, bobcats, mountain lions. Raptors such
48 as golden eagles and peregrine falcons, as well as the federally listed southwestern
49 willow flycatcher, and the western yellow-billed cuckoo can also be found at the Park.

50 Cultural resources in the Park span at least 12,000 years of human occupation and
51 activity. There are Paleoindian, Archaic, Fremont, ancestral Pueblo, Paiute and Ute

52 archeological sites in the Park, including masonry and earthen structures, lithic scatters,
53 middens, pictographs, and petroglyphs. Historic-era resources include those left by
54 explorers, miners, ranchers, and the Civilian Conservation Corps. Within the Park, many
55 cultural resources are listed on the National Register of Historic Places including, but not
56 limited to, petroglyphs and pictographs, remains of past ranching activity, and a segment
57 of the Old Spanish National Historic Trail. The natural arches are among the many
58 physical and ethnographic features considered sacred to Native American Tribes with
59 current and ancestral connections to the Park.

60 Designated hiking trails and routes provide access to arches, other features and to the
61 backcountry for the more than 1.6 million annual visitors. The Park offers a variety of
62 recreational experiences including sightseeing, viewpoints and photo stops, hiking,
63 interpretation, picnicking, special tours to the Fiery Furnace, backcountry and developed
64 camping, rock climbing, canyoneering, bicycling, and nature study.

65 The purposes of the Park include protecting extraordinary examples of geologic features
66 including arches, natural bridges, windows, spires, balanced rocks, as well as other
67 features of geologic, prehistoric and historic, and scientific interest, and providing
68 opportunities to experience these resources and their associated values in their majestic
69 natural settings.

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

- 71 • Protect individuals and populations of wildlife species known to be sensitive to
72 the effects of aircraft overflights, including several species of diurnal raptors
73 (such as the golden eagle and peregrine falcon) and the federally listed
74 southwestern willow flycatcher, and the western yellow-billed cuckoo, as well as
75 desert bighorn sheep, mule deer, mountain lion, black bear.
- 76 • Protect cultural resources, cultural landscapes and ethnographic resources
77 important to Native American Tribes with current or ancestral connections to the
78 Park.
- 79 • Protect primitive remote experiences for visitors and opportunities to experience
80 quiet and solitude in a remote natural setting.

81 **3.0 CONDITIONS FOR THE MANAGEMENT OF COMMERCIAL AIR TOUR** 82 **OPERATIONS AT THE PARK**

83 3.1 Annual Commercial Air Tours Authorized

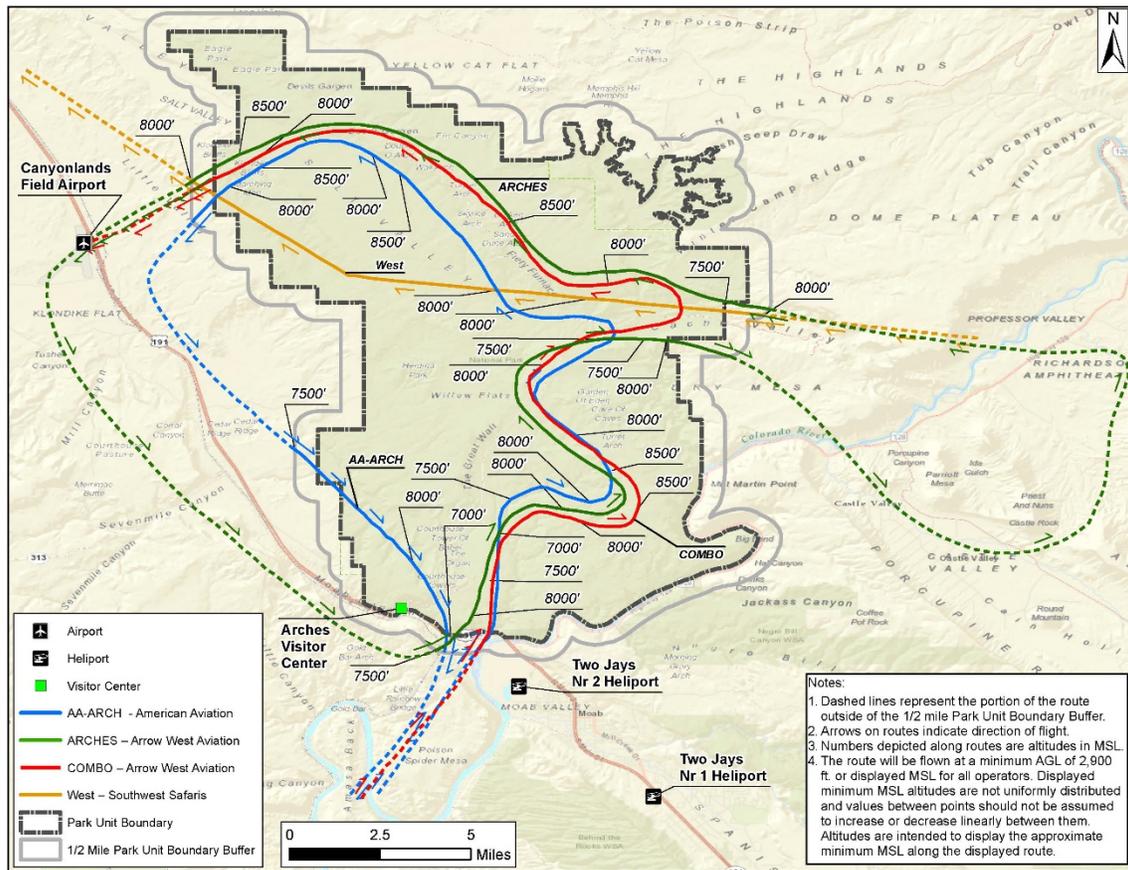
84 Under this ATMP, 309 annual commercial air tours are authorized. Appendix A
85 identifies the operators authorized to conduct commercial air tours and annual flight
86 allocations.

87 3.2 Commercial Air Tour Routes and Altitudes

88 Commercial air tours authorized under this ATMP shall be conducted on designated air
89 tour routes specific to each operator (Figure 2; Appendix B contains an enlarged Figure

90 2). Altitude expressed in units above ground level (AGL) is a measurement of the
91 distance between the ground surface and the aircraft, whereas altitude expressed in mean
92 sea level (MSL) refers to the altitude of an aircraft above sea level, regardless of the
93 terrain below it. Aircraft flying at a constant MSL altitude would simultaneously fly at
94 varying AGL altitudes, and vice versa, assuming uneven terrain is present below the
95 aircraft. Within the boundary of the Park, air tours will not fly lower than 2,900 feet (ft)
96 AGL, referencing the topographic high-point within 1/2 mile of the flight path. The
97 minimum AGL altitude of 2,900-ft applies to the entirety of all air routes within the Park.
98 Except in an emergency or to avoid unsafe conditions, or unless otherwise authorized for
99 a specified purpose, operators may not deviate from these routes and altitudes.

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Figure 2. Commercial air tour routes at Arches National Park

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3.3 Aircraft Type

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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.

110 3.4 Day/Time

111 Except as provided in the section below entitled “Quiet Technology Incentives,” air tours
112 may operate two hours after sunrise until two hours before sunset, as defined by the
113 National Oceanic and Atmospheric Administration (NOAA).² Air tours may operate any
114 day of the year, except under circumstances provided in the following section entitled
115 “Restrictions for Particular Events.”

116 3.5 Restrictions for Particular Events

117 The NPS can establish temporary no-fly periods that apply to air tours for special events
118 or planned Park management. Absent exigent circumstances or emergency operations,
119 the NPS will provide a minimum of 15 days written notice to operators for any
120 restrictions that temporarily restrict certain areas or certain times of day, or 60 days
121 written notice to operators for any full-day restrictions in advance of the no-fly period.
122 Events may include tribal ceremonies or other similar events.

123 3.6 Required Reporting

124 Operators will submit to the FAA and the NPS semi-annual reports regarding the number
125 of commercial air tours over the Park that are conducted by the operator. These reports
126 will also include the flight monitoring data required under Section 5.1 of this ATMP and
127 such other information as the FAA and the NPS may request. Reports are due to both the
128 FAA and the NPS no later than 30 days after the close of each reporting period.
129 Reporting periods are January 1 through June 30 and July 1 through December 31.
130 Operators shall adhere to the requirements of any reporting template provided by the
131 agencies.

132 3.7 Additional Requirements

133 3.7A Operator Training and Education: When made available by Park staff,
134 operators/pilots will take at least one training course per year conducted by NPS
135 staff. The training will include Park information that operators can use to further
136 their own understanding of Park priorities and management objectives as well as
137 enhance the interpretive narrative for air tour clients and increase understanding
138 of parks by air tour clients.

139 3.7B Annual Meeting: At the request of either of the agencies, the Park staff, the
140 local FAA Flight Standards District Office (FSDO), and all operators will meet
141 once per year to discuss the implementation of this ATMP and any amendments
142 or other changes to the ATMP. This annual meeting could be conducted in
143 conjunction with any required annual training.

144 3.7C In-Flight Communication: For situational awareness when conducting tours
145 of the Park, the operators will utilize frequency 122.9 and report when they enter

² Sunrise and sunset data are available from the NOAA Solar Calculator,
<https://www.esrl.noaa.gov/gmd/grad/solcalc/>

146 and depart a route. The pilot should identify their company, aircraft, and route to
147 make any other aircraft in the vicinity aware of their position.

148 3.7D Wildlife Avoidance: California condors have not been found to be present in
149 the Park and their presence is thus not a current resource condition requiring
150 active mitigation. However, California condor habitat does exist in the Park, and
151 protective measures are necessary should a condor be identified in the Park. This
152 ATMP includes the following protective measures for California condors:

- 153 • Air tour operators are required to report visual identification of California
154 condors to the NPS, with an optional notification to U.S. Fish and Wildlife
155 Service (USFWS), within 24 hours of initial sighting.
- 156 • Once NPS becomes aware of the presence of California condor nests,
157 notification and coordination will be conducted between the Park staff, the
158 NPS Intermountain Region Wildlife Biologist and Threatened and
159 Endangered Species Coordinator, the local USFWS field office, the air
160 tour operators, and the FSDO, as necessary, to determine the best
161 avoidance measures for operators to take. Generally, operators will be
162 required to avoid identified nesting areas, feeding areas, or other known
163 areas of congregation by 1 mile vertically or laterally as long as the NPS
164 determines that other natural or cultural resources are not impacted or
165 affected and such avoidance measures would not result in operating
166 conditions deemed unsafe by the FAA.
- 167 • The agencies may temporarily restrict use of air tour routes over nesting
168 areas, feeding areas, or other known areas of congregation while: 1)
169 working with operators to modify air tour routes (i.e., 1 mile shifts away
170 from sensitive condor areas); and 2) assessing the natural, cultural, and
171 safety impacts of any changes.
- 172 • Avoidance measures will remain in effect until the NPS determines that
173 condors are no longer present and the NPS notifies the operators in writing
174 that avoidance measures are no longer necessary.

175 3.8 Quiet Technology Incentives

176 This ATMP incentivizes the adoption of quiet technology aircraft by commercial air tour
177 operators conducting commercial air tours over the Park. Operators that have converted
178 to quiet technology aircraft will be allowed to conduct tours beginning one hour after
179 sunrise until one hour before sunset on all days that flights are authorized. If
180 implementation of this incentive results in a change in existing conditions or a change in
181 the effects of air tour noise on Park resources or visitor enjoyment, additional analysis
182 may be required in order to ensure the continued effectiveness of the incentive.

183 **4.0 JUSTIFICATION FOR MEASURES TAKEN**

184 The provisions and conditions in this ATMP are designed to protect Park resources and
185 visitor experience from the effects of commercial air tours, and support NPS management
186 objectives for the Park.

187 Under the Act, the FAA granted Interim Operating Authority (IOA) for air tours over the
188 Park. IOA does not provide any operating conditions (e.g., routes, altitudes, time of day,
189 etc.) for air tours other than an annual limit.

190 The total number of air tours authorized under this ATMP is consistent with the existing
191 air tours reported over the Park. The annual flight limits in this ATMP are intended to
192 protect visitor experience, wildlife, and cultural resources and related cultural landscapes
193 and ethnographic resources throughout the Park by limiting the number of potential
194 disturbances caused by commercial air tours.

195 The conditions that commercial air tours will fly no lower than 2,900 ft AGL, referencing
196 the topographic high-point within 1/2 mile of the flight path, complies with guidance for
197 raptor protection including threatened, endangered and migratory birds, as described in
198 Section 2.1.³ Because raptor habitat exists throughout the Park and nest locations may
199 change over time, the minimum altitude restriction extends uniformly to all routes over
200 the Park. It will further avoid or minimize potential effects on other avian species and
201 wildlife by reducing the noise intensity of air tour events in the areas nearest the routes.
202 Additionally, this provision improves visitor experiences on the ground, including
203 opportunities for solitude and remoteness from sights and sounds in recommended
204 wilderness, as well as conditions at cultural properties and landscapes by reducing the
205 intensity of air tour noise at ground level.

206 Sunrise and sunset are important times of the day for wildlife and visitor use and
207 experience. Biologically important behaviors for many species occur during this time,
208 such as the dawn chorus for songbirds. Wildlife viewing is often conducted during this
209 time of day as well. The time restrictions have been included in this ATMP to protect
210 these Park resources. The hours of operation provide quiet periods of the day during
211 which visitors can enjoy natural sounds and preserves opportunities for solitude in
212 backcountry areas.

213 Restrictions for particular events are intended to prevent noise interruptions of Park
214 events or tribal practices.

215 Operator training and education facilitates effective implementation of the ATMP. by
216 making sure that operators remain informed regarding the requirements of this ATMP
217 including any adaptive management measures or amendments, advances operator
218 understanding of Park management objectives and priorities, including noise sensitive
219 areas, and provides opportunities to enhance the interpretive narrative for air tour clients

³ Utah Field Office Guidelines for Raptor from Human and Land Use Disturbances, U.S. Fish and Wildlife Service, Utah Field Office, Salt Lake City, January 2002 update, L.A. Romin & J.A. Muck.

220 and increases understanding of parks by air tour clients. The annual meeting will be used
221 to review and discuss implementation of this ATMP between Park staff, local FAA
222 FSDO, and all operators and will serve to ensure that air tour operators are aware of the
223 terms and conditions of this ATMP and are made aware of new or reoccurring concerns
224 regarding Park resources.

225 **5.0 COMPLIANCE**

226 On the effective date of this ATMP, all commercial air tours over the Park must comply
227 with the terms of this ATMP in all respects, except that operators may continue to
228 conduct the number of air tour operations authorized under IOA as reflected in their
229 existing Operations Specifications (OpSpecs) until such OpSpecs are modified to require
230 compliance with this ATMP. The NPS and the FAA are both responsible for the
231 monitoring and oversight of the ATMP. If the NPS identifies instances of non-
232 compliance, the NPS will report such findings to the FAA's FSDO having geographic
233 oversight for the Park. The FSDO will investigate all reports of noncompliance. The
234 public may also report allegations of non-compliance with this ATMP to the FSDO
235 which may result in an investigation by the FAA.

236 Investigative determination of non-compliance may result in partial or total loss of
237 authorization to conduct commercial air tours authorized by this ATMP. Any violation
238 of OpSpecs shall be treated in accordance with FAA Order 2150.3, *FAA Compliance and*
239 *Enforcement Program*.

240 5.1 Aircraft Monitoring Technology

241 Operators are required to equip all aircraft used for air tours with flight monitoring
242 technology and to report flight monitoring data as part of their semi-annual reports.
243 Required flight monitoring data shall include the following:

- 244 • Latitude, longitude, and geometric altitude
- 245 • Tail number
- 246 • Date and time stamps for each ping
- 247 • Operator and Doing Business As (DBA), if different
- 248 • Aircraft type
- 249 • Pings set to a maximum of 15 seconds
- 250 • Certificate number

251 Operators already using aircraft equipped with flight monitoring technology shall ensure
252 it meets the performance standards listed above or acquire and install acceptable flight
253 monitoring technology within 180 days of the effective date of this ATMP. For aircraft
254 not already equipped with flight monitoring technology, within 180 days of the effective
255 date of this ATMP, operators shall equip those aircraft with suitable flight monitoring
256 technology. Operators shall use flight monitoring technology during all air tours under
257 this ATMP.

258 **6.0 NEW ENTRANTS**

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

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

271 If any new entrant is granted operating authority under this ATMP, the FAA will issue
272 OpSpecs (and, if necessary, will revise OpSpecs to operators whose allocation of
273 operating authority change due to accommodation of a new entrant) within 90 days of the
274 publication of an amended ATMP or of the effective date of ATMP changes
275 implemented through the adaptive management process.

276 **7.0 COMPETITIVE BIDDING**

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

283 The agencies will request information necessary for them to undertake the competitive
284 bidding process from existing operators. Failure to provide such information in a timely
285 manner may result in the disqualification of any such operator.

286 Competitive bidding may necessitate an amendment to this ATMP, additional
287 environmental review, and/or the issuance of new or revised OpSpecs. If updated
288 OpSpecs are required, they will be issued within 90 days of the effective date of this
289 ATMP.

290 **8.0 ADAPTIVE MANAGEMENT**

291 Adaptive management allows for minor modifications to this ATMP without a formal
292 ATMP amendment if the impacts of such changes are within the impacts already
293 analyzed by the agencies under the National Environmental Policy Act, the National
294 Historic Preservation Act, and the Endangered Species Act. Adjustments to the number
295 of commercial air tours allocated to individual operators as a result of the competitive

296 bidding process and minor changes to routes, altitudes, or other operating parameters are
297 examples of adaptive management measures that may not require a formal ATMP
298 Amendment. Such modifications may be made if: 1) the NPS determines that they are
299 necessary to avoid adverse impacts to Park resources, values, or visitor experiences;
300 2) the FAA determines the need for such changes due to safety concerns; or 3) the
301 agencies determine that appropriate, minor changes to this ATMP are necessary to
302 address new information or changed circumstances.

303 **9.0 AMENDMENT**

304 This ATMP may be amended at any time: if the NPS, by notification to the FAA and the
305 operators, determines that the ATMP is not adequately protecting Park resources and/or
306 visitor enjoyment; if the FAA, by notification to the NPS and the operators, determines
307 that the ATMP is adversely affecting aviation safety and/or the national aviation system;
308 or, if the agencies determine that appropriate changes to this ATMP are necessary to
309 address new information or changed circumstances that cannot be addressed through
310 adaptive management.

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

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

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

324 **10.0 CONFORMANCE OF OPERATIONS SPECIFICATIONS**

325 New OpSpecs that incorporate the operating parameters set forth in this ATMP will be
326 issued within 90 days of the effective date of this ATMP.

327 **11.0 EFFECTIVE DATE**

328 This ATMP is effective [date].

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<INSERT name>, Superintendent,
Southeast Utah Group
National Park Service

[Name], [Title]
[Office]
Federal Aviation Administration

<INSERT name>, Regional Director
Unified Interior Regions 6, 7, & 8
National Park Service

<INSERT name>, Associate Director
Natural Resource Stewardship and
Science Directorate
National Park Service

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APPENDIX A

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334 **1.0 COMMERCIAL AIR TOUR ALLOCATIONS**

335 Table 1 provides allocations of the annual operations along with authorized aircraft type
 336 by operator.

337 **Table 1.** Air Tour Operations and Aircraft Type by Operator

Air Tour Operator	Annual Operations	Daily Operations	Aircraft Type
Arrow West Aviation, Inc. / Slickrock Air Guides, Inc. (Redtail Aviation)	303	No set limit	GIPPS-GA-8, CE-172-N, CE-207-207, CE-207-T207A, Kodiak-100-100
Adams, Bruce M. (Southwest Safaris)	5	No set limit	CE-182-R
American Aviation, Inc. (Frog Air, American Air Charter)	1	1	CE-172-N, CE-207-207, CE-207-T207A

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339 **2.0 DAY/TIME RESTRICTIONS**

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

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

Air Tour Operator	Time-of-Day	Day-of-Week
Arrow West Aviation, Inc. / Slickrock Air Guides, Inc. (Redtail Aviation)	Two hours after sunrise until two hours before sunset	The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.
Adams, Bruce M. (Southwest Safaris)	Two hours after sunrise until two hours before sunset	The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.
American Aviation, Inc. (Frog Air, American Air Charter)	Two hours after sunrise until two hours before sunset	The NPS can establish temporary no-fly periods that apply to air tours for special events or planned Park management.

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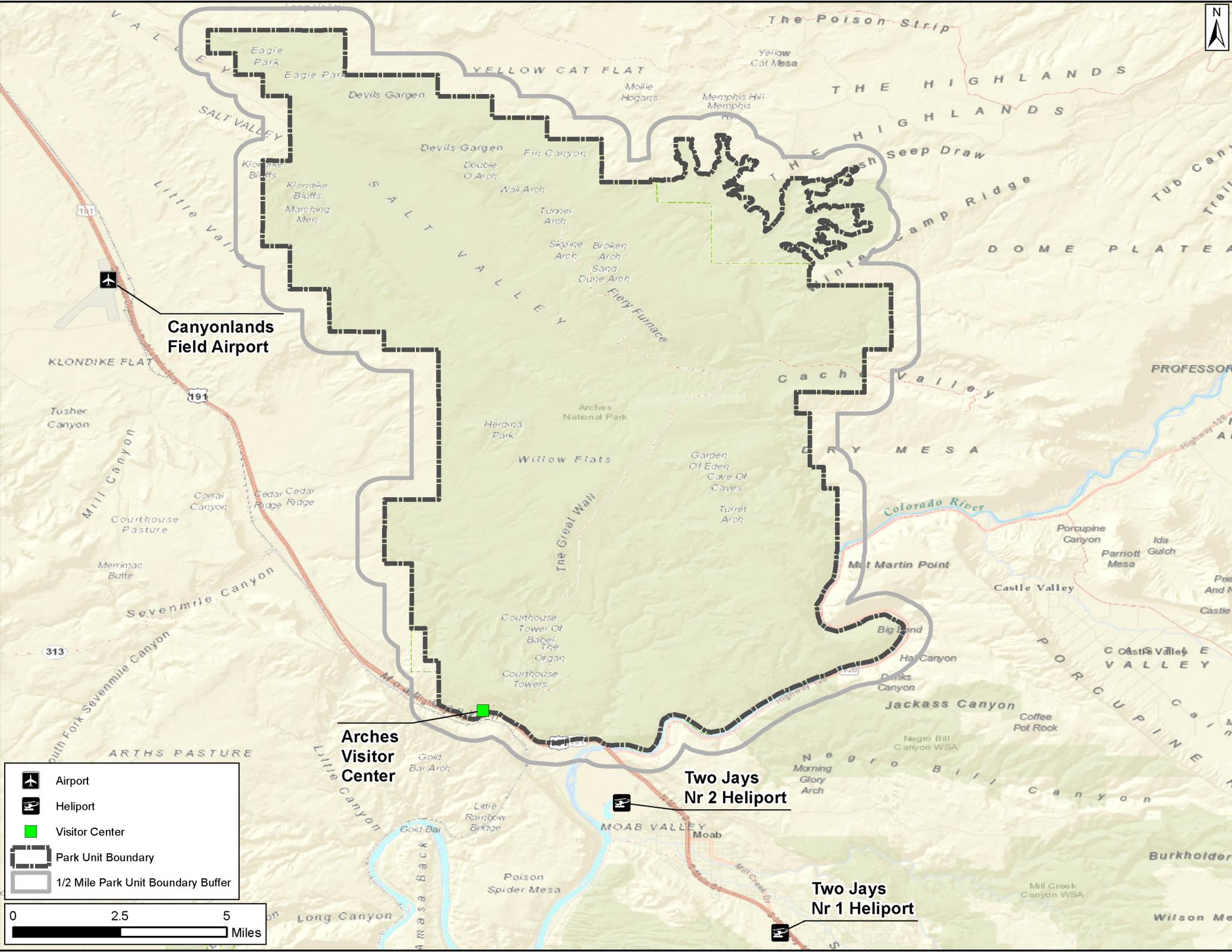
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APPENDIX B

346 Enlarged Figure 1 and 2



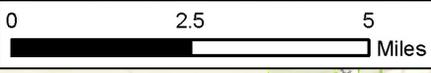
Canyonlands Field Airport

Arches Visitor Center

Two Jays Nr 2 Heliport

Two Jays Nr 1 Heliport

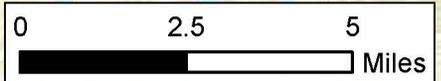
-  Airport
-  Heliport
-  Visitor Center
-  Park Unit Boundary
-  1/2 Mile Park Unit Boundary Buffer





Canyonlands Field Airport

-  Airport
-  Heliport
-  Visitor Center
-  AA-ARCH - American Aviation
-  ARCHES - Arrow West Aviation
-  COMBO - Arrow West Aviation
-  West - Southwest Safaris
-  Park Unit Boundary
-  1/2 Mile Park Unit Boundary Buffer



Notes:

1. Dashed lines represent the portion of the route outside of the 1/2 mile Park Unit Boundary Buffer.
2. Arrows on routes indicate direction of flight.
3. Numbers depicted along routes are altitudes in MSL.
4. The route will be flown at a minimum AGL of 2,900 ft. or displayed MSL for all operators. Displayed minimum MSL altitudes are not uniformly distributed and values between points should not be assumed to increase or decrease linearly between them. Altitudes are intended to display the approximate minimum MSL along the displayed route.

