

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****Air Tour Routes for the Grand Canyon National Park**

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of availability of commercial air tour routes for the Grand Canyon National Park and disposition of comments.

SUMMARY: This notice announces the availability of commercial air tour routes for the Grand Canyon National Park (GCNP) and disposes of comments received in response to a previous notice of availability and request for comments that was published on Dec. 31, 1996. The commercial air tour routes are not being published in today's **Federal Register** because they are depicted on large and very detailed charts that would be difficult to publish in the **Federal Register**. The new routes, or modifications of existing commercial air tour routes, are related to airspace changes contained in a final rule affecting the special flight rules in the vicinity of GCNP (GCNP final rule) that were published on December 31, 1996. The commercial air tour routes are also related to a Notice of Proposed Rulemaking (NPRM) proposing the phase out of noisy aircraft operating in the vicinity of GCNP (noise NPRM), also published on December 31, 1996.

DATES: Comments on the routes must be received on or before May 27, 1997.

FOR FURTHER INFORMATION CONTACT: Daniel V. Meier, Jr., Air Carrier Operations Branch, AFS-220, 800 Independence Avenue, SW., Washington, DC 20591, Telephone (202) 267-3749, or Dave Metzbower, Air Carrier Operations Branch, AFS-220, 800 Independence Avenue, SW., Washington, DC 20591, Telephone (202) 267-3724.

SUPPLEMENTARY INFORMATION: The commercial air tour routes are not being published in today's **Federal Register** because they are on very large and very detailed charts that would not publish well in the **Federal Register**. A copy of the air tour routes may be obtained by contacting Denise Cashmere at (202) 267-3717, by faxing a request to (202) 267-5229, or by sending a request in writing to the Federal Aviation Administration, Air Transportation Division, AFS-200, 800 Independence Avenue, SW., Washington, DC 20591.

Discussion

The Federal Aviation Administration (FAA), in consultation with the National

Park Service (NPS), has proposed new air tour routes and has proposed to modify existing air tour routes to accommodate airspace changes included in the final rule concerning GCNP. Certain parts of the final rule become effective May 1, 1997. The GCNP final rule, in part, modifies the dimensions of the GCNP Special Flight Rules Area (SFRA); establishes new and modifies existing flight-free zones (FFZ); establishes new and modifies existing flight corridors; and establishes reporting requirements for commercial sightseeing companies operating in the SFRA. The noise NPRM proposed to phase out noisier aircraft operating in the vicinity of GCNP.

The proposed new and modified routes were developed on the basis of airspace configurations, safety considerations, the goal of substantial restoration of natural quiet in the GCNP, economic considerations, consultation with Native American tribes, and comments received in response to the previous notice of availability.

In developing the proposed new and modified air tour routes for GCNP, the FAA has been consulting with Native American tribes on a government-to-government basis. This consultation is required under the Presidential Memorandum on Government-to-Government Consultation with Native American Tribal Governments to assess potential effects on tribal trust resources and to assure that tribal government rights and concerns are considered in decisionmaking. The FAA has also been consulting with these tribes pursuant to the American Indian Religious Freedom Act and the Religious Freedom Restoration Act concerning potential effects of the proposed routes on sacred sites. In addition, the FAA has been consulting with these tribes, the Arizona State Historic Preservation Office, the Advisory Council on Historic Preservation, and other interested parties under Sec. 106 of the National Historic Preservation Act concerning potential effects on historic sites, including traditional cultural places and Native American sacred sites.

Discussion of Comments

The FAA received more than 100 comments in response to the previous notice of availability. Comments were received from industry associations (e.g., Grand Canyon Air Tour Council, United States Air Tour Association, Helicopter Association International); environmental groups (e.g., Sierra Club, National Parks and Conservation Association); air tour operators; and government officials. The overwhelming

majority of commentaries recommended changes to the proposed routes.

General Safety Concerns

Many commenters state that the proposed routes will reduce aviation safety by increasing the density of aircraft in the corridors, where radar traffic control is not available. This increase in complexity and density of air tour routes will alter the "see and avoid" air traffic environment over the canyon in a manner that could adversely affect and compromise air safety. Commenters also state that the expansion of FFZs concentrates more traffic on fewer routes thus increasing the potential collision hazard.

One commenter is concerned about the congestion at the Grand Canyon Airport for aircraft heading for airspace northwest of the airport. The most critical issue is the large number of aircraft in different categories that will occupy this airspace. The commenter states that the preferred runway at the Grand Canyon Airport is runway 21 and estimates that 90 percent of the time runway 21 is in use. The result is several single engine Cessnas and Twin Otters climbing northwest bound to 10,000 MSL on Black 1 route, while the head-on traffic off of the Blue 1, and Blue Direct routes are heading for the right downwind for runway 21. In addition, helicopters are also climbing northwest bound to 9500 MSL to join the Green 1.

FAA Response

The redesign of routes to allow air traffic to flow counterclockwise around the Bright Angel FFZ and clockwise around the Desert View FFZ is expected to reduce the complexity of air traffic control. Maintaining the high level of safety for traffic control at the Grand Canyon Airport is critical. The FAA believes that proper compliance with Letters of Agreement (LOA) and air traffic sequencing procedures will maintain this level of safety. The FAA has, given the requirements concerning noise mitigation and intrusion over Native American historical or cultural sites and the needs of the air tour industry, structured routes and procedures to provide a safe aviation environment.

The FAA realizes that changes to a structured environment, such as those made in the GCNP, will cause concerns among aviation users of the park; nevertheless, the governing principles for air operations in the GCNP are based upon visual flight rules. Under these rules the pilot-in-command has the responsibility for the safe operation of his/her aircraft. The FAA recognizes

that under VFR an increase in the number of operations in a limited amount of airspace may alter the balance of safety; however, the FAA cannot presently determine, quantitatively, when that balance reaches a critical level of safety. To preclude the development of an unacceptable level of safety, the FAA has included certain reporting requirements in the final rule of December 31, 1996, that are intended to provide additional data which will be used to aid in future safety analysis.

Sanup FFZ

General: One commenter points out that the proposed routes in the vicinity of the Sanup FFZ will eliminate important safety features of the current routes. Such safety features, which are not provided by the FAA's proposed routes, are (1) both lateral and vertical separation between routes, and (2) prominent landmarks and visual checkpoints along the routes to provide course guidance. By relocating Green 4 northbound, Blue 2 southbound, and Blue 2 northbound, these three major routes exist with only altitude separation. Similar problems occur with the portions of Blue 2 and Green 4 routes between Quartermaster Canyon and Spender Canyon.

Blue 1/Blue Direct: One commenter requests that on an emergency basis and until further discussion and planning can take place, the old Blue 1 route should remain open to prevent traffic compression and a significant safety hazard.

Some commenters state that, with the changes to the Blue 1 route, operators may not be able to sell it as an air tour, which would result in spillover to other routes, increasing congestion and possible accidents.

One commenter argues that if Blue 1 were to be eliminated they would be forced to engage in air tours based on the Black routes, thus contributing to a potentially serious and unintended impact on eastern Grand Canyon airspace and environment.

Several commenters have suggested that the Las Vegas to Tusayan flights should be routed to north of Mount Dellenbaugh, thus eliminating the Blue 1 route with its traffic rerouted to the Blue Direct route. Furthermore, one commenter states that, where possible, the FAA should use two-way return routes, which affect a much smaller area than loop routes.

An airline commenter states that, as proposed, Blue 1 is not an air tour. Blue 1 should be able to go to the southern tip of the Toroweap/Shinumo FFZ encompassing National Canyon, then to

Yumathiska Point, Little Coyote Canyon, Mt. Sinyala, Towago Pt, Topocoba Hilltop, Havatagvitch, then the 20 mile fix. Noise efficient aircraft could descend to 6500 MSL. If, under the proposed routes, Blue 1 traffic were rerouted onto Blue 2, then Blue 2 would become a hazardous condition (with only vertical separation). This commenter believes that the route structure should keep Blue 2 as it currently exists for safety reasons.

Blue 2: Several commenters argue that the Blue 2 route is inherently dangerous because it uses staking of aircraft as the only means to separate traffic. Both the eastbound and westbound portions are located south of the Colorado River, eliminating the convenient landmark which served as a horizontal separation between the two routes. These commenters believe that aircraft operating at different speeds need both horizontal and vertical separation due to the extreme up and down drafts that are present in the Grand Canyon.

Blue 3: Several commenters state that combining Blue 2A and Blue 2B into the proposed Blue 3 eliminates the use of the Colorado River as a defined landmark to allow horizontal separation. Therefore the risk of collision increases greatly. One commenter suggests redividing Blue 3 into Blue 2A and Blue 2B. Another commenter states that the present minimum altitude of Blue 3 route should be maintained.

Green 4: One air tour company which uses the present Green 4 argues that the new changes will dump so much traffic into this airspace that passenger and flight crew safety will be seriously compromised. This commenter's helicopters use Green 4 which shares this airspace with Blue 2 airplane traffic. These two routes are separated by altitude (500 feet) and horizontally by as little as 1 mile in some areas and zero horizontal separation in places where the routes cross each other. This system has worked in the past partly because there is not much usage. The existing traffic is able to hear each other's radio transmission and easily able to see and avoid the other users.

FAA Response

On the western end of the Sanup, the Blue 2 (B2) and Green 4 (G4) remain essentially unchanged from the current chart until Separation Canyon. From Separation Canyon to Diamond Creek, these routes have been moved to the south side of the river for noise mitigation purposes. The FAA believes that adequate vertical and horizontal separation has been maintained. The FAA eliminated the Blue 2A (B2A)

based on its best information that this route, although previously considered a weather route, is seldom used for that purpose. To allow for weather related emergencies, the FAA included language in the final GCNP rule that permits pilots to take any appropriate action to preserve the safety of flight.

In the central portion of the canyon, the FAA has altered the previously proposed B1A and Blue 1 (B1). To provide an optimum route which offers the best alternatives between noise mitigation, overflights over Native American cultural sites, and a viable air tour route, the FAA is proposing that the B1A remain unchanged until it crosses the northern part of national canyon, as shown on the map of April 1997, then turn southeast to avoid Supai Point and continue until it rejoins B1.

The Blue 3 (B3) will allow air tour transit between the routes in the central part of the canyon. The B1 route segment north of the Sanup FFZ has been moved north of Mount Dellenbaugh to within one-half mile of the SFRA to reduce aircraft noise at the Shivwits fire camp. Blue Direct (BD) was not relocated north of Mount Dellenbaugh. Such a relocation would not have placed the BD far enough away from Mount Dellenbaugh to mitigate appreciably air traffic noise and would have exposed air traffic on this route and B1 to an unnecessary level of safety risk. The FAA will continue to consider if route changes should be made in the area north of Mount Dellenbaugh.

Toroweap/Shinumo FFZ

General: Some commenters have raised concerns that by extending the Toroweap Flight Free Zone south of the Colorado River most of Las Vegas airplane traffic will be forced into Blue 2 and 3. Commenters believe that this compression of traffic will result in a mid air accident sooner or later.

Blue 1A: Several commenters request the deletion of the proposed Blue 1A route through Toroweap-Shinumo FFZ. No air tour routes should be permitted through this FFZ, even for less noisy ("Class C") aircraft. The river corridor from National Canyon to Havasu Creek should receive maximum protection from air tour noise. The addition of the National Canyon to the Toroweap-Shinumo FFZ was critically needed for the SFAR and its operating procedures. Furthermore, this route is non-essential since most of the Las Vegas-Tusayan flights are shuttles to the Canyon and are not solely air tours.

Brown 2: Brown 2 should allow descent to 6500 off the Shivwits Plateau.

Brown 3: Brown 3 departure on the map is unrealistic. Route must be able

to exit by flying south of Paws Pocket and Northbound through expanded FFZ. Brown 3 arrival is not necessary.

Brown 4: Brown 4 should be called Brown 1 reverse.

FAA Response

The best information that the FAA has indicates that if the B1A is not maintained as a viable air tour route, approximately 40 percent of the Las Vegas air tour operations will shift to the B2. The FAA believes that this occurrence would increase the air traffic density on the western Sanup and increase the risk to safety above the current level. By locating the B1A as shown on the map of April 1997, the FAA has attempted to meet its responsibility to restore substantially the natural quiet and at the same time maintain a viable air tour industry in the Park with minimum intrusion over Native American historical and cultural sites.

The Brown routes are used by commercial operations in support of the river rafting industry. Some of these commercial operators may also have air tour operating authority; nevertheless, the authority given to operate on the brown routes is entirely separate from that given to operate air tours. Operations on the brown routes are conducted in accordance with an approved procedures manual or, as is the case with more flexible helicopter operations, with a form 7711 issued by the Las Vegas FSDO.

Bright Angel and Desert View FFZ

General: One commenter states that the northbound route around Bright Angel FFZ should turn east to Saddle Mountain at a point 5 miles further south. GCNP should be willing to absorb some of the effects of enlarging quieter areas within the park instead of exporting effects.

Other commenters state that the entire area of Saddle Mountain Wilderness should be designated as a "Noise Sensitive Area" per FAA regulations.

One commenter states that there is the potential for a mid-air collision just south of Saddle Mountain. Another commenter is concerned about the letdown areas between Bear's Ridge and Saddle Mountain, and between Saddle Mountain and Gunthers Castle.

In both of these letdown areas, the fixed wing and rotary wing aircraft are only 500 feet apart. Commenters state that this is awfully close for mixed categories and classes of aircraft, especially with added distractions of aircraft merging from Black 5, Black 3, Black 2 and Green 2 routes. There needs

to be some lateral separation between the airplanes and helicopters.

Different routes proposed: One commenter proposed the following alternative routes through Dragon Corridor:

Alternative 1: Dragon Corridor should be designed like an upside down funnel-shaped TCA, horizontally sliced into three altitude segments: the lowest portion (7,500 MSL) to be reserved for the quietest or category C airplanes and helicopters performing an out and back short tour (Green 1R). The next or center segment (8,500 MSL) would be reserved for category B helicopters. Only the 7,500 segment and the 8,500 segment would permit out and back Dragon Corridor tours. The full loop tour (Black 1 and Green 1) should be counter clockwise and restricted to airplanes only with the noise efficient aircraft utilizing the route and altitudes of the proposed Green 1 helicopter route and the other less noise efficient aircraft using Black 1.

Alternative 2: Routes in the Dragon Corridor should be restricted to one way Southbound traffic. Helicopter Route Green 1R should be eliminated. The corridor should be horizontally sliced as in Alternative 1. The lowest portion (7,500 MSL) should be reserved for the quietest or category C airplanes and helicopters. The next or center segment 8,500 MSL should be reserved for Category B helicopters, and the third and highest segment (10,000 MSL) reserved for the category A airplanes. The Zuni Corridor should remain open in both directions as it is today for short airplane and helicopter tours, but structured so noise efficient aircraft use the lower sectors.

Counter Clockwise Rotation: Many commenters questioned the prudence of reversing east end of the Canyon local tour routes from counter clockwise to clockwise. Such change would negatively impact safety from weather and congestion standpoints. Another commenter provides a detailed description of suggested route changes for Bright Angel and Marble Canyon areas. These commenters note that proposed route changes are less safe and less effective in mitigating sound impact in the Grand Canyon and that it is much safer to approach the North Rim from the east because you have lower terrain, should weather be a problem. When approaching from the west, you are surrounded by high terrain and are forced even farther north, or forced to reverse course and fly into oncoming traffic.

One commenter requests that should the route change back to counter clockwise on Black 1 and 2, the new

altitude should be 9,500 MSL from the Zuni Alpha to just north of Saddleback Mountain, then climb to 10,000 MSL. The effect of this change would be to reduce the noise level within the GCNP by not carrying a higher power setting on fully loaded aircraft within this area of the Canyon. Since the area from just north of Saddleback Mountain to crossing the North Rim is not within the GCNP, the aircraft would not be climbing within the park. The main concern of this commenter is the elderly and physically handicapped customers they carry who would be more comfortable below 10,000 feet. Also by having a slow descent at the north end of Dragon Canyon to the Colorado River from 10,000 feet MSL down to 9,500 feet MSL, aircraft could reduce engine power and lower noise levels.

Another commenter states that, in addition to Dragon Corridor flowing counter clockwise, it should also accept traffic from the North entering from Kanab. Traffic could either maintain 10,000 MSL, overfly the airport and return to Kanab via Zuni on Black 2, or descend to land at Grand Canyon Airport.

A helicopter air tour operator comments that the assigned helicopter altitude in Dragon Corridor for proposed Green route should be 7,500. If helicopters must be at 9,500 for a significant portion of proposed Green 1 route, then have helicopters leave the airport eastbound, climb to 9,500 through Zuni Corridor and over North Rim. Upon entering the Dragon Corridor, traffic should merge, as it does now, when the terrain permits at 7,500.

Name Change of Routes: Several commenters have requested that the FAA keep the same naming conventions as are currently used under SFAR 50-2. This will avoid confusion among experienced Canyon pilots and make training easier.

Green 1 and Black 1: Same commenters request that all tour routes through the Dragon Corridor be deleted.

Green 2 and Black 2: One commenter recommends deleting the proposed Black/Green 2. This commenter argues that the route is too long (80 miles), with far too small a fraction over the Canyon (23%), to be economically viable. If it were used, it would impact a larger proposed rim wilderness in the park (east of the Palisades), a section of the Navajo Reservation that is currently free of air tour noise, and sacred Hopi sites near the Little Colorado Confluence.

Another commenter, who supports counterclockwise traffic flow, states that it would be helpful if the lowest possible altitudes could be allowed for

Black 2. This is a bad weather return route from Black 1. Helicopters could return to the little Colorado River at 7,000 MSL and aircraft at 7,500 MSL or if the ceiling is below 8,500 MSL on Black 2, could descend to 7,500 MSL for aircraft and 7,000 MSL for helicopters on Black 3, exit the SFAR to the east, and return to the airport outside the SFAR.

Green 1R: One commenter states that Green 1 return route should be deleted, and helicopter routes should not be more than 500 feet lower than fixed wing routes. This commenters argues that helicopter operators are able to match, or even undercut, the price of a fixed wing tour. In addition, this route allows them to fly 2,500 feet below fixed wing aircraft, providing them a clear marketing advantage. Since the NPRM commenters considered helicopters to be the most obnoxious aircraft, there is no justification for giving them such an advantage over less invasive aircraft.

One commenter made the following recommendations for routes around the Bright Angel FFZ:

Single and twin engine piston driven propeller aircraft should enter the Zuni Point Corridor at 10,000 ft as to not require a noisy climbout to clear the terrain at Saddle Mountain and Bears Ridge. These aircraft should descend to 8,500 ft. when entering Dragon Corridor.

Reverse course would avoid airplanes and helicopters flying at 9,500 and 10,000 in the Dragon Corridor.

A route should be designed to exit Green 2 in vicinity of Little Colorado flag. (Commenter attached a revised map.)

The commenter also requests to exit from Northern portion of Green route in vicinity of Dragon B flag to the North, and request to enter Green 1R at the Dragon A flag to include the Dragon Corridor on the Havasupai flight. (Commenter attached revised maps.)

FAA Response

In response to the comments and additional information received by the FAA, the flow of traffic around the Bright Angel and Desert View FFZ's has been reversed to allow traffic to move counterclockwise around the Bright Angel FFZ and clockwise around the Desert View FFZ. The G1 and Black 1 (BK1) have been moved farther east to reduce noise impacts around Saddle Mountain and the effects of turbulence during high wind conditions in that location. This relocation also eliminates a convergence point where each converging aircraft would have had to make turns to the west that would have reduced visual contact between these aircraft. The FAA also plans to propose

a route through the northern part of the Bright Angel FFZ in the same location as the present GIA and Black 1A (BK1A). This route will be for Category C aircraft.

The FAA agrees that reversing the air traffic flow around Bright Angel and Desert View FFZ's will offer a weather escape route to the east as well as allow for entry into B2 and G3. The FAA established the altitudes as shown on the April 1997 map to allow for safe vertical and horizontal terrain clearance and to mitigate for noise where current noise modeling indicates that terrain shielding would be preferable to higher altitudes. In cases where terrain shielding does not offer protection from noise, the FAA established the highest altitude possible. The difference in altitudes also reflect the differences in the performance requirements between fixed wing and helicopters and is not the result of favorable treatment for any operator.

The FAA determined that closing the Dragon Corridor would be economically harmful to air tour operators in the east end of the canyon and would not be in compliance with the intention of Pub. L. 100-91.

Marble Canyon FFZ

Black 4 & Black 5: Several commenters argue that Black 4 and 5 are redundant. It is not necessary to have aircraft on both sides of the Canyon, thus spreading the noise over a wider area. Either Black 4 or 5 should be deleted, making the remaining route two-way. Two commenters suggest that Black 5 should be eliminated and Black 4 should be two-way. One commenter states that the tour routes in the Marble Canyon should be moved as far as possible from rims of Marble Canyon, either to the outer edges of the SFRA or outside the SFRA boundary.

FAA Response

In the development of air tour routes in the Marble Canyon, Black 4 and 5 emerged as viable scenic routes, since different perspectives of view are obtained from the two flight paths. Noise modeling in the Canyon, based on these two separate routes, demonstrated that there would be no adverse impacts. Although a two-way route for Black 4 was not modeled, the FAA acknowledges that such considerations may be made in the future.

Legal Authority

Some commenters state that the uncertainty around the final rule makes consideration of new routes premature.

Others question the legality/procedure of notice of proposed routes,

saying that they should be part of Notice No. 96-15. One person comments that the rulemaking violates § 11.65 of the FAR, and contradicts FAA's procedures to employ negotiated rulemaking or the Aviation Rulemaking Advisory Committee. Several commenters state that the 3 actions should be combined into one, that rules shouldn't be adopted in piecemeal fashion, and that other comments should be incorporated by reference since all matters are related. Another states that these rules could have a significant impact on small businesses and could be contrary to law.

Several commenters point out that the FAA training of pilots will require delaying implementation of new routes until check rides can be completed. Another urges that implementation be delayed until the end of the tour season for safety reasons. Major modifications to existing routes should be implemented November-February for adequate retraining time. Commenters note that the new routes could not be flown in a training/check environment without shutting down existing flight companies, and operators will be forced to train pilots twice—once on old routes and again on new routes. This places a financial burden on operators. These operators urge that implementation be delayed until December 1, 1997, or January 1998.

Another commenter urges the FAA to consider concerns of tribal governments.

FAA Response

The FAA currently maintains a degree of flexibility and control over air tour routes by authorizing use of the routes in the operations specifications of individual air tour operators. The authorizations include descriptions of the routes to be flown and are tailored to individual operators, taking into account several factors including the route to be used, the type of equipment to be used, frequency of operations, and qualifications of pilots. This method of establishing air tour routes provides the FAA with flexibility to modify the routes as necessary in order to provide a safe and efficient operating environment, and to aid the NPS in its efforts to substantially restore the natural quiet of the GCNP. The FAA believes that it will maintain the necessary flexibility by authorizing the use of routes through operations specifications.

The FAA intends that the proposed air tour routes and the GCNP final rule become effective simultaneously. The FAA originally published the GCNP final rule with an effective date of May 1, 1997. However, the FAA subsequently revised the effective date

of several provisions of the rule to January 31, 1998, in part to provide sufficient off-peak time for air tour operators to conduct necessary route training, and in part to give the FAA adequate time to consider and accommodate several concerns raised in consultations with the NPS and the Native American tribes and in comments to the previous notice of availability by air tour operators and the general public.

Economic Impact

Commenters state that proposed air tour routes would cause significant and irreparable harm to the economic viability of air tour operators and other dependent businesses, as well as the local economy.

The Havasupai voiced concerns about potential effects on their tribal tourist enterprise which is a major source of income to the tribe. The recreational activities are constrained by both statute and the geography of the reservation, including the relative isolation of the reservation such that the primary type of recreation is primitive or semiprimitive hiking, camping, hunting, and pack trips which could be affected by the present Blue 1A.

Several commenters state that the proposed routes deprive Las Vegas-based tour operators of the most important air tour route in the Grand Canyon (Blue 1), which will result in economic injuries to the Las Vegas Community. FAA should make proposed Blue 1A route available to tour operators until the effective date of the noise efficient aircraft NPRM.

Consumer protection laws, strictly enforced in Europe and Japan, allow passengers to receive part or all of their money back if a tour is not offered precisely as advertised. Any major changes in a tour route (such as elimination of National Canyon Segment in Blue 1 route) could have disastrous economic and legal impacts.

Another commenter states that the majority of air tour operators have pre-sold their 1997 season based on existing tour routes. Proposed routes are longer and would take additional time and fuel to complete. This would also require operators to reschedule tours that have been pre-sold.

One commenter suggests that during the winter months from October to May, when the North Rim is closed to the public each year, operators be allowed to fly old SFAR 50-2, or slightly modified routes, to recoup lost revenues resulting from the new curfews and caps.

FAA Response

As discussed above, the FAA delayed the effective date for certain sections of 14 CFR part 93 that were affected by the Grand Canyon final rule. Delaying implementation of section 93.305, which deals with the reconfiguration of flight-free zones and flight corridors, will permit commercial air tour operators to continue using the current air tour routes over GCNP through January 30, 1998. Thus, the FAA has addressed GCNP operator concerns with regard to route changes that could impact the commercial sightseeing offerings for the 1997 season.

The FAA continues to review the actions impacting the Blue 1 and the Blue 1A tour routes from Las Vegas to Tusayan and seeks comments on this route and route segment as indicated on the map made available by this notice.

In response to the Havasupai's concerns about the potential effects on their tourist trade, the FAA, for this reason and reasons related to historic sites and culture resources found in the northern part of the reservation, has rerouted Blue 1A of the south of the trailhead at Hualapai Hilltop.

Noise

Commenters state that proposed routes offer no reduction of aircraft sound in Eastern and most sensitive sector of GCNP.

Higher flight altitudes will not necessarily reduce aircraft noise. Commenters also state that, as proposed, Black and Green routes will unnecessarily create more noise. Others state that there should be route incentives for noise efficient airplanes.

FAA Response

The FAA agrees that redesigning routes in the GCNP will not, as a single action, reach the stated goal of substantially restoring the natural quiet within the park. To reach this goal, the FAA and NPS established, in the final rule of December 31, 1996, the first step which set operational curfews and caps on the number of aircraft employed in air tours. Additionally, the FAA has issued an NPRM proposing a planned phase out of "noisy" aircraft used in commercial air tour operations by the year 2008. Along with the Notice of Availability or Routes, the FAA is planning to propose an NPRM to establish a corridor through the northern part of the Bright Angel FFZ to be used only by aircraft equipped with quiet technology.

The FAA also agrees that higher flying aircraft are not necessarily quieter. As a result, the FAA has placed some of the

routes at lower altitudes to take advantage of terrain shielding where ever possible.

The FAA and NPS are working together to develop a long-term Comprehensive Noise Management Plan for the GCNP that will achieve substantial restoration of natural quiet in the park as mandated under Pub. L. 100-91 while considering the best available technology, provision of appropriate incentives for investing in quieter aircraft, and appropriate treatment for operators that have already made such investments.

Route changes: Scenic Airlines recommends the following route changes: Counter-clockwise rotation around the Bright Angel FFZ.

Green 1: Enter Zuni corridor northbound at 7,500 MSL. From Gunthers Castle to Petes Corner, move the route to pass just east of Saddle mountain, enough that helicopters can maintain 7,500 feet MSL until north of the national park boundary. North of Saddle mountain outside of the Grand Canyon National Park, climb to 9,500 MSL. Maintain 300 feet agl over the Kaibab plateau until reaching the Little Dragon. Fly southbound through the Dragon corridor and when able, descend on the east side of the corridor to 7,500 MSL.

Green 2: Maintain 7,500 MSL. Exit from route should be the same as the Black 2 exits

Black 1: If transitioning to the Black 2 route, enter the Zuni corridor northbound at 8,000 MSL. Enter at 9,500 MSL if remaining on Black 1. From Gunthers Castle, the route should continue directly over the Green 1 route with a climb from 9,500 MSL to 10,000 MSL beginning northeast of Saddle Mountain and outside of the park. When possible, the climb should be accomplished without increasing propeller speed. Upon passing Tower of Ra in the Dragon corridor, descend to reach an altitude of 8,500 MSL when crossing the South rim.

Black 2: Route begins on the north end of the Zuni corridor at Gunthers Castle and rotates clockwise around the Zuni FFZ at 8,000 MSL. Climb to 8,500 after passing south of the Little Colorado. The first exit from SFRA on the Black 2 is to turn eastbound at 8,000 MSL after crossing the Little Colorado river. The second exit will be to continue southbound at 8,500 MSL leaving the southeast corner of the SFRA at Zuni Charlie.

Black 3: This entry is required to provide an entry point for airplanes inbound from the east and to reduce the volume of traffic entering at the south end of Zuni corridor. The route should

enter at 9,500 MSL directly over the eastbound exit of Black 2. Continue to follow the Black 2 westbound until joining the Black 1 at 9,500 MSL just north of Gunthers Castle.

Black 4: After crossing the East Rim of Grand Canyon on the Black 2, the route begins by turning northbound then descending to 7,500 MSL. Remain east of the Colorado River until crossing the river at Cave Springs rapids. After crossing the Western rim of the canyon, either descend to 5,500 MSL or remain at 7,500 MSL. Continue northbound remaining west of the river until crossing northeast bound at Soap Creek rapids. Must be at 5,500 or 7,500 MSL prior to crossing the River. Exit the SFRA northbound while remaining east of the river. An alternate exit may be accomplished when abeam President Harding rapid by turning northeast bound at 7,500 MSL. A second exit is to continue westbound at 7,500 MSL after passing Cave springs rapid.

Black 5: Enter the north end of the SFRA at 5,000 or 6,500 MSL. Remain west of the river, until crossing the river at Soap Creek rapids. It at 5,000 MSL begin climb to 6,500 MSL after crossing the east rim of the canyon. Stay east of the River until crossing at Cave Springs rapid at 6,500 MSL then begin a climb to 10,000 MSL after crossing the west rim of canyon. Remain west of National Park boundary while at climb power settings. Turn westbound when east-northeast of Petes corner so as to join the Black 1 at 1,000 MSL.

Brown 7: Enter the SFRA at or below 7,000 MSL northbound over highway 89A. Remain over or slightly east of the highway until within 3 miles of destination airport. Departures should climb out west of the highway until leaving the SFRA. Brown routes were developed to allow airplane operations that support river runners. These routes are not for commercial air tour traffic.

Brown 1: Drop the 7,000 MSL option.

Brown 2: This route begins by exiting the Blue 1 route. Allow a descent on the Blue 1 in order to be at 6,500 MSL at Twin Peaks. The Brown 2 then begins

at Twin Peaks at 6,500 MSL, the same as SFAR 50-2.

Brown 3: The Brown 3 departure route needs to allow for a safe departure through the newly expanded FFZ. The Brown 3 arrival route could remain outside of the SFRA and therefore may be deleted.

Brown 4: Change to Brown 1 Reverse route. This would be at 7,000 and then 7,500 MSL on a reverse course of the proposed Brown 1. Allow a southbound exit from the SFRA through Mohawk Canyon at 7,000 or 7,500 MSL.

Blue 1: The 9,500 MSL altitude conflicts with the Blue 1 reverse when descending through 8,500 near Hagatagvich. This has not been a problem due to very little traffic using the 9,500 MSL option; however, it is a potential problem area.

Blue Direct: Since this is not an air tour route, 7,500 MSL should not be allowed.

Blue 1A: Route should be identical to today's Blue 1 route using an altitude of 6,500 MSL. Should be allowed to reverse course to the Blue 1 Reverse at 8,500 or to the Blue direct at 10,500 MSL.

Blue 3: From the Blue Direct at 7,500 MSL, allow a transition to the Blue 3 southbound at 6,500 MSL.

Blue 4: Needs a provision to allow joining the Blue 1A as well as the Blue 1.

Black 1: Same as SFAR 50-2.

Black 1A: Same as SFAR 50-2 except climb to Split West must be limited to avoid the new Black 1.

Black 3: Same as SFAR 50-2.

FAA Response

In redesigning the routes in the GCNP the FAA considered all the factors necessary to meet the requirements and intentions of Pub. L. 100-91 while still maintaining safety of flight in the GCNP. The changes represented in the new route structure represent a safe "see and avoid" environment for the canyon. With it, the FAA has created flight patterns and altitudes in which air tour operations may be conducted safely.

However, as with any VFR operation, the ultimate responsibility for control and safety of flight remains with the pilots. The FAA believes that with proper training, adherence to procedures and compliance with the regulations, air tours can be conducted within the new route structure with an adequate degree of safety.

Environmental Review

The FAA is reevaluating the Final Environmental Assessment dated December 24, 1996, for the Special Flight Rules in the Vicinity of the GCNP to determine whether the proposed changes in this second Notice of Availability of Proposed Routes are substantial so as to warrant preparation of additional environmental documents. This reevaluation is being done in accordance with the National Environmental Policy Act of 1969 and other applicable environmental requirements. Copies of the written reevaluation will be circulated to interested parties and placed in the docket. For those unable to view the document in the docket, the written reevaluation can be obtained from Mr. William J. Marx, Division Manager, ATA-300, Federal Aviation Administration, 800 Independence Ave., SW., Washington, DC, 20591, Telephone: (202) 267-3075. Comments concerning the environmental impacts of finalizing these routes or the relevant portions of the written reevaluation should be submitted to the docket before the comment period for this notice closes on May 27, 1997. Based on any comments and the written reevaluation, the FAA will determine whether any further environmental review is warranted.

Issued in Washington, DC on May 12, 1997.

W. Michael Sacrey,

Acting Director, Flight Standards Service.

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