

## NPRM1199 draft

Federal Register / Vol. 65, No. 3 / January 15, 2000/Proposed Rules

DEPARTMENT OF AGRICULTURE, Forest Service (USFS); DEPARTMENT OF DEFENSE, Army Corps of Engineers (USACE); DEPARTMENT OF INTERIOR, Bureau of Land Management (BLM), Bureau of Reclamation (BR), National Park Service (NPS), Fish & Wildlife Service (USFWS)

TITLE 36--PARKS, FORESTS, AND PUBLIC PROPERTY

AGENCIES: USFS, Agriculture; USACE, Defense; BLM, Interior; BR, Interior; NPS, Interior; USFWS, Interior;

ACTION: Proposed Rule

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SUMMARY (abstract) [Eckert, Frasca, Lane, DuPaul]: The Departments of Agriculture, Defense and Interior, and their respective land management agencies, propose this rule to allow foot-launching, landing and over-flight of powerless devices weighing less than 155 pounds designed for human recreational flight on all national parks, forests and other public lands and waters. These powerless flight devices are classified as unpowered flight vehicles under FAA FAR part 103. They are traditionally and more commonly known as hang gliders and paragliders.

In an effort to provide greater management uniformity and efficiency in the federal land management system, this rule adopts the most practical and successful administrative approaches which have evolved over the last two decades under existing policies or special use rules applicable to recreational powerless foot-launch flight.

Accordingly, this rule applies only to unpowered foot-launch flight devices weighing less than 155 pounds that are capable of being carried on foot to and from launch and landing areas, and used as a means for participants to experience flight *by their own unaided efforts*. It supersedes and exempts such powerless flight devices from (i) all existing agency aircraft/air delivery policies or special use rules in which they have been heretofore included and (ii) FAA-AIM 7-75 guidelines on flight operations in the airspace over public lands and waters. The rule neither applies to nor in any way affects existing land management rules for all FAA-classified aircraft or FAR part 103-classified vehicles that are auxiliary power-assisted (intermittent-powered), power-assisted, under-tow or fully-powered.

Under the proposed rule, managers for each public land entity will be given the discretion to (a) designate launch and landing areas including access thereto for the purpose of recreational foot-launch powerless flight; (b) designate said areas for other compatible purposes or uses; (c) restrict use of said areas for flight purposes to qualified participants who have current minimum proficiency certifications from outside participant organizations, such as the USHGA or equivalent organizations, generally recognized (by FAA, FAI, AOPA or world body?) as being credible in their certification programs for unpowered flight devices weighing less than 155 pounds; (d) designate prohibited airspace consistent with the intent of any other federal guidelines on flight operations in the airspace over public lands and waters; and (e) allow use of said areas for flight purposes pursuant to terms and conditions of a participant agreement issued by the land manager. (Eckert, DuPaul, Lane)

DATES: Written comments will be accepted through April 15, 2000 (or 90 days after Federal Register publication).

ADDRESSES: Comments should be addressed to: LTG Joe N. Ballard, Commander, DoD US Army Corps of Engineers, 20 Massachusetts Ave N.W. Rm 8228 Pul, Washington, DC 20314; Dr. Mike Dombeck, Chief, USDA US Forest Service, Washington, DC 20090; Pat Shea, Director, DoI Bureau of

Land Management, 1849 C. Street N.W. ms6628-MIB, Washington, DC 20240; Eluid Martinez, Commissioner, DoI Bureau of Reclamation, 1849 C. Street N.W. ms765A-MIB; Jamie Rappaport Clark, Director, DoI US Fish and Wildlife Service, 1849 C. Street N.W. ms3012-MIB, Washington, DC 20240; Robert Stanton, Director, DoI National Park Service, 1849 C. Street N.W. ms3220-MIB, Washington, DC 20240.

FOR FURTHER INFORMATION CONTACT:

SUPPLEMENTARY INFORMATION:

Background

1. Foot-launch powerless flight

All of this is USHGA boiler plate.(Frasca).

If not done already, consult books and historical records by Marlys Wills, Dennis Pagen, Bill Bennett Sr. and others for more historical perspectives.(Eckert)

1. Brief History[Watters, Frasca, Johnson, Niznik, Bachman]

1. Evolution of modern hang/paragliding(Lilienthal to NASA Rogallo to PG)

*Introduction(version 1):* Recreational powerless flight is enjoyed currently through sports of hang gliding and paragliding. Though differing in wing technology, both gliding sports share the same ability to give humans a chance to feel the air as the birds do. With a small amount of equipment, the average glider pilot hikes on foot to a clearing on a ledge and can quickly set up and step out into the air. With no motor, the pilot depends on the wind and natural lift of the air along the ridges or from rising heated air to remain aloft, just like soaring birds. In fact, glider pilots look to birds for clues about the air conditions and best places to get some lifting air, often spending quiet hours together aloft enjoying the views and wildlife from a perspective not often allowed mankind. When the flight is through, the glider settles down on the pilot's own feet, packs up and hikes away.(Niznik)

*Introduction(version 2):* Recreational powerless flight is enjoyed currently through sports of hang gliding and paragliding. Though differing in wing technology, both gliding sports share the same ability to give humans a chance to feel the air as the birds do. Hang gliders are a triangular wing that is unfolded and enforced with spars, while a paraglider is a shaped, inflating cloth wing similar to a modern parachute. With this small amount of lightweight equipment, the average glider pilot hikes on foot to a clearing on a ledge and can quickly set up and step out into the air. With no motor, he or she depends on the wind and natural lift of the air along the ridges or from rising heated air to remain aloft, just like soaring birds. In fact, glider pilots look to birds for clues about the air conditions and best places to get some lifting air, often spending quiet hours together aloft enjoying the views and wildlife from a perspective not often allowed mankind. When the flight is through, the glider pilot settles down on the his or her own feet in an available clearing, then packs up and hikes away. For almost thirty years, hikers-turned-pilots have used these simple devices to increase their enjoyment of the outdoors.(Niznik)

*Hang Glider Evolution:* Hang gliding is at the origin of manned flight with conceptual designs as early as the 15th and 16th centuries by Leonardo da Vinci. In the 19th and 20th centuries, Otto Lillienthal and the Wright Brothers developed

unpowered hang gliding methods and reduced them to practice with varying degrees of success. Today's highly-evolved designs made from advanced dacron sail-cloths and aluminum alloy/ceramic composite frame spars can be more directly traced to NASA's fold-up fabric delta-shape glider re-entry vehicle technology conceived by Francis Rogallo in the 1950s. (Frasca, Eckert). During the latter part of the 1970s hang glider designers and manufacturers took advantage of newer these newer materials and computer-aided design technologies.

Modern design engineers have always been forced to make trade-offs between handling, performance and stability. Initially, handling problems were solved when the spar used to fix the fabric wings in position was allowed to shift with respect to the glider's centerline. This promoted wing assymetry and less effort to produce turns. Next, performance was improved by using stronger aluminum alloy spars thereby eliminating drag-producing outriggers needed to stiffen the spars. Further performance gains were realized when the entire airframe was enclosed inside a double surface sail. However, stability problems became greater with these improvements. Stability is a measure of the glider's ability to self-recover or self-correct from pilot-induced or natural forces that might cause a glider to exceed its safe operating limits. Gliders with too little stability are divergent and tend to further exceed safe operating limits once reached. Those with too much stability are convergent and tend to resist pilot input and thereby compromise handling. The Hang Glider Manufacturers Association (HGMA) was formed to primarily address this difficult stability trade-off dilemma. This organization developed air worthiness standards that all manufacturers would eventually design to and certify via a formal testing and evaluation program. This, along with the evolution of pilot proficiency standards, was arguably the single most significant contribution to pilot safety. (Watters, Eckert).

#### *Paraglider Evolution:*

#### 2. USGHA, chapters & mission

The USHGA is a member-controlled sport organization dedicated to the exploration and promotion of all facets of unpowered hang gliding and paragliding, and to the education, training and safety of its membership. Membership is open to anyone interested in this realm of unpowered flight. It is responsible for publishing Hang Gliding and Paragliding magazines for enthusiasts to create further interest in the sport, and to provide an educational forum to advance flight methods and safety.

Brief descriptions also needed for other credible and potentially relevant organizations such as the FAI, DHV, NAA, HGMA etc. (Eckert)

#### 3. Pilot proficiency program, liability insurance, site management

#### 4. FAA self-regulation

Brief written perspectives on self-regulated certification programs, etc. from not only the USHGA, but also other credible world-class organizations oriented toward unpowered foot-launch flight (Eckert).

## 2. Distinctions/comparisons vs. all other recreational aircraft & activities

### 1. Physics & Function (weight, speed, control, energy, altitude)[**Leal, Schultz, Johnson, Doughty**]

The inconsistency between park and FAA definitions should be emphasized in the NPRM process. It would therefore recognize the difference between a Cessna 172 and a hang glider or paraglider, which carry about the same or less environmental impact than your typical hiker, camper or biker. If that distinction fails, then I see marginal progress on how the various agencies will treat hang gliding and paragliding. Basic physics ought to be argued. Low kinetic effect versus " aircraft" and if compared to ATV's lower kinetic and ground contact impact.(Lane)

### 2. Statistics (weather, participant numbers, accident)[**Schultz, Leal, Doughty**]

Go for favorable comparisons to existing allowed activities that are not treated as red headed step children in the park system. That is where the injury and hazard statistics ought to come in comparing our sports favorably or at least equally with the others, particularly since our activities in all likelihood do not involve too many third party impacts versus bikers, ATV people, etc. And how about the manner in which we internally regulate our members on a level unheard of with hikers, bikers, and ATVers, much less campers.(Lane)

In a 1972 decision, the U.S. Supreme Court said that "safe is not the equivalent of risk free." In fact, no activity no matter how innocuous it may appear is totally free from risk. With this in mind, the USHGA for example has taken a proactive approach to reduce the risks that its individual members might incur during the participation in the sport of hang/paragliding. It defines risk management as a systematic process of managing its members risk exposures to achieve its objectives in a manner consistent with public interest, human safety, environmental factors, and the law.

The USHGA has established three key strategies for dealing with risk. (a) They have developed a systematic coordinated approach and infrastructure, which integrates specific training, certification/accreditation programs, sports injury surveillance, research, and prevention activities. (b) They have established controlled evaluations for reporting accidents, and have introduced timely countermeasures and protective equipment as a means of promoting effective injury prevention. (c) They have actively promoted a safety in sport accreditation scheme to honor and reward those members who are examples of good safety practices.

As a result of this program, the USHGA accident statistics have shown a consistent and drastic decline in accidents and fatalities over the years. For example, fatalities dropped from about 1000 per year per 100,000 participants in the mid-1970s to less than 10 per year per 100,000 participants today. If we then compare these statistics to the accident/mortality statistics for three recreational activities which are commonly practiced in the Delaware Water Gap Recreational Area: recreational water sports, biking, and mountain climbing; we find that these common activities have a much higher incidence of accidents/fatalities than those reported nationally for the recreational sport of hang/paragliding.

This year alone The Delaware Water Gap National Recreation Area reported 7

drownings per an estimated 'x' visitors (Star Ledger 8/13/1999). The 1997 National Electronic Injury Surveillance System reported 900 deaths per year per estimated 'y' bicycle riders. The American Alpine Club reported approximately 30 deaths per year per 'z' mountain climbers. Compare these statistics to the Water Gap Hang Gliding Club's record of no reported fatalities in 20 years of activity in the NJ & PA area surrounding the Delaware Water Gap National Recreational Area. This data suggest that many unregulated recreational activities run a higher risk of accident and/or fatality than self regulated organizations, especially when that organization has a proactive risk management plan such as the USHGA.(Doughty, Eckert)

Broader area/based hang gliding and paragliding accident rate statistics from the USHGA and other organizations should be included(Eckert)

3. Philosophical (emphasize environmentally-conscious, nature-appreciative, self-confident/respecting individuals, low-impact, leave-no-trace ethics, good stewards of the land, use words from revised ATC policy and AT-NPRM)[**Onstad, Frasca, Maze, Banta**]

In the entire USA, there is a grand total of only 19 designated Recreational Areas. Twelve of these are centered on large reservoirs and emphasize water based recreation, leaving only 7 areas available for emphasis on the many other forms of outdoor recreation. Of these, 5 of the National Recreation areas are located near major population centers, specifically as a means of conserving open areas for outdoor recreation, while at the same time preserving natural resources. Common sense dictates that the larger the population using a recreation area, the more varied the approved uses must be in order to accommodate the more varied population. The Delaware Water Gap Natural Recreation Area, having water based recreation and being in close proximity to major population areas, should have as varied a permitted use listing as any park there is. With the existence of part of the Appalachian Ridge within its boundaries, a natural usage would be for the use of foot launched aviation. (Banta)

The previous paragraph has too much emphasis on DEWA(Eckert).

Hang gliding and paraglider are activities consistent with the environmental sensibilities practiced by other outdoor sport participants such as hiking, canoeing/kyaking. Participants have a history of cooperation with Public Lands agencies and organized land use groups.(Frasca).

Cooperative examples must be included in this section even if some duplication exists in other sections (Eckert)

4. What HG/PG is NOT like (dangerous questionable thrill-seeking activity, bungee jumping, spectator sport drawing huge crowds, high impact snowmobiling , mountain biking, motorized aircraft)[**Banta, Onstad, Frasca, Maze**]

Foot launched aviation (hang gliding and paragliding) is unlike many NPS approved and high impact recreational activities. Off road motorcycles, ATV's and snowmoblies cause extensive noise and air pollution, in addition to creating extensive erosion problems. Additionally, they cause disruption to wildlife as a result of their noise and speed. In terms of recreation, the use of any means of recreation employing

a motor must be recognized as extremely high impact.(Banta)

HG & PG being an activity with few participants, does not impact wilderness areas in negative ways. The remote nature of launch sites, minimal time spent near the ground, and sporadic scheduling keeps spectators to a minimum. Generally people in the vicinity of a launch site do not know it is here.(Frasca)

5. What HG/PG is like(draw analogies to 'respectable' 'traditional' activities like hiking and canoeing.[**Banta, Frasca, Onstad, Maze**]

Among recreational activities that do not employ motors, foot launched aviation has possibly the least impact. Mountain biking and horse back riding cause extensive wear and subsequent erosion to trails, causing periodic rerouting of trails. Positively they do not cause noise or air pollution. Backpacking has lesser impact, however does require the need to bring and cook food, which can have an impact through litter or fire. Generally however, the mindset of 'pack it in, pack it out' is utilized by backpackers. Cross country skiers and fly fishermen cause minimal impact, as their recreation is often a daily activity which requires little gear and minimal food for cooking. Likewise, the activity of foot launched aviation is distinctively low impact. The less man brings with him into a natural area, the lesser the impact he will have within it. In the case of foot launched aviation, the impact is very minimal, as the lightweight glider he brings in becomes his vehicle to exit. His recreational enjoyment of the natural, preserved area comes from above, as he soars over the fields and forests and streams, enjoying them as if through the eyes of a bird. Historically, foot launched aviation has been low impact. As it becomes ever more popular, it is surely a recreational activity that should have a role in the 'natural open spaces provided for recreational purposes'.(Banta)

6. Start building case for tradition and low impact...HG has been around a lot longer than most people think (inconspicuous, clandestine, again use testimonials from local trail club attesting to leave-no-trace, low-impact ethics)[**Banta, Frasca, Eckert, Onstad**]

## 2. Existing site survey on federal lands

1. Brief administrative descriptions showing inconsistencies, good and bad.[**Eckert, Lane, DuPaul**]

The inception of the National Park Service Organic Act, 16 U.S.C.1., claims in part that the NPS is designated 'to promote and preserve the use of the national parks, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein, and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations'. Further, it also states that 'National Recreation Areas were created to provide availability of natural open spaces to provide outdoor recreation for large numbers of people'. The NPS lists one of their 'guiding principles' as the 'provision of opportunities for citizens to participate in the decisions and actions of the NPS'. This proposed rule is intended as such a guiding principle by providing a way for citizens to participate in the decision-making process on powerless foot-launch recreational flight in all national parks, forests and other public lands and waters.(Banta)

Comment: Parts of the April Fool 1999 NPRM survey document should also be

incorporated into this section(Eckert)

2. Focus on apparent abuse of discretion possibly drawing on similarities to recent high profile management indiscretions[**Mumford, Lane, Herr, Eckert**]
3. Justifications (emphasize "The Public Good")

1. Preserving resources

Hang gliding and paragliding have been recognized as activities with a low environmental impact. The comparison to hiking has been made that these activities are half the impact since the participant hikes only one-way to an overlook and launches.(Frasca)

1. Stress USHGA/local chapter contributions can benefit site/land maintenance, management, resources embodying the philosophy of good land stewards...past-present-future. Again use words from revised ATC policy and AT NPRM even if repetitive.[**Leggett, Johnson, Frasca, DuPaul, Brown**]

Water Gap HG Club's rotating launch site cleanup schedule. Part of membership is the responsibility to police the launch area for debris, generally left by others, as determined by a published (newsletter) schedule.(Frasca)

2. Can benefit other users as well[**DuPaul, Eckert, Brown**]

Vistas in wooded areas kept clear.(Frasca)

3. Seek & cite actual precedents, endorsements and testimonials from other users like the ATC, Whiskeytown park rangers and other land managers who have 'good' experiences with HG/PG community.[**DuPaul, Frasca, Eckert, Brown**]

The whole of section 3.1 needs many more examples (Eckert)

2. Enhanced safety

1. Stress USHGA programs for safety, pilot proficiency, self-regulation, and latest FAA statements that might support this[**Johnson, Leggett, Leal, Bachman**].
2. Indirect safety benefits to other users by having responsible pilots in remote areas---again cite actual experiences by hiking community[**Mumford, Eckert, Brown**]

3. Save tax dollars

1. Cite actual administrative efficiencies on public lands where hang/paragliding have been welcome vs. deficiencies where they have not been welcome.[**Eckert, DuPaul, Lane, Maze**]

Frankly I do not think the savings of tax dollars argument is going to carry much weight. However, citing a consistent policy nationwide that recognizes self-regulated skill ratings for unpowered foot-launch flight devices ought to be central as it exonerates us from a great deal of "aircraft" type regulation.(Lane)

Through this proposed rule, hang gliding, paragliding and other activities such as hiking, canoeing/kayaking being of similar environmental mindsets, will be regulated in a consistent a manner. It will do away with the two sets standards required for the different activities with essentially the same resource impact.(Frasca)

2. Provide consistent administrative guidelines.[**Eckert, DuPaul, Lane**]
3. Define hang and paragliding impacts in terms of kindred activities (e.g. hiking, canoeing) to make it easier to justify relaxing the need for expensive environmental compliances.[**Onstad, Maze, Frasca**]

For the most part, hang and paraglider pilots are day visitors, not overnighers We are in contact with less land than the typical hiker. Then take the infrequency statistical pattern that was developed with the Mohican case as a national average if USHGA has any stats on use versus dates, and prove that most days at most places will generate very little actual flying activity anyway.(Lane)

4. Foot launch powerless flight does not fit in any way the definition of a special use...cite Galvin's definitions...and should therefore be exempt from existing special use rules.  
[**Eckert, Lane**]

In a 1997 speech on special user fees before the senate subcommittee on national parks, historic preservation & recreation, NPS acting director Denis P. Galvin defined the meaning of 'special users' by example as follows:. "...Special park uses range from special events such as weddings, community meetings, organized athletic events or races to activities such as grazing or use and occupancy of NPS owned buildings to rights-of-way for sewer and water lines, utility lines, or fiberoptic and other communication cables, to telecommunication antennas and transmitters. The provision of these uses is above and beyond a park's regular program and falls outside of a park's annual budget...the...GAO...and the Department of the Interior's Office of the Inspector General (IG) conducted audits of how the National Park Service managed special park use fees. The IG's audit discovered "inconsistencies among the parks regarding...the types of activities that were subject to a fee...."(Eckert)

Public Participation:

Paperwork Reduction Act:

This proposed rule does not contain collection of information requiring approval by the Office of Management and Budget under 44 U.S.C. 3501 *et. seq.*

Compliance With Other Laws:

Such as consistency with intent of FAA rules on flight operations over public parks and other lands and waters. [**Herr, Lane, USHGA LAP, Onstad**]

Public Comment Period Response Readiness:

It is imperative that a letter-writing campaign supporting the NPRM be in-place *shortly before* the NPRM is published for public comment via Hang Gliding/Paragliding magazines, emails, etc. We must anticipate that, due to the wide-ranging scope of this proposed rule, it will attract attention and concern of other users/user-groups who, for one reason or another, will organize an equally formidable campaign



opposing the NPRM. During the course of our agency surveys, we ran across a few watchdog groups that have stepped up surveillance for, and aggressively orchestrated public opinion against, any proposed rule involving even infinitesimally small or benign increases in public land use.[**Chris DuPaul, Phil Bachman**]

Chris DuPaul and Phil Bachman feel a tear-out post card campaign via both Hang Gliding and Paragliding magazines is possible with a one to two month lead time. Since we're shooting for a November 15th submission to the Federal Register, and since from past experience the actual NPRM publication date could be less than a month later followed by a 90-day public comment period, the campaign should appear in the January 2000 magazines. It should include multiple tear outs either as perforated pages or multiple inserts that members can copy and distribute to acquaintances outside the hang gliding and paragliding communities. While members should also be encouraged to write private opinion letters supporting the NPRM, we also know from past experience that the sheer number rather than form of individual responses carry enormous weight.(DuPaul, Eckert)

This is a NPRM (notice of proposed rule making). This is an official notification that a proposed rule change is being considered and inviting public comments. The first stage of this is just to get input to what the NPRM would say, and getting support of congressional sponsors. At this point it is probably only supporters or potential supporters who we would bother to write. If the rule is introduced, then there will be some period of time (perhaps 90 days) during which public input is accepted. Here is where those both for and against will get more vocal.

Some Representatives (as of 2000):

Blacksburg, Va. -- Rick Boucher [ninthnet@mail.house.gov](mailto:ninthnet@mail.house.gov)  
Bluefield, W Va. -- Nick J. Rahall [nrahall@mail.house.gov](mailto:nrahall@mail.house.gov)  
Charlotte, N.C. -- Sue Myrick [myrick@mail.house.gov](mailto:myrick@mail.house.gov)  
Pulaski, Va. -- Rick Boucher [ninthnet@mail.house.gov](mailto:ninthnet@mail.house.gov)  
Raleigh, N.C. -- David Price [nc04@legislators.com](mailto:nc04@legislators.com)  
Roanoke, Va.--Bob Goodlatte [va06@legislators.com](mailto:va06@legislators.com)  
Wilkesboro, N.C.--Cass Ballenger  
[cass.ballenger@mail.house.gov](mailto:cass.ballenger@mail.house.gov)  
Winston-Salem, N.C.--Richard Burr  
[richard.burrNC05@mail.house.gov](mailto:richard.burrNC05@mail.house.gov)



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