

Devils Tower Aircraft Overflight Education Project -
Distribution Plan and Related Project Information



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Prepared for

Devils Tower National Monument
U.S. National Park Service
Devils Tower, WY

December 28, 2006

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The opinions, findings, and conclusions expressed in this publication are those of the author and not necessarily those of the Western Transportation Institute, Montana State University, Devils Tower National Monument, National Park Service or the Federal Aviation Administration.

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Introduction

The Devils Tower National Monument tends to attract military and civilian aircraft. With its stunning location and vertical height (Figure 1), some pilots fly closer to the site than is advisable. The aircraft increase noise pollution, which impacts natural sound values, and conflicts with the religious significance of the site for over twenty American Indian tribes.

Park personnel can sometimes record the registration number (“N number” or “tail number”) of the aircraft and work with the Federal Aviation Administration to contact pilots of their previous proximity to the Tower. However, this action occurs after the transgression takes place, and only identifies a limited number of pilots.

Through this project, the Western Transportation Institute (WTI) worked cooperatively with Devils Tower National Monument to create and distribute a site bulletin that can be used to educate pilots, so that they do not fly within the sensitive areas around Devils Tower. WTI also worked with Devils Tower National Monument and the Federal Aviation Administration to increase awareness of the no-fly advisory zone by placing a note on the Billings Sectional Aeronautical Chart that would be carried by pilots who are flying in the area.

History

Devils Tower National Monument is a spectacular rock formation of national and cultural significance. The nearly vertical monolith rises 1,267 feet above the winding Belle Fourche River below and was proclaimed as America’s first national monument by President Theodore Roosevelt under the Federal Antiquities Act of 1906. This stunning feature provides a sanctuary for wildlife, park visitors, rock climbing enthusiasts, and American Indians.

In fact, over twenty American Indian tribes have a cultural affiliation with this location. Visitors from many of these tribes use this area as a part of their religious traditions. The quiet nature of this unique place lends itself to these customs. However, noise pollution from low-flying aircraft can disrupt these rituals. In an attempt to respect this site of religious significance, when the airport at Hulett, Wyoming (W43) was established, an agreement between the Federal Aviation Administration, Town of Hulett, Hulett Airport Advisory Board, and Devils Tower National Monument created a “No Fly Advisory Zone”.

The no-fly advisory zone is centered on Devils Tower, extends for two nautical miles (2 NM) during the months of July-May, three nautical miles (3 NM) for the month of June, and includes



Figure 1: Devils Tower

no overflights throughout the year. The no-fly advisory zone augments existing Federal Aviation Administration regulations that encompass National Park areas.

FAA Rules and Regulations

The main Federal Aviation Administration (FAA) rule (or regulation) that is applicable to the Devils Tower National Monument is contained in the FAA's Advisory Circular 91-36D, which states, "This Advisory Circular (AC) encourages pilots making VFR flights near noise-sensitive areas to fly at altitudes higher than the minimum permitted by regulation and on flight paths that will reduce aircraft noise in such areas" [1]. The advisory circular goes on to state:

Excessive aircraft noise can result in annoyance, inconvenience, or interference with the uses and enjoyment of property, and can adversely affect wildlife. It is particularly undesirable in areas where it interferes with normal activities associated with the area's use, including residential, educational, health, and religious structures and sites, and parks, recreational areas (including areas with wilderness characteristics), wildlife refuges, and cultural and historical sites where a quiet setting is a generally recognized feature or attribute. Moreover, the FAA recognizes that there are locations in National Parks and other federally managed areas that have unique noise-sensitive values.

Advisory Circular 91-36D notes voluntary actions that pilots should take to address the concerns noted above. These voluntary practices include:

- a. Avoidance of noise-sensitive areas, if practical, is preferable to overflight at relatively low altitudes.
- b. Pilots operating noise producing aircraft (fixed-wing, rotary-wing and hot air balloons) over noise-sensitive areas should make every effort to fly not less than 2,000 feet above ground level (AGL), weather permitting. For the purpose of this AC, the ground level of noise-sensitive areas is defined to include the highest terrain within 2,000 feet AGL laterally of the route of flight, or the uppermost rim of a canyon or valley. The intent of the 2,000 feet AGL recommendation is to reduce potential interference with wildlife and complaints of noise disturbances caused by low flying aircraft over noise-sensitive areas.
- c. Departure from or arrival to an airport, climb after take-off, and descent for landing should be made so as to avoid prolonged flight at low altitudes near noise-sensitive areas.
- d. This advisory does not apply where it would conflict with Federal Aviation Regulations, air traffic control clearances or instructions, or where an altitude of less than 2,000 feet AGL is considered necessary by a pilot to operate safely [1].

The Circular concludes by noting that, "Aircraft operators, aviation associations, airport managers, and others are asked to assist in voluntary compliance with this AC by publicizing it and distributing information regarding known noise-sensitive areas" [1].

Pilots can easily recognize “noise sensitive” areas as defined by the Circular, because they are presented graphically on the Sectional Aeronautical Charts that are published by the U.S. Department of Transportation, Federal Aviation Administration (Figure 2).

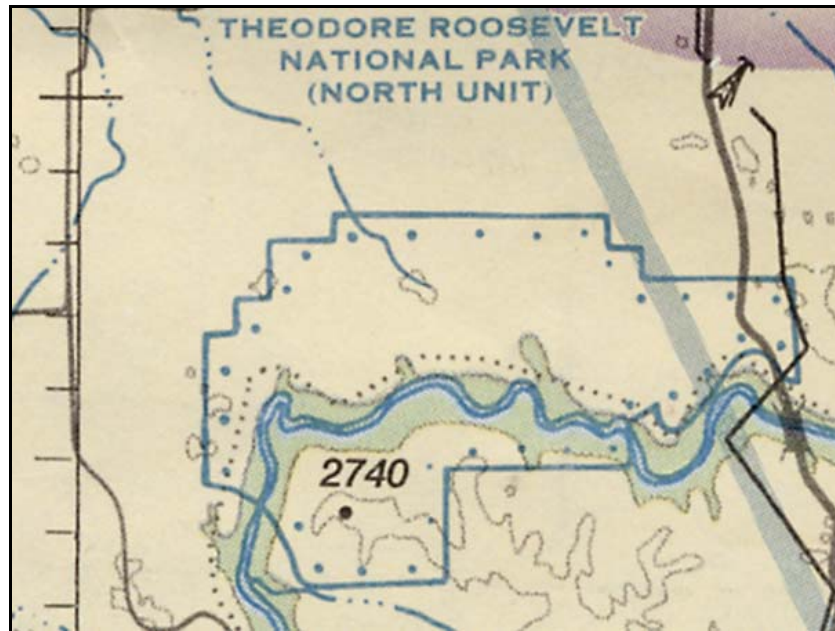


Figure 2: Depiction of a Noise-Sensitive Area on a Sectional Chart [2]

Figure 3 shows the description of regulations concerning flights over charted National Park Service areas, U.S. Fish and Wildlife Service areas, and U.S. Forest Service areas, as it appears on the aeronautical charts.

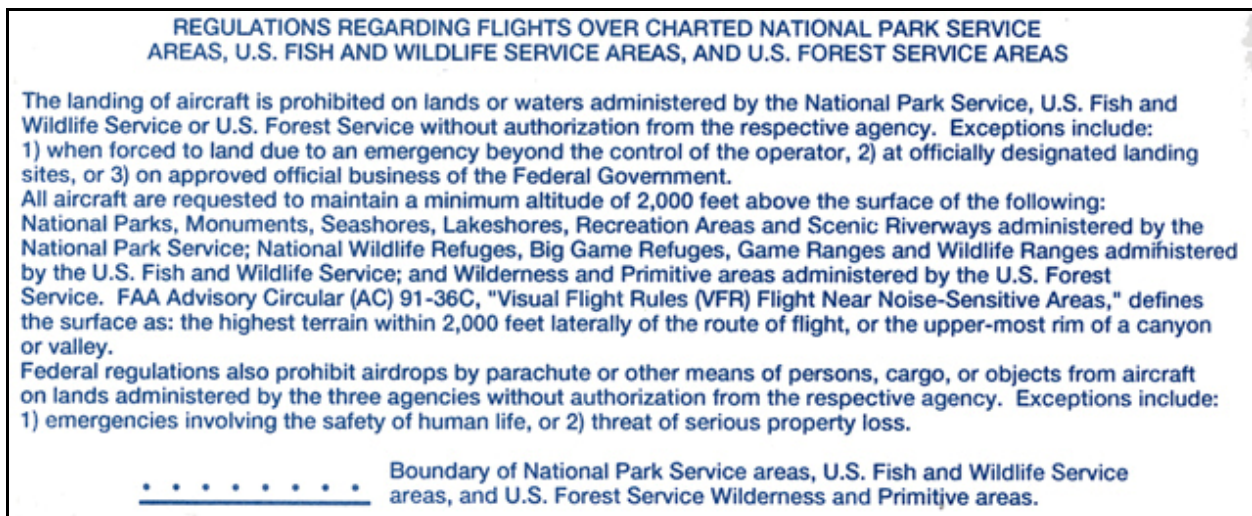


Figure 3: Description of Regulations Concerning Flights over Noise-Sensitive Areas [2]

The Devils Tower National Monument is currently shown as a noise-sensitive area. However, when it was decided to construct an airport in Hulett, Wyoming, only 7.5 miles from Devils

Tower, it was decided that additional measures may be necessary to ensure that aircraft do not disturb the peaceful environment at the Monument.

No-Fly Advisory Zone Notices

Pilots may be unaware of the voluntary no-fly advisory zone around Devils Tower, unless they are flying into the Hulett, Wyoming airport (known as W43). Prior to this project, the no-fly advisory zone is only indicated as a Notice To Airman (NOTAM) for the airport. Therefore, a pilot flying through the area (a transient pilot) may not receive, or have access to the advisory information.

In order for the no-fly advisory zone to be widely recognized, it needed to be documented (or noted) on the appropriate Sectional Charts. This is due to the fact that most pilots, especially those flying under Visual Flight Rules (VFR), carry the appropriate charts (Sectional Charts) with them. However, the graphics and symbols on Sectional Charts are highly standardized, and it would likely be very difficult to convince the FAA to create a new symbol/graphic to depict the no-fly zone around Devils Tower.

After discussions between the Federal Aviation Administration (FAA) and Devils Tower National Monument, it was agreed that a note should be added on the Billings Sectional that would advise pilots of the no-fly advisory zone. The Billings Sectional Chart covers the Devils Tower National Monument area. The note for the No-Fly Advisory Zone should appear as shown in Figure 4.

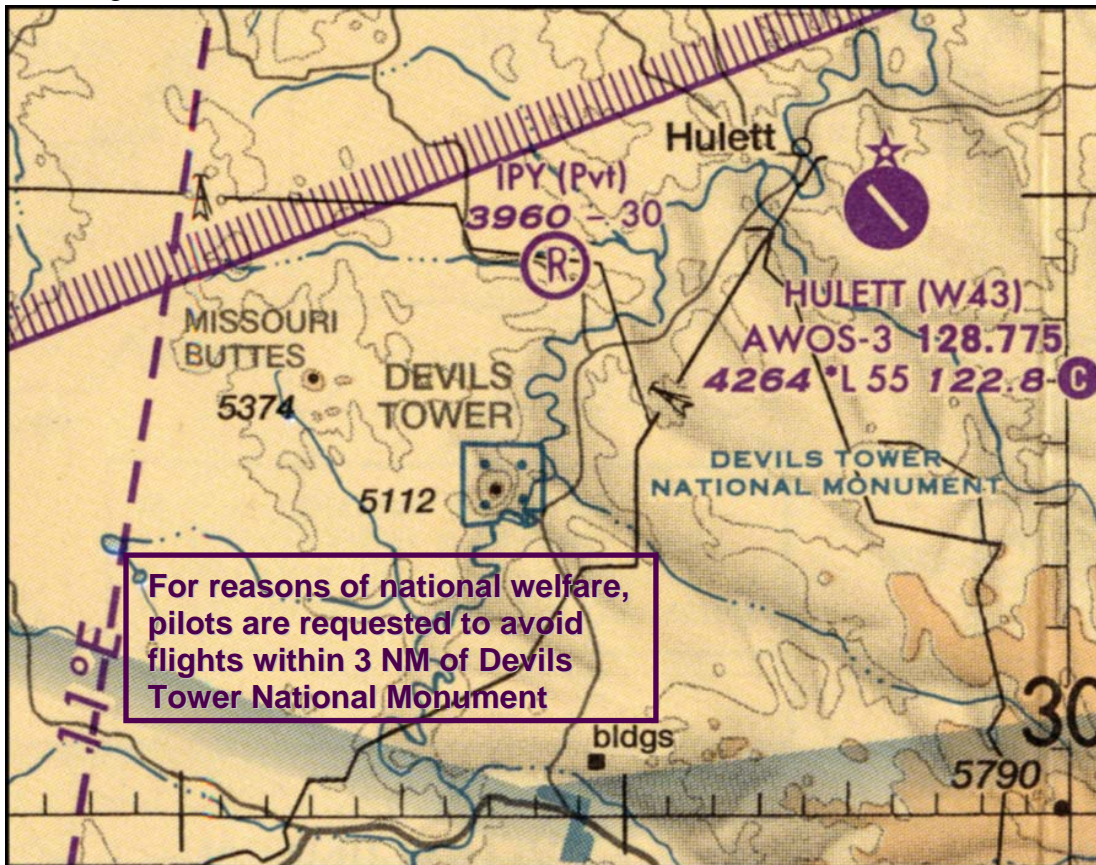


Figure 4: Billings Sectional “Note” [2]

Distribution Plan

With the note on the Billings Sectional regarding the no-fly advisory zone, transient pilots should have an increased awareness of the zone's existence. Further, the no-fly advisory zone is noted in the FAA's Airport Facility Directory, and should be included in the Aircraft Owner and Pilots Association Airport Directory. However, pilots may also be interested in further information about the no-fly zone, and relevant visual references. Therefore, it will be important for the Devils Tower National Monument to have the site bulletin available so that it can be used for reference purposes.

It will be most advantageous to have the bulletin available in electronic form, and linked to the Devils Tower National Monument website, which is part of the National Park Service website. Pilots and others requesting information about the no-fly advisory zone could be directed to the Devils Tower website for more information. For maximum distribution, a hard-copy or "printed" version should also be available.

Working with the Aeronautics Division of the Wyoming Department of Transportation (WYDOT), the staff at Devils Tower National Monument should make sure that WYDOT mails a site bulletin to any pilot requesting information on airports in Wyoming. In addition, the staff at Devils Tower National Monument could mail or email a copy of the bulletin to anyone who requests the information.

Conclusions and Recommendations

A major issue with the voluntary no-fly advisory zone around Devils Tower National Monument is that many pilots are unaware of its existence. This is due primarily to the fact that until now, the information has been published only in the Federal Aviation Administration's Airport Facilities Directory and on the Internet (www.AirNav.com).

Therefore, transient pilots who were flying in the area may inadvertently travel through the advisory zone airspace. Having a note about the no-fly advisory zone printed on the Billings Sectional will be a major step forward in providing additional information to pilots about the existence of the zone.

With a note on the Billings Sectional, the majority of pilots should become aware of the no-fly advisory zone. Knowledge of the zone's existence will likely have a greater impact on adherence than the site bulletin itself. However, for those pilots or other individuals who seek more information and visual reference material about the no-fly advisory zone, the site bulletin will be a valuable tool.

To further increase awareness of the no-fly advisory zone, the Western Transportation Institute contacted the Aircraft Owners and Pilots Association (AOPA). AOPA publishes a hard-copy and on-line airport directory for its members. While the directory previously did not have information about the no-fly advisory zone, AOPA agreed to include the information immediately on its on-line directory, and in the next publishing of the hard-copy airport directory.

This project and the resultant bulletin and additional notices did not focus on military aircraft which operate near Devils Tower. However, most pilots desire to be “good neighbors”. It is anticipated that providing an increased awareness of the no-fly advisory zone will substantially decrease the number of aircraft that fly within it. This project has helped increase the awareness of the voluntary no-fly advisory zone around Devils Tower, and should therefore have a very positive impact on the relationship between the Monument and pilots flying in the area.

References

1. Advisory Circular (AC) 91-36D. Issued September 17, 2004 by the U.S. Department of Transportation, Federal Aviation Administration. Available online at:
[http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/208330d7efad2bf9862570650070769f/\\$FILE/AC91-36d.pdf](http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/208330d7efad2bf9862570650070769f/$FILE/AC91-36d.pdf)
2. Billings Sectional Aeronautical Chart, 71st Edition, Printed March 16, 2006. Published by the U.S. Department of Transportation, Federal Aviation Administration, National Charting Office.