



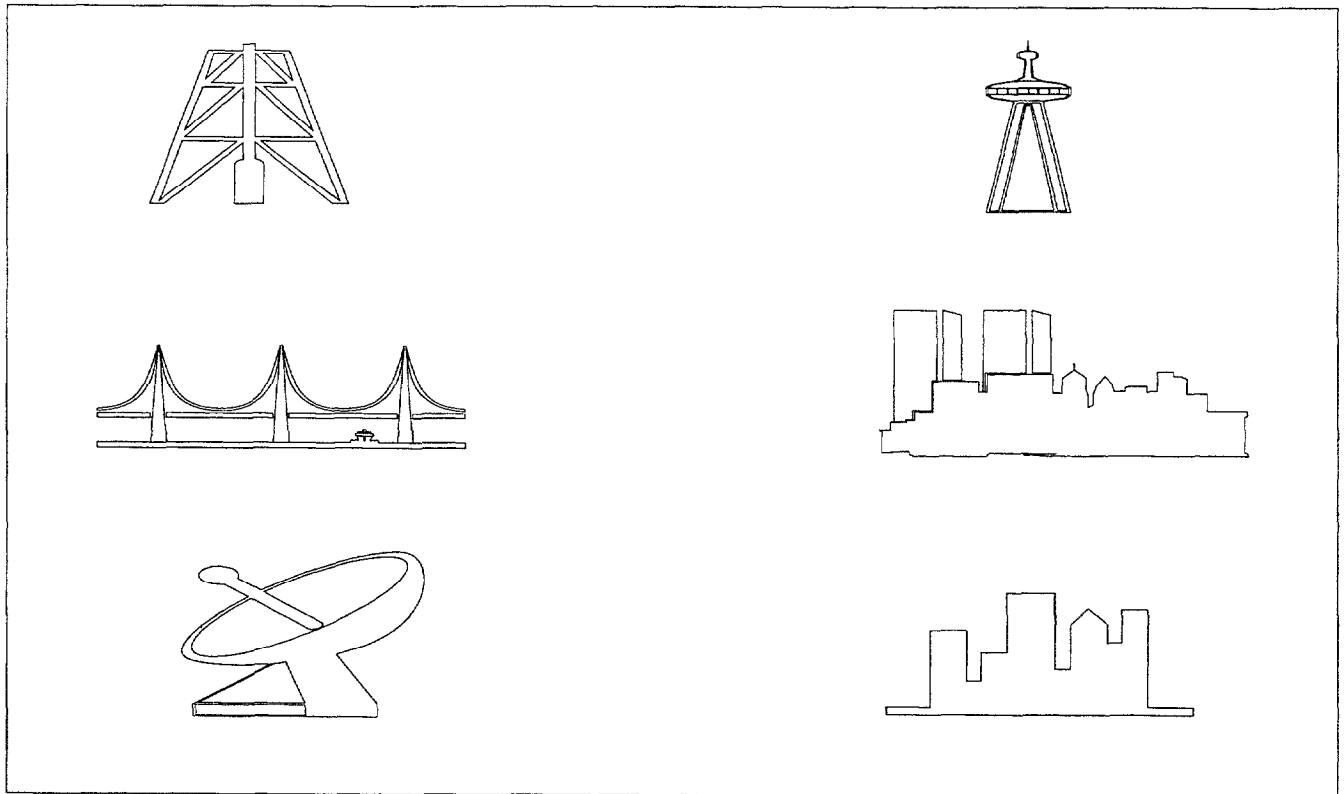
U.S. Department  
of Transportation

**Federal Aviation  
Administration**

# ADVISORY CIRCULAR

AC 70/7460-2K

## Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace







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of Transportation

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# ADVISORY CIRCULAR

**Subject: PROPOSED CONSTRUCTION OR ALTERATION OF OBJECTS THAT MAY AFFECT THE NAVIGABLE AIRSPACE**

**Date:** 3/1/00

**AC No:** 70/7460.2K

**Initiated by:** ATA-400

## 1. PURPOSE.

This Advisory Circular (AC) provides information to persons proposing to erect or alter an object that may affect the navigable airspace. The AC also explains the requirement to notify the Federal Aviation Administration (FAA) before construction begins and FAA's responsibility to respond to these notices in accordance with Title 14 Code of Federal Regulations (14 CFR) part 77, Objects Affecting Navigable Airspace. Additionally, the AC explains the process by which to petition the FAA's Administrator for discretionary review of the determinations issued by the FAA.

## 2. CANCELLATION.

AC 70/7460-2J, Proposed Construction or Alteration of Objects That May Affect the Navigable Airspace, dated 11/29/95, is cancelled.

## 3. BACKGROUND/AUTHORITY.

a. 49 U.S.C. Section 44718 mandates, in pertinent part, that "The Secretary of Transportation shall require a person to give adequate public notice...of the construction or alteration, establishment or extension, or the proposed construction, alteration, establishment, or expansion, of any structure...when the notice will promote:

- (1) safety in air commerce, and
- (2) the efficient use and preservation of the navigable airspace and of airport traffic capacity at public-use airports."

b. To this end, 14 CFR Part 77 was issued prescribing that notice shall be given to the Administrator of certain proposed construction or alteration.

## 4. EFFECTIVE DATE.

This advisory circular becomes effective March 1, 2000.

## 5. NOTICES.

### a. WHY IS NOTIFICATION REQUIRED?

In administering 14 CFR Part 77, the FAA's prime objectives are to ensure the safe and efficient use of the navigable airspace. The FAA recognizes that there are varied demands for the use of airspace, both by aviation and nonaviation interests. When conflicts arise out of construction proposals, the FAA emphasizes the need for conserving the navigable airspace. Therefore, early notice of proposed construction or alteration provides the FAA the opportunity to:

- (1) Recognize potential aeronautical hazards to minimize the adverse effects to aviation.
- (2) Revise published data or issue a Notice to Airmen (NOTAM) to alert pilots to airspace or procedural changes made as a result of the structure.
- (3) Recommend appropriate marking and lighting to make objects visible to pilots. Before filing FAA Form 7460-1, Notice of Proposed Construction or Alteration, construction sponsors should become knowledgeable in the different types of obstruction marking and lighting systems that meet FAA standards. Information about these systems can be obtained from the manufacturers. Proponents can then determine which system best meets their needs based on purchase, installation, and maintenance costs. The FAA will make every effort to accommodate the request.
- (4) Depict obstacles on aeronautical charts for pilotage and safety.

### b. WHO MUST FILE NOTICE?

Any person or an agent who intends to sponsor construction is required to submit notice to the Administrator if the proposed construction or alteration falls within any of the following categories:

- (1) *Greater than 200 feet in height.* The proposed object would be more than 200 feet above ground level (AGL) at its location.

**NOTE-**  
See FIG 1 and FIG 2.

Greater Than 200 Feet AGL at Object's Location [Over Land]

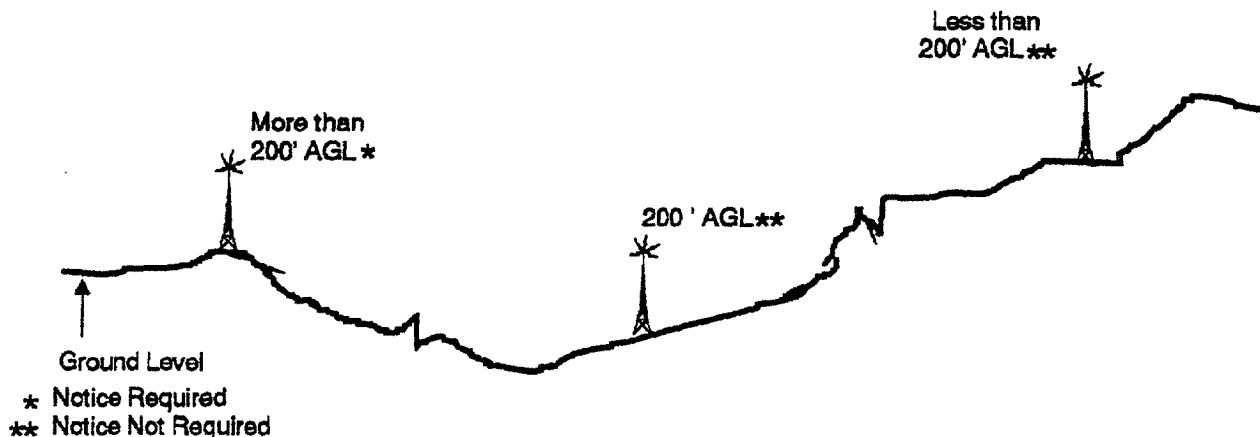


FIG 1

Greater Than 200 Feet AGL at Object's Location [Over Water]

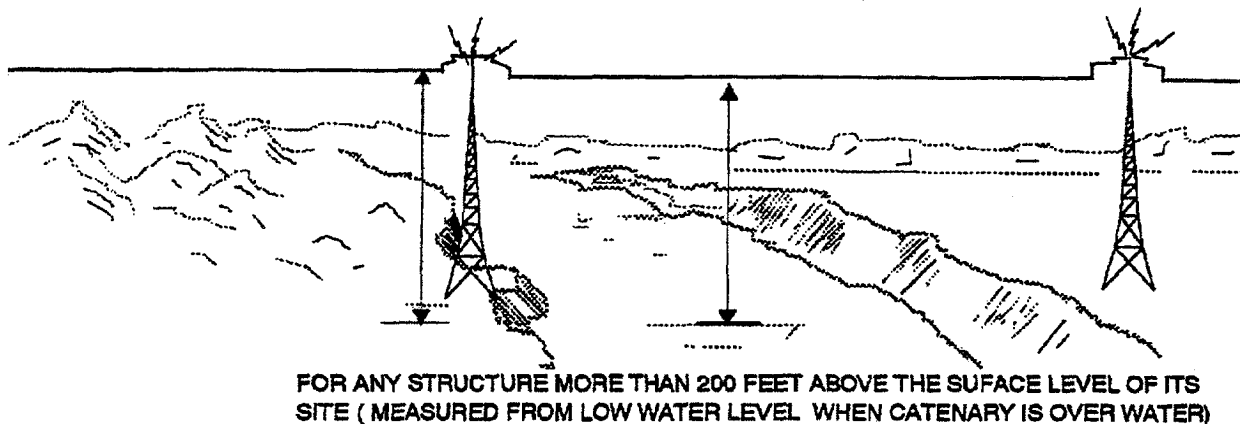


FIG 2

(2) Near a Public-Use or Military Airport, Heliport, or Seaplane Base. A public use airport, heliport or a seaplane base with visually marked seaplanes that is listed in the current Airport Facility Directory, the Alaska Supplement or the Pacific Chart Supplement, or near an airport operated by an armed force of the United States.

(a) Airport or Seaplane Base. The proposed object or alteration would be within:

(1) 20,000 feet of an airport or seaplane base with at least one runway more than 3,200 feet in length

and the object would exceed a slope of 100:1 horizontally (100 feet horizontally for each 1 foot vertically) from the nearest point of the nearest runway.

(2) 10,000 feet of an airport or seaplane base that does not have a runway more than 3,200 feet in length and the object would exceed a 50:1 horizontal slope (50 feet horizontally for each 1 foot vertically) from the nearest point of the nearest runway.

NOTE-  
See FIG 3.

Object Penetrates Airport/Seaplanes Base Surface

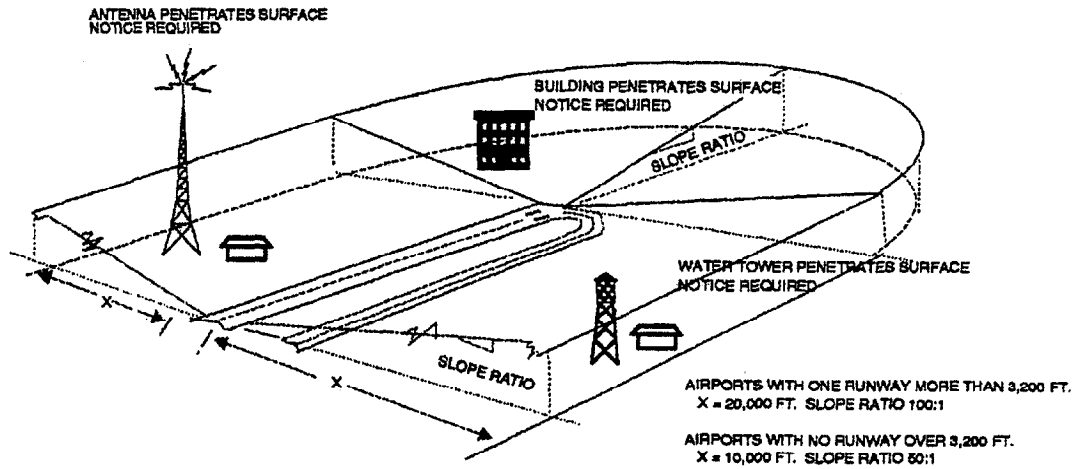


FIG 3

(b) *Heliport.* The proposed object would be within 5,000 feet of a heliport and would exceed a 25:1 horizontal slope (25 feet horizontally for each 1 foot vertically) from the nearest landing and takeoff area of that heliport.

NOTE-  
See FIG 4.

Object Penetrates Heliport Surface

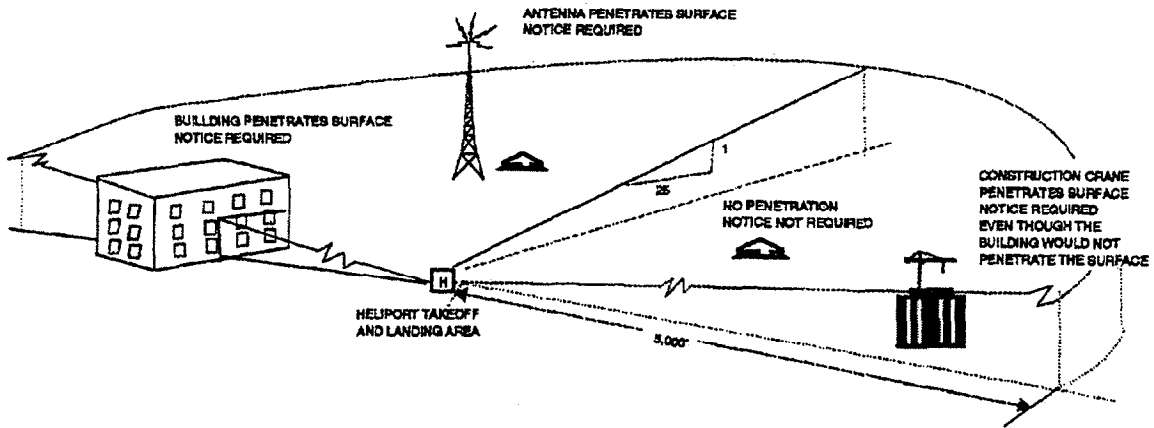


FIG 4

(3) *Highways and Railroads.* The proposed object is a traverse way which would exceed one or more of the standards listed in paragraphs a and b above, after the height of the object is adjusted upward as follows:

(a) *Private road:* 10 feet or the height of the highest mobile object that would traverse the roadway, whichever is greater.

(b) *Other public roadways:* 15 feet.

(c) *Interstate Highways:* 17 feet.

(d) *Railroad:* 23 feet.

(e) *Waterway or any other thoroughfare not previously mentioned:* an amount equal to the highest mobile object that would traverse the waterway or thoroughfare.

NOTE-  
See FIG 5.

Proposed Object in a Traverse Way

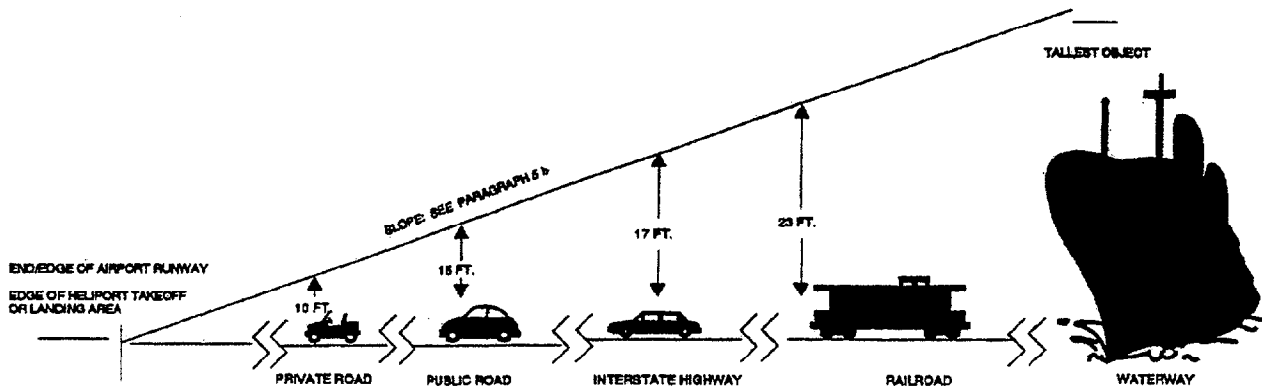


FIG 5

(4) *Objects on a Public-Use or Military Airport or Heliport.* The proposed construction or alteration would be on an airport or heliport, or any airport operated by an armed force of the United States, regardless of height or location.

(5) *When Requested by the FAA.* The FAA may request notice if available information indicates the proposal may exceed an obstruction standard or the proposal may cause electromagnetic interference to aircraft, particularly construction associated with an AM, FM, or TV station including a change in authorized frequency or transmitting power, may cause transmitted signals to be reflected upon ground-based or airborne air navigation communications equipment, or affect instrument procedures. In addition, notice may be requested when the proposal may affect an air traffic control procedure, may obstruct air traffic controllers' line of sight capability, or may affect air traffic control radar.

**c. WHAT KIND OF STRUCTURES REQUIRE FAA NOTIFICATION?**

The following are examples of structures requiring notice to the FAA.

- (1) Proposed construction or alteration of structures such as:
  - (a) Buildings.
  - (b) Antenna Towers.
  - (c) Roadways.
  - (d) Overhead communications and transmission lines as well as the height of the supporting structures.
  - (e) Water towers and the supporting structure.

(2) Construction equipment or other temporary structures such as:

- (a) Cranes.
- (b) Derricks.
- (c) Stockpiles of equipment.
- (d) Earth moving equipment.

**d. WHEN MUST NOTICES BE FILED?**

Notice must be submitted:

- (1) At least 30 days before the earlier of the following:
  - (a) The date the proposed construction or alteration is to begin, or
  - (b) The date the application for a construction permit will be filed.
- (2) On or before the date the application for construction is filed with the Federal Communications Commission (FCC), if the proposed structure is subject to FCC licensing requirements.
- (3) Immediately by telephone or other expeditious means to the nearest FSS, with written notification submitted within 5 days thereafter, if immediate construction or alteration is required as in cases involving public services, health or safety.
- (4) As early as possible in the planning stage but not less than 30 days before construction will begin.

**e. HOW AND WHERE TO FILE NOTICE.**

Notification of the proposal should be made on FAA Form 7460-1, Notice of Proposed Construction or Alteration. Additional information such as charts and/or drawings that accurately depict the proposed construction or alteration should be included to

facilitate the FAA's analysis of the project. The completed form should be mailed to the Manager, Air Traffic Division, of the regional office having jurisdiction over the area within which the construction or alteration will occur.

**NOTE-**

Information on regional addresses may be found on the FAA's website at [www.faa.gov/ats/ata/ata-400/oeaaa.htm](http://www.faa.gov/ats/ata/ata-400/oeaaa.htm) or contact the FAA listed in local telephone books under United States Government.

**f. PENALTY FOR FAILING TO PROVIDE NOTICE.**

Persons who knowingly and willfully violate the notice requirements of 14 CFR part 77 are subject to a civil penalty.

**g. COMPLIANCE RESPONSIBILITY.**

A notice filed with the FAA does not relieve the proponent of compliance with laws, ordinances or regulations of any other Federal, state or local governmental entity.

**h. ASSOCIATED PUBLICATIONS.**

The following publications contain obstruction criteria, marking and lighting standards and specifications for lighting and paint.

(1) *Federal Aviation Regulations 14 CFR, part 77, Objects Affecting Navigable Airspace*. This part sets forth the requirements for notice to the FAA of proposed construction or alteration and provides standards for determining obstructions to navigable airspace. 14 CFR, part 77 (Stock No. 050-007-00276-9) may be ordered from:

Superintendent of Documents  
U. S. Government Printing Office  
Washington, DC 20402

(2) *Advisory Circulars*. FAA advisory circulars are available free of charge from:

Department of Transportation  
TASC  
Subsequent Distribution Office,  
SVC-121.23  
Ardmore East Business Center  
3341 Q 75<sup>th</sup> Avenue  
Landover, MD 20785

(a) *AC 70/7460-1, Obstruction Marking and Lighting*, describes the standards for marking and lighting structures such as buildings, chimneys, antenna towers, cooling towers, storage tanks, supporting structures of overhead wires, etc.

(b) *AC 150/5190-4, A Model Zoning Ordinance to Limit Height or Objects Around Airports*, provides a

model-zoning ordinance to be used as a guide to control the height of objects around airports.

(c) *AC 150/5300-13, Airport Design*, includes planning information on electronic and visual navigational aids and air traffic control facility siting and clearance requirements that influence the physical layout of airports.

(d) *AC 150/5345-53, Airport Lighting Equipment Certification Program*, addendum lists equipment model numbers and manufacturer's part numbers in compliance with item (e) below. The addendum is located on the Internet at the Office of Airports homepage: <http://www.faa.gov/arp/arphome.htm> under Advisory Circulars.

(e) *AC 150/5345-43, Specification for Obstruction Lighting Equipment*, contains specifications for equipment used in obstruction lighting systems.

(3) *Marking Specifications and Standards*. Aviation colors and paint standards and specifications are available from:

General Services Administration  
Specifications Section  
470 L'Enfant Plaza, Suite 8214  
Washington, DC 20407

(4) *FAA Forms*. FAA forms are available free of charge from all FAA regional offices.

(a) *FAA Form 7460-1, Notice of Proposed Construction or Alteration*, is used to notify the FAA of proposed construction or alteration of an object that may affect the navigable airspace.

(b) *FAA Form 7460-2, Notice of Actual Construction or Alteration*, is used to notify the FAA of progress or abandonment, as requested on the form. The FAA regional office routinely includes this form with a determination when such information will be required. The information is used for charting purposes, to change affected aeronautical procedures and to notify pilots of the location of the structure.

**i. ADMINISTRATIVE ASSISTANCE TO CONSTRUCTION PROPONENTS.**

(1) Airspace specialists are available in each regional office to assist proponents in filing their notice. Proponents are encouraged to call in advance for appointments. Limited resources often prevent the specialist from responding spontaneously without advanced planning or preparation.

(2) To insure timely determinations, construction proponents must submit complete and accurate data. Lack of complete and accurate data could result in the return of the form. United States Geological Survey quadrangle maps are available at nominal costs to aid in determining

the geographical coordinates (latitude/longitude) and site elevation above mean sea level. The latitude/longitude information should be submitted in North American Datum of 1983. The quadrangle maps can be obtained from:

U.S. Geological Survey  
Reston, Virginia 22092  
Telephone No. (703) 860-6045

U.S. Geological Survey  
District Branch  
P.O. Box 25286, Bldg. #41  
Denver, Colorado 80225  
Telephone No. (303) 844-4169

(3) Airport planners are available for assistance with construction proposals on Federally obligated airports.

(4) Proposals for electronic transmitting devices should include frequency, effective radiated power (ERP), radiation center height (RCAMSL), and antenna characteristics such as number of bays, beam tilt, and null fill.

#### 6. FAA's RESPONSIBILITY.

a. The FAA will acknowledge receipt of the notice.

b. After initial screening, the outcome of the screening will be sent to the filer and may state one of the following:

(1) The proposal is not identified as an obstruction and would not be a hazard to air navigation, or

(2) The proposal would be an obstruction unless reduced to a specified height and is presumed to be a hazard to air navigation pending further study. When this is indicated, the acknowledgement will either specify that the FAA has initiated further study, or the proponent may elect to reduce the height or request further study within (sixty) 60 days, in which event, the FAA will begin the study when the proponent so advises.

c. If further aeronautical study is initiated, public notice may be prepared and distributed for comments to those agencies, organizations, or individuals with known aeronautical interests to determine if the proposal would be a hazard to air navigation. State and local aviation authorities, as well as various military organizations of the Department of Defense, are also offered the opportunity to comment on the aeronautical effects of the proposal.

d. All responses received by the end of the specified comment period are analyzed by the FAA regional specialists for valid aeronautical comments and objections.

e. The office conducting the study may decide to conduct an informal airspace meeting with interested parties to discuss the effects of the proposal and to gather additional facts or information relevant to the study.

f. The FAA specialists may negotiate with the proponent during the study process to resolve any adverse

effect(s) on aeronautical operations. Many times, a minor reduction in height and/or relocation of a proposed structure will eliminate or sufficiently minimize adverse aeronautical effects that would permit the issuance of a Determination of No Hazard to Air Navigation.

g. After the aeronautical study is completed, the regional office will normally issue a:

(1) Determination of Hazard to Air Navigation; or

(2) Determination of No Hazard to Air Navigation.

h. An FAA determination is a conclusion based on the study of a structure's projected impact on the safe and efficient use of the navigable airspace by aircraft. It should not be construed as an approval or disapproval of the project.

i. The FAA usually recommends marking and/or lighting of a structure when its height exceeds 200 feet above ground level (AGL) or exceeds Part 77 obstruction criteria. However, the FAA may recommend marking and/or lighting of a structure that does not exceed 200 feet AGL or Part 77 obstruction standards because of its particular location.

#### 7. HOW TO PETITION THE ADMINISTRATOR FOR DISCRETIONARY REVIEW.

a. When a determination is issued under 14 CFR Section 77.19 (except Section 77.19 c.(1)), or Section 77.35 or when a revision or extension is issued under Section 77.39 (c), you may petition the FAA Administrator for a review of the determination, revision, or extension if you:

(1) Are the sponsor of the proposed construction or alteration,

(2) Stated a substantial aeronautical objection to the proposal during an aeronautical study, or

(3) Have a substantial aeronautical objection but were not given an opportunity to state it.

b. The petition must be submitted within 30 days after the issue date of the determination, revision, or extension and must contain a full statement of the basis upon which it is made. Submit an original and two copies to:

Manager, Airspace and Rules  
Division, ATA-400  
Federal Aviation Administration  
800 Independence Avenue, SW  
Washington, DC 20591

*Nancy Kalinowski*

*John S. Walker*

Program Director, Air Traffic  
Airspace Management Program