

## I. Introduction, Overview, and Background of This Study

As a result of certain concerns expressed by a number of Prince George's County officials and others, the planning staff of the Maryland-National Capital Park and Planning Commission ("M-NCPPC" or "Commission") prepared an excellent internal study of the Potomac Airfield, located in Prince George's County, State of Maryland, just east of the District of Columbia. The study, entitled "Potomac Airfield Study-1999," highlighted certain issues concerning air safety and risk factors around that airport, as well as certain planning dilemmas in the County, and was circulated among the Commission members and to some members of the public in the summer of 1999.

The study, done entirely by M-NCPPC staff, was the result of research into planning and aviation matters, and included a wealth of data. It undertook to quantify the risk to persons and property in the airport area and to discuss noise and airport operations. The study culminated in a number of recommendations for resolving air safety risks and avoiding possible liability arising from the proximity of homes and residents near the Potomac Airfield.

One of the recommendations of the staff in the Potomac Airfield study was to take an overall look at airport land use compatibility issues with respect to a number of Prince George's County airports. M-NCPPC then authorized the planning staff to issue a Request for Proposals ("RFP") seeking outside expertise in the area of airport and aviation risk and airport use planning compatibility. The RFP widened the inquiry so that a respondent would consider relevant issues in the case of *all four general aviation airports* in Prince George's County and provide some guidance toward preparation of an "airport land use manual or handbook."

The four airports designated for study are:

Potomac Airfield ("Potomac"), Ft. Washington, Maryland;  
Washington Executive ("Washington Executive/Hyde Field") near Clinton;  
College Park Airport (on the University of Maryland campus) ("College Park"); and,  
Freeway Airport ("Freeway"), near Mitchellville/Bowie.

RFP No. P20-353 was circulated in May, 2000 and in June, William V. Cheek & Associates, Aviation Consultants, ("Consultant") of Prescott, Arizona, was selected as the successful respondent. Consultant entered into an Independent Consulting Agreement ("Consultant Agreement") that was executed on June 23, 2000 between M-NCPPC and Consultant, with a stated completion date of September 17, 2000. In the Consultant Agreement, certain tasks for the Consultant to accomplish were set out, and included considerations to the following effect:

- 1) What risks to life and property are attendant from the specific circumstances of having the four airports (Potomac, Washington Executive/Hyde Field, College Park, and Freeway) located in proximity to existing or planned residential or commercial development or to one another?
- 2) What steps can or should be taken by the Commission to mitigate or restrict existing perceived incompatible land uses near the four existing airports?

# NOISE COMPATIBILITY GUIDELINES

Land Use Category	Ldn, dBA				Land Use Availability	Noise Compatibility Criteria	Interpretation/Comments
	50-55	55-60	60-65	65-70			
<b>Residential</b>							
single-family, nursing homes, mobile homes,	+	0	-	--	--	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions on outdoor activities.	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
multi-family, apartments, condominiums	++	+	0	--	--		
<b>Public</b>							
schools, libraries, hospitals	+	0	-	--	--	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
churches, auditoriums, concert halls	+	0	0	-	--		
transportation, parking, cemeteries	++	++	++	+	0		
<b>Commercial and Industrial</b>							
offices, retail trade	++	+	0	0	-	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.	Unacceptable noise intrusion on land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.
service commercial, wholesale trade, warehousing, light industrial	++	++	+	0	0		
general manufacturing, utilities, extractive industry	++	++	++	+	+		
<b>Agricultural and Recreational</b>							
cropland	++	++	++	++	+	Unacceptable noise intrusion on land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.	Unacceptable noise intrusion on land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.
livestock breeding	++	+	0	0	-		
parks, playgrounds, zoos	++	+	+	0	-		
golf courses, riding stables, water recreation	++	++	+	0	0		
outdoor spectator sports	++	+	+	0	-		
amphitheaters	+	0	--	--	--		

Source: "Airport Land Use Planning Handbook," California Department of Transportation, Division of Aeronautics, December 1993 and Airport Compatible Land Use Design Book, Denver Regional Council of Governments

- 3) What steps can or should be taken by the Commission to prohibit or discourage incompatible airport-area land uses in the future?

## **II. The Aviation Regulatory Situation; Federal, State and County/Local**

### **A. Federal Aviation Administration**

#### **i. FAA's Role in Aviation; What It Does and Does NOT Do**

The Federal Aviation Administration ("FAA"), a sub-agency of the U.S. Department of Transportation, is the primary agency of the federal government charged with air safety regulation and the development and operation of the nation's air traffic control system. In that connection, it regulates airports, airways, pilots, mechanics, and air controllers. It participates in the regulation of aircraft manufacturers, fixed base operators, aircraft repair facilities, and related matters.

The FAA, however, does not undertake to enact or enforce local land use controls, and leaves these issues to local government.

#### **ii. Noise and Noise Abatement (14 CFR Part 150)**

Noise can be defined as unwanted sound. Noise is perceived differently by different individuals. In addition to loudness (decibels in the A weighted range), other factors which affect noise include tone, frequency, duration, weather, wind, and time of day. Wind can shift the direction and location of sound while low ceilings may reflect sound and night time noise is more annoying than that same noise in the daytime.

The major sources of noise in an aircraft engine are the machinery noise and the exhaust noise from power production. Significant reductions have been made in noise from turbine (jet) engines but not much has been done to reduce noise in general aviation aircraft. The future appears more promising with the introduction of small turbine and diesel aircraft engines which produce less sound and emit fewer particles into the air.

Public Law 90-411 required appropriate federal agencies to control and abate aircraft noise. The FAA implemented FAR Part 36 which prescribes noise standards. The maximum allowable aircraft noise is 105 Effective Perceived Noise Level (decibels in the A weighted scale) dB-A for an aircraft approach, 103 EPNdB for sideline, and 101 EPNdB for takeoff. FAA Advisory Circular 36-3G list sound output for all general aviation (GA) aircraft. GA aircraft produce between 56.0 dB-A and 83.0 dB-A for a Grumman Tiger and a Saberliner (business jet).

Aircraft observed at the general aviation airports in Prince George's County were primarily two and four-seat personal aircraft with a few light twin-engine aircraft. No business jets can operate from the airports due to insufficient runway length. The airports' configuration, geometry, topography, and location do not allow runway expansion to accommodate business jets at any of the four airports.

The Environmental Noise Act of 1974 established acceptable noise levels for categories of use. Residential zoning classification allowable maximum is 65 dB-A during the day and 55 dB-A at night (10:00 p.m. - 7:00 a.m.). Two years ago, the Michael Baker Jr. Corporation measured and analyzed noise exposure at Potomac Airfield using the FAA Integrated Noise Exposure Model, Version 5.11. The 65 DNL (averaged Day Night Level) affected 18 residential lots in Rose Valley Estates.

The FAA has defined noise contour mapping in its Airport Land Use Handbook with 50-60 dB-A DNL as clearly acceptable noise levels; 55-60 as normally acceptable noise levels, 60-65 as marginally acceptable levels, 65-70 as normally unacceptable levels, and 70-75 as clearly unacceptable levels.

A few of the residents in the Rose Valley Estates subdivision have complained and voiced concern about aircraft noise from Potomac Airfield. However, Featherstone Drive is a "no outlet" street in a suburban area and residents there might expect lower ambient noise levels than residents might in other neighborhoods. The Environmental Protection Agency has established levels for neighborhoods with a quiet suburb being 40 dB-A DNL; 55 for a normal suburb; 60 for an urban; and 65 for a noisy urban setting. Residents on that street would also be affected more from a single incident such as a night takeoff.

The noise contours (airport noise footprint) for Potomac Airfield from the Potomac Airfield Report - June 1999 are included in this Report. The footprints for the other airports in the County, though not actually measured, would be similar since runway length, runway directionality and use, fleet mix, usage periods, and in some cases, annual traffic counts, are similar. Further, flight times are primarily in daylight hours when sound is considered less obtrusive.

The noise footprint created for Potomac Airfield has been overlaid on the other three airport areas since the type of aircraft serving the airports are very similar in type. Runway length adjustments have been made in the contours to approximate the noise impact. In order to have the noise contours precise, actual monitoring and specific measurements would need to be taken. If any of the airports were to seek federal funding, noise studies and environmental impact studies would be required by FAA.

Based on a number of findings by Consultant, including a limited telephone survey, airport noise from the general aviation airports in the County was not considered a significant issue.

### iii. Airport Improvements

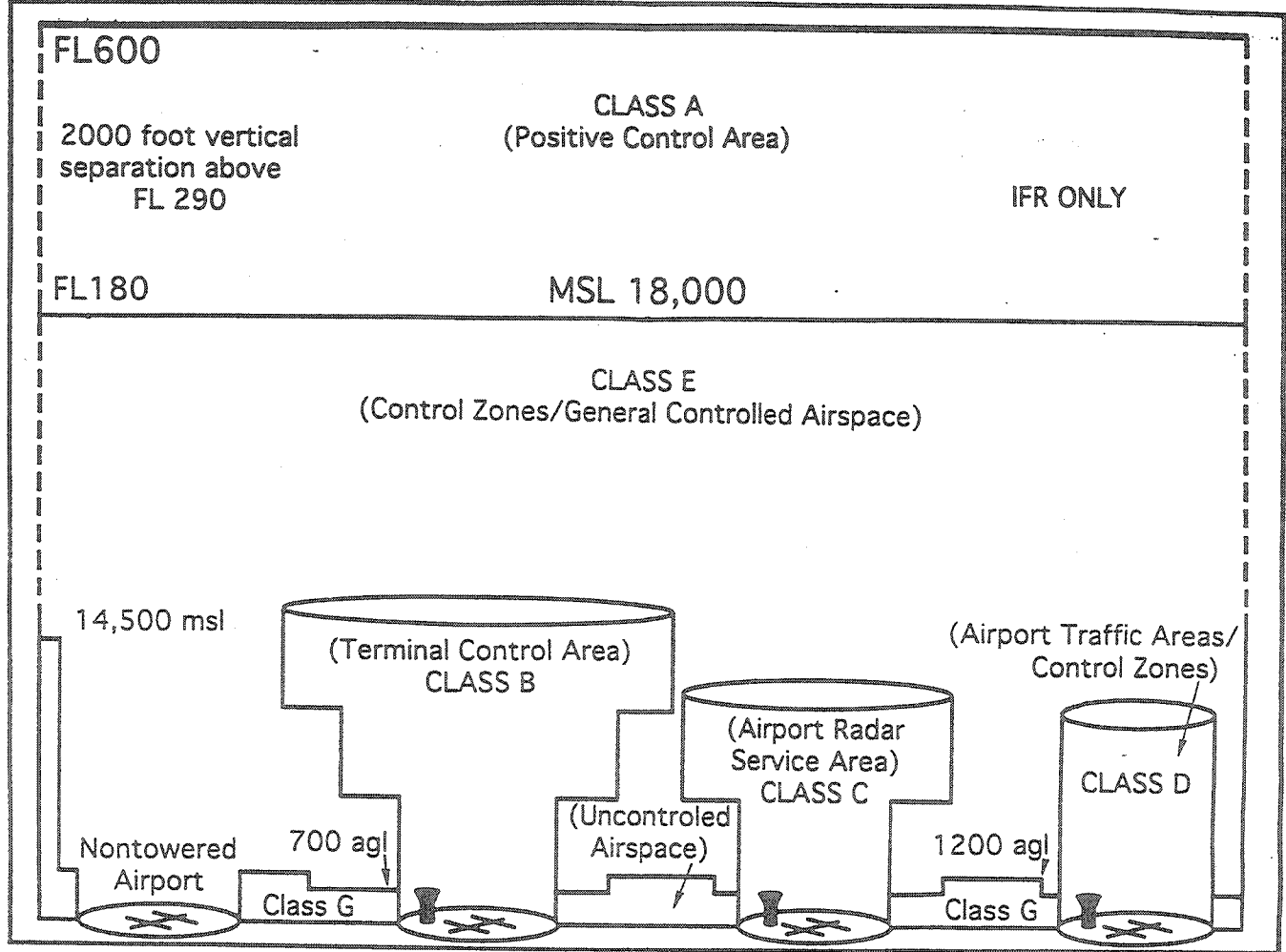
At the moment, none of the four airports is a recipient of federal funds to operate, maintain or upgrade the airports. Washington Executive/Hyde Field has been found "eligible" for funds and is currently planning to make application in order to realign the runway and upgrade the facility overall, in view of the fact that the airport has been declared as a "reliever" airport to Reagan-Washington National airport nearby. Of course, runway lengths restrict the size and type of aircraft that can land at Washington Executive/Hyde Field. In real terms, a twin-engine turbo-propeller aircraft would be the most advanced aircraft that could land at the field as presently configured, but a runway extension to 4,800 feet might accommodate some business jets.

CHART 2

POTOMAC AIRFIELD STUDY

AIRSPACE CLASSIFICATION

FIGURE V-3



msl - mean sea level

agl - above ground level

FL - flight level

	A	B	C	D	E	G
Former Airspace Equivalent	Positive Control Airspace (PCA)	Terminal Control Area (TCA)	Airport Radar Service Area (ARSA)	Airport Traffic Area (ATA) and Control Zone (CZ)	General Controlled Airspace	Uncontrolled Airspace
Operations Permitted	IFR	IFR and VFR	IFR and VFR	IFR and VFR	IFR and VFR	IFR and VFR
Entry Requirements	ATC Clearance	ATC Clearance	ATC Clearance for IFR All require radio contact	ATC Clearance for IFR All require radio contact	ATC Clearance for IFR All require radio contact	None
Minimum Pilot Qualifications	Instrument Rating	Private or student certificate	Student certificate	Student certificate	Student certificate	Student certificate
Two-way Radio Communications	Yes	-	Yes	Yes	Yes for IFR	Yes for IFR
VFR Minimum Visibility	N/A	3 statute miles	3 statute miles	3 statute miles	3 statute miles <sup>1</sup>	1 statute mile <sup>2</sup>
VFR Minimum Distance from Clouds	N/A	Clear of Clouds	500' below, 1000' above, and 2000' horizontal	500' below, 1000' above, and 2000' horizontal	500' below, 1000' above, and 2000' horizontal <sup>1</sup>	Clear of Clouds <sup>4</sup>
Aircraft Separation	All	All	IFR, SVFR and runway operations	IFR, SVFR and runway operations	IFR and SVFR	None
Traffic Advisories	N/A	N/A	Yes	Workload permitting	Workload permitting	Workload permitting
Safety Alerts	Yes	Yes	Yes	Yes	Yes	Yes
Differs from ICAO	No	Yes <sup>5</sup>	Yes <sup>6</sup>	Yes for VFR <sup>7</sup>	No	Yes for VFR <sup>8</sup>

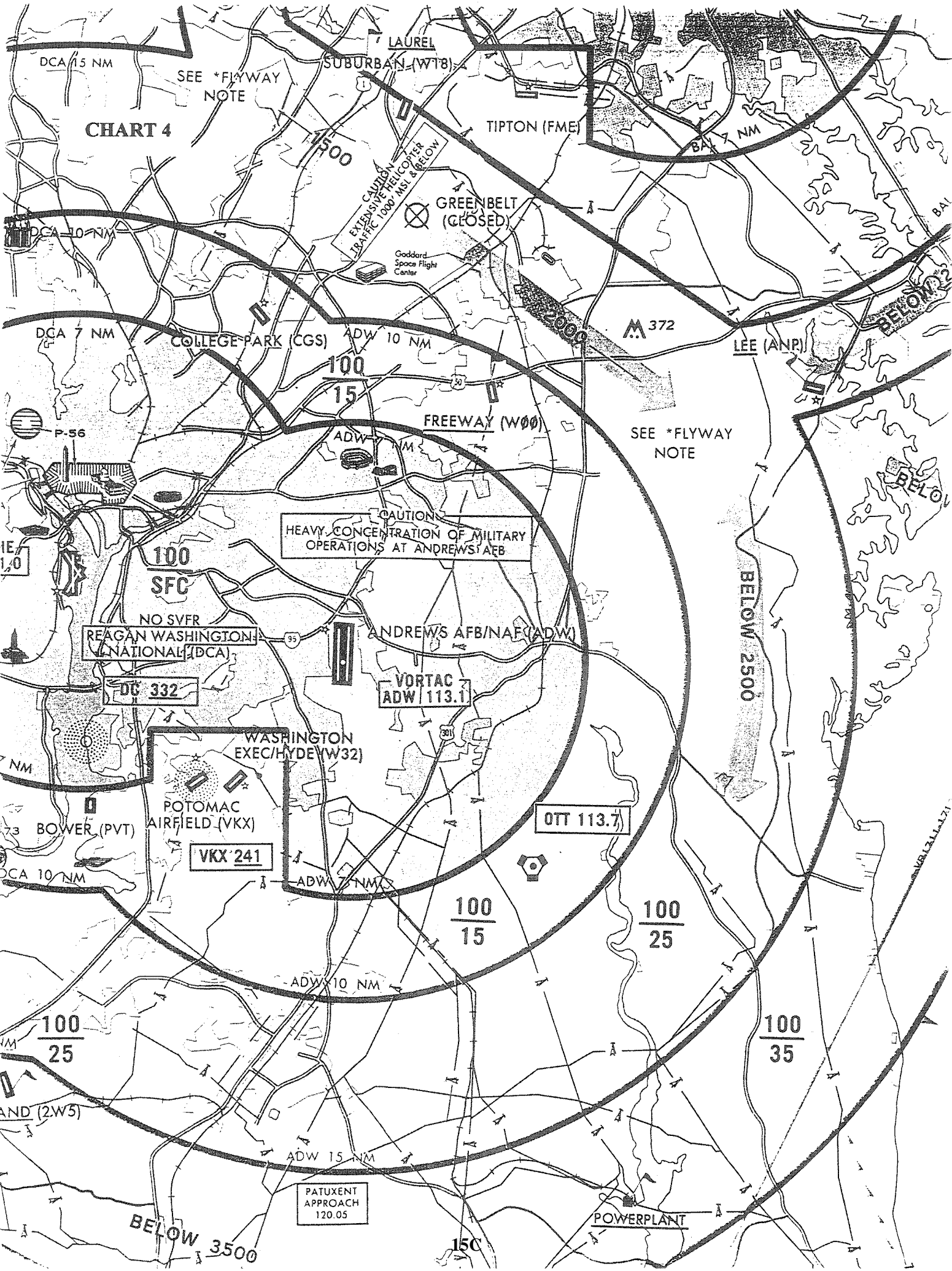
1. Operations at or above 10,000' MSL -5 Statute miles.  
 2. Night operations below 10,000' MSL -3 Statute miles; day or night operations at or above 10,000' MSL-5 Statute miles.  
 3. Operations at or above 10,000' MSL -1,000' below, 1,000' above and 1 statute mile horizontal.  
 4. Operations more than 1,200' AGL, but less than 10,000' MSL -500' below, 1,000' above, 2,000' horizontal.  
 Operations at or above 10,000' MSL -1,000' below, 1,000' above, 1 statute mile horizontal.

5. ICAO does not have speed restrictions in this class (FAR 91.117).  
 6. ICAO does not have speed restrictions in this class (FAR 91.117); ICAO requires clearance.  
 7. ICAO requires ATC clearance.  
 8. ICAO requires 3 statute miles visibility.

# SECTION OF THE (1998) MARYLAND AERONAUTICAL CHART



CHART 4



DCA 15 NM

SEE \*FLYWAY NOTE

LAUREL  
SUBURBAN (W18)

TIPTON (FME)

BAL 7 NM

CAUTION  
EXTENSIVE HELICOPTER  
TRAFFIC 1000 MSL & BELOW

GREENBELT  
(CLOSED)

Goddard Space Flight  
Center

DCA 10 NM

DCA 7 NM

COLLEGE PARK (CGS)

ADW 10 NM

M 372

LEE (ANP)

BELOW 2500

P-56

100  
15

FREEWAY (W00)

SEE \*FLYWAY  
NOTE

CAUTION  
HEAVY CONCENTRATION OF MILITARY  
OPERATIONS AT ANDREWS AFB

100  
SFC

NO SVFR  
REAGAN WASHINGTON  
NATIONAL (DCA)

DC 332

ANDREWS AFB/NAF (ADW)

VORTAC  
ADW 113.1

WASHINGTON  
EXEC/HYDE (W32)

OTT 113.7

73 BOWER (PVT)

POTOMAC  
AIRFIELD (VKX)

VKX 241

ADW 7 NM

100  
15

100  
25

DCA 10 NM

ADW 10 NM

100  
25

100  
35

AND (2W5)

ADW 15 NM

PATUXENT  
APPROACH  
120.05

POWERPLANT

BELOW 3500

150

**iv. Air Traffic Control; Classes of Airspace; Issue of Concerns about Proximity to Reagan-Washington National Airport and Andrews Air Force Base**

The FAA operates an Air Traffic Control system throughout the country. It requires aircraft operating in the skies to be generally under the control of air traffic controllers sited somewhere in the area of operation. On the other hand, where private aircraft are approaching smaller general aviation airports, there may be no "positive" control of those craft. Pilots are required to make their approaches while watching for the possibility of other aircraft in the vicinity.

Occasionally, small airports will have what is called a "unicom" radio system operating. This means that a person or an automated device responds by local radio to aircraft calls from the area, giving such information as wind, runway conditions, warning of other traffic in the area, and so on. Many fields now have an automatic response unicom, not actually "manned," but when the call is made by approaching aircraft, the unicom automatically responds with certain information which is "canned." Naturally, such a situation is not as effective as having a personal response, but it is economic. Other aircraft in the area also are able to hear the exchange on their radios, assuming they are tuned to the correct frequency for the airport. This alerts them to the location of air traffic and gives information about the airport.

When a small aircraft is operating in restricted air, it must be under "positive" control of an FAA air controller, using what is called a "squawk" system, meaning that a radio signal is given from the aircraft to the FAA so that the controller knows where the aircraft is at all times.

Most of this information is not relevant to the current situation; however, it is important to recognize that in the particular case of two airports in Prince George's County—Potomac Airfield and Washington Executive/Hyde Field, a joint automatic unicom responder is used to help control air traffic. This is less than an optimal solution.

In addition, all pilots must observe certain categories of airspace while in flight. As can be seen by a current copy of an aeronautical chart and by the depiction of how the airspace is divided, both Potomac Airfield and Washington Executive/Hyde Field have airspace carved out of the total airspace which is allotted or assigned to those fields and traffic operating in the area below the Class "B" airspace, which airspace is reserved for jet and military aircraft.

Any pilot nearing or intending to enter the area, including the Class "B" airspace, will need to be aware of the rules governing the various space allocations. It is said that airspace assignments resemble an upside-down wedding cake, with the core surrounding the primary airports from the surface (ground level) to the airspace's ceiling. In the Washington area, for the primary airports, the core ceiling is 10,000 feet. The various layers, levels, or shelves (all synonymous) then extend laterally from the core at 3 to 10 mile increments, with each layer having a prescribed altitude floor. All levels rise to the same common ceiling of the Washington airspace. The floor of the next (2<sup>nd</sup>) layer starts at 1,500 feet and extends equal to the core ceiling of 10,000 feet. All of the airports under study lie below the floor of the second layers which begin at 1,500 feet. Thus, when operating below any of the floors, an aircraft out of the Class "B" airspace is out of any required positive control of Air Traffic Control (ATC). Aircraft operating below Class "B"



airspace, in the veil out to 30 actual miles, are not required to be in contact with Air Traffic Control (ATC); however, aircraft flying outside their own airport traffic pattern (beyond two nautical miles) should have a transponder turned on "Mode C" with altitude reporting so that ATC has traffic alert information and can identify aircraft position, altitude, direction flight, track and projected course, and act to separate known IFR aircraft from those aircraft operating under the veil of Class "B" airspace but not in direct communication with ATC.

As far as the question of whether air operations from the Prince George's County airports endanger an aircraft and its occupants, when those operations are in an area of heavy aircraft activity from Reagan-Washington National Airport and Andrews Air Force Base, Consultant made inquiries of each of the towers, airport operators, pilots and others, and, based on the responses, and Consultant's knowledge of the airspace system, the operations works successfully, without traffic problems. One Consultant team member took a proving flight in the area, flew through Washington Approach-controlled airspace with landings and take-offs at each of the four airports. The system operated properly, without any observed problems, during the flights and while the aircraft was in contact with Andrews Air Traffic Control Tower and Washington Approach Control.

Consultant's conclusions on this issue are that there is no more danger to pilots, aircraft and residents as a result of the proximity to the major airports, than in any other airspace. In fact, because of the large number of military and civilian jet operations, all pilots are likely to be more vigilant than in ordinary circumstances, adding a margin of safety to all operations.

#### v. Height and Structure Restrictions (14 CFR Part 77).

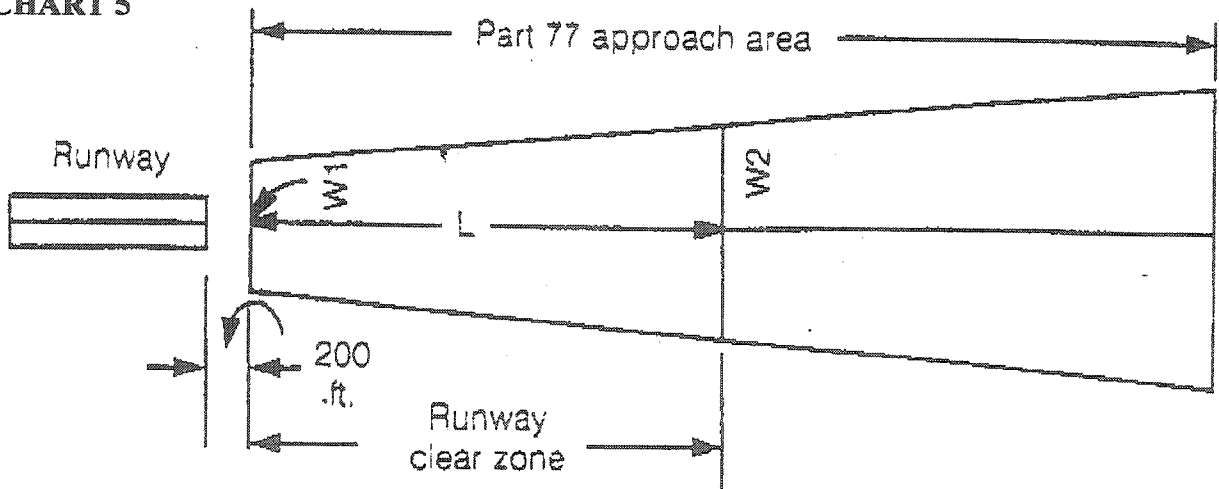
The FAA's regulation of airspace around airports is established primarily to protect aircraft. FAA notifies pilots and airport operators of hazardous conditions. However, only local governments have the authority to correct or prevent any construction or alterations which would pose a hazard to air navigation. Federal Aviation Regulation (FAR) Part 77 identifies airspace within which development should be controlled to protect air navigation. It describes a number of imaginary surfaces with various shapes for different types of airports and runway configurations. Whether a particular object constitutes an obstruction depends on the height of the object and its location in proximity to the airport. The regulations establish a three-dimensional space in the air around the airport; any object penetrating that space is considered an obstruction hazard and may affect the aeronautical use of the airspace. Antennas, buildings, other types of structures and trees should be limited so as not to pose a threat to aircraft.

Dimensions of the surfaces vary from airport to airport depending on the runway classification. Descriptions of the surfaces are abbreviated from the federal document.

**Primary Surface:** a surface longitudinally centered on a runway and extending 200 feet beyond the end of that runway. The width of this surface is 250 feet. The elevation of any point on the primary surface is the same as the elevation of the runway at that point.

**Approach Surface:** a surface longitudinally centered on the extended runway centerline and extending outward and upward from each end

**CHART 5**



Category	$W_1$	$W_2$	$L^*$
1. Precision instrument runway	1,000	1,750	2,500
2. Nonprecision instrument runway for larger than utility with visibility minimums as low as $\frac{3}{4}$ mile	1,000	1,510	1,700
3. Nonprecision instrument runway for larger than utility with visibility minimum greater than $\frac{3}{4}$ mile	500	1,000	1,700
4. Visual approach runway for larger than utility	500	700	1,000
5. Nonprecision approach for utility	500	800	1,000
6. Visual approach runway for utility	250	450	1,000

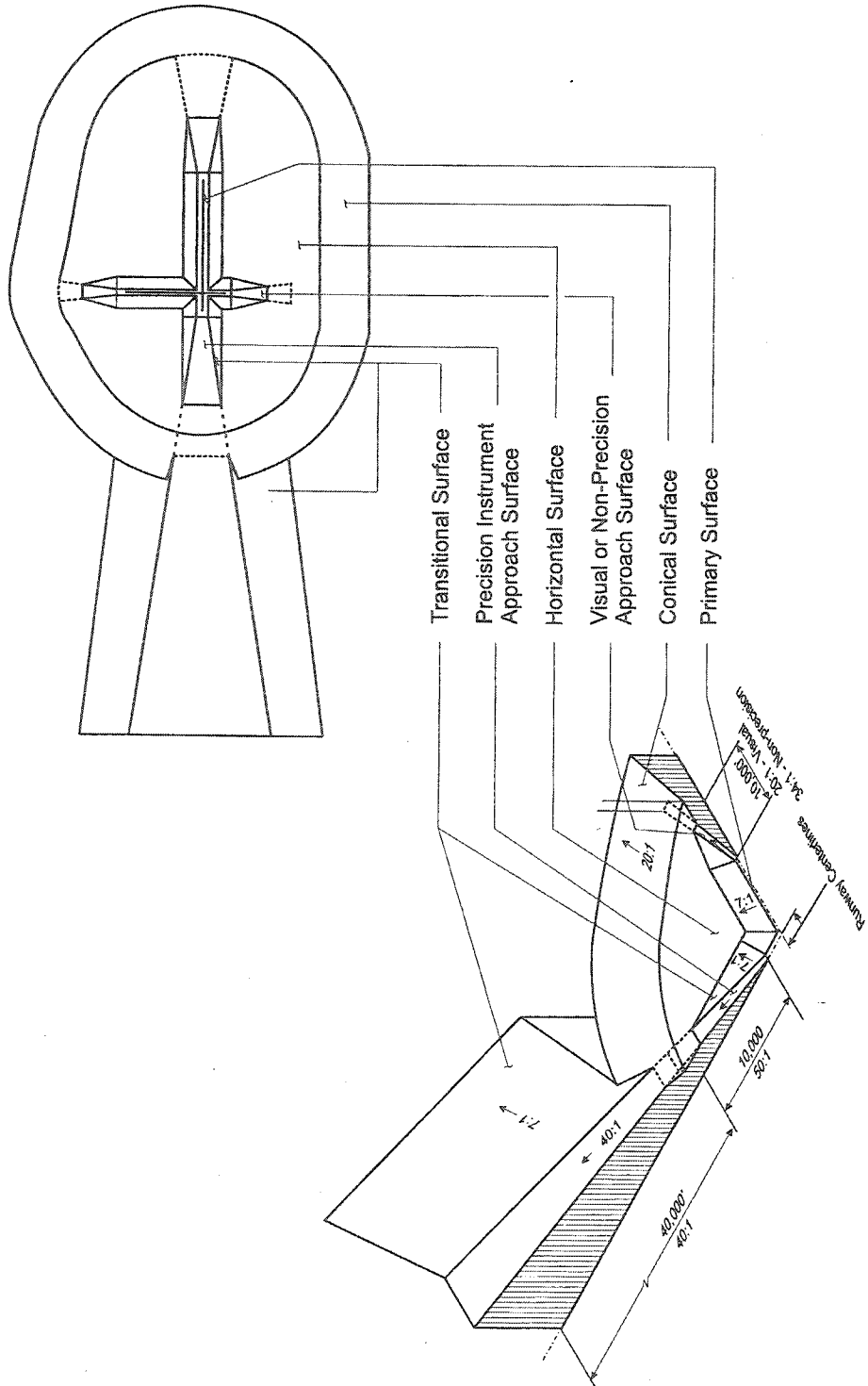
\*Length of clear zone is determined by distance required to reach a height of 50 ft. for the appropriate surface.

*Runway clear zones.* Federal Aviation Administration

Figure 1

PART 77 IMAGINARY SURFACES

CHART 6



LAND USES	FAR Part 77 "Imaginary Surfaces"					FAA Safety Zones
	Primary Surface	Transitional Surface	Horizontal Surface	Conical Surface	Approach Surface	Runway Protection Zone
<b>RESIDENTIAL</b>						
Residential - other than mobile homes, transient lodgings	NC	NC	C	C	NC	NC
Mobile home parks/mobile homes	NC	NC	C	C	NC	NC
Transient lodgings	NC	NC	C	C	NC	NC
<b>PUBLIC USE</b>						
Places of public assembly (nursing homes, schools, hospitals, churches, auditoriums)	NC	NC	C	C	NC	NC
Governmental Buildings	NC	NC	C	C	NC	NC
Transportation (parking, highways, bus and rail terminals, aviation terminals)	NC	C	C	C	C	*
<b>COMMERCIAL</b>						
Offices - business and professional	NC	C	C	C	NC	NC
Wholesale/retail - materials, hardware and farm equipment	NC	C	C	C	NC	NC
Retail trade - general	NC	C	C	C	NC	NC
Utilities	NC	C	C	C	C	*
Communications (telephone exchange stations, relay towers, transmission stations)	NC	*	C	C	NC	NC
<b>MANUFACTURING</b>						
Manufacturing-general	NC	*	C	C	NC	NC
Agriculture (except livestock)	NC	C	C	C	C	*
Livestock farming and breeding	NC	C	C	C	C	NC
Resource extraction (mining)	NC	NC	C	C	NC	NC
Forestry	NC	C	C	C	NC	NC
<b>RECREATIONAL</b>						
Outdoor sports arenas, amphitheaters	NC	NC	C	C	NC	NC
Nature exhibits, zoos	NC	NC	C	C	NC	NC
Amusement parks, resorts, camps	NC	NC	C	C	NC	NC
Golf courses	NC	C	C	C	NC	NC
Parks	NC	C	C	C	C	C

**KEY**

- C - Generally compatible land use
- NC - Incompatible land use
- \* - Not clearly compatible or incompatible, requires specific study

**CRITERIA FOR COMPATIBILITY**

- |   |  |   |
|---|--|---|
| 1. Does not exceed height standards.                | 4. Does not cause a distracting light/glare. | 6. Does not cause an electrical interference. |
| 2. Does not attract large concentrations of people. | 5. Does not cause a source of smoke.         | 7. Does meet compatible DNL sound levels.     |
| 3. Does not create a bird attractant.               |  |   |



of the primary surface. The inner edge of the approach surface is the same as the width of the primary surface and it expands uniformly to 1,250 feet at a distance of 5,000 feet. The slope of this surface is 20:1.

**Transitional Surface:** these surfaces extend outward and upward at right angles to the runway centerline or its extension at a slope of 7:1 from the sides of the primary surfaces and the approach surfaces.

**Horizontal Surface:** a horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of 5,000 feet from the center of each end of the primary surface of each runway and connecting the adjacent arc by lines tangent to those arcs.

**Conical Surface:** a surface extending outward and upward from the periphery of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.

The purpose of these imaginary surfaces is to protect the approach, departure, and circling airspace in the vicinity of the airport. Any object that penetrates the surfaces is an obstruction. FAA reviews each proposed obstruction to determine if it constitutes a hazard to air navigation. Note a Land Uses chart from North Dakota that is based on Part 77.

In addition to natural objects or man-made structures that protrude above the planes or surfaces defined, certain other uses are to be restricted or prohibited: 1) uses which release into the air any substance which would impair visibility or otherwise interfere with the operation of aircraft (i.e. steam, dust, or smoke); 2) uses which produce light emissions, either direct or indirect (reflective), which would interfere with pilot vision; 3) uses which produce electrical emissions which would interfere with aircraft communications systems or navigational equipment; 4) uses which would attract birds or waterfowl, including but not limited to, operation of sanitary landfills, maintenance of feeding stations, sand and gravel dredging operations, storm water retention ponds, created wetland areas, or the growing of certain vegetation.

## B. Statement of Policy Regarding Local Airport Issues

An inventory of land uses in the vicinity of each existing airport has been accomplished by the planning staff of the M-NCPPC so that subsequent planning processes, rezoning requests, building permits, or special use requests can be based upon the feasibility of future uses of an airport or the land near an airport. Current zoning maps and plans show existing and planned uses, highways, property owners, and boundaries. Copies of zoning laws, building codes, and other regulations and ordinances have been obtained from the M-NCPPC and many other locations. Recommendations for amending the Prince George's County ordinances and regulations for future uses have been made in this Report. All of these have an effect on airport-related land use and airport neighbors. Off-airport land use is influenced by surrounding communities, but all of the airport environment areas involved, with the exception of the College Park Airport area are subject to County jurisdiction.

The use of airports (Potomac Airfield, Washington Executive/Hyde Field, College Park Airport, and Freeway Airport), and the considerations of citizens in the nearby towns (Friendly, Mitchellville, Clinton, Bowie, College Park, Berwyn Heights, and Riverdale), regional (M-NCPPC) and Maryland state planners, and the University of Maryland, must be carefully coordinated. The configuration, direction, and length of airport runways, taxiways, and approach zones established in an airport layout plan provide the basis for a land use plan for areas on and adjacent to the airport. The land use plan for an airport and its environment, in turn, is an integral part of an area-wide comprehensive planning program. The location, size, and configuration of the airport needs to be coordinated with patterns of residential and other major land uses in the area, as well as transportation facilities and public services. Within the comprehensive planning framework, airport planning, policies, and programs must be coordinated with the objectives, policies, and programs for the area in which the airport is located and the residents it is to serve. Despite the fact that certain non airport-compatible uses have appeared, there is still time for the authorities to impact future development and prevent or discourage further incompatible uses.

## III. State Aviation Authorities and Regulation

Every state has a department or agency which undertakes to do some type of supervision and regulation over aviation activities. It is recognized that most the areas of concern are pre-empted by federal authority—aviation safety, overflight rights, and even runway configuration are in the purview of the FAA. Nonetheless, the state agencies do exert some level of control, depending upon the legislative mandate under which they exist and operate. Typically, the aviation agency is found under the transportation department in a given state.

In some states, the involvement of state aviation agencies is more intensive than in others. In some jurisdictions, the state owns or directly controls a number of airports. In others, it has no interest in ownership of airports, but collects fees for aircraft registration, produces information for local airport or government authorities, provides advice when asked, and administers airport assistance funds from state and/or federal sources.

As far as airport land use compatibility issues are concerned, a few state agencies or governmental associations have created airport land use manuals and provided them to local governments. Several models of these activities were examined as part of this Report. California

provided leadership in the land use area by commissioning a study in the early 1980s which, in turn, used information gathered by the Institute of Transportation Studies at the University of California-Berkeley. That study and others have created the basis of a number of publications in Colorado, Florida, New Jersey, North Dakota, Oregon, Washington state, and elsewhere. Some were completed as a result of statutory "mandate," some on a "courtesy" basis.

Consultant queried *every* state agency in the country as part of the research for this Report to determine whether those agencies: 1) provided an airport land use compatibility guide or handbook; 2) knew of specific strategies that local governments used in their state to manage incompatibilities; and, 3) provided advice to local governments as to how to manage existing incompatibilities. Of the 50 states, 25 agencies responded to the requests for information. A summary of the responses is in Appendix 2. Most state agencies do not provide printing airport compatibility land use materials; some provide copies of sample ordinances or other legal materials, and few give much advice to local governments except to refer them to federal regulations.

#### **IV. Maryland Aviation Administration**

The Maryland Aviation Administration ("MAA") is a sub-agency of the State Department of Transportation acting under statutory authority. Its duties are set forth in the statute and essentially comprise the following:

- 1) Promotion and regulation of aviation within the state;
- 2) Licensing of private airports;
- 3) Providing advice and assistance to local governments on aviation matters.

MAA has responded to several questions posed of it by the M-NCPPC in the past while the Potomac Airfield study of 1999 was in preparation. MAA lacks manpower and funding to be as effective as some state aviation agencies. It does license private airports, conduct limited air traffic counts, and keep records on aircraft accidents and other pertinent data. It has not been as strict as FAA in discretionary matters, and has granted waivers on runway width, for example, which would not have met FAA standards had the airports been federally funded.

MAA stated in a letter to Consultant that it had advised Prince George's County concerning airport safety issues, but that it was "frustrated" that some of the advice had not been followed.

#### **V. Prince George's County and the Maryland-National Capital Park and Planning Commission**

The M-NCPPC, the planning and zoning authority for Prince George's County is in the unusual role of being an airport owner/operator as well and as such, should be intimately involved with aviation issues. M-NCPPC is not only the owner of one of the airports involved in this Report—College Park—but it also owns land adjacent to that airport, and also is the owner of land adjacent to Potomac Airfield. Potomac Airfield is bounded by trees on the east side of Runway 24 on land owned by the M-NCPPC. At College Park, three sides of the airport have tall trees on land owned by the M-NCPPC. So, in its role as airport owner, it may have responsibilities beyond that of being a planning and zoning authority. In the discussion later recommendations are made