





TUIC	$\mathbf{D} \mathbf{A} \mathbf{C}$	3E IN	TENT	IIV	I FFT	ÐІ	

## **Table of Contents**

Chapter 1	Introduction	1 of 8
1.0 Pur	pose of the Guidebook	1
1.1 low	a Aviation System Plan – Definition of Airport Roles	3
1.2 lmp	ortance of Aviation in Iowa	5
1.2.	a. Aviation Activity in Iowa	6
1.2.	b. Economic Value	6
	c. Improved Quality of Life	
Chapter 2	Importance of Land Use Compatibility	1 of 20
2.0 lmp	ortance of Land Use Compatibility	1
2.1 Def	nition of Compatible Land Use	2
2.2 Prin	nary FAA Criteria Related to Land Use	3
2.2.	a. Grant Assurances, Airport and Airway Improvements Act of 1982,	
	United States Code (USC), Title 49, subtitle VII as amended	4
2.2.	b. FAA Design Standards	5
2.2.		
2.2.	d. Other Airport Related Surfaces	13
2.3 Airc	raft Accident Information	14
2.3.		
2.3.	b. Aircraft and Airport Accident – Phase of Flight	17
2.3.	c. Aircraft and Airport Accident – Causes	19
2.4 Sun	nmary	20
Chapter 3	Compatibility Concerns	1 of 58
3.0 Ove	rview of Land Use Compatibility Issues	
	nary Areas of Interest	
	a. Noise Sensitivity Related Issues	
	b. Safety Related Issues	
	d-Use Classifications	
	a. Residential Activities	
3.2.		
3.2.		
3.2.		
3.2.	e. Infrastructure Activities	42
3.2.	f. Agriculture and Open Space Activities	46
3.2.	g. Parks and Recreational Activities	53



# Iowa Airport Land Use Guidebook

Chapter 4	Airport Land Use Compatibility Zones	1 of 25
4.0 Land	d Use Compatibility Zones	1
	is for Land Use Zones	
4.1.	a. Runway Protection Zones	2
4.1.		
4.2 Stat	e of Iowa Airport Overlay Zones	
4.2.		
4.2.		
4.2.		
4.2.		
4.2.		
4.3 Con	npatibility Assessment	
4.3.		
4.3.		
4.3.		
4.3.0		
Chapter 5	Prevention and Mitigation Strategies	1 of 36
5.0 Prev	vention and Mitigation Strategies	
	nning Related Strategies	
5.1.		
5.1.		
5.1.		
5.1.0		
5.1.		
5.1.		
5.2 Natu	ural Features	
5.2.		
5.2.		
5.3 Acq	uisition and Notification Strategies	
5.3.		
5.3.		
5.3.		
5.3.	_	
5.4 Nois	se Mitigation Strategies	
5.4.		
5.4.		



#### **Iowa Airport Land Use Guidebook**

5.5 Impl	ementation	28
5.5.		
5.5.1		
5.5.0	c. Example of Checklist Use	34
5.6 Sum	mary	
Chapter 6	Resources	1 of 12
6.0 Res	ources	1
6.1 lowa	Airport Land Use Survey	1
	ting Land Use Controls	
	ource Contacts	
6.3.		
6.3.1		
	Planning Organizations (MPO)	8
6.3.0		
6.3.0		
6.4 lowa	Regulations Relating to Land Use	
	eral Regulations Relating to Land Use	
	e and Federal Case Law	
Appendices		
Appendix A	Glossary	1 of 21
Appendix B	Iowa Airport Specifications	1 of 12
Appendix C	Memorandum of Understanding (MOU)	1 of 4
Appendix D	Disclosure Statement	1 of 1
Appendix E	Non-Suit Covenant	1 of 2
Appendix F	Noise Easement	1 of 3
Appendix G	Avigation Easements	1 of 9
Appendix H	Hold Harmless Agreement	1 of 1
Appendix I	Disclosure to Real Estate Buyer	1 of 2
Appendix J	Compatible Land Use Planning Checklist	1 of 14
Appendix K	lowa Land Use Survey Results	1 of 21
Appendix L	Resource Contacts	1 of 8
Appendix M	State of Iowa Legislation	1 of 16
Appendix N	Federal Legislation	
Appendix O	State of Iowa Case Law	
Appendix P	Federal Case Law	1 of 8
Appendix Q	Airport Land Use and Height Overlay Zoning Ordinance Outline	
Reference D		1 of 4

## **List of Figures**

		Introduction	
1-1	Location	of Iowa's Publicly-Owned Airports	2
		oort Roles - 2004	
1-3	Percenta	ages of Airports by Airport Role	4
1-4	Publicly-	Owned Airports in Iowa by System Role	5
Cha	pter 2	Importance of Land Use Compatibility	1 of 20
2-1	Runway	Protection Zone Diagram	7
2-2	FAR Par	t 77 Surfaces – Plain View	11
2-3	FAR Par	t 77 Surfaces – 3D Isometric View of Section A	11
2-4	Proximit	y of General Aviation Accidents to Nearest Airport	16
2-5	Proximit	y of Air Carrier Accidents to Nearest Airport	17
Cha	pter 3	Compatibility Concerns	1 of 58
3-1	Commo	Noise Levels and the Associated Decibel Levels	2
3-2	Sample	Noise Contour Map	5
3-3	Evaluation	on Criteria Where Wildlife Attractants are Not Allowed	15
Cha	pter 4	Airport Land Use Compatibility Zones	1 of 25
4-1	Airport C	Overlay Zones A-E Diagram	7
4-2	Zone A -	- Runway Protection Zone (RPZ) Diagram	9
4-3	Building	Restriction Line	11
Cha	pter 5	Prevention and Mitigation Strategies	1 of 36
5-1	Relation	ship of Planning Strategies	8
		on and Mitigation Strategy Avigation Easement	
5-3	Land Us	e Compatibility Planning Actions	29
<b>Cha</b>		Resources	1 of 12

January 2008

#### **List of Tables**

Cha	pter 1 Introduction	1 of 8
1-1	Statewide Aviation Demand in Iowa_	6
Cha	pter 2 Importance of Land Use Compatibility	1 of 20
2-1	Runway Protection Zone Dimensional Requirements	
	FAR Part 77 Surface Dimensional Requirements	
	General Aviation and Commercial Aircraft Accident Data	
Cha	pter 3 Compatibility Concerns	1 of 58
3-1	Land Use Compatibility with Yearly Day-Night Average Sound Levels (DNL)	8
3-2	Land-Use Compatibility Chart for Residential Activities	22
3-3	Land-Use Compatibility Chart for Commercial Activities	26
3-4	Land-Use Compatibility Chart for Industrial/Manufacturing Activities	34
3-5	Land-Use Compatibility Chart for Institutional Activities	40
3-6	Land-Use Compatibility Chart for Infrastructure Activities	45
3-7	Minimum Distance Between Certain Airport Features and Any On-Airport Agric	ulture
	Crops	49
3-8	Land-Use Compatibility Chart for Agriculture and Open Space Activities	52
3-9	Land-Use Compatibility Chart for Parks and Recreation Activities	58
Cha	pter 4 Airport Land Use Compatibility Zones	1 of 25
4-1	Land Use Airport Overlay Zones	6
4-2	Zone A Dimensional Requirements	9
4-3	Airport Overlay Zones B-E Dimensional Standards	10
4-4	Airport Zone Chart for Residential Activities	17
4-5	Airport Zone Chart for Commercial Activities	18
4-6	Airport Zone Chart for Industrial/Manufacturing Activities	20
4-7	Airport Zone Chart for Institutional Activities	22
4-8	Airport Zone Chart for Infrastructure Activities	23
4-9	Airport Zone Chart for Agriculture and Open Space Activities	24
4-10	Airport Zone Chart for Parks and Recreational Activities	25



#### **lowa Airport Land Use Guidebook**

Cha	pter 5 Prevention and Mitigation Strategies	1 of 36
	Matrix of Authority for Compatible Land Use Plans	
	Prevention and Mitigation Strategies Overview	
	Acquisition and Notification for Compatible Land Uses	
Cha	pter 6 Resources	1 of 16
6-1	Percent of Airports Reporting Residential Land Use	3
6-2	Percent of Airports Reporting Agricultural Land Use	3
6-3	Percent of Airports Reporting Recreational Land Use	3
	Percent of Airports Reporting Open Water Land Uses	
	Percent of Airports Reporting Noise Sensitive Land Uses	
6-6	Percent of Airports Reporting Other Land Uses	5