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Washington, DC 20591

State Regulation of Heliport Design

Robert D. Smith
Federal Aviation Administration
Washington, DC 20591

May 2001

Final Report

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16. Abstract

To the extent that they choose to do so, the design of private heliports is regulated, NOT by the FAA but by the 50 States. In order to gain a better appreciation of the extent to which States have chosen to regulate heliports, the FAA sought the cooperation of the National Association of State Officials (NASAO). Of particular interest is the extent to which the States have made use of the FAA Heliport Design Advisory Circular (AC150/5390-2A). Based on a list of questions provided by the FAA, NASAO surveyed their members. This document summarizes the FAA's analysis of the 42 State responses to the NASAO questionnaire.

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A. INTRODUCTION.

In 1997, the FAA proposed a revision to the Heliport Design Advisory Circular (AC150-5390-2A). During discussions about the proposed AC, certain Industry representatives made a number of assertions regarding the use of AC150/5390-2A by the various States. Among these were the following:

INDUSTRY ASSERTIONS CONCERNING THE FAA HELIPORT DESIGN AC

- The FAA Heliport Design advisory circular (AC) is regulatory because its recommendations are adopted by the States as law.

- The FAA should not modify the Heliport Design AC because changes in these recommendations will dramatically increase the cost of new heliports.

- Heliport accidents are due to the fact that these heliports do not meet the recommendations of the current FAA Heliport Design AC. Rather than making FAA recommendations more demanding, the FAA should work toward bringing heliports into compliance with the existing recommendations.

- Many, perhaps 50 percent or more, of existing heliports do not meet the recommendations of the FAA Heliport Design AC150/5390-2A.

Over the last 16 years, Industry has made these or similar assertions every time the FAA has proposed changes to the Heliport Design AC. Three of the above four assertions differed significantly from the FAA's understanding of the situation.

To the extent that they choose to do so, the design of private heliports is regulated, NOT by the FAA but by the 50 States. In order to gain a better appreciation of the extent to which States have chosen to regulate heliports, the FAA sought the cooperation of the National Association of State Officials (NASAO). Of particular interest is the extent to which the States have made use of the FAA Heliport Design advisory circular (AC150/5390-2A). This survey also provided an opportunity for the FAA to test several of the above Industry assertions. Based on a list of questions provided by the FAA, NASAO surveyed their members. (See Appendix 1 for the questionnaire and their December 3, 1997 cover letter.) This document summarizes the FAA's analysis of the 42 State responses to the NASAO questionnaire.

[The reader should be aware that the States responses were based on a proposed 1997 revision to the Heliport Design AC. Continued FAA/Industry discussion on this draft took place over a period of several years. In January 2000, the FAA finally released a draft AC150/5390-2B for public review and comment. This January 2000 draft differs significantly from the 1997 draft on which parts of the NASAO survey was based. None the less, there is still much to be learned from an analysis of the States' responses.]

B. DISTRIBUTION OF THE NASAO QUESTIONNAIRE AND STATE RESPONSES.

In December 1997, NASAO distributed their questionnaire to all 50 States. In early 1998, the FAA received a total of 42 responses. The FAA did not receive responses from AL, AR, KS, KY, NJ, SC, WA, and WV. Although a New Jersey aviation official indicated, in subsequent discussions, that they had responded to the NASAO questionnaire, the FAA never received the New Jersey response.

C. SUMMARY OF THE STATE AVIATION DEPARTMENT RESPONSES TO FAA QUESTIONS.

Question 1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part.
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used inspecting heliports within the state.
(Please indicate what state regulations govern, if any.)

C1. Summary of Answers to Question 1 – How is the AC Applied?

a. 5 (FL,GA,LA,NE,SD), including 1 (GA) with qualifications (see Section D below)
b. 3 (CA, MI, MN), ALL with qualifications (see Section D below)
c. 25
d. 3
e. 3
There were 6 responses that did not select any of the answers a through e.
Several State responses included multiple answers.

Question 2. Does your state law require a license or some other form of state approval for:

a. Private Heliports: YES___ NO___
b. Hospital Heliports: YES___ NO___
c. Public Heliports: YES___ NO___

C2. Summary of Answers to Question 2 – Heliport License or Approval Required?

a. YES: 12;	YES with qualification: 4;	NO: 26
b. YES: 16;	YES with qualification: 4;	NO: 22
c. YES: 24;	YES with qualification: 2;	NO: 16

Question 3. Does your state have an upgrade program to bring heliports into compliance with the existing AC150/5390-2A, or state regulations?

YES____ NO____
If YES, please provide a brief description of your plan:

C3. Summary of Answers to Question 3 – Upgrade Program in Place?

YES: 7 (HI, IL, LA, MN, OH, PA, RI), all 7 qualify this answer in various ways
NO: 33 including 1 with qualifications
Other responses: 2

Question 4. With the changes to AC150/5390-2A, would you expect any effect on heliport costs in your state?

a. Expect no effect: YES____ NO____ N/A____
b. Expect a small decrease in costs: YES____ NO____ N/A____
c. Expect a large decrease in costs: YES____ NO____ N/A____
d. Expect a small increase in costs: YES____ NO____ N/A____
e. Expect a large increase in costs: YES____ NO____ N/A____
For b, c, d, or e, please provide details to show how you arrived at that conclusion.

C4. Summary of Answers to Question 4 – Expected Cost Impact?

a. no effect: 18
b. small decrease: 0
c. large decrease: 0
d. small increase: 15
e. large increase: 5 (AZ, CA, CT, HI, MS)
A total of 4 States (MD, MT, ND, TX) answered Not Applicable.
Maryland also commented that they expected "minimal effect":
Several State responses included multiple answers.

Question 5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a. Expect no effect: YES____ NO____ N/A____
b. Expect a small decrease in costs: YES____ NO____ N/A____
c. Expect a large decrease in costs: YES____ NO____ N/A____
d. Expect a small increase in costs: YES____ NO____ N/A____
e. Expect a large increase in costs: YES____ NO____ N/A____
For b, c, d, or e, please provide details to show how you arrived at that conclusion.

C5. Summary of Answers to Question 5 – Private Heliport Cost Impact?

a. no effect: 21
b. small decrease: 0
c. large decrease: 0
d. small increase: 13
e. large increase: 3 (HI, MS. OH)

One (1) State: (TX) answered: Not Applicable.
One (1) State: (MD) answered: "don't know".
Several State responses included multiple answers.

Question 6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

Question 7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

Question 8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown ____

C6. Summary of Answers to Question 6, 7, and 8 – Heliport Compliance with the Proposed Advisory Circular? [The summary percentages shown below take into account the individual percentage estimates in the States' responses and the approximate number of private, hospital, and public heliports in each State.]

State Estimates of the Percentage of Heliports That Would Meet the Proposed FAA Recommendations of AC150/5490-2B:

	PRIVATE	HOSPITAL	PUBLIC
Would meet the **proposed** AC recommendations:	28-35%	31-40%	26-34%
Would NOT meet the **proposed** AC recommendations:	10-18%	4-13%	14-22%
Unknown (either the State's answer was "unknown" or there was no answer from the State):	47-62%	47-65%	44-60%

D. FAA ANALYSIS OF INDUSTRY ASSERTIONS.

During the last decade, various Industry spokesmen have repeatedly made the following assertions at many meetings with the FAA. This section addresses these assertions in light of the State responses to the FAA's questions.

D1.1. Industry Assertion – The AC is Regulatory: The FAA Heliport Design AC is regulatory because its recommendations are adopted by the States as law.

D1.2. FAA Response: Based on a recent NASAO survey, only 8 States have indicated that they have adopted the FAA Heliport Design AC, or some part of it, within their regulatory statutes. Of these 8, only 5 States indicate that they have adopted the AC in its entirety. However, while Georgia's response is one of these five, another statement in their response indicates that they have NOT adopted AC Chapters 2, Private Heliports, since their regulations only apply to public heliports, of which they have none. The situation in Nebraska is virtually identical the situation in Georgia. Although both States have responded that they have adopted the entire Heliport Design AC as a State regulation, their response to other questions indicates that this is not the case.

Three States indicate that they have adopted the AC in part.

<u>States who responded that they have adopted the AC in its entirety</u>:

Florida
Georgia: **only applies to public heliports and "We have no public heliports."**
Louisiana
Nebraska: **They only require a license for public heliports and they have none.**
South Dakota

Thus, in these 5 States, it appears that State regulations apply the FAA Heliport Design AC to approximately 10 percent of the nation's heliports.

<u>States who responded that they have adopted a portion of the AC</u>:

California: State regulations specifically incorporate Chapter 3 of the Heliport Design AC. State regulations also incorporate some other requirements from the AC.

Michigan: only applies to hospital and public heliports

Minnesota: "Used as a design guide when our office works with a proponent in establishing or altering a heliport. More parts will be adopted as we revise our agency rules."

Thus, in these 3 States, it appears that State regulations apply a portion of the FAA Heliport Design AC to approximately 2 percent of the nation heliports.

Of these eight States, only Louisiana and Minnesota indicate that they have a process to bring heliports into compliance with the Heliport Design AC. Minnesota's comments indicate that they are "inspecting existing hospital heliports to upgrade them and bring into compliance with our agency rules." Presumably, no similar effort is underway for other, non-hospital heliports in Minnesota.

D1.3. Summary: While many States make some use of the FAA Heliport Design AC, very few adopt it as a State regulation. Of the eight States who do adopt the AC (in its entirety or, more typically, in part), only Louisiana and Minnesota have a process for bringing existing heliports into compliance. Minnesota's process apparently only applies to hospital heliports.

The FAA is pleased that some States have adopted the AC (in part or in its entirety) as State regulation. If all States were to do so, there would be a gradual improvement in the safety margins at many heliports. Any such decision, however, is entirely the purview of the individual States.

D2.1. Industry Assertion - The Cost of Changes to the AC: The FAA should not modify the Heliport Design AC because changes in these recommendations will dramatically increase the cost of heliports.

D2.2. FAA Response: While it is logical to assume that an increase in the FAA's heliport design recommendations would result in some increase in heliport costs, a recent NASAO survey shows that only five State aviation departments expect a large increase in heliport costs. With regard to the deletion of the current chapter on private heliport design, only three State aviation departments expect a large increase in costs as a consequence.

While the FAA is not uninterested in the cost impact of changes to the Heliport Design AC, we believe the most important question is "What are the minimum heliport design requirements for safe operation?" In the last dozen years, we have pursued this question via a wide variety of approaches and we are confident in our conclusion that the recommendations of the FAA Heliport Design AC are inadequate in a number of respects. This is why the FAA has proposed revisions to the current AC.

Feedback from Industry indicates that some are in agreement with the results and conclusions of our heliport design research and some are not. Both groups are welcome to their opinions. The FAA Heliport Design AC is an **ADVISORY** document. Heliport design regulation is largely the responsibility of the States. Each state is free to accept or reject FAA advice. Historically, it is clear that the many States feel very free to do so. The NASAO survey has provided a detailed look at what some 42 States are doing in this regard. It is also very clear that the FAA has no interest in usurping the statutory authority of the States with regard to the regulation of private heliports.

It should be noted that a revised Heliport Design AC (or a revised Airport Design AC) applies only to facilities, or significant facility modifications, developed after the AC is approved and published.

Existing facilities are "grandfathered." Thus, any increase in heliport cost would be for future facilities

D2.3. Summary: By strengthening heliport design recommendations, the FAA is encouraging the rotorcraft community to design and operate rotorcraft landing sites to a higher standard. Achieving this standard will not happen overnight. Industry can choose to help this happen over a period of years or Industry can choose to oppose such improvement. The three major public concerns about helicopters are noise, safety, and intrusiveness. There is a cost associated with achieving a higher safety standard. But Industry cannot expect the public to regard them as safe if they continue to oppose every recommended increase in the safety margin of heliport design recommendations.

D3.1. Industry Assertion - Accidents: Heliport accidents are due to the fact that these heliports do not meet the recommendations of the FAA Heliport Design AC. Rather than making FAA recommendations more demanding, the FAA should work toward bringing heliports into compliance with the existing recommendations.

D3.2. FAA Response: While many may initially find this comment appealing, it is deceptive. More than 98 percent of heliports in the USA are private. Could the FAA attempt to bring them into compliance by regulation? The answer is clearly "no". As Industry regularly reminds us, the FAA has no statutory authority to regulate private heliports (or private airports). This authority lies with the States. The FAA does not seek to usurp this authority and both the rotorcraft Industry and the States could be expected to oppose the FAA if the agency attempted to do so.

Could the FAA attempt to bring private heliports into compliance with the FAA Heliport Design AC by encouraging the States to regulate them more rigorously? The answer to this question varies from State to State. Texas proudly states that they do not in any way regulate heliports. No amount of FAA encouragement is likely to change this. Many States make some use of the FAA Heliport Design AC. A few States even adopt the AC or, more typically, parts of it as State regulation. In these States, FAA encouragement, **with Industry cooperation**, might bring more private heliports into compliance. However, without active Industry cooperation, only limited progress can be expected. While the FAA would welcome such Industry cooperation, Industry has historically been cool to any such suggestions. While the AC is being revised, Industry attention is focused on changes proposed. Until the revised AC is published and the Industry has been able to reflect upon the changes, it would be premature to propose any joint efforts toward improving compliance.

Only two States have indicated that they have programs for bringing heliports into compliance with the current FAA Heliport Design AC. In the past, there has been no Industry support for establishing such programs in other States or strengthening the existing programs in those few States that have them. There are no indications that this position is likely to change. Industry values highly their current ability to decide on an individual basis, operator by operator, mission by mission, whether they will add any safety margin to their existing heliports. Whatever cooperation

they might be willing to provide can be expected to depend on an FAA understanding that it would be entirely voluntary on the part of each helicopter operator.

Less than 2 percent of heliports in the USA are public. While the FAA has the statutory authority to regulate such public facilities, Industry has lobbied heavily to limit the ways in which the FAA exercises this authority. To a very significant degree, Industry has been successful in this regard. In all the hundreds of pages of Federal Aviation Regulations (FARs), there are only a very few paragraphs that specifically touch on heliport design issues. Industry has historically opposed virtually all heliport regulation and there are no indications that this position is likely to change. No significant amount of additional material is likely to be drafted in the foreseeable future.

D3.3. Summary: Historically, Industry has strongly opposed the idea that anyone should attempt to bring private heliports into compliance with the existing Heliport Design AC. Industry has particularly opposed any suggestion that the FAA should attempt to play an active role in such efforts. Thus, one should give no credence to the recommendation of a few Rotorcraft Industry representatives that the FAA should now attempt what Industry has long opposed vigorously. This Industry assertion should be seen as no more than an excuse to delay any FAA attempt to strengthen the recommendations of the Heliport Design AC.

D4.1. Industry Assertion – Current Compliance with the AC: Many, perhaps 50 percent or more, of existing heliports do not meet the recommendations of the FAA Heliport Design AC150/5390-2A.

D4.2. FAA Response: The FAA has no reason to disagree with this assertion. The FAA has conducted no surveys that would allow the agency to make a precise estimate on this issue. The recent survey did NOT ask the States for an estimate of the number of heliports that would meet the FAA recommendations of the current AC150/5390-2A. Instead, it asked the States for an estimate of the number of heliports that would meet the FAA recommendations of the proposed AC150/5390-2B. One would expect that the percentage of existing heliports that meets the proposed AC150/5390-2B (1997 draft) would be a somewhat smaller percentage than the percentage that meets the current AC150/5390-2A. As seen below, the States estimates are far from precise. However, their estimates are consistent with the Industry assertion that perhaps 50 percent or more of existing heliports do not meet the recommendations of the FAA Heliport Design AC150/5390-2A.

D4.3. Summary:

NASAO SURVEY OF STATE AVIATION DEPARTMENTS

State Estimates of the Percentage of Heliports That Would Meet the Proposed FAA Recommendations of the 1997 draft AC150/5490-2B:

	PRIVATE	HOSPITAL	PUBLIC
Would meet the **proposed** AC recommendations:	28-35%	31-40%	26-34%
Would NOT meet the **proposed** AC recommendations:	10-18%	4-13%	14-22%
Unknown (either the State's answer was "unknown" or there was no answer from the State):	47-62%	47-65%	44-60%

E. CONCLUSIONS.

E1. With regard to the four assertions made by Industry, the NASAO survey supports the FAA's understanding that several of these assertions are faulty. Specifically:

Industry Assertion: The FAA Heliport Design advisory circular (AC) is regulatory because its recommendations are adopted by the States as law.

FAA Response: The FAA Heliport Design advisory circular (AC) is an **ADVISORY** document and the FAA intends to continue treating it as such. The FAA is pleased that some States have adopted the AC (in its entirety, or, more typically, in part) as State regulation. The NASAO survey indicates that only a small percentage of the States, perhaps 20 percent, have done so. If all States were to do so, there would be a gradual improvement in the safety margins at many heliports. Any such decision, however, is entirely the purview of the individual States.

Industry Assertion: The FAA should not modify the Heliport Design AC because changes in these recommendations will dramatically increase the cost of heliports.

FAA Response: By strengthening heliport design recommendations, the FAA is encouraging the rotorcraft community to design and operate rotorcraft landing sites to a higher standard. Achieving this standard will not happen overnight. Industry can choose to help this happen over a period of years or Industry can choose to oppose such improvement. The three major public concerns about helicopters are noise, safety, and intrusiveness. While there is a cost associated with achieving a higher safety standard, the NASAO survey indicated that few states anticipate a large increase in costs. Industry should also recognize that they can not expect the public to regard them as safe if they continue to oppose every recommended increase in the safety margin of heliport design recommendations.

Industry Assertion: Heliport accidents are due to the fact that these heliports do not meet the recommendations of the FAA Heliport Design AC. Rather than making FAA recommendations

more demanding, the FAA should work toward bringing heliports into compliance with the existing recommendations.

FAA Response: Historically, Industry has strongly opposed the idea that anyone should attempt to bring private heliports into compliance with the existing Heliport Design AC. Industry has particularly opposed any suggestion that the FAA should attempt to play an active role in such efforts. Thus, one should give no credence to the recommendation of a few Rotorcraft Industry representatives that the FAA should now attempt what Industry has long opposed vigorously. This Industry assertion should be seen as no more than an excuse to delay any FAA attempt to strengthen the recommendations of the Heliport Design AC.

E2. With regard to one key assertion made by Industry, the NASAO survey supports an FAA understanding that Industry is probably correct.

Industry Assertion: Many, perhaps 50 percent or more, of existing heliports do not meet the recommendations of the FAA Heliport Design AC150/5390-2A.

FAA Response: The FAA has no reason to disagree with this assertion. Rather, the apparent truth of this statement is an indication that gradual steps need to be taken to improve the design of existing heliports in order to improve the safety of these facilities. Some of these non-compliant heliports were built long before the current Heliport Design AC. Perhaps they were designed to comply with the then current Heliport Design AC. Perhaps they were built in one of the many States that have not adopted the AC as a regulation. As the NASAO survey shows, VERY few States have a program to require heliport owners to bring existing heliports into compliance with the current FAA Heliport Design AC. In most States, any such improvements are at the discretion of the heliport owner. Many have not chosen to do so. Since the FAA has no statutory authority to regulate private heliports (or private airports), regulation of heliports must be done at the State or local level. Industry has asserted that many cities, towns, and municipalities use the FAA Design AC as a de facto requirement. The NASAO survey did not attempt to survey at the local level.

APPENDIX 1. NASAO QUESTIONNAIRE AND COVER LETTER

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part.
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used inspecting heliports within the state
(Please indicate below what state regulations govern, if any.)

Please expand on your answer if necessary:

2. Does your state law require a license or some other form of state approval for:

a. Private Heliports: YES___ NO___
b. Hospital Heliports: YES___ NO___
c. Public Heliports: YES___ NO___

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC150/5390-2A, or state regulations?

YES ____
NO ____

If YES, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as a reference for answering the following questions:

4. With the changes to AC150/5390-2A, would you expect any effect on heliport costs in your state?

a. Expect no effect: YES____ NO____ N/A____
b. Expect a small decrease in costs: YES____ NO____ N/A____
c. Expect a large decrease in costs: YES____ NO____ N/A____
d. Expect a small increase in costs: YES____ NO____ N/A____
e. Expect a large increase in costs: YES____ NO____ N/A____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a. Expect no effect:	YES____	NO____	N/A____
b. Expect a small decrease in costs:	YES____	NO____	N/A____
c. Expect a large decrease in costs:	YES____	NO____	N/A____
d. Expect a small increase in costs:	YES____	NO____	N/A____
e. Expect a large increase in costs:	YES____	NO____	N/A____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown ____

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown ____

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown ____

9. If we have questions concerning your response, who could we contact for further discussion?

General Comments and/or suggestions for the Revision:

PLEASE MAIL YOUR RESPONSE NO LATER THAN 01/09/98 TO:

Mr. Robert Bonanni
FAA, AAS-100
800 Independence Ave. SW
Washington DC 20591
(202) 267-8761

ACTION CALL

DATE: December 3, 1997

TO: State Aviation Directors

FROM: Lori Lehnerd

RE: FAA Survey on Helicopter Design Advisory Circular

In an ongoing effort to upgrade and improve the design standard for heliport operations, Advisory Circular (AC) 150/5390-2A, the FAA has revised the AC to establish one level of safety for all heliports by incorporating the existing private heliport chapter into the general aviation chapter and incorporating all design recommendations into that chapter. The draft document represents the minimum recommended requirements for both public and private general aviation facilities independent of their ownership status. The FAA undertook this revision to incorporate the latest research to date for the safe operations in and around heliports and are confident that the requirements in the new AC will enhance that safety.

The FAA Airports Office has asked us to distribute the attached questionnaire. The purpose of this questionnaire is to help the FAA gauge the implementation of the AC and how it has been applied by the various state aviation agencies. It should also give the FAA the needed insight into the impact of the new AC prior to its official release. Your input is very important to the development of a useful document - one which is focused on its intended audience.

Please mail the survey back by January 9, 1998 to Robert Bonanni of the FAA Airport Safety and Standards Office at the following address: AAS-100, Federal Aviation Administration, 800 Independence Avenue SW, Washington DC, 20591. If you have any questions or comments concerning the attached survey or the Heliport AC, please contact Robert at (202) 267-8761.

Thank you in advance for your participation and effort in filling this out.

NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS
Metro Plaza One • Suite 505 • 8401 Colesville Road • Silver Spring, MD 20910-3349
(301) 588-0587 • FAX: (301) 588-1288

Table 1

Advisory Circular 150/5390-2 Design Changes

	Existing AC 150/5390-2A				Proposed AC 150/5390-2B		
	Private Use Chapter 2	Gen. Aviation Chapter 3	Hospital Chapter 5	Transport Chapter 4	Gen. Aviation Chapter 2	Hospital Chapter 4	Transport Chapter 3
FATO:							
Width	1.5 x OL	1.5 x OL	1.5 x OL	2.0 x RD	2.0 x RD	2 x OL**	2.0 x RD or 100'
Length	1.5 x OL	1.5 x OL + (A)	1.5 x OL	200 ft + (A)	200 ft + (A)	2 x OL**	200 ft + (A)
TLOF	1.5 X UC	1 RD	40 ft	1 RD or 50 ft	1 RD	40 ft or 1 RD	1 RD or 50 ft
Safety Zone	10 ft or 1/3 RD	20 ft or 1/3 RD	10 ft or 1/3 RD	30 ft	30 ft or ½ RD	30 ft or ½ RD	30 ft***
Protection Zone	N/D	280 ft	N/D	280 ft	400 ft	N/D	800 ft
Clearances:							
Taxiway Width	N/D	2.0 X UC	N/D	2.0 x UC	2.0 x UC	N/D	2.0 x UC
Taxi Route Width:	N/D	1 RD + 40ft H	N/D	1 RD + 40ft H	2 RD	N/D	2 RD or 1 RD + 60'
		1 RD + 20ft G		1 RD + 20ft G			2 RD or 1 RD + 80'
Parking Clearance:							
Skid	N/D	10 ft or 1/3 RD	N/D	10 ft or 1/3 RD	30 ft or ½ RD	N/D	30 ft or ½ RD
Wheeled	N/D	10 ft	N/D	10 ft	30 ft or ½ RD	N/D	30 ft or ½ RD
VFR Airspace	Trapezoid – 500' wide at 4000' Horz. & 500' Vert.				Trapezoid – 1650' wide at 4000" Horz. & 500' Vert.		

Legend:

OL - Overall Length
RD - Rotor Diameter
H - Hover
G - Ground
(A) - Formula for additional length above 1000 ft MSL.
(the formula differs between existing and new AC)
UC - Undercarriage Width or Length
N/D Not Defined
** OL will be changed to RD in final draft.
*** (or 1/2 RD) wil be added in the final draft

APPENDIX 2. STATE RESPONSES TO THE NASAO QUESTIONNAIRE

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

We use the most current design standards when constructing facilities, however, we do not "adopt" them into our administrative code.

2. Does your state law require a license, certificate, or some other form of state approval for:

a. Private Heliports: YES____ NO X
b. Hospital Heliports: YES____ NO X
c. Public Heliports: YES____ NO X

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes
No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES____	NO X	N/A ____
b.	Expect a small decrease in costs:	YES____	NO____	N/A ____
c.	Expect a large decrease in costs:	YES____	NO____	N/A ____
d.	Expect a small increase in costs:	YES____	NO____	N/A ____
e.	Expect a large increase in costs:	YES____	NO____	N/A ____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO X	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% X – Formal heliports, not other helicopter landing areas such as logging camps
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% X – Strictly a guess, since we have no state regulatory authority over same
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% X – This includes informal landing areas, i.e. logging camps, survey camps, etc.
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

Carl Siebe, PE
Airports Engineer
AK Dept of Transportation
(907) 269-0725

12-8-97

General Comments and/or suggestions for the Revision:

We only use the AC for heliports developed with AIP funds. Ship and offshore drill rigs are always cramped for space, and will probably never be in compliance. The AC might try to provide guidance for these situations.

PLEASE MAIL YOUR RESPONSES NO LATER THAN 01/09/98 TO:

Mr. Robert Bonanni
FAA, AAS-100
800 Independence Ave. SW
Washington DC 20591
(202) 267-8761

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

a.	Private Heliports:	YES___	NO ✓
b.	Hospital Heliports:	YES___	NO ✓
c.	Public Heliports:	YES___	NO ✓

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

Yes ___
No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO ✓	N/A ___
b.	Expect a small decrease in costs:	YES___	NO ✓	N/A ___
c.	Expect a large decrease in costs:	YES___	NO ✓	N/A ___
d.	Expect a small increase in costs:	YES___	NO ✓	N/A ___
e.	Expect a large increase in costs:	YES ✓	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

May require relocation in order to accomodate new dimension

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO ✓	N/A ___
b.	Expect a small decrease in costs:	YES___	NO ✓	N/A ___
c.	Expect a large decrease in costs:	YES___	NO ✓	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO ✓	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

See comment on 4

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

9. If we have questions concerning your responses, who could we contact for further discussion?

Ray Boucher or Gary Adams

602-254-6234

California

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory ~~statutes~~ in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

Our regulations (copy enclosed) state that a permitted heliport will be designed in accordance with FAA ACs. More specifically, we reference Chapter 3 of the current AC for marking and lighting for all heliports.

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES X NO___ except heliports used only for personal reasons
   b. Hospital Heliports: YES X NO___ no commercial purpose
   c. Public Heliports: YES X NO___

Please attach procedure or form.

enclosed is a copy of our regulations for getting a heliport permit.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ___

If Yes, please provide a brief description of your plan:

Hard to answer directly. Once a heliport has a permit, that permit is valid so long as conditions at the heliport don't change. This would suggest that we cannot mandate higher standards, but we do work with owners to encourage that they upgrade to a higher standard, if standards have changed.

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES X	NO___	N/A ___
e.	Expect a large increase in costs:	YES X	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Hard to say how much of an increase. However, under the AC prior to the current one, heliport consultants (paid to design heliports for our permit process) complained that the higher standard of 2XRD was a hardship for their clients.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO X	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

This is a qualified NO. All permitted heliports already are required to meet GA standards, so losing the private use standards will have no effect. There will be an increase in costs if the GA standards are increased.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% X approximately
e. Between 80 and 100% ___
f. Unknown ___

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% X approximately
f. Unknown ___

8. **Within your state, please estimate the percentage of public heliports that meet all of the existing public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___ N/A
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

9. **If we have questions concerning your responses, who could we contact for further discussion?**

Betsy Eskridge 916-654-5203

General Comments and/or suggestions for the Revision:

All heliports in California are subject to a permit requirement in accordance with State law. The law specifies that our office, which administers the permit process, must be satisfied that a proposed heliport will meet some minimum design standard before we can issue the permit. For many years, we have incorporated the Heliport Design AC recommendations into our permitting regulations as the basic standards for heliport design rather than create some standards separate from the nationally accepted ones in the AC. As you can see, our specific heliport design standards, as described in Sections 3550 through 3554 of the enclosed copy of our permitting regulations, pretty much mirror the AC's recommendations for GA heliports. If a revised AC changes basic design features, such as FATO or TLOF sizes, we would change our standards accordingly.

In the short term, changes to the AC would compel our office to amend our regulations through the Administrative Procedures Act process. More importantly, in the long term, the changes you propose will make it more difficult for heliports to be developed because of the additional clear space that will be required.

Since the 1960's, except for the period from 1988 to 1994, the AC has recommended a FATO/takeoff and landing area size of 1.5 times the overall length of the design helicopter. Most permitted heliports in California were designed to this standard. We certainly encourage that heliports be designed with as large a clear operating area as possible, but we realize that the extra space is frequently not available. While our office does not track reports of accidents at heliports, we are not aware of any helicopter accident at a permitted heliport in California. Considering this excellent safety record, we are concerned that your proposed increase in design standards do not appear to be necessary. Since the current standards appear to be adequate, we are very interested in knowing what information you are using to justify the increase in standards. If there is a justifiable need in the interests of public safety to increase the clearance standards, then we would support a change to the AC; but if there is not a justifiable need and only an "impression" that there is need, then we would object to an increase in the standards.

On a separate subject, we would like to see the AC more specifically address the issue of curved approach/takeoff paths (approach surfaces). It would be ideal if all approach/takeoff paths could be straight for the entire 4000 feet. However, these paths sometimes need to be curved for a variety of reasons; such as, to avoid overflying noise sensitive areas or to avoid structures/terrain. In the 1969 version of the AC, there was a chart that showed a recommended radius for a curved path. Subsequent versions of the AC have not provided any guidance for determining an appropriate radius. When a heliport proponent needs a curved approach/takeoff path and applies to us for a permit, we do not have enough information to determine whether or not their proposed radius of curve is appropriate or not.

Whether or not you include this information in the next AC, our office would like some guidance from you about how you recommend we address the curved approach/takeoff path issue.

California Code of Regulations

Title 21 Sections 3525 through 3560

Airports and Heliports

Prepared by

California Department of Transportation
Aeronautics Program, M.S. # 40
P.O. Box 942874
Sacramento, CA 94274-0001

(916) 654-4959

Marlin Beckwith
Program Manager

Effective
April 20, 1997

TITLE 21

AIRPORTS AND HELIPORTS

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California Code of Regulations

Title 21 Sections 3525 through 3560

AIRPORTS AND HELIPORTS

ARTICLE 1. DEFINITIONS

3525. PREAMBLE

The following rules and regulations are promulgated in accordance with Public Utilities Code, State Aeronautics Act. These rules and regulations do not supersede any of the regulations of the Federal Aviation Administration (FAA). The term "airport" shall apply equally to heliports unless specified for "airports only" or "heliports only".

3526. GENERAL

(a) These regulations are intended to be used in conjunction with relevant FAA Advisory Circulars (ACs); Title 14, Code of Federal Regulations [(CFRs); also referred to as Federal Aviation Regulations (FARs)]; and California Public Utilities Code (PUC), State Aeronautics Act, Sections 21001 et seq.

(b) Variations in proposed sites may justify the Department of Transportation's (Department's) reasonable deviations from the basic requirements contained herein through variances. Any justification for deviation must be balanced against the effect it would have on the safe use of the airport when compared to other advantages of the site.

(c) The Department hereby incorporates by reference pertinent sections of the following FAA ACs, all readily available from the FAA:

AC 70/7460-1J, "Obstruction Marking and Lighting", 1/1/96;
AC 150/5300-13, "Airport Design", 9/29/89, including through Change 4, 11/10/94;
AC 150/5325-4A, "Runway Length Requirements for Airport Design", 1/29/90, including through Change 1, 3/11/91;
AC 150/5340-1G, "Standards for Airport Markings", 9/27/93;
AC 150/5340-5B, "Segmented Circle Airport Marker System", 12/21/84, including through Change 1, 2/25/85;
AC 150/5340-24, "Runway & Taxiway Edge Lighting Systems", 9/3/75, including through Change 1, 11/25/77;
AC 150/5390-2A, "Heliport Design", 1/20/94.

3527. DEFINITIONS

Except as provided in this section, the terms in these regulations are defined in the FARs; FAA ACs; and the PUC, State Aeronautics Act, Sections 21001 et seq.

(a) Agricultural Airport: An airport restricted to use only by agricultural aerial applicator aircraft (FAR Part 137 operators).

(b) Approach Surface: A surface which begins at the end of the primary surface, with the same width as the primary surface, and extends outward and upward for a horizontal distance, width, and slope in accordance with FAR 77.25(d) for airports only and FAR 77.29(b) for heliports only.

(c) Approach/Takeoff Path: The flight track, centered within an approach surface, which helicopters follow when landing at or taking off from a heliport.

(d) Commercial Activities: Those activities which may offer a facility, service or commodity for sale, hire, profit, or any other business purpose. Examples of commodities for sale are: food, lodging, entertainment, real estate, petroleum products, parts and equipment. Examples of services are: flight training, charter flights, maintenance, aircraft storage and tie-down. Examples of a facility used for a business purpose are: facility used for the transport of persons for a corporate business purpose and a facility used to transport persons for compensation or hire.

(e) Design Helicopter: A generic helicopter which, for helicopters expected to operate at a heliport, reflects the maximum of the following design characteristics: weight, overall length, main rotor diameter, height, and length/width of the undercarriage.

(f) Displaced Threshold: A threshold at the approach end of a runway, not located at the physical end of a runway, which designates the beginning of the portion of the runway usable for landing.

(g) Emergency Medical Services (EMS) Landing Site: A site used for the landing and taking off of EMS helicopters that is located at or as near as practical to a medical emergency or at or near a medical facility and

(1) has been designated an EMS landing site by an officer authorized by a public safety agency, as defined in PUC Section 21662.1, using criteria that the public safety agency has determined is reasonable and prudent for the safe operation of EMS helicopters and

(2) is used, over any twelve month period, for no more than an average of six landings per month with a patient or patients on the helicopter, except to allow for adequate medical response to a mass casualty event even if that response causes the site to be used beyond these limits, and

(3) is not marked as a permitted heliport as described in Section 3554 of these regulations and

(4) is used only for emergency medical purposes.

(h) Emergency Use Facility: An area for accommodating helicopters in support of emergency public safety agency operations, but it is not used as a heliport for any other purpose.

(i) Final Approach and Takeoff Area (FATO): The area of a heliport over which the final phase of the approach to a hover or a landing is completed and from which the takeoff is initiated.

(j) Heliport: An area of land, water, or structure used or intended to be used for the landing and takeoff of helicopters.

(k) Obstruction to Air Navigation: Any object that is higher than any of the heights defined in FAR 77.23.

(l) Offshore Oil Platform: A structure in the ocean, not connected to the shore by pier, bridge, wharf, dock or breakwater, used in the support of petroleum exploration or production.

(m) Operation: Either the landing or takeoff of an aircraft.

(n) Owner: The person with the authority to possess the facility, which may be in "fee simple" or a leasehold for a period of at least one year.

(o) Personal-Use Airport: An airport limited to the noncommercial activities of an individual owner or family and occasional invited guests.

(p) Primary Surface:

(1) For airports only: A surface longitudinally centered on a runway with a width and length determined in accordance with FAR 77.25(c).

(2) For heliports only: The area of the primary surface, in accordance with FAR 77.29(a), coincides in size and shape with the designated FATO of a heliport. This surface is a horizontal plane at the elevation of the established heliport elevation.

(q) Public-Use Airport: An airport that is open for aircraft operations to the general public and is listed in the current edition of the Airport/Facility Directory that is published by the National Ocean Service of the U.S. Department of Commerce.

(r) Relocated Threshold: Defines the start of the usable portion of a runway, but is not located at the physical end of a runway.

(s) Runway (airports only): A defined rectangular area on an airport prepared for the landing and takeoff of aircraft.

(t) Safety Area:

(1) For airports only: A defined surface surrounding the runway or taxiway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway or taxiway.

(2) For heliports only: A defined area on a heliport surrounding the FATO which is free of objects at or above the elevation of the closest point of the TLOF, other than those required for air navigation purposes, and is intended to reduce the risk of damage to helicopters accidentally diverging from the FATO. Objects required for air navigation purposes within this area shall be on frangible mounts and shall not penetrate the approach or transitional surfaces by more than two inches.

(u) Seaplane Landing Site: An area of water used, or intended for use, for landing and takeoff of seaplanes.

(v) Site Approval Permit: A written approval issued by the Department authorizing construction of an airport in accordance with approved plans, specifications, and conditions.

(w) Special-Use Airport: An airport not open to the general public, access to which is controlled by the owner in support of commercial activities, public service operations and/or personal use.

(x) Taxiway: A designated, but not necessarily paved, path or route for aircraft to taxi from one airport area to another.

(y) Temporary Helicopter Landing Site: A site, other than an emergency medical service landing site at or near a medical facility, which is used for landing and taking off of helicopters and

(1) is used or intended to be used for less than one year, except for recurrent annual events, and

(2) is not marked or lighted to be distinguishable as a heliport and

(3) is not used exclusively for helicopter operations.

(z) Threshold: The beginning of that portion of the runway available and suitable for landing of aircraft.

(aa) Touchdown and Liftoff Area (TLOF): The load bearing area of a heliport that is centered within the FATO and upon which a helicopter lands or takes off.

(bb) Transitional Surface: Surface which extends outward and upward from the lateral boundaries of the primary surface and from the approach surfaces in accordance with FAR 77.25(e) for airports only or FAR 77.29(c) for heliports only.

ARTICLE 2. PERMITS

3530. PERMIT REQUIREMENTS

(a) No person may hold an airport open for use, unless otherwise exempted, without first applying for and obtaining an appropriate permit or authorization as required by the Department.

(b) No aircraft takeoff or landing may be made at a site that is not permitted, exempted, or authorized in accordance with these regulations.

(c) A separate heliport permit is not required for a designated heliport located within the boundaries of a permitted airport if the heliport meets heliport design standards as described in Article 4 of these regulations.

(d) Any permit issued by the Department shall continue in effect so long as the airport meets the conditions under which the permit is issued or until action is taken by the Department to revoke or suspend the permit.

(e) When airport ownership changes, the new airport owner shall submit an application [an Amended/Corrected Airport Permit-Application (DOA-0103 (Rev. 10/96) for airports only) or a Corrected Heliport Permit-Application (DOA-0202 (Rev. 10/96) for heliports only)] and documentation showing who owns the airport to the Department within 30 days of such change.

(f) Before physical or operational changes are made which affect conditions which have been imposed upon operation of the airport, the airport owner shall submit an application [an Amended/Corrected Airport Permit Application (DOA-0103 (Rev.10/96) for airports only) or a Corrected Heliport Permit Application (DOA-0202 (Rev. 10/96) for heliports only)] and supporting documentation identified on the applicable form to the Department to remove, add or amend the conditions. The application and supporting documentation shall be submitted to the Department by the airport owner at least 30 working days prior to the physical or operational change.

3532. TEMPORARY AIRPORT AUTHORIZATION

(a) No person may make aircraft landings and takeoffs from a nonpermitted or nonexempt site without first applying for and obtaining a temporary airport authorization from the Department to conduct such operations.

(b) For a temporary airport authorization other than for helicopter operations within 1000 feet of a school, a person shall apply for a temporary airport authorization by submitting a letter to the Department. Information to be submitted with the letter, for the application to be complete, is as follows:

(1) Name of person applying and name of the aircraft operator;
(2) Site location (latitude and longitude or other descriptive information which will assist in locating site);
(3) Local area map with site plotted on map (United States Geological Survey, city map, etc.);
(4) Type(s) of aircraft to use the site;
(5) Period and expected number of operations (landings and takeoffs);
(6) Purpose and description of operations;
(7) Letter or notice of approval from local governing body (city or county); and
(8) Letter or notice of approval by landowner.

(c) For a temporary airport authorization for helicopter operations within 1000 feet of a school:

(1) No person may takeoff or land a helicopter within 1000 feet of the boundary of any public or private school that maintains kindergarten classes or any classes in grades 1 through 12, unless at a permitted heliport or an EMS landing site, without first applying for and obtaining a Helicopter Landing Authorization (HLA) from the Department or from a public safety agency (PSA) designated by the Department.

(2) To apply for an HLA, a person shall submit to the Department, or to a PSA designated by the Department, a completed Helicopter Landing Authorization-Application [Form DOA-0204 (Rev. 10/96)]. The application shall include the following:

(A) a signed statement from the administration of each school that is within 1000 feet of the proposed helicopter operations stating that the administration does not object to the proposed helicopter operations at the site and the administration waives its right to demand a public hearing in accordance with PUC Section 21662.5 and

(B) a signed statement approving the helicopter operations from the landing site's owner, if the helicopter operations will not be on school property.

(d) The Department shall evaluate temporary airport sites on the basis of the airport design standards in Articles 3 and 4 of these regulations. Variances may be granted from design standards when safety of flight or the interests of the general public are not jeopardized.

(e) Temporary airport authorizations are for specific events and specified time periods.

3533. EXEMPTIONS

(a) All airports in the State of California, except those owned or operated by the United States Government, are subject to the permitting requirements of these regulations.

(b) The following classes of airport are exempt from the permitting requirements of these regulations pursuant to PUC Section 21661:

(1) Agricultural airports;
(2) Seaplane landing sites;
(3) Personal-use airports in unincorporated areas which meet the requirements of Article 5 of these regulations;
(4) Any airport which has heretofore been established and which is currently being used pursuant to exemption granted under previous regulations of the Department. Such airports shall continue to be exempt, provided the use and conditions pertaining to such exemption continue to be met. Such airports shall be marked in accordance with Section 3560(e) of these regulations;
(5) Heliports established on offshore oil platforms;
(6) Temporary helicopter landing sites that are not within 1000 feet of the boundary of a public or private school maintaining kindergarten classes or any classes in grades 1 through 12;
(7) Emergency medical services (EMS) landing sites; and
(8) Emergency use facilities.

(c) An owner of an exempt airport may apply for a permit under these regulations.

(d) The above listed exemptions do not supersede or negate any requirements of Federal agencies or local government jurisdictions.

(e) An airport's exemption ceases if the airport's owner no longer operates the airport within the limitations of the exemption.

3534. APPLICATIONS FOR AN AIRPORT PERMIT

(a) Application to construct or establish an airport for which a permit is required in accordance with these regulations shall, prior to the construction or establishment of the proposed airport, be submitted to the Department for approval on a Site Approval Permit Application form [DOA-0100, (Rev. 10/96) for airports only or DOA-0201, (Rev. 10/96) for heliports only].

(b) For the Department to consider an application complete, the following items shall be submitted as a part of the Site Approval Permit Application:

(1) Two copies of scaled drawings of the airport and adjoining areas that show:

(A) the airport meets or exceeds the design standards established in Article 3 (for airports only) or Article 4 (for heliports only) of these regulations, unless the Department has granted a variance to a specific standard;

(B) arrows for magnetic and true north;

(C) magnetic alignment of the centerline of each approach surface; for a heliport that has multiple, consecutive approach surfaces which create a sector, include the magnetic alignment of each approach surface which defines the limits of the sector;

(D) locations and heights of structures, highways, railways, above ground wires, above ground cables, poles, fences, vegetation, and other potential obstructions that underlie the airport's imaginary surfaces as defined in FAR Part 77.25 (for airports only) or 77.29 (for heliports only); and

(E) additional information that is pertinent to the safe use of the airport;

(2) Topographic map that shows the location and altitude of the aircraft traffic patterns relative to the airport (for airports only) or the location of the approach surfaces relative to the heliport (for heliports only);

(3) Local area map or drawing depicting the airport and the location of schools, places of public gatherings, and residential areas within two miles of the centerline of a proposed runway or within 1,000 feet of the center of a proposed FATO;

(4) Documentation of approval of the plan for construction by either the Board of Supervisors of the county or the City Council of the city (as appropriate) in which the airport is to be located;

(5) Documentation of action by the Airport Land Use Commission of the county in which the airport is to be located (as appropriate);

(6) Documentation of compliance with the California Environmental Quality Act;

(7) Documentation showing ownership of the airport; and

(8) FAA Airspace Determination for the airport.

(c) Upon completion of the airport, the airport owner shall notify the Department and request an airport permit authorizing the airport to be opened for operations. The Department shall inspect the airport. If the airport meets all the conditions of the Site Approval Permit, the Department shall issue the airport permit.

(d) Examples of the various application forms are found in the Appendix of these regulations.

3535. PROCESSING TIME

(a) Within 10 working days after receipt of an application for a permit or temporary airport authorization, the Department shall notify the person applying in writing if the application is incomplete. An incomplete application cannot be processed. A complete application will initiate the permitting or authorization process.

(b) The Department's time periods for processing any complete application or notification per Section 3534(c) of these regulations from receipt to the final decision regarding issuance or denial of a permit or authorization are as follows:

(1) minimum time: 15 working days;
(2) median time: 30 working days; and
(3) maximum time: 45 working days, depending on proceedings/outcome of a public hearing or other problems.

3536. REVOCATION AND SUSPENSION

An airport owner may request, by notification in writing to the Department, that the Department suspend or revoke the airport permit.

ARTICLE 3. DESIGN STANDARDS, AIRPORTS ONLY

3540. GENERAL

(a) The information and standards included in this Article establish minimum standards for a permitted airport suitable for airplanes with a design approach speed of less than 91 knots, a wingspan of less than 49 feet, and a maximum certificated takeoff weight of 12,500 pounds or less.

(b) Design standards for runways and taxiways shall be in accordance with FAA ACs.

(c) Obstruction standards and designation of imaginary surfaces related to airports shall be in accordance with FAR Part 77.

(d) The Department may grant variances to these design and obstruction standards. These variances may be granted where reasonable conditions exist and the interests of the general public will not be compromised.

(e) The Department may require flight demonstrations by the airport's owner to assist in determining whether requested variances would affect safety.

3542. AIRPORT DESIGN STANDARDS

As a minimum, the following items are required for a permitted airport:

(a) runway and runway safety area;

(b) a wind cone;

(c) a segmented circle with traffic pattern indicators if:

(1) the airport has right traffic to any runway and

(2) the airport does not have an operational air traffic control tower during all airport operating hours;

(d) runway and taxiway markings in accordance with Section 3543(a) of these regulations;

(e) clear 20:1 approach surfaces to each end of each runway's primary surface or to its displaced threshold;

(f) clear 7:1 transitional surfaces to each runway's primary surface and approach surfaces; and

(g) if night use is planned, airport lighting in accordance with Section 3543(b) of these regulations.

3543. MARKING, LIGHTING, AND VISUAL AIDS

(a) AIRPORT MARKING. Airport markings are as follows:

(1) runway and taxiway markings:

(A) markings for paved runways and taxiways shall be in accordance with FAA AC 150/5340-1G and shall include runway designation numbers, centerline, runway holding position, and, if applicable, displaced or relocated threshold markings. Additionally, a runway that is not open to the general public shall be marked with the letter "R" at each runway end. The "R" shall be at least 20 feet in height and 11 feet in width. Line width shall be 30 inches. The marking is to be painted white and it shall be kept in a clearly distinguishable condition.

(B) markings for unpaved runways shall include delineation of runway ends and, if applicable, displaced threshold bars. Additionally, an unpaved runway that is not open to the general public shall be marked with the letter "R". The "R" shall be located adjacent to the runway as near as practical to either the runway mid-point or each end of the runway, and in a location that is not a hazard to aircraft operations. The "R" shall be at least 20 feet in height and 11 feet in width. Line width shall be 30 inches. The marking shall be a color that provides contrast with the ground and it shall be kept in a clearly distinguishable condition. Any materials used to delineate features on a runway or taxiway or to construct the "R" shall be constructed such that they are not a hazard to aircraft operations.

(2) markings of a closed or abandoned runway shall be in accordance with FAA AC 150/5340-1G.

(b) AIRPORT LIGHTING. An airport lighting system is required for night operations. An airport lighting system consists of the following:

(1) runway edge and threshold lights in accordance with FAA AC 150/5340-24;

(2) a lighted wind cone;

(3) if traffic pattern indicators are required in accordance with Section 3542(c) of these regulations, they shall be illuminated;

(4) if a runway is lighted and it is not open to the general public, at least one "R", as required in Section 3543(a) of these regulations, shall be illuminated; and

(5) obstruction lights as follows:

(A) at a public-use airport, any obstruction to air navigation as defined in FAR 77.23 shall be lighted in accordance with FAA AC 70/7460-1J, unless the FAA has conducted an aeronautical study and determined that the lighting is not necessary for safety and the Department concurs.

(B) at an airport that is not for public-use, the airport owner shall survey the airport area and shall identify objects that are obstructions to air navigation as defined in FAR 77.23. The Department shall evaluate the obstructions and determine whether obstruction lighting is required.

ARTICLE 4. DESIGN STANDARDS, HELIPORTS ONLY

3550. GENERAL

(a) The information and standards included in this Article establish minimum standards for a permitted heliport suitable for a design helicopter.

(b) Design standards for a permitted heliport shall be in accordance with FAA ACs.

(c) Obstruction standards and designation of imaginary surfaces related to heliports shall be in accordance with FAR Part 77.

(d) The Department may grant variances to these design and obstruction standards. These variances may be granted where reasonable conditions exist and the interests of the general public will not be compromised.

(e) The Department may require flight demonstrations by the heliport's owner to assist in determining whether requested variances would affect safety.

3551. HELIPORT DESIGN STANDARDS

As a minimum, the following items are required for a permitted heliport:

(a) final approach and takeoff area (FATO) with:

(1) a length and width or diameter that is at least one and one half times the overall length of the design helicopter. This area shall be free of objects, to include safety nets and guard rails, at or above the closest point of the touchdown and lift-off area (TLOF);

(2) a safety area, surrounding the FATO, that is the greater of one third times the main rotor diameter of the design helicopter or ten feet; and

(3) a load bearing portion that:

(A) is centered within the FATO and, if the entire FATO is not load bearing, is delineated as a TLOF. A delineated TLOF shall be at least 1.5 times the undercarriage length or width, whichever is greater, of the design helicopter;

(B) is free of objects and surface irregularities; and

(C) has a grade that does not exceed 2%. If approved by the Department, the grade may exceed 2% to allow for a curb around the edges so long as the curb is tapered so that it does not present a sharp lip that could create a pivot point for a helicopter's landing gear. If allowed, this curb shall not exceed two inches in height;

(b) a wind cone;

(c) at least one clear 8:1 approach surface to the FATO, centered along an approach/takeoff path;

(d) heliport markings as described in Section 3554(a) of these regulations;

(e) clear 2:1 transitional surfaces to the FATO and approach surfaces; and

(f) if night use is planned, heliport lighting in accordance with Section 3554(b) of these regulations.

3554. MARKING, LIGHTING, AND VISUAL AIDS

(a) HELIPORT MARKING. All markings, except for FATO and TLOF boundary markings, shall be oriented to be legible when flying toward the heliport using the primary approach/takeoff path. Heliport markings are as follows:

(1) an underlined letter "H" that shall be centered within the FATO and it shall be at least 10 feet in height. If the heliport is at a medical facility, the underlined letter "H" shall be red and it shall be imposed in the middle of a 30' white cross. A heliport not open to the public may utilize a company logo or some other marking in lieu of the "H" if approved by the Department;

(2) either FATO or TLOF boundary markings in accordance with Chapter 3 of FAA AC 150/5390-2A. A heliport may have both FATO and TLOF boundary markings;

(3) a heliport not open to the public shall be marked with the letters "PVT" in letters at least 5 feet in height that are located on the FATO;

(4) a heliport that is restricted to helicopters under a certain weight (e.g., rooftop heliport) shall be marked with a weight limit marking, in thousands of pounds, that is located on the FATO;

(5) a landing direction arrow shall be used when an approach/takeoff path is constrained by environmental or safety concerns which require the precise navigation that the arrow affords. An arrow shall not be used for a curved approach; and

(6) markings of a closed or abandoned heliport shall be in accordance with AC 150/5390-2A.

(b) HELIPORT LIGHTING. A heliport lighting system is required for night operations. No lights may penetrate the heliport's primary, approach, or transitional surfaces by more than two inches. Any lighting fixture used shall present a low profile to minimize interference with ground maneuvering and flight operations. A heliport lighting system consists of the following:

(1) perimeter lighting in accordance with Chapter 3 of FAA AC 150/5390-2A. Floodlights may be used in lieu of perimeter lights if approved by the Department. If approved by the Department, floodlights shall be located and oriented so they do not interfere with the pilot's ability to see clearly during takeoff, landing, or taxiing;

(2) a lighted wind cone;

(3) if a landing direction arrow is required in Section 3554(a)(5) of these regulations, the arrow shall have landing direction lights centered within it; and

(4) obstruction lights as follows:

(A) at a public-use heliport, any obstruction to air navigation as defined in FAR 77.23 shall be lighted in accordance with FAA AC 70/7460-1J, unless the FAA has conducted an aeronautical study and determined that the lighting is not necessary for safety and the Department concurs.

(B) at a heliport that is not for public-use, the heliport owner shall survey the heliport area to identify objects that are obstructions to air navigation as defined in FAR 77.23. The Department shall evaluate the obstructions and determine whether obstruction lighting is required.

ARTICLE 5. PERSONAL-USE AIRPORTS

3560. GENERAL

Many elements in the design of Personal-Use airports are at the discretion of the owner. However, the Department requires at least the following:

(a) a runway length and width or FATO dimensions adequate to enable aircraft to operate safely, considering airport location and the performance data of the most demanding aircraft to utilize the airport;

(b) the ends of each runway shall be at least 200 feet from the airport property line or the closest point of each FATO shall be at least 80 feet from the airport property line;

(c) the distance from the runway centerline to the property line of another owner shall be at least 50 feet;

(d) the distance from the taxiway centerline to the property line of another owner shall be at least 50 feet; and

(e) if the airport is identifiable as an airport from the air, it shall be marked with the letter "R" in accordance with Section 3543(a) [for airports only] or the letters "PVT" in accordance with Section 3554(a)(3) [for heliports only]. If an airport lighting system is installed, it shall illuminate the required markings. The Department shall determine whether or not the airport is identifiable from the air if there is a dispute.

APPENDIX

(Sample Application Forms)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

AIRPORT SITE APPROVAL PERMIT - APPLICATION

DOA-0100 (Rev. 10/96) Front

PLEASE PRINT OR TYPE

PART I. AIRPORT INFORMATION

AIRPORT NAME	NEAREST CITY	COUNTY
AIRPORT ADDRESS		BUSINESS TELEPHONE NUMBER

GEOGRAPHIC COORDINATES OF AIRPORT REFERENCE POINT

LATITUDE: ° ' " N. LONGITUDE: ° ' " W.

PART II. OWNER INFORMATION

OWNER'S NAME

OWNER'S ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

AGENT'S NAME (IF APPLICABLE)

AGENT'S ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

PROPERTY IS CONTROLLED BY:

☐ FEE ☐ LEASE Length of Lease _____ ☐ OTHER, SPECIFY _____

PART III. PHYSICAL INFORMATION

PROPOSED AIRPORT USE

☐ PUBLIC USE ☐ SPECIAL USE

RUNWAY DATA	MAGNETIC BEARING	LENGTH	WIDTH	EFFECTIVE GRADIENT (%)
FIRST RUNWAY		FEET	FEET	
SECOND RUNWAY		FEET	FEET	

DIRECTION OF PREVAILING WIND	HIGHEST ELEVATION OF RUNWAY	MEAN DAILY MAX. TEMPERATURE - HOTTEST MONTH
	FEET MSL	°F

WILL AIRPORT BE LIGHTED FOR NIGHT OPERATIONS?

☐ YES ☐ NO

ANTICIPATED CONSTRUCTION DATES

START COMPLETION

PART IV. CERTIFICATION

I HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT I AM AUTHORIZED TO SUBMIT THIS APPLICATION.

OWNER'S OR AGENT'S SIGNATURE	TITLE
PRINT NAME	DATE

SEND COMPLETED APPLICATION AND ALL NECESSARY DOCUMENTS (SEE BACK OF THIS FORM) TO:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
AERONAUTICS PROGRAM - MS #40
P. O. BOX 942873
SACRAMENTO, CA 94273-0001

PLEASE SUBMIT THE FOLLOWING, AS DESCRIBED IN THE CALIFORNIA CODE OF REGULATIONS, SECTION 3534 OFTITLE 21, AIRPORTS AND HELIPORTS WITH THIS APPLICATION:

	TO BE USED BY CALTRANS/AERONAUTICS
• Two copies of scaled drawings of the airport and adjoining areas. See Title 21, Section 3534(b)(1) for required details.	_____
• Topographic map that shows the location and altitude of the aircraft traffic patterns relative to the airport.	_____
• Local area map or drawing depicting the airport and the location of schools, places of public gatherings and residential areas within two miles of the centerline of a proposed runway.	_____
• Documentation of approval of the plan for construction by either the Board of Supervisors of the county or the City Council of the city (as appropriate) in which the airport is to be located.	_____
• Documentation of action by the Airport Land Use Commission of the county in which the airport is to be located (as appropriate).	_____
• Documentation of compliance with the California Environmental Quality Act.	_____
• Documentation showing ownership of the airport. The owner, for purpose of this permit, is the person with the authority to possess the facility, which may be in fee simple or a leasehold for a period of at least one year.	_____
• FAA Airspace Determination regarding the airport. Enclosed is FAA Form 7480-1 *(Notice of Landing Area Proposal)* which must be completed and mailed to the FAA at the address indicated on the form.	_____

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

AMENDED/CORRECTED AIRPORT PERMIT - APPLICATION

DOA-0103 (Rev. 10/96) Front

PLEASE PRINT OR TYPE

PART I. GENERAL INFORMATION

AIRPORT NAME	PERMIT NUMBER

PART II. COMPLETE IF CHANGE OF AIRPORT NAME OR OWNER

CORRECTED PERMIT -- FOR A CHANGE IN OWNERSHIP, SUBMIT PROOF OF OWNERSHIP *(deed, lease, other)* WITH APPLICATION

NEW AIRPORT NAME

NEW OWNER'S NAME

NEW OWNER'S ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

AGENT'S NAME (IF APPLICABLE)

AGENT'S ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

PART III. COMPLETE FOR AIRPORT EXPANSION OR TO CHANGE CONDITIONS ON AN AIRPORT PERMIT

AMENDED PERMIT - SEE REVERSE OF THIS APPLICATION

DESCRIPTION OF CHANGE *(Use Additional Sheet if Necessary)*

CHANGE AIRPORT USE TO: ANTICIPATED COMPLETION DATE

☐ PUBLIC USE ☐ SPECIAL USE ☐ NO CHANGE

PART IV. CERTIFICATION

I HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT I AM AUTHORIZED TO SUBMIT THIS APPLICATION.

OWNER'S OR AGENT'S SIGNATURE	TITLE
PRINT NAME	DATE

SEND COMPLETED APPLICATION AND ALL NECESSARY DOCUMENTS (SEE BACK OF THIS FORM) TO:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
AERONAUTICS PROGRAM - MS #40
P. O. BOX 942873
SACRAMENTO, CA 94273-0001

PLEASE SUBMIT THE FOLLOWING, AS DESCRIBED IN THE CALIFORNIA CODE OF REGULATIONS, SECTION 3534 OF TITLE 21, AIRPORTS AND HELIPORTS WITH THIS APPLICATION:

TO BE USED BY CALTRANS/AERONAUTICS

- Two copies of scaled drawings of the airport and adjoining areas. See Title 21, Section 3534(b)(1) for required details.
- Topographic map that shows the location and altitude of the aircraft traffic patterns relative to the airport.
- Local area map or drawing depicting the airport and the location of schools, places of public gatherings and residential areas within two miles of the centerline of a proposed runway.
- Documentation of approval of the plan for construction by either the Board of Supervisors of the county or the City Council of the city (as appropriate) in which the airport is to be located.
- Documentation of action by the Airport Land Use Commission of the county in which the airport is to be located (as appropriate).
- Documentation of compliance with the California Environmental Quality Act.
- Documentation showing ownership of the airport. The owner, for purpose of this permit, is the person with the authority to possess the facility, which may be in fee simple or a leasehold for a period of at least one year.
- FAA Airspace Determination regarding the airport. Enclosed is FAA Form 7480-1 *(Notice of Landing Area Proposal)* which must be completed and mailed to the FAA at the address indicated on the form.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

HELIPORT SITE APPROVAL PERMIT - APPLICATION

DOA-0201 (Rev. 10/96) Front

California

PLEASE PRINT OR TYPE

PART I. HELIPORT INFORMATION

HELIPORT NAME | COUNTY

HELIPORT ADDRESS | BUSINESS PHONE NUMBER

GEOGRAPHIC COORDINATES OF HELIPORT

LATITUDE: ° ' " N. LONGITUDE: ° ' " W.

PART II. OWNER INFORMATION

OWNER'S NAME

OWNER'S ADDRESS

BUSINESS PHONE NUMBER | FAX NUMBER

AGENT'S NAME (IF APPLICABLE)

AGENT'S ADDRESS

BUSINESS PHONE NUMBER | FAX NUMBER

PROPERTY IS CONTROLLED BY:

☐ FEE ☐ LEASE Length of Lease _____ ☐ OTHER, SPECIFY _____

PART III. PHYSICAL INFORMATION

DESIGN HELICOPTER:

OVERALL LENGTH _____ FEET

MAIN ROTOR DIAMETER _____ FEET

HEIGHT _____ FEET

UNDERCARRIAGE LENGTH _____ FEET

UNDERCARRIAGE WIDTH _____ FEET

MAXIMUM TAKEOFF WEIGHT _____ POUNDS

FINAL APPROACH AND TAKEOFF AREA (FATO)

LENGTH _____ FEET

WIDTH _____ FEET

OR CIRCULAR _____ FEET DIAMETER

TOUCHDOWN AND LIFTOFF AREA (TLOF)

LENGTH _____ FEET

WIDTH _____ FEET

OR CIRCULAR _____ FEET DIAMETER

PREVAILING WIND DIRECTION

PROPOSED APPROACH TAKEOFF PATHS (Magnetic Bearing From Center of FATO)

ELEVATION OF FATO _____ FEET MSL

ELEVATION ABOVE GROUND LEVEL _____ FEET

WEIGHT BEARING CAPACITY (If Applicable)

PROPOSED USES (CHECK ALL THAT APPLY)

☐ PUBLIC ☐ DAY ☐ POLICE ☐ COMMUTER ☐ HOSPITAL

☐ SPECIAL ☐ NIGHT ☐ FIRE ☐ CORPORATE ☐ OTHER

ANTICIPATED CONSTRUCTION DATES

START _____ COMPLETED _____

PART IV. CERTIFICATION

I HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT I AM AUTHORIZED TO SUBMIT THIS APPLICATION.

OWNER'S OR AGENT'S SIGNATURE | TITLE

PRINT NAME | DATE

SEND COMPLETED APPLICATION AND ALL NECESSARY DOCUMENTS (SEE BACK OF THIS FORM) TO:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
AERONAUTICS PROGRAM - MS #40
P. O. BOX 942873
SACRAMENTO, CA 94273-0001

PLEASE SUBMIT THE FOLLOWING, AS DESCRIBED IN THE CALIFORNIA CODE OF REGULATIONS, SECTION 3534 OF TITLE 21, AIRPORTS AND HELIPORTS WITH THIS APPLICATION:

TO BE USED BY CALTRANS/AERONAUTICS
_____
_____
_____
_____
_____
_____
_____
_____
_____

- Two copies of scaled drawings of the heliport and adjoining areas. See Title 21, Section 3534(b)(1) for required details.
- Topographic map that shows the location of the approach surfaces relative to the heliport.
- Local area map or drawing depicting the heliport and the location of schools, places of public gatherings and residential areas within 1,000 feet of the center of a proposed FATO.
- Documentation of approval of the plan for construction by either the Board of Supervisors of the county or the City Council of the city (as appropriate) in which the heliport is to be located.
- Documentation of action by the Airport Land Use Commission of the county in which the heliport is to be located (as appropriate).
- Documentation of compliance with the California Environmental Quality Act.
- Documentation showing ownership of the heliport. The owner, for purpose of this permit, is the person with the authority to possess the facility, which may be in fee simple or a leasehold for a period of at least one year.
- FAA Airspace Determination regarding the heliport. Enclosed is FAA Form 7480-1 *(Notice of Landing Area Proposal)* which must be completed and mailed to the FAA at the address indicated on the form.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CORRECTED HELIPORT PERMIT - APPLICATION

DOA-0202 (Rev. 10/96)

PLEASE PRINT OR TYPE

PART I. GENERAL INFORMATION

HELIPORT NAME	PERMIT NUMBER

PART II. COMPLETE IF CHANGE OF HELIPORT NAME OR OWNER

AMENDED PERMIT - FOR A CHANGE IN OWNERSHIP, SUBMIT PROOF OF OWNERSHIP (deed, lease, other) WITH APPLICATION

NEW HELIPORT NAME

NEW OWNER'S NAME

NEW OWNER'S ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

AGENT'S NAME (IF APPLICABLE)

AGENT'S ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

PART III. COMPLETE TO CHANGE CONDITIONS ON A HELIPORT PERMIT

DESCRIPTION OF CHANGE (*Use Additional Sheet if Necessary*)

	ANTICIPATED COMPLETION DATE

PART IV. CERTIFICATION

I HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT I AM AUTHORIZED TO SUBMIT THIS APPLICATION

OWNER'S OR AGENT'S SIGNATURE	TITLE
PRINT NAME	DATE

SEND COMPLETED APPLICATION AND ALL NECESSARY DOCUMENTS TO:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
AERONAUTICS PROGRAM - MS #40
P. O. BOX 942873
SACRAMENTO, CA 94273-0001

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

HELICOPTER LANDING AUTHORIZATION - APPLICATION

DOA-0204 (Rev. 10/96)

This application must be received by the Aeronautics Program **at least *two weeks prior* to date of landing**.

PLEASE PRINT OR TYPE AND COMPLETE ALL ITEMS

PART I. HELICOPTER OPERATOR INFORMATION

NAME

BUSINESS ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

MAKE, MODEL AND NUMBER OF HELICOPTERS TO BE USED	NUMBER OF LANDINGS

DATE OF LANDINGS	ALTERNATIVE DATE(S)
PRINT NAME	SIGNATURE

PART II. LANDING SITE INFORMATION

COMPLETE SECTION A OR B AS APPROPRIATE

A. IF ON SCHOOL PROPERTY, NAME OF SCHOOL

ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

I am aware of and do not object to the proposed helicopter landing at the site and on the date described in PART I. I also waive the right to demand a public hearing in accordance with Public Utilities Code Section 21662.5.

SCHOOL OFFICIAL'S NAME	TITLE	SIGNATURE

B. IF NOT ON SCHOOL PROPERTY, PROPERTY OWNER'S NAME

ADDRESS OF LANDING SITE

BUSINESS ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

I give permission for the helicoper listed in Part I of this form to conduct the landing	PRINT NAME	SIGNATURE

PART III. PERMISSION FROM OTHER SCHOOLS WITHIN 1,000 FEET

COMPLETE BELOW OR PROVIDE SEPARATE LETTER(S) OF NO OBJECTION

I am aware of and do not object to the proposed helicopter landing at the site and on the date described in PART I. I also waive the right to demand a public hearing in accordance with Public Utilities Code Section 21662.5.

NAME OF SCHOOL

ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

SCHOOL OFFICIAL'S NAME	TITLE	SIGNATURE

NAME OF SCHOOL

ADDRESS

BUSINESS TELEPHONE NUMBER	FAX NUMBER

SCHOOL OFFICIAL'S NAME	TITLE	SIGNATURE

Send complete application to address below or FAX to (916) ~~327-0000~~. 653-9531

CALIFORNIA DEPARTMENT OF TRANSPORTATION
AERONAUTICS PROGRAM - MS #40
P. O. BOX 942873
SACRAMENTO, CA 94273-0001

Colorado

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary: we use the AC very little overall, but it is used + distributed to private + public sponsors of heliports/pads. We inspect only public use facilities + use the AC to reference design standards

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES____ NO ✓
   b. Hospital Heliports: YES____ NO ✓
   c. Public Heliports: YES____ NO ✓

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ____
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

   a. Expect no effect: YES ✓ NO____ N/A ____
   b. Expect a small decrease in costs: YES____ NO____ N/A ____
   c. Expect a large decrease in costs: YES____ NO____ N/A ____
   d. Expect a small increase in costs: YES____ NO____ N/A ____
   e. Expect a large increase in costs: YES____ NO____ N/A ____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

for facilities where there would be federal funds there might be an increase in cost, however, existing facilities will not be effected.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

for new facilities receiving federal funds there might be an increase in costs, but for existing facilities probably no change.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

we do not track private facilities & especially design standards of them. (over 300)

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

there are about a dozen. Most, if any, probably do not meet requirements due to geography & terrain alone.

9. If we have questions concerning your responses, who could we contact for further discussion?

Aimee McCormick
303-792-2160

Connecticut

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES ✓ NO____
   b. Hospital Heliports: YES ✓ NO____
   c. Public Heliports: YES ✓ NO____

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   ↑NOTE - MOST, IF NOT ALL, HELIPORTS MEET CURRENT CRITERIA, WITH ANNUAL INSPECTIONS TO INSURE COMPLIANCE.

   Yes ____
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

   a. Expect no effect: YES____ NO____ N/A ____
   b. Expect a small decrease in costs: YES____ NO____ N/A ____
   c. Expect a large decrease in costs: YES____ NO____ N/A ____
   d. Expect a small increase in costs: YES____ NO____ N/A ____
   e. Expect a large increase in costs: YES ✓ NO____ N/A ____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

DUE TO INCREASE IN SIZE, WITH ROOF TOP HOSPITAL PADS EXPECTING THE LARGEST INCREASE IN COSTS.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

WITH INCREASE IN CRITERIA COMES INCREASE IN COST.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

KENNETH N. MILANO
AIRPORT MANAGER I
CONN. D.O.T.
860 - 594-2539
FAX 860-594-2574

PROCEDURES FOR LICENSING LANDING AREAS

Rules and Regulations Governing Aeronautics

1. The applicant is to completely fill in Form No. 108, "Application for Approval of Proposed Landing Area," prepare a drawing of the site (attach to Form 108), and submit it directly to the Department of Transportation, Bureau of Aviation & Ports. Upon receipt of this form, the Department will contact the applicant regarding a site inspection.

2. A report of the findings of the inspection will be made by the inspector and the applicant will be advised of the Department's decision. If the site is approved, the Department, by Certified Mail, will notify the applicant (at which time any requirements necessary to be accomplished will be specified), as well as the chief executive of the town or municipality in which said site is located. Following site approval, the town or municipality may, within fifteen (15) days after notice of approval, file with the Department a request for a public hearing. If no hearing is requested, the Department will mail to the applicant Form 109, "Application for Airport License."

   Note: The Department may, at their discretion, choose to hold a public hearing on any proposed landing area.

3. At this time, the applicant will submit to the Federal Aviation Administration FAA Form 7480-1, "Notice of Landing Area Proposal." Three copies are to be forwarded directly to the U.S. Department of Transportation, Federal Aviation Administration, 12 New England Executive Park, Burlington, MA 01803; one copy is to be sent to this office. (This form is to obtain Federal airspace clearance.)

4. Upon receipt of Form 109, the Department will again inspect the site to ascertain that the requirements have been complied with. If the work is completed and local and Federal approvals have been obtained, the airport license will be issued upon receipt of the fee of $150.00 as set forth in Section 13b-46 of the Connecticut general statutes.

5. If the above procedure is followed, the issuing of an airport license can be a simple matter. It should be pointed out that construction work of a major nature should not be started until the applicant is so notified by the Department and airspace clearance has been obtained. The site may be disapproved for various reasons such as inability to obtain airspace clearance, objection by the town or municipality as a result of a public hearing, etc., in which case the applicant will have spent time, labor and money without any return.

Forms are available at the Connecticut Department of Transportation, Bureau of Aviation & Ports, 2800 Berlin Turnpike, Newington, Connecticut (mailing address: P.O. Box 317546, Newington, Connecticut 06131-7546).

Rev. November 6, 1997

History: P.A. 77-614 substituted "commissioner of administrative services" for "public works commissioner"; P.A. 85-427 deleted provision requiring that documents be filed with administrative services commissioner.

Sec. 13b-45. Publication of standards applicable in taking of land. Before exercising any of the powers conferred in sections 13b-43 and 13b-44 the commissioner shall establish and publish in detailed form, available to the public, the standards he has adopted and will apply in making a determination that public convenience and necessity require the taking of any parcel of land or interest therein.

(1969, P.A. 768, S. 40.)

Sec. 13b-46. Certificate of approval. Licenses. (a) The commissioner is authorized to approve airports, heliports, restricted landing areas, and other air navigation facilities in accordance with regulations adopted by him. Any municipality or person acquiring property for the purpose of constructing or establishing an airport, heliport or restricted landing area shall, prior to such acquisition, apply to the commissioner for a certificate of approval of the site selected and the general purpose or purposes for which the property is to be acquired, to insure that the property and its use shall conform to minimum standards of safety and shall serve the public interest. Any proposed airport, heliport, restricted landing area or other air navigation facility at which more than thirty-six landings and takeoffs are expected to be made by aircraft in any year shall be approved by the commissioner before it shall be licensed to be used or operated for such year. The commissioner shall make no charge for approval certificates of proposed property acquisition for airport, heliport or restricted landing area purposes.

(b) The commissioner is authorized to license airports, heliports, restricted landing areas and other air navigation facilities in accordance with regulations adopted by the commissioner, and to renew such licenses. Licenses granted under this subsection or under any prior law shall be annually renewed upon payment of the fee therefor. When a certificate of approval of an airport, heliport or restricted landing area has been issued by the commissioner, he may grant a license for operation and use. The commissioner may charge for the issuance of each original license for an airport, heliport or restricted landing area not more than twenty-five dollars and, for each annual renewal of such license, not more than ten dollars. Municipalities shall be exempt from the payment of any license fee in connection with airports owned or operated by such municipalities.

(c) No municipality or officer or employee thereof and no person shall operate an airport, heliport, restricted landing area or other air navigation facility for which approval has not been granted, and an annual license has not been issued, by the commissioner. The provisions of this section shall not apply to any airport, heliport, restricted landing area or other air navigation facility owned by the federal government within this state.

(d) Any heliport in operation prior to October 1, 1985, shall be deemed licensed for operation and use and the commissioner shall issue an original license for any such heliport upon the written request of the person who controls and operates such heliport. Such heliports shall be subject to the provisions of this chapter concerning the renewal or revocation of licenses, inspection and review of air navigation facilities and any other provision of this chapter except those concerning the initial approval or licensing of such facilities. Such heliports shall be subject to any regulation adopted by the commissioner of transportation in accordance with the provisions of this chapter except those concerning the initial approval or licensing of any air navigation facility.

(1969, P.A. 768, S. 41; P.A. 80-231, S. 1; P.A. 81-472, S. 19, 159; P.A. 85-262, S. 1.)

History: P.A. 80-231 inserted in Subsec. (a) following "Any proposed airport, restricted landing area or other air navigation facility" "at which more than thirty-six landings and takeoffs are expected to be made by aircraft in any year", provided for

approval by commissioner before licensing "for such year" and deleted "other than for an occasional landing or takeoff by aircraft"; P.A. 81-472 made technical changes; P.A. 85-262 extended commissioner's authority to heliports and added Subsec. (d) re licensing of heliports.

Cited. 201 C. 700-702. 706. 707. 712. 716.

Subsec. (a):

Cited. 201 C. 700. 708.

Sec. 13b-46a. Transferred to Chapter 266a, Sec. 15-101q.

Sec. 13b-47. Criteria for approval. (a) In determining whether he shall issue a certificate of approval or license for the use or operation of any proposed commercial use air navigation facility, the commissioner shall take into consideration (1) its proposed location, size and layout, (2) its relationship to the comprehensive long-range master transportation plan and to any other comprehensive plan for state-wide and nation-wide development, (3) the availability of areas suitable for safe future expansion, (4) the freedom of adjoining areas from obstructions based on a proper glide ratio, (5) the nature of the terrain and of the uses to which the proposed airport will be put, and (6) the possibilities for future development.

(b) In determining whether he shall issue a certificate of approval or license for the use or operation of any proposed private use air navigation facility, the commissioner shall take into consideration: (1) Its proposed location, size and layout; (2) the freedom of adjacent areas from obstructions based on a proper glide ratio and (3) the nature of the terrain and the uses to which the proposed air navigation facility will be put; (4) the type of equipment to be utilized and the flight experience of the operator; (5) the amount of noise to be produced at such facility; and (6) such other factors as he deems appropriate.

(1969, P.A. 768, S. 42; P.A. 85-427, S. 3.)

History: P.A. 85-427 applied previously existing provisions to commercial use facilities and added Subsec. (b) re issuance of certificate of approval or license for private use facilities.

Cited. 201 C. 700. 701. 707. 708.

Sec. 13b-48. Hearing on application for certificate of approval or license. Upon receipt of any application for a certificate of approval of an airport, heliport or restricted landing area, or an original license to use or operate an airport, heliport, restricted landing area or other air navigation facility, the commissioner shall send notice thereof by registered or certified mail to the chief executive officer or first selectman of the municipality or municipalities in which the proposed airport, heliport, restricted landing area or other air navigation facility is proposed to be located. If the applicant, or such municipality within fifteen days after receipt of such notice, requests a public hearing, the commissioner shall set a time and place therefor in the municipality in which the proposed airport, heliport, restricted landing area or other air navigation facility is proposed to be situated, at which hearing interested parties shall have an opportunity to be heard. The commissioner may in his discretion hold a public hearing in any case where no such request is made. Notice of any such hearing shall be published by the commissioner in a newspaper of general circulation in such municipality at least twice, the first publication to be at least fifteen days prior to the date of the hearing. Upon the conclusion of such hearing the commissioner shall consider all the relevant evidence and shall issue an order granting or denying such application, written notice of which shall be sent by registered or certified mail to the applicant and to the chief executive officer or the first selectman of the municipality or municipalities in which the proposed airport, heliport, restricted landing area or other air navigation facility is to be located. Orders issued pursuant to this section shall comply with the requirements of section 15-66 and shall be subject to appeal as provided in section 15-67.

(1969, P.A. 768, S. 43; P.A. 85-262, S. 2.)

History: P.A. 85-262 applied provisions of section to heliports.

Cited. 201 C. 700. 701. 706-709.

Delaware

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES____ NO X
   b. Hospital Heliports: YES____ NO X
   c. Public Heliports: YES X NO____

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ____
   No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES____	NO X	N/A ____
b.	Expect a small decrease in costs:	YES____	NO____	N/A ____
c.	Expect a large decrease in costs:	YES____	NO____	N/A ____
d.	Expect a small increase in costs:	YES____	NO____	N/A ____
e.	Expect a large increase in costs:	YES____	NO____	N/A ____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES____	NO X	N/A ____
b.	Expect a small decrease in costs:	YES____	NO____	N/A ____
c.	Expect a large decrease in costs:	YES____	NO____	N/A ____
d.	Expect a small increase in costs:	YES____	NO____	N/A ____
e.	Expect a large increase in costs:	YES____	NO____	N/A ____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown X

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown X

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown X

9. If we have questions concerning your responses, who could we contact for further discussion?

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
P.O. BOX 778
DOVER, DELAWARE 19903

THOMAS R. CARPER
GOVERNOR

Mr. Robert Bonanni
Federal Aviation Administration
Airport Safety & Standards Office-AAS-100
800 Independence Ave., SW
Washington, DC 20591

December 8, 1997

Dear Mr. Bonanni:

The state of Delaware only has one public use heliport which gets very little use and that is owned by our Department of Transportation. As for the hospital heliports and our other private use heliports we do not license them and therefor have little exposure or knowledge of them. What I am trying to say is that we can not be of much help with your survey.

Sincerely,

Harry Van Den Heuvel
Acting Director, Office of Aeronautics

DelDOT

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES ✓ NO___
   b. Hospital Heliports: YES ✓ NO___
   c. Public Heliports: YES ✓ NO___

Please attach procedure or form. Chapter 14-60 Florida Administrative Code attached.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ___

If Yes, please provide a brief description of your plan: Since we incorporated the AC into our administrative code from the beginning, the heliports are in compliance already.

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ✓
c.	Expect a large decrease in costs:	YES___	NO___	N/A ✓
d.	Expect a small increase in costs:	YES___	NO___	N/A ✓
e.	Expect a large increase in costs:	YES___	NO___	N/A ✓

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ✓
c.	Expect a large decrease in costs:	YES___	NO___	N/A ✓
d.	Expect a small increase in costs:	YES___	NO___	N/A ✓
e.	Expect a large increase in costs:	YES___	NO___	N/A ✓

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

9. **If we have questions concerning your responses, who could we contact for further discussion?**

Mr. Lacey Moore
Aviation Office
Florida Dept. of Transportation
605 Suwannee Street, MS-46
Tallahassee, FL 32399-0450
Phone: (850) 414-4509

CHAPTER 14-60
AIRPORT LICENSING AND AIRSPACE PROTECTION

14-60.001	**Purpose.**
14-60.002	**Definitions.**
14-60.003	**Designation of Signature Authority.**
14-60.004	**Notice of Intent. (Repealed)**
14-60.005	**Airport Site Approval and General Licensing Requirements.**
14-60.006	**Airport Licenses.**
14-60.007	**Minimum Airport Standards.**
14-60.008	**Airport Markings. (Repealed)**
14-60.009	**Airspace Protection and Obstruction Marking and Lighting.**
14-60.010	**Exemptions. (Repealed)**
14-60.011	**Forms.**

14-60.001 Purpose. The purpose of this rule chapter is to promote safe civil aviation by eliminating hazards; to provide standards for airport sites and categories; to license airports subject to the licensing requirements of Chapter 330, Florida Statutes; to provide for airport markings; and to promote flight safety by providing for airspace protection.

Specific Authority 330.29, 334.044(2) FS. Law Implemented 330.29, 330.30, 330.35 FS. History - New 11-23-72, Amended 1-8-85, Formerly 14-60.01, Amended 12-26-95.

14-60.002 Definitions.

(1) The definitions in Section 330.27, Florida Statutes shall apply to this rule chapter.

(2) For purposes of this rule chapter the following additional terms are defined:

(a) "Airport" means any area of land or water, or any manmade object or facility located thereon, which is used, or intended for use, for landing and takeoff of aircraft, and any appurtenant areas which are used, or intended for use, for airport buildings or other airport facilities or rights of way, together with all airport buildings and facilities located thereon.

(b) "Airport (Land)" means a defined area of land, including any buildings and installations, normally used for the takeoff and landing of aircraft.

(c) "Displaced Threshold" means a threshold that is located at a point on the runway other than at the beginning of the runway. The area behind the displaced threshold is available for the landing rollout or the takeoff of an aircraft.

(d) "Effective Length" means the distance from the normal, relocated, or displaced threshold to the opposite end of the runway.

(e) "Emergency Airport" means any landing area so designated by the Department for use under emergency or unusual circumstances.

(f) "FAA" is the Federal Aviation Administration.

(g) A "Heliport" means a designated landing area used primarily for the operation and basing of rotorcraft.

(h) A "Helistop" means a designated landing area used for the operation of rotorcraft where no basing facilities are provided.

(i) "Inactive Status" means any category of licensed airport not open to general operations and so noted as a condition in its license.

(j) "Landplane" means any aircraft that operates strictly on land, from prepared surfaces of prescribed dimensions, as defined herein.

(k) "License Category" refers to one of the following categories of airports: public, private, limited, temporary or emergency.

(l) "License Type" refers to the specific type of airport being licensed and could also be defined as one of the following: airport (land), heliport, helistop, seaplane base, STOLport, LTAport, vertiport, vertistop, or ultralight flightpark.

(m) "Limited Airport" means an airport limited exclusively to the specific conditions listed upon the license.

(n) "LTAport" means a designated area used primarily for launching, docking, tethering and recovering lighter-than-air aircraft.

(o) "Primary Surface" or "Runway Safety Area" means a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. This means an airport surface, free of obstructions, of dimensions prescribed in rule section 14-60.007(2) F.A.C., which includes the runway.

(p) "Private" means an airport used primarily by the licensee but is available for use by others upon

specific invitation of the licensee. Aviation services may be provided if authorized by the Department. The amount and type of such aviation services provided are normally a function of local zoning.

(q) "Public" means an airport, publicly or privately owned, which meets minimum safety and service standards and is open for use to the general flying public. Goods and services may be provided to the general public if local zoning is appropriate for such commercial activity.

(r) "Relocated Threshold" means a threshold that is located at a point on the runway other than at the beginning of the runway; the area behind which is no longer available for the landing or takeoff of aircraft.

(s) "Rotorcraft" means a heavier-than-air aircraft that derives its support in flight principally from lift generated by one or more rotors.

(t) "Runway" means a strip of land of prescribed dimension, either paved or improved, on which takeoffs and landings are effected, which is centered within the primary surface and may have one or two usable ends.

(u) "Seaplane Base" means a designated area of water of prescribed dimensions used or intended to be used for the takeoff or landing of aircraft where docking, mooring, or ramping facilities are available for use by seaplanes or amphibious aircraft.

(v) "Special" is a term which will be used in conjunction with the site approval order or with the license category and type to limit or to authorize activities or services at airports because of aircraft performance, safety, social, economic or other considerations.

(w) "STOL (Short takeoff and landing) Aircraft" means an aircraft of special design, but with normal performance characteristics, enabling safe flight from a short field utilizing steep approaches and departures as normal aircraft operating procedures and not requiring unusual or special skills of the pilot in command.

(x) "STOLport" means a landing area designated exclusively for the use of STOL aircraft, with landing area and approach zone dimensions compatible with aircraft performance characteristics.

(y) "Temporary Airport" means an airport, publicly or privately owned, that will be used for a period of 90 days or less with no more than ten operations per day.

(z) "Transitional Surface" means those surfaces which extend outward and upward at right angles to the runway centerline, extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces on a public use runway.

(aa) "Ultralight Flightpark" means an airport designated exclusively for the use of ultralight vehicles.

(bb) "Usable Width" means the prepared width of a landing area which can be safely used for takeoffs and landings and is centered within the primary surface.

(cc) "VFR" means Visual Flight Rules.

(dd) "Vertiport" and "Vertistop" are as defined in the current Federal Aviation Administration Advisory Circular 150/5390-3, (May 31, 1991) Vertiport Design, which is hereby incorporated herein by reference.

Specific Authority 330.29, 334.044(2) FS. Law Implemented 330.27, 330.29 FS. History - New 11-23-72, Amended 4-18-76, 11-19-81, 1-8-85, Formerly 14-60.02, Amended 12-26-95.

14-60.003 Designation of Signature Authority.

(1) The Secretary of Transportation hereby authorizes the District Secretaries and the State Public Transportation Administrator or their designated representative to issue, in the name of the Department, site approval orders, the original license and license renewals for those airports subject to the licensing requirements of Section 330.30, Florida Statutes, and to enforce the provisions of Chapter 333, Florida Statutes.

(2) All Department actions regarding the application for issuance, renewal, amendment, suspension, or revocation of site approval orders and licenses shall be in accordance with Chapters 120 and 330, Florida Statutes, and this rule chapter.

Specific Authority 330.29(1), 334.044(2) FS. Law Implemented 330.29, 330.30, 330.35 FS. History - New 11-23-72, Amended 11-19-81, 1-8-85, Formerly 14-60.03, Amended 12-26-95.

14-60.004 Notice of Intent.

Specific Authority 330.29(1) FS. Law Implemented 120.57, 330.29(1), 330.30(1), (4), 330.32 FS. History - New 11-23-72, Amended 4-18-76, Repealed 1-8-85, Formerly 14-60.04.

14-60.005 Airport Site Approval and General Licensing Requirements.

(1) Owners or lessees of proposed airports, except temporary airports, shall obtain site approval prior to establishing a proposed airport and an original license prior to operating aircraft to or from the airport. Site approval shall also be required if the license category is

changed to a higher use and will be required for renewal of an expired airport license if there are major changed physical or legal conditions or if the license expired more than two years prior to the date renewal is requested.

(2) An application for site approval and for an original license shall be made jointly in accordance with DOT requirements governing uniform licensing of Florida Airports, which are included in the Airport Site Approval and License Application, DOT Form 725-040-120, Rev. 08/93. The application together with an application fee of $100.00 shall be filed with the appropriate District Office of the Department of Transportation, in care of the District Public Transportation Manager. Airports owned or operated by a public entity and hospital emergency helistops are exempt from all fees.

(3) An applicant must have an option to buy or be the owner or lessee of the proposed airport property, with the following exceptions:

(a) Unless required by another government agency a seaplane base applicant need not own or lease the surface landing area or the land area beneath the surface landing area if the area is in the public domain.

(b) The approach zones need not be owned or leased by the applicant.

(c) An application for site approval by a lessee shall be accompanied by a copy of the lease agreement.

(4) Whenever seaplane, helicopter, landplane or other type of aircraft operations can be safely carried on from the same property, only one application need be filed, provided the property is owned or leased by the same person. The application shall indicate the multiple nature of the operation. Where there are intervening owners or lessees of land between the operations, separate applications shall be filed with separate fees.

(5) The Department is authorized to license sites for temporary airports, pursuant to Section 330.30(2)(c), if the public health, safety, or welfare requires such action. For purposes of this subsection and subsection (6), examples of circumstances that would justify a temporary or "special" license are when unusual circumstances arise that require special air transportation facilities, such as infrequent major sports or recreation events, the need to dust crops in a particular area, or a natural disaster.

(6) The Department is authorized to license an airport that does not meet all of the minimum standards, pursuant to Section 330.30(2)(c), if it determines that such exception is justified by unusual circumstances or is in the interest of public convenience and does not endanger the public health, safety, or welfare. Such license shall bear the designation "special" and shall state the conditions to which the license is subject.

(7) The Department is authorized to license an airport having more than one runway if at least one runway meets the minimum standards of this rule chapter. The operation of aircraft from runways which do not meet minimum standards shall be at the airport and the aircraft operator's risk. The airport license shall designate which runways do not meet the minimum standards.

(8) Site Approval.

(a) Prior to receiving site approval, an applicant shall:

1. Demonstrate that the site is adequate for the proposed airport.

2. Demonstrate that the proposed airport, if constructed or established, will conform to minimum standards of safety as defined herein.

3. Include documentation evidencing local zoning approval by the appropriate governmental agency. Where there is no local zoning, a written statement of that fact from the appropriate governmental agency official shall be submitted.

4. Provide the Department a list of all airports and municipalities within 15 nautical miles of the proposed airport and all property owners within 1,000 feet of the proposed airport or within 300 feet, horizontal measurement, of the primary surface of a proposed heliport or helistop.

5. Provide the Department with a copy of FAA airspace determination, if applicable, or, if not applicable, demonstrate that safe air traffic patterns could be worked out for the proposed airport.

6. Demonstrate that the runway(s) on the proposed airport will not be within 5,000 feet of any solid waste management facility, monofill, or sludge land spreading operation for airports serving only non-turbine aircraft, or within 10,000 feet of any aforementioned facilities or operations for airports serving turbine-driven aircraft.

(b) All airport sites must be inspected by a representative of the Department and a written report containing a recommendation shall be filed by the Department.

1. If the inspection shows that the site is feasible and can meet the requirements set forth in Rule 14-60.005(9)(a)1.- 5. above, the Department shall issue a notice of intent.

a. A notice of intent shall state the name of the applicant; give the location of the airport site by latitude and longitude as well as by section, township and range; and state the type of license applied for and the earliest date a site approval order may be issued.

b. The notice of intent shall be published in a newspaper of general circulation in the county in which the proposed site is located. Additionally, the notice of

intent shall be sent by certified mail, return receipt requested, to the County Commission of the county in which the proposed airport is to be located, to all airports and municipalities within 15 nautical miles of the proposed airport and all property owners within 1,000 feet of the proposed airport runway(s) or within 300 feet, horizontal measurement, of the primary surface of a proposed helistop or heliport.

c. Interested persons, in order to request a public meeting, must submit a written request to the Department (addresses specified in the Notice of Intent) within 20 days of such notification. Comments may also be submitted, in writing, during this time.

d. If requested in writing, a public meeting shall be conducted prior to the issuance of a site approval order or change of airport license category to a higher use.

e. If after the public meeting, if one is held, and in full consideration of any comments received, the Department determines that the proposed airport can comply with the standards set forth in Rule 14-60.005(9)(a) 1. - 6. and considering the airspace determination from FAA and "area of critical concern" approval from the Florida Department of Environmental Protection (if such approval or determination is applicable), the Department shall issue a site approval order.

f. The site approval order shall state:

(I) The name and mailing address of the applicant;

(II) The location of the proposed airport by geographical coordinates (latitude and longitude); section, township and range; and distance and direction from the nearest community; and

(III) Any special conditions which must be met prior to licensing.

2. A site approval order shall remain in effect for two years from the date of issuance. At the request of the applicant, a current site approval order will be extended for an additional two years for good cause; provided that FAA airspace determination is also extended.

3. Except in an emergency, aircraft shall not operate to or from an approved site prior to the issuance of an airport license. Aircraft may use an airport site only after construction is complete, the airport is inspected by a Department representative, and an airport license is issued.

4. The Department may revoke a site approval order if it determines, in accordance with Section 330.30(1)(c):

a. That there has been an abandonment of a site as an airport;

b. That there has been a failure to comply with the conditions of the site approval order;

c. That a nonemergency aircraft operation has occurred on the site where the site was only approved for emergencies;

d. That because of a change in physical or legal circumstances, the site is no longer usable for the aviation purposes for which site approval was granted.

Specific Authority 330.29, 334.044(2) FS. Law Implemented 330.29, 330.30, 333.03(2) FS. History - New 10-29-65, Amended 7-13-71, Revised 11-23-72, Amended 7-18-73, 4-18-76, 11-19-81, 1-8-85, Formerly 14-60.05, Amended 12-26-95.

14-60.006 Airport Licenses.

(1) Upon compliance with all conditions enumerated in the site approval order, a satisfactory final inspection by a representative of the Department, and payment of the required license fee, an airport license shall be issued subject to any conditions deemed necessary to protect the public health, safety, or welfare.

(2) The following categories of state airport licenses in descending order of use and fees are established:

License Category	Fee
Public	$100.00
Private	70.00
Limited	50.00
Temporary	25.00
Emergency	None Required

Each category shall include an airport type according to the following use: airport (land), heliport, helistop, seaplane base, STOLport, LTAport, vertiport, vertistop, and ultralight flightpark.

(3) All licensed public use category airports are subject to inspection at any time but shall be inspected at least once during each license period by a representative of the Department.

(4) All public airport licenses shall expire no later than one year after the date on which the license was issued, except that the Department is authorized to adjust the expiration date to provide a maximum license period of eighteen months to facilitate airport inspections, recognize seasonal airport operations, or improve administrative efficiency. If the expiration date is adjusted, the appropriate license fee shall be determined by prorating the annual fee based on the length of the adjusted license period. A temporary license shall expire

not later than 90 days from the date of issuance. The expiration date shall be stated on the face of the license. Application for a license shall be made in accordance with Department requirements governing uniform licensing of Florida Airports, which are included in the current Airport License Renewal Application, DOT Form 725-040-123, Rev. 08/93. Upon application, a favorable inspection report indicating compliance with all applicable requirements and conditions, and submittal of the appropriate annual license fee, the Department shall issue the license, subject to any conditions deemed necessary to protect the public health, safety, or welfare.

(5) All licensed private, limited, and emergency category airport licenses shall expire no later than five years after the date the license was issued.

(6) All licensed private, limited, and emergency category airports are subject to inspection at any time, but shall be inspected at least once during each license period by a representative of the Department.

(7) All categories of licensed airports in an inactive status need not be inspected during their inactive status period. However, they shall be inspected to determine if they meet minimum safety standards prior to being cleared to resume normal operations.

(8) Specific conditions will be attached to all private airports, limited airports, and emergency hospital helistops in accordance with the following provisions. Safety considerations and operational procedures will be added as conditions to any aviation facility license to insure the public health, safety, or welfare. Conditions implementing zoning restrictions related to airport operations will also be added as needed to avoid unnecessary disturbance of persons or activities on the ground.

(a) At a minimum, the conditions for a private airport will include:

1. Aircraft operations are limited to use only by the licensee and invited guests. It is the responsibility of each invited pilot(s) to comply with federal flight requirements.

2. Traffic patterns and operational procedures are subject to review by the Department prior to licensing.

(b) At a minimum, the conditions for a limited airport will include:

1. Specific limitation(s) will be listed.

2. Traffic patterns and operational procedures are subject to review by the Department prior to licensing.

(c) At a minimum, the conditions for an emergency hospital helistop will include:

1. Operations are limited to the transfer of patients and medical supplies or flights related to emergency situations.

2. Traffic patterns and operational procedures are subject to review by the Department prior to licensing.

(9) All airport licenses issued under this section, together with any conditions attached thereto, shall be posted in a prominent place at the airport. Any limitations on the use of the airport shall be posted adjacent to the license. In the event there are no buildings at the airport, the license and any conditions shall be displayed at the office or place of business of the caretaker or manager.

(10) The Department is authorized by Section 330.30(2)(e)2., Florida Statutes, to require a new site approval for an airport if the license of the airport has not been reissued by the expiration date.

(11) If a license renewal application and all required fees have not been received by the Department within 15 days after a previous license expires, the Department is authorized to close the airport.

(12) The Department is authorized to revoke any license or renewal thereof or refuse to issue a license renewal if it determines, in accordance with Section 330.30(2)(f), Florida Statutes, that:

(a) There has been an abandonment of the airport as such;

(b) There has been a failure to comply with the conditions of the license; or

(c) Because of change of physical or legal conditions or circumstances the airport has become either unsafe or unusable for the aeronautical purposes for which the license was issued.

Specific Authority 330.29, 334.044(2) FS. Law Implemented 330.29, 330.30 FS. History - New 10-29-65, Amended 7-13-71, Revised 11-23-72, Amended 6-23-76, 11-19-81, 1-8-85, Formerly 14-60.06, Amended 12-26-95.

14-60.007 Minimum Airport Standards. Airports fulfilling the requirements of the FAA airport certification program shall be considered to meet the standards enumerated below. Federal Aviation Regulations, 14 C.F.R., Section 77.25 (March 1993), are hereby adopted as the standard for the criteria used for public use airport runways.

(1) Public airports shall be shown on Departmental aeronautical charts and listed in airport directories. Private and emergency airports may be shown on Departmental aeronautical charts and listed in Departmental airport directories if they carry the appropriate notation. Limited airports will not be shown

on Departmental aeronautical charts, unless they have unique landmark or emergency use value.

(2) Minimum Effective Landing Strip Lengths.

(a) The following minimum effective landing strip lengths and widths are hereby established (also see Charts I, II, III, IV, V, and VI):

EFFECTIVE LENGTH	PRIMARY SURFACE WIDTH	USABLE LANDING WIDTH
PUBLIC 2,000 Feet	250 Feet	60 Feet
PRIVATE 1,800 Feet	100 Feet	50 Feet
LIMITED 1,800 Feet	100 Feet	50 Feet
ULTRALIGHT	See 14-60.007(7)	
EMERGENCY	Lengths and widths of emergency airports shall be determined by the Department considering the need for emergency service, the operating characteristics of the aircraft using the site, and the availability of alternative landing sites.	

The primary surface of a public use paved runway is defined as extending 125 feet to both sides of the runway centerline and extending 200 feet beyond the end of each paved runway (Chart I). The primary surface of a public use sod or turf runway is defined as extending 125 feet to both sides of the runway centerline and ending at the end of the runway (Chart II). The primary surface of a private or limited runway is defined as extending 50 feet to both sides of the runway centerline and ending at the end of the runway (Chart III).

CHART I
AIRPORT LICENSING
MINIMUM DIMENSIONS AND APPROACH ZONES
PUBLIC AIRPORT PAVED RUNWAY

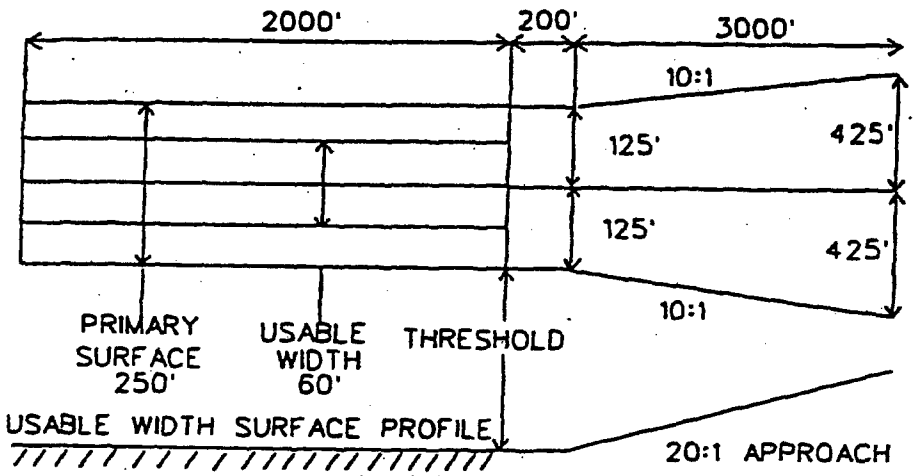
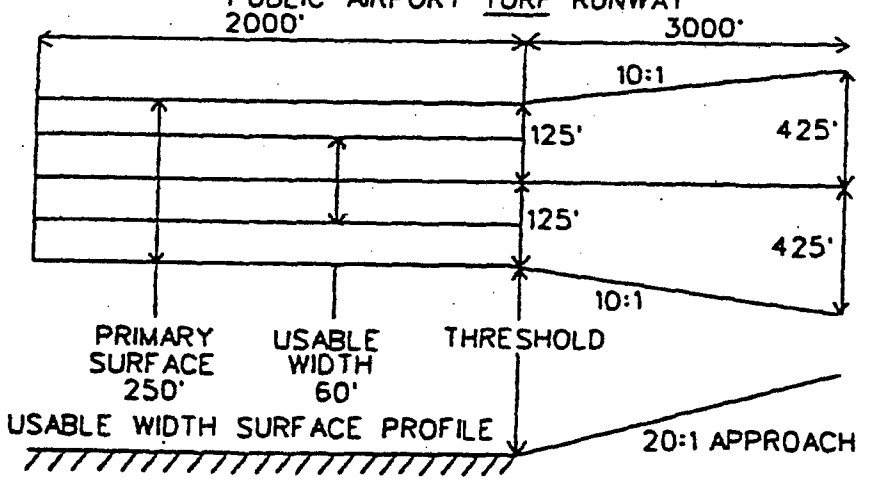


CHART II
AIRPORT LICENSING
MINIMUM DIMENSIONS AND APPROACH ZONES
PUBLIC AIRPORT TURF RUNWAY



(b) Public airports which hold a current airport license, as of January 1, 1996, will maintain their license if they continue to meet the standards under which they were licensed.

(3) Approach Zones.

(a) The approach zone for public airports is a zone based on a 20 to 1 approach slope, increasing gradually in width from 250 feet (125 feet either side of the extended runway centerline), at the ends of the primary surface (200 feet beyond the ends of each usable paved runway) to a width of 850 feet at a distance of 3,000 feet outward from the ends of the primary surface. On turf or sod runways, the approach zone has the same dimensions but starts precisely at the end of the runway (Charts I and II).

(b) The approach zone for private and limited airports is a trapezoidal area increasing gradually in width from 50 feet on both sides of the extended runway centerline at the ends of each usable runway, to a width of 350 feet on both sides of the extended runway centerline at a distance of 3,000 feet outward from the ends of each runway. (See Chart III.)

(c) The approach zone for public, private and limited STOLports are the same as public, private and limited airports, respectively, with the following exceptions:

1. The approach zone for STOLports shall be clear of obstructions above a glide path of 15 to 1 from the ends of each primary surface.

2. For STOL aircraft the minimum effective runway length shall be taken from the appropriate performance source chart in the technical manual for the STOL-type airplane which uses the STOLport. This chart gives the distance necessary to takeoff and clear a 50 foot obstacle at the maximum gross weight of the aircraft at 90 degrees Fahrenheit. This distance will be the minimum effective runway length allowed for the STOLport.

(d) Vertiports approach and landing surfaces shall meet the standards defined in the current FAA Advisory Circular 150/5390-3, Vertiport Design.

(e) Except for Heliports, Helistops, Vertiports, Vertistops, LTAports, and STOLports, and Ultralight Flightparks, approach zones shall be clear of obstructions above a glide path of 20 to 1 from the ends of each threshold. When the approach zone to any runway crosses a road or railroad, the glide path shall pass at least 15 feet above any portion of a traffic lane, 17 feet above any portion of an interstate highway and at least 23 feet above the nearest rail of the railroad.

(4) Public, Private, and Limited Airport (Land) Improvements.

(a) All public airports (land) including those with agriculture applicators, shall comply with 1. through 5. below; public airports with other commercial aviation activity, shall comply with 1. through 8. below. Private airports shall comply with only 1. and 2. below unless special circumstances require additional facilities. Limited airports need not comply with 1. through 8. below unless safety considerations require otherwise.

1. Department or FAA approved markers shall be installed on both sides of unpaved runways at 200-foot intervals along the usable width (sides). Three markers shall be placed at five-foot intervals on each side of the end of the runway, perpendicular to the centerline of the runway. Each set of three markers shall start at the corner of the runway and run towards the centerline of the runway on the endline. Displaced thresholds at non-paved public and private airports shall be marked with at least three markers on each side of the landing thresholds area where the effective length commences. The displaced threshold markers shall be no more than five feet apart, similar to the runway outline markers, and placed, clear of the runway, on a center line 90 degrees to the runway heading (Chart IV). STOLports and LTAports shall be marked according to current FAA recommended markings, or as deemed appropriate by the Department.

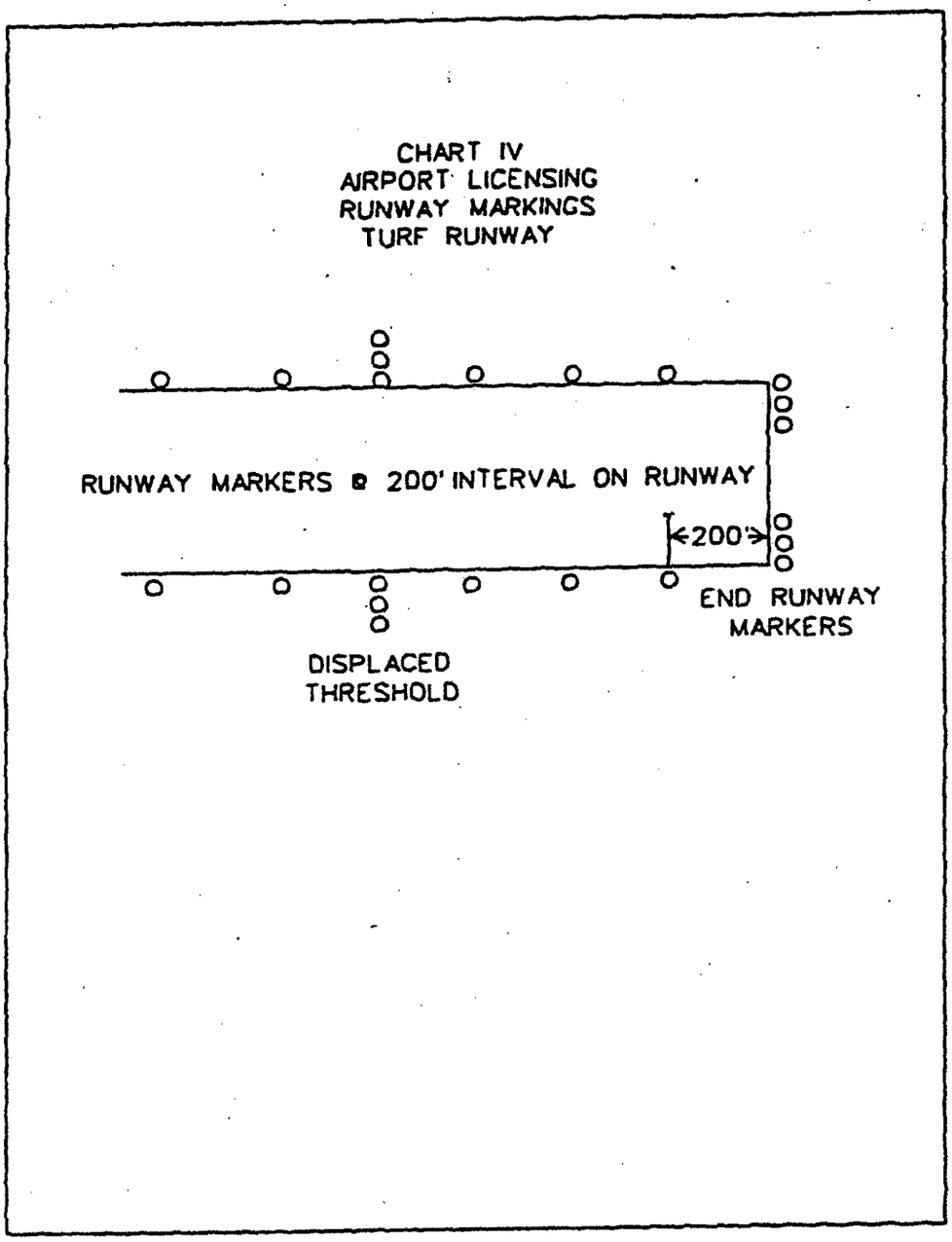


CHART IV
AIRPORT LICENSING
RUNWAY MARKINGS
TURF RUNWAY
RUNWAY MARKERS @ 200' INTERVAL ON RUNWAY
200'
END RUNWAY
MARKERS
DISPLACED
THRESHOLD

2. Department or FAA approved type wind indicator(s) shall be installed.

3. Three-point tie-down facilities capable of withstanding wind gusts of 50 knots or greater shall be available for each unhangared based aircraft. Transit tie-downs shall be provided for at least five aircraft.

4. Suitable areas for automobile parking and for the visiting public shall be adequately marked or enclosed by fence to prevent accidents.

5. Except at ultralight flightparks, an approved 75-foot diameter airport circle marker (segmented circle) shall be installed at airports, without control towers, which have other than standard traffic patterns.

6. At least two accessible fire extinguishers shall be available which are capable of extinguishing all classes of fire.

7. A telephone shall be available at the airport.

8. Each airport shall have aircraft service on call during published hours.

(5) Seaplane Bases.

(a) No seaplane base shall be approved which requires aircraft to land or take off in close proximity to a bridge, public beach, power line, boat dock or other area which could constitute a danger to persons or property.

(b) If a seaplane is to be based, moored, or hangared at any given location in Florida, a Florida airport license must be obtained.

(c) All public seaplane bases shall have, in addition to the facilities required of land airports (where applicable), the following minimum services facilities:

1. At least three U.S. Coast Guard approved life preservers of the ring or throwing type, with sufficient line attached to each, shall be kept available during hours of operation.

2. An operable propelled boat (an outboard is permissible) shall be immediately available at all times when flights are in progress.

3. A dock or float, suitable for the type of seaplane using the base, shall be so located as to afford the maximum degree of safety in taxiing approach.

4. Suitable beaching facilities for the type of aircraft using the base shall be provided. Where an adequate ramp is maintained, the dock or float may be omitted.

5. A source of fresh water at the beaching area and sufficient hoses for washing aircraft shall be accessible.

6. An adequate supply of line for heaving, towing, securing, or rescue operation shall be kept available.

7. The minimum water depths and landing area lengths shall be posted at the dock area and noted.

(d) Seaplane base standards as defined in the current FAA Advisory Circular 150/5395-1, Seaplane Bases, are incorporated herein by reference.

(6) Heliports and Helistops.

(a) All categories of heliports and helistops which hold a current license as of January 1, 1996, will maintain their license if they continue to meet the standards under which they were licensed.

(b) All categories of heliports and helistops shall comply with the following minimum standards:

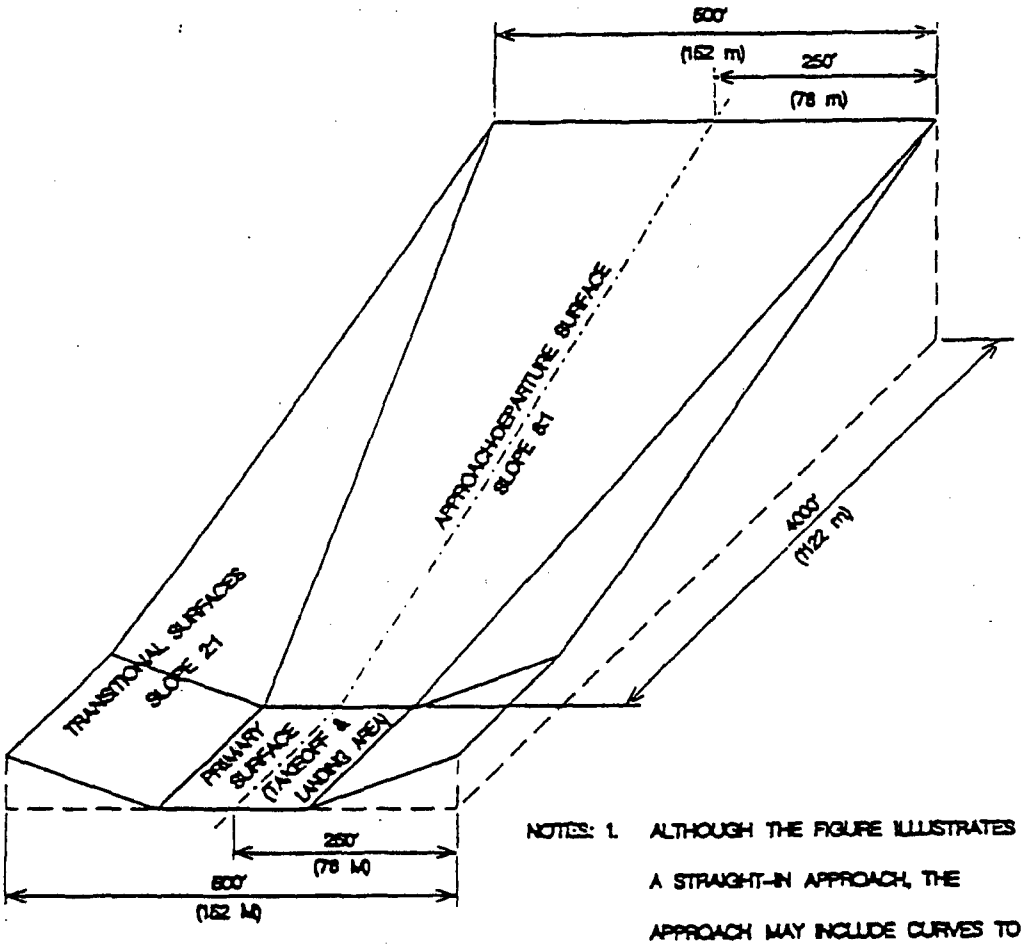
1. A minimum primary surface area shall be provided with length and width or diameter dimensions equal to at least 1.5 times the overall length of the largest helicopter intended to use the facility; however, a primary surface with 300 foot length and width or larger shall be accepted as sufficient to accommodate all helicopters.

2. Centered within the primary surface shall be a minimum touch-down area with length and width or diameter equal to 1.5 times the design helicopter's undercarriage length or width whichever is greatest. However, a touch-down area with 100 foot length and width or diameter centered within a 300 foot primary surface, shall be sufficient to accommodate all helicopters. Smaller touch-down areas, not less than 20 feet in diameter, will be approved for heliports/helistops located on man-made structures if safe for proposed aircraft use. The perimeter of a heliport or helistop raised more than 30 inches above the surrounding surface shall have a horizontal safety net or shelf installed.

3. There shall be a minimum of one approach/departure corridor with floor and side planes as follows: the floor plane shall provide an 8 to 1 obstruction clearance and shall coincide in width with the required primary surface width at the boundary and proceed outward, flaring horizontally at a 10 to 1 rate on both sides until it reaches 500 feet wide. Where the floor plane is less than 500 feet wide, the side planes extending out from the floor plane or the primary surface shall provide a 2 to 1 obstruction clearance out to the required 500 foot corridor width. The approach/departure or takeoff paths for both public and private use heliports may curve to avoid objects or noise sensitive areas (Chart V).

CHART V

HELIPORT / HELISTOP DIMENSIONS



NOTES: 1. ALTHOUGH THE FIGURE ILLUSTRATES A STRAIGHT-IN APPROACH, THE APPROACH MAY INCLUDE CURVES TO THE LEFT OR RIGHT TO AVOID OBJECTS OR NOISE SENSITIVE AREAS.

2. THE PRIMARY SURFACE IS PHYSICALLY IDENTICAL TO THE TAKEOFF AND LANDING AREA.

4. There shall be markings consisting of any FAA approved design, including the load-bearing capacity of the touch-down area located on a structure, indicating the maximum allowable gross weight of a landing helicopter in thousands of pounds. The dimensions of the identifying markings shall be as large as practical, but not less than 10 feet in height. The markings should be oriented to be legible from the preferred direction of approach. To assure recognition, hospital heliports and helistops and emergency evacuation facilities should be marked according to the current FAA AC 150/5390-2.

5. A Department or FAA approved wind indicator shall be located so as to be clearly visible to landing helicopters but not within the primary surface and not a hazard to flight. Both the wind indicator and the takeoff/landing area shall be lighted for night operations.

6. Fire protection of at least two 30 pound dry chemical extinguishers (foam compatible) or equivalent (not required for limited or emergency helistops) shall be available. In addition, public heliports/helistops shall provide an effective safety barrier to protect the public from entering the primary surface and when the public heliport/helistop is located on top of a building, egress shall be provided at two separate locations.

7. Helistops at or adjacent to licensed hospitals shall require a helistop license, but there shall be no fee connected with such licensing of an emergency helistop provided the helistop is used only for the emergency transportation of patients, supplies, or flights related to emergency situations at the hospital or ready alert for medical assistance on call, and is not used for routine transportation of any person to or from the hospital.

8. Applications for elevated heliports or helistops on structures shall not be complete unless certification by a registered architect or professional engineer as to the maximum allowable rotorcraft weight is received.

9. Helicopters may land on licensed public use airports either on or off the landing surface within the airport boundaries at the discretion of the pilot when such landings are in agreement with FAA rules and regulations and the airport's policies. The safety of approaches and departures shall be the pilot's responsibility.

10. Helicopters may land at private use airports, at the specific invitation of the airport owner, either on or off the airport runway, primary surface, or surrounding property if the helicopter landing site and the intervening property are owned or controlled by the airport owner. These landings shall be in accordance with FAA rules and regulations. The pilot of the helicopter will be responsible to insure the safety of approaches and departures. Zoning of the landing area must be appropriate.

(b) Any heliport/helistop conforming with FAA recommendations in the current AC 150/5390-2A (January 20, 1994) Heliport Design, shall be deemed in compliance with these rules.

(7) Ultralight Flightparks.

(a) All public ultralight landing area shall be licensed if the site lies within five nautical miles of a publicly licensed or military airport. Any ultralight landing areas shall be licensed if there are more than 10 ultralight vehicles which operate regularly from the site.

(b) Public category ultralight landing areas shall be at least 500 feet in length and have at least 150 feet of usable surface width.

(c) Private category ultralight landing areas shall be at least 500 feet in length and have at least 150 feet of usable surface width.

(d) Limited category ultralight landing areas shall be at least 250 feet in length and have at least 75 feet of usable surface width.

(e) Ultralight landing area approach/departure corridors shall be clear of obstructions above a glide path of 10 to 1 from the edge of the landing area and of the dimensions as shown on Chart VI.

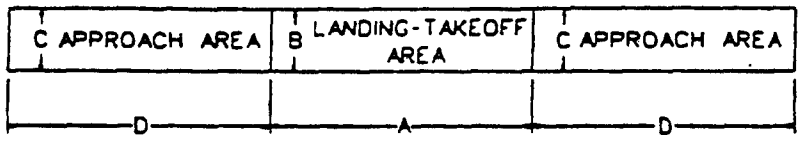
CHART VI

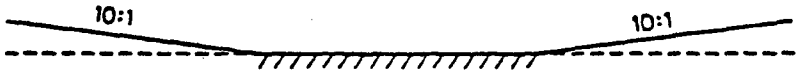
ULTRALIGHT LANDING AREA

MINIMUM DIMENSIONS

TYPE	A	B	C	D
PUBLIC USE	500'	150'	150'	500'
PRIVATE USE	500'	150'	150'	500'
LIMITED USE	250'	75'	75'	250'

PLAN VIEW





PROFILE

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(f) Department approved ultralight landing area boundary markers shall be required for all sites open to the public. Such markers must be highly visible from the air and of a type that will not damage an aircraft, such as soft cones made of rubber, plastic or other frangible material, automobile tires painted white, PVC pipe, gallon milk jugs filled with sand or water, or white colored paving stones that are flush with the turf of the runway.

(8) The following miscellaneous safety regulations shall be observed:

(a) Hazards and obstructions as determined by the Department shall be marked.

(b) Any part of a landing area which has become temporarily unsafe, or which for any reason is not available for use, shall be marked by appropriate indicators which clearly show the boundaries of such danger areas. If the airport is used for nighttime operations, such danger shall be marked with lights.

(c) The airport licensee shall immediately notify the Department in writing whenever alterations, improvements, major repairs or the size or shape of the landing area is to be changed.

(d) Fencing, signing or other markings as required for safety at a licensed airport shall be installed by the airport owner or lessee.

(e) The owner or lessee shall maintain the field in a usable condition. If the airport becomes dangerous or is not usable, it shall be the responsibility of the airport owner or lessee to mark the danger area by means of flags or to indicate the closing of such airport or runway by an "X" clearly visible from the air or in an appropriate manner consistent with the exigencies of the situation. The owner or lessee shall report, in writing, to the Department any planned or emergency work in progress on the field and any proposed changes or conditions which might render the field unsafe for use.

(f) The owner or lessee of a closed, unlicensed, or abandoned airport shall remove all airport identifying markers and wind indicators and shall place upon the runway or runway intersection a Department approved "closed" marker, which shall be in accordance with FAA Advisory Circular 150/5340-1G (September, 27, 1993), which is hereby incorporated by reference. This marker shall be maintained until the runway is no longer identifiable. The Department is authorized to cause the airport to be marked if the owner does not properly mark it within 60 days of notice. The cost of such safety measures shall be filed as a lien against the airport property.

(g) The Department is authorized to act to enforce the Federal Aviation Regulations and may request that NOTAMS (Notice to Airmen) be issued in accordance with FAA AC 150/5200-28A (October 29, 1993), which is incorporated by reference. By acceptance of the airport license the airport licensee agrees to allow the Department to issue NOTAMS for his airport when, in the opinion of the Department, flight safety so requires.

(h) Owners or lessees of private and limited licensed airports shall take whatever action necessary to prohibit the use of the facility by aircraft of such horsepower, weight and/or performance characteristics that would result in dangerous landing or takeoff conditions to either the occupants of the aircraft or to persons or property in the vicinity of the airport.

Specific Authority 330.29, 334.044(2). Law Implemented 330.29, 330.30 FS. History - New 10-29-65, Revised 11-23-72, Amended 4-18-76, 11-19-81, 1-8-85, Formerly 14-60.07, Amended 12-26-95.

14-60.008 Airport Markings.

Specific Authority 330.29(1) FS. Law Implemented 330.28(1), 330.29(1) FS. History - New 11-23-72, Amended 4-18-76, Repealed 1-8-85, Formerly 14-60.08.

14-60.009 Airspace Protection and Obstruction Marking and Lighting.

(1) For purposes of Rule 14-60.009, the definitions in Section 333.01, Florida Statutes, shall apply.

(2) The Department shall enforce the provisions of Chapter 333, Florida Statutes, as to airspace, obstruction marking and lighting and airport zoning.

(3) An Airspace Obstruction Permit Application, DOT Form 725-040-111, Rev. 08/93, shall be submitted) to: Florida Department of Transportation, Aviation Office, MS 46, 605 Suwannee Street, Tallahassee, Florida 32399-0450. The Department shall grant or deny the permit in accordance with Chapter 333, Florida Statutes. The Department shall not approve a permit unless the applicant submits both documentation showing compliance with the federal requirement for notification of proposed construction and a valid aeronautical evaluation. No permit shall be approved solely on the basis that the proposed structure will not exceed federal obstruction standards as contained in Title 14 Code of Federal Regulations, Part 77(FAR Part 77), Objects Affecting Navigable Airspace, Subpart C, Obstruction Standards, Sections 77.21, 77.23, 77.25,

77.28, and 77.29, or any other federal aviation regulation. Anyairspace obstruction permit granted shall require compliance with the marking and lighting standards set forth in this rule chapter.

(4) Any airport zoning regulation adopted in compliance with Chapter 333, Florida Statutes, concerning airport hazards shall require obstruction marking and lighting in compliance with the marking and lighting standards set forth in this rule chapter.

(5) Any person filing a request with a local government board of adjustment for a variance from airport zoning regulations in order to erect any structure, or increase the height of any structure, or permit the growth of any tree, or otherwise use his property in violation of the airport zoning regulations shall forward a copy of the application to the Department by certified mail. The application shall be addressed to: Florida Department of Transportation, Aviation Office, MS 46, 605 Suwannee Street, Tallahassee, Florida 32399-0450.

(a) The Department shall review the application for variance, file a response or waiver with the board of adjustment and provide a copy of the response to the applicant within 45 days of receipt of the application.

(b) The board of adjustment shall provide to the Department a copy of its decision on the application for variance within 10 days of issuing its decision.

(c) Any variance granted by the board of adjustment shall require the applicant, at his own expense, to install, operate and maintain obstruction marking and lighting in compliance with the marking and lighting standards set forth in this rule chapter.

(6) As minimum standards, the Department hereby adopts the
obstruction marking and lighting standards established in the current U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular Number 70/7460-1H, (September 1, 1992) Obstruction Marking and Lighting (FAA AC No. 70/7460-1). These standards shall be applied as follows:

(a) Objects that exceed an overall height of 200 feet above ground level (AGL), including any appurtenances, or that exceed any obstruction standard of FAR Part 77, Subpart C will be required to be marked and lighted as is specifically recommended by the FAA in the Determination rendered to the applicant's Notice of Construction. Marking or lighting of objects lower than 200 feet AGL may be required within specific lateral boundaries of established low level aircraft routes.

(b) Objects which exceed 300 feet AGL up to 500 feet AGL within six nautical miles (NM) of a licensed public use category airport or military airfield, shall be marked and lighted in accordance with Chapters 4, 5, 6, and 13 of the current FAA, AC No. 70/7460-1. The white lighting required for daytime and twilight under Chapter 8, Dual Lighting with Red/Medium Intensity White Systems, shall be medium intensity. These five chapters provide the standards, methods, applications, and equipment specifications for dual lighting systems, which include flashing red beacons and red lights for night with white high or medium intensity strobe lights for daytime and twilight. The system includes automatic sensors which change between red and white lighting and also vary the white strobe intensity between twilight and full day.

(c) Objects which exceed 500 feet AGL within a six nautical mile radius of a public airport or military airfield, shall be marked and lighted in accordance with Chapters 4, 5, 7, 9, and 13 of the current AC 70/7460-1. The white lighting required for daytime and twilight under Chapter 9, Dual Lighting with Red/High Intensity White Systems, shall be high intensity.

(d) Objects which exceed 800 feet AGL beyond the six nautical mile radius of public airports or military airfields, shall be marked and lighted in accordance with Chapters 4, 5, 7, 9, and 13, of the current AC No. 70/7064-1. The white lighting required for daytime and twilight under Chapter 7, Dual Lighting, shall be high intensity.

(e) Marking or lighting specified may be deleted only if:

1. The object is masked by surrounding objects marked or lighted under these standards, and

2. The FAA specifically recommends deletion of any marking or lighting because of the masking effect.

(f) When the FAA recommends dual lighting for objects less than the heights specified in this rule because of the need for greater conspicuity the more stringent FAA recommendations shall be required as a condition of the permit issued. When an object does not exceed any FAR Part 77, Subpart C Surface but because of its particular location, the FAA recommends marking and lighting, the FAA recommendation shall be required as a condition of the permit.

(7) The obstruction marking and lighting standards set forth in this rule chapter shall take effect on October 1, 1988. Any existing structure not in compliance on October 1, 1988 shall be required to comply with the obstruction marking and lighting standards whenever any change or alteration is made to the structure, whether temporary or permanent; whenever any existing marking requires refurbishment; whenever existing lighting requires replacement; or on or before November 15, 1995, whichever occurs first.

Specific Authority 330.29, 334.044(2) FS. Law

Implemented 330.29, 330.35, 333.025, 333.03(5), 333.07, 333.08 FS. History - New 11-23-72, Amended 4-18-76, 11-19-81, 1-8-85, Formerly 14-60.09, Amended 4-19-89, 12-26-95.

14-60.010 Exemptions.

Specific Authority 330.29 FS. Law Implemented 330.29 FS. History - New 11-23-72, Repealed 1-8-85, Formerly 14-60.10.

14-60.011 Forms. The following forms are incorporated by reference into this rule chapter and shall be used to apply for an airspace obstruction permit or airport license:

FORM NUMBER	DATE	TITLE
725-040-110	(08/93)	Airspace Obstruction Permit
725-040-111	(08/93)	Airspace Obstruction Permit Application
725-040-120	(08/93)	Airport Site Approval and License Application
725-040-123	(08/93)	Airport License Renewal Application

Copies of these forms may be obtained by contacting the Aviation Office, Florida Department of Transportation, Haydon Burns Building, MS 46, Tallahassee, Florida 32399-0450.

Specific Authority 120.53(1), 330.29, 334.044(2) FS. Law Implemented 120.53(1), (2), 330.29, 333.025, 333.07, 334.044(27) FS. History - New 11-19-81, Amended 1-8-85, Formerly 14-60.11, Amended 4-19-89, Amended 12-26-95.

CHART III
AIRPORT LICENSING
MINIMUM DIMENSIONS AND APPROACH ZONES
PRIVATE AIRPORT (PAVED OR TURF)

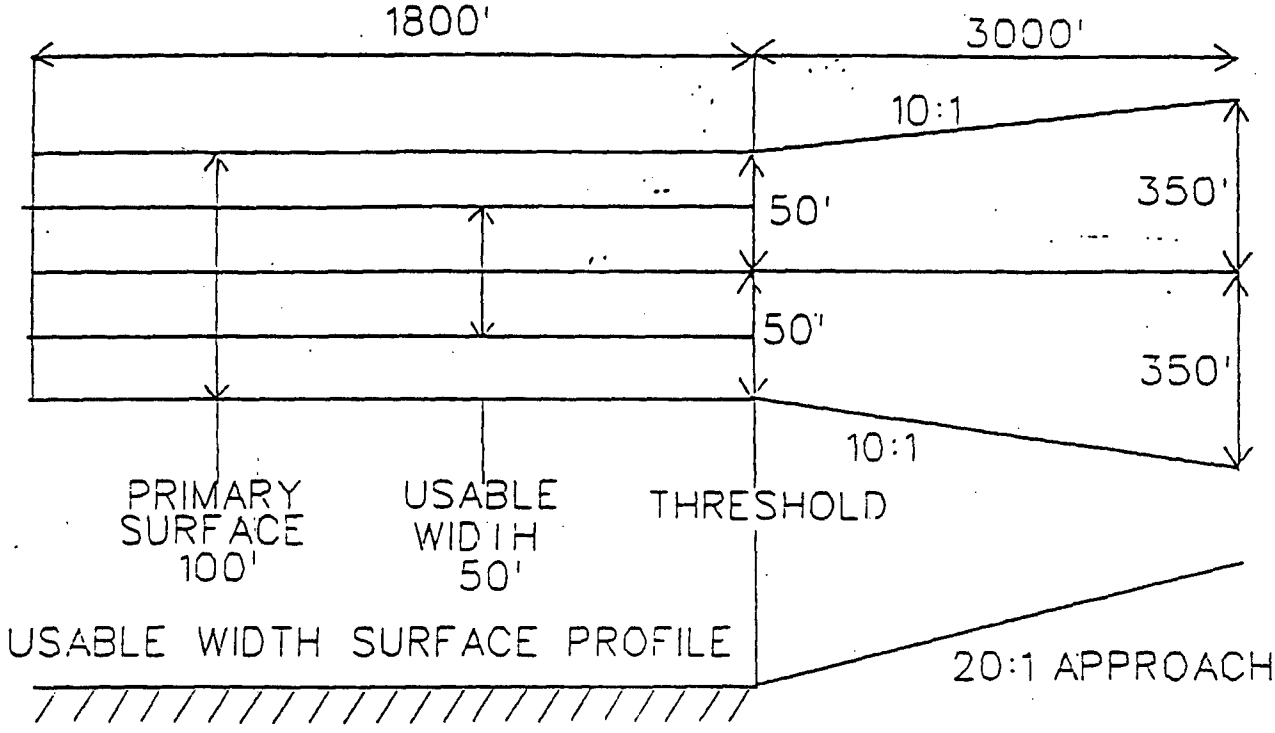
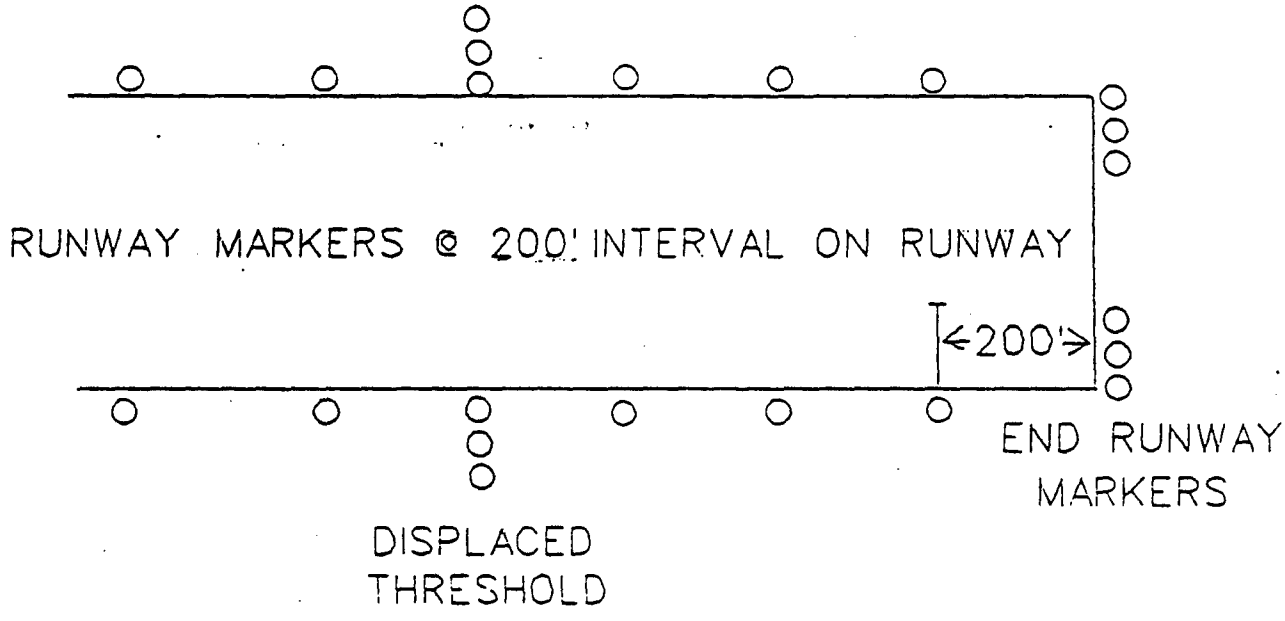


CHART IV
AIRPORT LICENSING
RUNWAY MARKINGS
TURF RUNWAY



State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

✓ a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:
The AC applies for open to the Public Heliport

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES___	NO ✓
b.	Hospital Heliports:	YES___	NO ✓
c.	Public Heliports:	YES ✓	NO___

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ___
No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___ We have no public heliports
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

Mr. Ed Ratigan
404-651-5208

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

The State of Hawaii has brought all the helicopter operating areas in compliance to the criteria stated in AC 150/5390-2A, that are located on State owned/operated airports (HTO, KOA, LIH, OGG, and HNL)

2. **Does your state law require a license, certificate, or some other form of state approval for:**

a.	Private Heliports:	YES___	NO X
b.	Hospital Heliports:	YES___	NO X
c.	Public Heliports:	YES X	NO___

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

Yes X
No ___

If Yes, please provide a brief description of your plan:

Requirements of AC150/5390-2A are incorporated into our various airport master plans as they are updated.

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES X	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

With impending legislation to require private heliports to license their heliports with the state, we would require them to comply with AC150/5390-2A.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES X	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Same as question number 4 answer.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a.	Between 0 and 20%	___
b.	Between 20 and 40%	___
c.	Between 40 and 60%	___
d.	Between 60 and 80%	___
e.	Between 80 and 100%	___
f.	Unknown	X

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a.	Between 0 and 20%	___
b.	Between 20 and 40%	___
c.	Between 40 and 60%	___
d.	Between 60 and 80%	___
e.	Between 80 and 100%	___
f.	Unknown	X

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a.	Between 0 and 20%	___
b.	Between 20 and 40%	___
c.	Between 40 and 60%	___
d.	Between 60 and 80%	___
e.	Between 80 and 100%	X
f.	Unknown	___

9. **If we have questions concerning your responses, who could we contact for further discussion?**

Morris F. Tamanaha
Tel (808) 838-8701
Fax (808) 838-8753

STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION

Airport License

This is to certify that

_____

has successfully met the requirements of Section 261-16, H.R.S., those regulations applicable thereto, and is hereby licensed as a

QUASI-PUBLIC AIRPORT

_____ EXPIRES

_____ DIRECTOR OF TRANSPORTATION

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

ANYONE WITH QUESTIONS CONCERNING HELIPORT DESIGN ARE GIVEN A COPY.

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES____ NO X
   b. Hospital Heliports: YES____ NO X
   c. Public Heliports: YES____ NO X

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ____
   No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES X	NO____	N/A ____
b.	Expect a small decrease in costs:	YES____	NO____	N/A ____
c.	Expect a large decrease in costs:	YES____	NO____	N/A ____
d.	Expect a small increase in costs:	YES____	NO____	N/A ____
e.	Expect a large increase in costs:	YES____	NO____	N/A ____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES X	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

9. If we have questions concerning your responses, who could we contact for further discussion?

WAYNE D. PICKERILL
(208) 334-8783
IDAHO DIVISION OF AERONAUTICS

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

Terminology such as FATO + TLOF has been incorporated in to Illinois Rules.

2. Does your state law require a license, certificate, or some other form of state approval for:

a. Private Heliports: YES ✓ NO___
b. Hospital Heliports: YES ✓ NO___
c. Public Heliports: YES ✓ NO___

Please attach procedure or form.

enclosed safety rules, applications + hospital heliport guidelines

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ✓
No ___

If Yes, please provide a brief description of your plan:

Compliance through periodic inspections.

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a. Expect no effect: ✗ YES ✓ NO___ N/A ___
b. Expect a small decrease in costs: YES___ NO___ N/A ___
c. Expect a large decrease in costs: YES___ NO___ N/A ___
d. Expect a small increase in costs: YES___ NO___ N/A ___
e. Expect a large increase in costs: YES___ NO___ N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

We have our own standards for certification of heliports. Our public-use standards exceeds FAA standards already. An objectionable airspace determination could cause problems on state + local level. (see letter)

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	* YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

I believe this will have a tremendous impact in other states & with hospital heliports. again, an objectionable airspace determination could also have an impact on state + local approvals.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% 40%
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ✓
e. Between 80 and 100% ___
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

Gary Stevens
217-785-5746
FAX 217-785-4533

Illinois Dept. of Transp. - Div. of Aeronautics
One Langhorne Bond Drive
Capital airport
Springfield, Il. 62707-8415

TELEPHONE CONVERSATION WITH GARY STEVENS,
ILLINOIS FLIGHT SAFETY COORDINATOR
January 30, 1998

1. FAA QUESTION: The preface of the Illinois "Aviation Safety Rules" (no date shown of cover) indicates that they were codified in 1977 and amended twice in 1985. Does this mean they are required by Illinois law?

ANSWER: Yes. Illinois law requires that heliports meet the Illinois heliport requirements. However, the law does not spell out these requirements specifically; it only references them. Thus, using a procedure that has been spelled out in the law, the heliport regulations can be changed without going back to the legislature.

2. FAA QUESTION: Do the Aviation Safety Rules apply to all heliports in Illinois?

ANSWER: Yes.

3. FAA QUESTION: In the Aviation Safety Rules, what is the basis for the 2400 foot length and the 300 foot altitude of the approach/departure slope?

ANSWER: The Illinois regulations on heliports go back to at least 1948. At this point, the basis for these regulations is uncertain. We recognize that the rules are antiquated and we are in the process of changing them but this effort is not moving quickly due to other priorities.

4. FAA QUESTION: In the Aviation Safety Rules, what is the basis for the 1400' width of the approach/departure slope at 2400' from the FATO? (This is considerably wider than the requirements of the 1994 Heliport Design Advisory Circular (AC).)

ANSWER: Same answer as for question 3 above.

5. FAA QUESTION: In the Aviation Safety Rules, what is the basis for the 600 foot width of the transition surface (vs. FAA's 250 feet)?

ANSWER: Same answer as for question 3 above.

6. FAA QUESTION: The Illinois "Hospital Heliport Guidelines" were last modified on July 12, 1994. Have these guidelines been codified?

ANSWER: No.

7. FAA QUESTION: Are hospital heliports required to comply with the "Aviation Safety Rules"?

ANSWER: Yes. Hospital heliport fall under the Illinois requirements for private heliports which are described in the section entitled "Restricted Landing Areas" (14.790, 14.792, and 14.795). Public heliports fall under the requirements described in the section entitled "Heliports (14.680a). Section 14.680a references Appendix C which requires an 8:1 approach/departure slope. Section 14.792 requires that the approach/departure slope be not steeper than 5:1. We recognize that the Illinois "Aviation Safety Rules" do not specifically spell out which sections apply to private heliports and which sections apply only to public heliports.

8. FAA QUESTION: In the Illinois "Hospital Heliport Guidelines", why is the approach/departure airspace longer but narrower than what is required by the Illinois Aviation Safety Rules?

ANSWER: For private heliports (including hospital heliports), our state requirements for the VFR approach/departure airspace are consistent with the current FAA Heliport Design AC recommendations in length and width. However, while we encourage heliport developers to provide at least one path with a slope not steeper than 8:1, we will certify a facility as long as neither VFR approach/departure path slope is steeper than 5:1.

Our current public heliport regulations require a VFR approach/departure path 1400 foot in width and 2400 foot in length. However, we are not enforcing this requirement. We are attempting to modify our current state regulations for public heliport VFR approach/departure paths to make them consistent with the current FAA Heliport Design AC in length, width, and slope (8:1).

9. FAA QUESTION: On what basis does Illinois require two heliport approach/departure paths?

ANSWER: We recognize that, at heliports with only one approach/departure path, pilots will regularly have to deal with a tail wind on approach or departure and that the helicopter's performance will suffer as a result. Thus, we require two approach/departure paths. At a private heliport, we try to ensure that one of these approach/departure paths be not steeper than 8:1 in recognition of the FAA recommendations. At this private heliport, the second approach/departure paths could not be steeper than 5:1. At public heliports, both approach/departure paths must not be steeper than 8:1. While we are planning to update our heliport requirements, the requirement for two approach/departure paths is something that we plan to keep.

Illinois Department of Transportation
Division of Aeronautics
One Langhorne Bond Drive/Capital Airport
Springfield, Illinois 62707-8415

January 7, 1998

Robert Bonanni
FAA, AAS - 100
800 Independence Ave. SW
Washington, DC 20591

Dear Bob:

Enclosed is the completed questionnaire we received from NASAO for comments on proposed changes to the heliport design Advisory Circular. It was good to have an opportunity to talk to you on the phone and discuss some of the concerns we have with proposed changes to the existing document.

As I mentioned on the phone, I represented the Association of Air Medical Services (AAMS) for the last revision of the current heliport advisory circular. During that process I had the opportunity to do a lot of research on the impact new design criteria would represent. I have also had over 10 years experience in the field regulating and helping design hundreds of private-use and hospital heliports.

As we discussed on the phone, the biggest concern with this Advisory Circular is the word "advisory" quickly becomes lost in the field. Many State and local governments adopt this document in total as their mandatory standards for heliport licensing. As a matter of policy, the FAA FSDO's send Operations Inspectors in the field to look at all heliports, both private-use and public-use. These inspectors only have one source of guidance in the "Advisory" Circular. As a result objectionable airspace determinations can be rendered and come down to the proponent being unable to have a heliport.

It is our opinion in Illinois that properly designed heliports which meet the current standards can insure a great degree of safety for operators. We have operated 4 EMS helicopters in the state since 1970. There are currently 9 private sector operators and numerous out-of-state EMS helicopter operators who use our 135 hospital heliports in addition to us. In nearly 30 years and thousands of flights there have been 3 incidents we are aware of at hospital heliports. In all 3 incidents there were object strikes in the FATO where these obstructions should never have been, based on the then-current standards which were far less than what is proposed. Your own FAA study entitled "Analysis of Helicopter Mishaps at Heliports, Airports and Unimproved Sites" concludes that 70% of all incidents were the result of either a skid, tail-rotor or main rotor strike of an object that should have never been in the existing FATO. Bigger is not the answer. Compliance with existing standards could go along way to improve an already good safety record. Perhaps we are unique here in Illinois. Have there been incidents elsewhere that dictate larger heliports as the answer to improve safety?

In the last Advisory Circular in the private-use heliport and hospital-heliport chapters there was a reference to FAR part 77 approach surfaces. After the Advisory Circular was distributed the FAA acknowledged that the 2:1 transitional surfaces in the diagram referenced did not apply to private-use or hospital-heliports. It appears that not only will the transitional surfaces be incorporated in the proposed Advisory Circular; they will also more than triple in size from 500' to 1,650'. This in effect will make it next to impossible to site a surface heliport at a hospital where ground ambulance transportation will not be necessary to access the emergency room. What possible justification can there be to support such a dramatic change?

We feel it serves no purpose to eliminate private-use heliport standards from the Advisory Circular. It must be recognized that helicopters will use more off-site landing areas if low-cost heliports that represent a reasonable degree of safety are unattainable. In Illinois we deal with the frustration of seeing this on the airport side. It is unreasonable to equate that the same standards set forth for airports should apply to

public-funded paved facilities and a farm strip for a J-3 Cub or a Cessna 150. We in Illinois have recognized the difference and have different standards for private-use airports and heliports. There has been no evidence that this system has been detrimental to safety throughout our history which pre-dates the existence of the FAA.

After briefly reviewing the proposed hospital heliport chapter, we see no compelling need to enlarge FATO, approach/departure surfaces, or the safety area. I am a firm believer in insisting on a FATO clear of any object higher in elevation than the TLOF. We in Illinois demand any heliport lighting to be at or below the TLOF elevation.

In conclusion, we ask that you consider no changes to the existing hospital heliport FATO, safety area and approach/departure path surfaces. Any revision to the Heliport Advisory Circular should also clarify the 2:1 side transitional surfaces do not apply to private-use or hospital heliports. We urge you to retain a section for private-use facilities based on the existing Advisory Circular standards.

Please do not take these comments as a disregard to safety. After all, that is my job in Illinois. We have found on a state level that the best thing we can do to promote safety is through an aggressive inspection program to insure compliance with existing standards. I have found through the years that there needs to be a continuing education process with heliport operators to recognize the need to adhere to minimum safety standards. We feel there is always room for improvement. I agree that heliport marking and some means of identifying designated approach/departure paths is an area that could be improved, to name just one.

Please feel free to call on me to share any of our experiences here in Illinois. You can reach me at (217)785-5746. I hope we can work with you to achieve our mutual goal of achieving maximum safety. Thanks for listening.

Sincerely,

Gary D. Stevens
Flight Safety Coordinator

Illinois Department of Transportation
Division of Aeronautics

Application for Certificate of Approval

Date: _____

Airport Classification

Air Carrier ( )
Basic Transport ( )
General Utility ( )
Basic Utiltiy ( )
Residential ( )
RLA ( )
Ultralight / STOL ( )

Heliport Classification

General Heliport ( )

Utility Heliport ( )

Helistop ( )

RLA - Heliport ( )

Hospital Heliport ( )

Applicant

Facility Name (If different than applicant)

(1) Name _____

Address _____

City/Zip _____

Phone _____

Owner of Land

Name _____

Address _____

City / Zip _____

(2) **Legal Description** (Township, Range & 1/4 Section)

_____

_____ in _____ County, Illinois

Latitude _____ Longitude _____ Elevation _____

(3) Distance & Direction to Nearest City or Town _____ Miles _____ Direction

Distance & Direction to Nearest RLA or Airport _____ Miles _____ Direction

(4) Local Zoning Body Name _____

Address _____ Phone _____ FAX _____

Does present zoning permit proposed use? ☐ Yes ☐ No Explain _____

_____

Continued on reverse

AER 2059 (Rev. 7/94)

(5) Describe proposed use? _____ Proposed Number of Based Aircraft _____

(6) **General features**

Length _____ Width _____ Surface _____

Lighted ☐ Yes ☐ No Telephone ☐ Yes ☐ No Comments _____

(7) **Name and address of newspaper of most localized general circulation for legal publications**

Name _____

Address _____

City / Zip _____

(8) **Obstructions to be removed**

Type _____

Direction _____

_____

Distance / Height _____

(9) Work to be done prior to issuance of certificate:

_____

Certification: I hereby certify that the information herein is true and complete

_____ _____

Signature Date

The Illinois Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Paragraph 42 of the Illinois Aeronautics Act. Disclosure of this information is VOLUNTARY, however, failure to comply may result in this form not being processed. This form has been approved by the State Forms Management Center. Return completed form to: Illinois Department of Transportation, Division of Aeronautics, One Langhorne Bond Drive, Capital Airport, Springfield, Illinois 62707-8415

US Department of Transportation
Federal Aviation Administration

NOTICE OF LANDING AREA PROPOSAL

Name of Proponent, Individual or Organization ☐ Check if the property owner's name and address are different than above, and list property owner's name and address on the reverse.	Address of Proponent, Individual or Organization (*No., Street, City, State, Zip Code*)

☐ Establishment or Activation ☐ Deactivation or Abandonment
☐ Alteration ☐ Change of Status
} OF ☐ Airport ☐ Ultralight Flightpark ☐ Vertiport
☐ Heliport ☐ Seaplane Base ☐ Other (*Specify*) _____

A. Location of Landing Area

1. Associated City/State	2. County/State (*Physical Location of Airport*)	3. Distance and Direction From Associated City or Town	
4. Name of Landing Area	5. Latitude ° ' "	6. Longitude ° ' "	7. Elevation	Miles	Direction

B. Purpose

Type Use	If Change of Status or Alteration, Describe Change	☐ Establishment or change to traffic pattern (Describe on reverse)	Construction Dates	
☐ Public ☐ Private ☐ Private Use of Public Land/Waters			To Begin/Began	Est. Completion

C. Other Landing Areas

	Ref. A5 Above Direction From Landing Area	Distance From Landing Area

D. Landing Area Data

		Existing (*if any*) Rwy #1	Rwy #2	Rwy #3	Proposed Rwy	Rwy	Rwy
1. Airport, Seaplane Base, or Flightpark	Magnetic Bearing of Runway(s) or Sealane(s)						
	Length of Runway(s) or Sealane(s) in Feet						
	Width of Runway(s) or Sealane(s) in Feet						
	Type of Runway Surface (*Concrete, Asphalt, Turf, Etc.*)						
2. Heliport	Dimensions of Final Approach and Take off Area (FATO) in Feet						
	Dimensions of Touchdown and Lift-Off Area (TLOF) in Feet						
	Magnetic Direction of Ingress/Egress Routes						
	Type of Surface (*Turf, concrete, rooftop, etc.*)						
3. All	Description of Lighting (*If any*)			Direction of Prevailing Wind			

E. Obstructions

Type	Height Above Landing Area	Direction From Landing Area	Distance From Landing Area

F. Operational Data

1. Estimated or Actual Number Based Aircraft

Airport · Flightpark, Seaplane base	Present (*If est. indicate by letter "E"*)	Anticipated 5 Years Hence	Heliport	Present (*If est. indicate by letter "E"*)	Anticipated 5 Years Hence
Multi-Engine			Under 3500 lbs. MGW		
Single-engine			Over 3500 lbs. MGW		
Glider					

2. Average Number Monthly Landings

	Present (*If est. indicate by letter "E"*)	Anticipated 5 Years Hence		Present (*If est. indicate by letter "E"*)	Anticipated 5 Years Hence
Jet			Helicopter		
Turboprop			Ultralight		
Prop			Glider		

3. Are IFR Procedures For The Airport Anticipated
☐ No ☐ Yes Within _____ Years Type Navaid:

G. Other Considerations

Identification	Direction From Landing Area	Distance From Landing Area

H. Application for Airport Licensing

☐ Has Been Made ☐ Not Required ☐ County
☐ Will Be Made ☐ State ☐ Municipal Authority

I. CERTIFICATION: *I hereby certify that all of the above statements made by me are true and complete to the best of my knowledge.*

Name, title (*and address if different than above*) of person filing this notice—type or print	Signature (*in ink*)	
	Date of Signature	Telephone No. (*Precede with area code*)

FAA Form 7480-1 (1-93) Supersedes Previous Edition

Agency Display of Estimated Burden For Notice of Landing Area Proposal

The public report burden for this collection of information is estimated to average 45 minutes per response.

If you wish to comment on the accuracy of the estimate or make suggestions for reducing this burden, please direct your comments to OMB and the FAA at the following addresses:

Office of Management and Budget
Paperwork Reduction Project 2120-0036
Washington, D.C. 20503

— and —

U.S. Department of Transportation, Federal Aviation Administration
Airspace and Obstruction Evaluation Branch, ATP-240
800 Independence Avenue, S.W.
Washington, D.C. 20591

U.S. Department of Transportation
Federal Aviation Administration

INSTRUCTIONS
NOTICE OF LANDING AREA PROPOSAL

(Use Back of This Sheet as Worksheet)

As Used Herein, The Term "Airport" Means

Any Landing or Takeoff Area such as Airport, Heliport, Hellstop, Vertiport, Gliderport, Seaplane Base, Ultralight Flightpark, or Balloonport

Federal Aviation Regulations Part 157 requires all persons to notify the FAA at least 90 days before any construction, alteration, activation, deactivation, or change to the status or use of a civil or joint-use (civil/military) airport. Notice is not required for the establishment of a temporary airport at which operations will be conducted under visual flight rules (VFR) and will be used for less than 30 days with no more than 10 operations per day. Notice also is not required for the intermittent use of a site that is not an established airport, which is used for less than one year and at which flight operations will be conducted only under VFR. Intermittent use means the use of the site for no more than 3 days in any one week and for no more than 10 operations per day.

Required notice shall be submitted on this form from each person who intends to do any of the following:

1. Construct or otherwise establish a new airport or activate an airport.
2. Construct, realign, alter, or activate any runway, or other aircraft landing or takeoff area of an airport.
3. Construct, realign, alter, or activate a taxiway associated with a landing or takeoff area on a public-use airport.
4. Deactivate, discontinue using, or abandon an airport or any landing or takeoff area of an airport for a period of one year or more.
5. Deactivate, abandon, or discontinue using a taxiway associated with a landing or takeoff area on a public-use airport.
6. Change the status of an airport from private use (use by the owner or use by the owner and other persons authorized by the owner) to an airport open to the public or from public-use to another status.
7. Change status from IFR to VFR or VFR to IFR.
8. Establish or change any traffic pattern or traffic pattern altitude or direction.

The notice required shall be made by submitting this form to the nearest Federal Aviation Administration Regional Office or Airports District Office. However, in an emergency involving essential public service or when the delay arising from the 90-day advance notice requirement would result in an unreasonable hardship, you may provide notice to the appropriate FAA Airports District/Field Office by telephone in lieu of submitting this form. The FAA may require the subsequent submission of this form when necessary for safety or other reasons.

Section 901 of the Federal Aviation Act of 1958, as amended, provides that any person who violates a rule, regulation or order issued under Title III of this Act shall be subject to a civil penalty not to exceed $1,000 for each violation.

GENERAL INSTRUCTIONS

1. For any project falling in categories 1, or 2 above, complete all appropriate sections.
2. For any project falling in categories 3, 4, or 5 above, complete sections A, B, D *(if appropriate)*, and I.
3. For status change (categories 6 or 7 above), from private use to public use or from VFR to IFR, complete sections A, B, E, G, and I. For all other changes, complete sections A, B, and I.
4. For traffic pattern establishment or change (category 8), complete all appropriate sections. Traffic pattern description should be entered on the reverse side of FAA Form 7480-1.
5. Express all bearings as magnetic and mileages as nautical.
6. **Please Print or Type All Items.**

Section A — Identify Reference Datum of Coordinates (NAD 83 or NAD 27).

Section B — If the airport is to be used by the owner only, or by the owner and persons authorized by the owner, check "private". If the landing and takeoff area of the airport is publicly owned and the operator is a non-government entity, then check "private use of public lands". If the airport is to be available for use by the general public without a requirement for prior approval of the owner or operator, then check "public". If necessary, use the reverse side of this form or a separate sheet of paper to describe changes or alterations.

Section C — Airport or seaplane base: List VFR airports and heliports within 5NM, and IFR airports within 20NM. Heliports: List VFR airports and heliports within 3NM and IFR airports within 10NM.

Section D — Attach U.S. Geological Survey quadrangle map or equivalent. Plot locations of facility to the nearest second, runway alignments, associated taxiways or sealane alignments. When appropriate, use city map for heliports.

Section E — List and plot on quadrangle map or equivalent any obstructions within: 3 NM of a VFR airport or a seaplane base; 5 NM of an IFR airport; or 5,000 feet of a heliport.

Section F — Self-explanatory.

Section G — List schools, churches and residential communities within a 2NM radius for airports and within a 1NM radius for heliports. List all waste disposal sites within a 5 NM radius.

Section H — Self-explanatory.

NOTE: Additional copies of FAA Form 7480-1 may be obtained from the nearest FAA Airports District Office or Regional Office.
Notification to the FAA does not waive the requirements of any other government agency.

ADDRESSES OF THE REGIONAL OFFICES

Western Pacific Region
AZ, CA, HI, NV, GU
Western-Pacific Regional Office
Airports Division, AWP-600
15000 Aviation Boulevard
Hawthorne, CA 90261
Mail Address:
P.O. Box 92007
Worldway Postal Center
Los Angeles, CA 90009
Tel. 310-297-1240 Fax: 310-297-0490

Alaskan Region
AK
Alaskan Regional Office
Airports Division, AAL-600
222 West 7th Avenue, Box 14
Anchorage, AK 99513
Tel. 907-271-5438 Fax: 907-271-2851

Eastern Region
DC, DE, MD, NJ, NY, PA, VA, WV
Eastern Regional Office
Airports Division, AEA-600
JFK International Airport
Fitzgerald Federal Building
Jamaica, NY 11430
Tel. 718-553-1242 Fax: 718-995-9219

Southern Region
AL, FL, GA, KY, MS, NC, SC, TN, PR, VI
Southern Regional Office
Airports Division, ASO-600
3400 Norman Berry Drive
East Point, GA 30344
Mail Address:
P.O. Box 20636
Atlanta, GA 30320
Tel. 404-763-7288 Fax: 404-763-7640

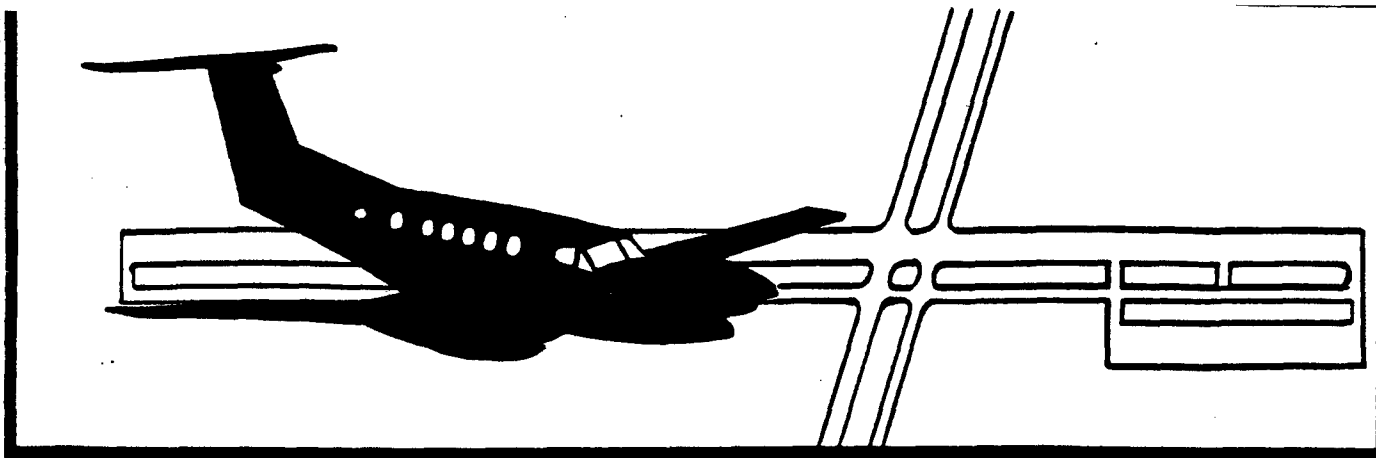
Northwest Mountain Region
CO, ID, MT, OR, UT, WA, WY
Northwest Mountain Reg. Office
Airports Division, ANM-600
1601 Lind Ave., S.W., Suite 540
Renton, WA 98055-4056
Tel. 206-227-2600 Fax: 206-227-1600

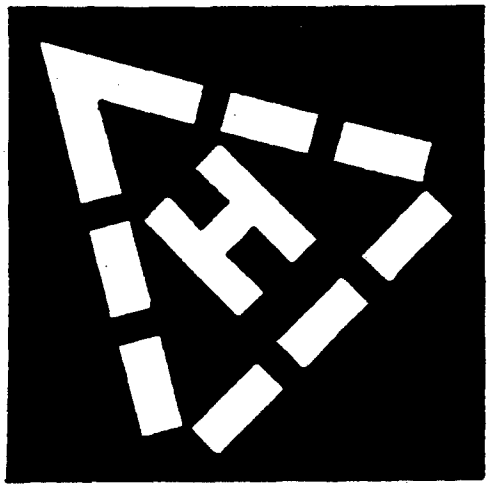
Great Lakes Region
IL, IN, MI, MN, ND, OH, SD, WI
Great Lakes Regional Office
Airports Division, AGL-600
2300 East Devon Avenue
Des Plaines, IL 60018
Tel. 312-694-7272 Fax: 312-694-7036

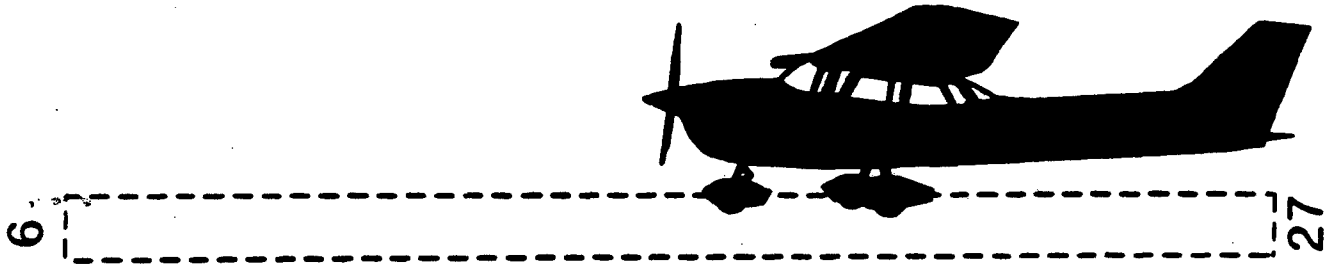
Southwest Region
AR, LA, NM, OK, TX
Southwest Regional Office
Airports Division, ASW-600
4400 Blue Mound Road
Fort Worth, TX 76101
Mail Address:
Federal Aviation Administration
Fort Worth, TX 76193-0600
Tel. 817-624-5600 Fax: 817-740-3389

Central Region
IA, KS, MO, NE
Central Regional Office
Airports Division, ACE-600
601 East 12th Street
Kansas City, MO 64106
Tel. 816-426-5278 Fax: 816-426-3265

New England Region
CT, MA, ME, NH, RI, VT
New England Regional Office
Airports Division, ANE-600
12 New England Executive Park
Burlington, MA 01803
Tel. 617-273-7044 Fax: 617-273-7049







Aviation Safety Rules

Illinois Department of Transportation
Division of Aeronautics

FOREWORD

This booklet is intended as an informative aid and guide to individuals and communities interested in aeronautics and the promotion, development and operation of airports and aeronautical facilities.

The rules pertaining to Aviation Safety were codified December 28, 1977 and those rules, as amended March 13, 1985 and December 12, 1985 by publication in THE ILLINOIS REGISTER, are currently in full force and effect.

For assistance in establishing new aviation facilities, please contact the Bureau of Aviation Education & Safety at 217/785-8516. Our Flight Safety Coordinators are available to work with you to assure that the safety criteria outlined in this booklet are satisfied.

Questions regarding Pilot and Aircraft Registration should be addressed to the Supervisor, Pilot and Aircraft Services, at 217/785-8223.

Publication of this guide is intended to assist you in answering basic questions about the Rules applicable to aeronautics in Illinois. If you need help in interpreting this information, please feel free to call.

ROBERT F. COVERDALE, DIRECTOR
DIVISION OF AERONAUTICS

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CHAPTER I: DEPARTMENT OF TRANSPORTATION
SUBCHAPTER b: AERONAUTICS

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AUTHORITY: Implementing and authorized by Sections 28 ; 42.(3); and 47. of the Illinois Aeronautics Act (Ill. Rev. Stat. 1983, ch. 15 1-2, para. 22.28; 22.42(3); and 22.47.)

SOURCE: Filed December 28, 1977; codified at 8 Ill. Reg. 19592; amended at 9 Ill. Reg. 4141, effective March 13, 1985; amended at 9 Ill. Reg. 20914, effective December 12, 1985.

NOTE: **Bold print denotes statutory language.**

SUBPART A: INTRODUCTION

Section 14.10 Definitions

For the purpose of this Part the words, terms and phrases set forth in this Section shall have the meanings prescribed in said Section unless otherwise specifically defined, or unless another intention clearly appears, or the context otherwise requires. (Section 1 of the Illinois Aeronautics Act (Ill. Rev. Stat., ch. 15 1/2, pars. 22.1 et seq.) hereinafter referred to as "the Act")

Aeronautics means transportation by aircraft, the operation, construction, repair or maintenance of aircraft, aircraft power plants and accessories, including the repair, packing and maintenance of parachutes; the design, establishment, construction, extension, operation, improvement, repair or maintenance of airports, restricted landing areas, or other air navigation facilities and air instruction. (Section 2 of "the Act")

Aircraft means any contrivance now known or hereafter invented, used or designed for navigation of or flight in the air. (Section 3 of "the Act")

Public Aircraft means an aircraft used exclusively in the service of any government or of any political subdivision thereof including the government of any state, territory, or possession of the United States, or the District of Columbia, but not including any government aircraft engaged in carrying persons or property for commercial purposes. (Section 4 of "the Act")

Civil Aircraft means any aircraft carrier other than a public aircraft. (Section 5 of "the Act")

Airport means any area of land, water, or both, except a restricted landing area, which is designed for the landing and take-off of aircraft, whether or not facilities are provided for the shelter, servicing, or repair of aircraft, or for receiving or discharging passengers or cargo, and all appurtenant areas used or suitable for airport buildings or other airport facilities, and all appurtenant rights of way; whether heretofore or hereafter established. (Section 6 of "the Act")

State or This State means the State of Illinois, Department of Transportation, Division of Aeronautics of this State; "Department" means the Department of Transportation, Division of Aeronautics; and "Division" means the Division of Aeronautics. (Section 8 of "the Act")

Restricted Area or Restricted Landing Area means any area of land, water, or both, which is used or is made available for the landing

and take off of aircraft, the use of which shall except in the case of emergency, be only as provided from time to time by the Department. (Section 8 of "the Act")

Air Navigation Facility means any facility other than one owned or controlled by the Federal Government, used in, available for use in, or designed for use in, aid of air navigation, including airports, restricted landing areas, and any structures, mechanisms, lights, beacons, marks, communicating systems, or other instrumentalities or devices used or useful as an aid, or constituting an advantage or convenience, to the safe taking off, navigation and landing of aircraft, or the safe and efficient operation or maintenance of an airport or restricted landing area, and any combination of any or all of such facilities. (Section 9 of "the Act")

Air Navigation means the operation or navigation of aircraft in the air space over this State, or upon any airport or restricted landing area within the State. (Section 10 of "the Act")

Operation of Aircraft or Operate Aircraft means the use of aircraft for the purpose of air navigation, and includes the navigation or piloting of aircraft. Any person who causes or authorizes the operation of aircraft, whether with or without the right of legal control (in the capacity of owner, lessee, or otherwise) of the aircraft, shall be deemed to be engaged in the operation of aircraft within the meaning of the statutes of this State. (Section 11 of "the Act")

Airman means any individual who engages, as the person in command, or as pilot, mechanic or member of the crew, in the navigation of aircraft while under way and (excepting individual employed outside the United States, any individual employed by a manufacturer of aircraft, aircraft engines, propellers, or appliances to perform duties as inspector or mechanic in connection therewith, and any individual performing inspection or mechanical duties in connection with aircraft owned or operated by him) any individual who is directly in charge of the inspection, maintenance, overhauling, or repair of aircraft engines, propellers, or appliances; and any individual who serves in the capacity of aircraft dispatcher or air traffic control tower operator. (Section 12 of "the Act")

Air Instruction means the imparting of aeronautical information by any aeronautics instructor or in or by any air school or flying club. (Section 13 of "the Act")

Student Instruction means the imparting of aeronautical knowledge specifically involving the actual flight of an aircraft.

Air School means any person engaged in giving or offering to give, instruction, in aeronautics, either in flying or ground subjects, or both, for or without hire or reward, and advertising, representing, or holding himself out as giving or offering to give such instruction. It does not include any public school or university of this State, or any institution of higher learning duly accredited and approved for carrying on collegiate work. (Section 14 of "the Act")

Aeronautics Instructor means any individual engaged in giving instruction, or offering to give instruction, in aeronautics, either in flying or ground subjects, or both, for hire or reward, without advertising such occupation, without calling his facilities an "Air School" or anything equivalent thereto, and without employing or using other instructors. It does not include any instructor in any public school or university of the State, or any institution of higher learning duly accredited and approved for carrying on collegiate work, while engaged in his duties as such instructor. (Section 15 of "the Act")

Flying Club means any person other than an individual which, neither for profit nor reward owns, leases, or uses one or more aircraft for the purpose of instruction or pleasure or both. (Section 16 of "the Act)

Person means any individual, firm, partnership, corporation or body politic; and includes any trustee, receiver, assignee or other similar representative thereof. (Section 17 of "the Act")

Navigable Air Space means air space above the minimum altitudes of flight prescribed by the laws of this State or by rules of the Department consistent therewith. (Section 19 of "the Act")

Municipality means any county, city, village or town of this State and any other political subdivision, public corporation, authority, or district in this State, or any combination of two or more of the same, which is or may be authorized by law to acquire, establish, construct, maintain, improve, and operate airports and other air navigation facilities. (Section 20 of "the Act")

Airport Protection Privileges means easements through or other interests in air space over land or water, interests in airport hazards outside the boundaries of airports or restricted landing areas, and other protection privileges, the acquisition or control of which is necessary to ensure safe approaches to the landing areas of airports and restricted landing areas and the safe and efficient operation thereof. (Section 21 of "the Act")

Airport Hazard means any structure, object of natural growth, or use of land, which obstructs the air space required for the flight of aircraft in landing or taking-off at any airport or restricted area or is otherwise hazardous to such landing or taking-off. (Section 22 of "the Act")

"Acrobatic Flight". Maneuvers intentionally performed by an aircraft involving an abrupt change in attitude, and abnormal attitude or an abnormal acceleration.

"Landing Strip". A portion of the usable area within an airport boundary, which either in its natural state or as a result of construction work is suitable for the landing and take-off of aircraft under favorable weather conditions.

"Runway". The paved, or hard surfaced, or stabilized central portion

of a landing strip.

"Horizontal Plane". An imaginary horizontal plane 150 feet above the highest point on the landable area.

"Approach Plane". An imaginary flared sloping plane beginning at the end of a runway or landing strip and rising uniformly over the approach area, at the required slope, until it intersects the horizontal plane, thence continuing the same slope and flaring configuration beyond two (2) miles below the end of the runway or landing strip.

"Transition Plane". An imaginary sloping plane having a profile perpendicular to the extended runway or landing strip longitudinal centerlines, beginning at the flared sides of the approach plane and rising at a slope of 7:1 until it intersects the horizontal plane.

"Inner Area". An area on the ground delimited by outer edges of transition and the beginning end of the approach plane.

"Outer Area". An area on the ground delimited by the flared sides of the approach area, the end of the approach plane and the circular arc forming the outer two (2) mile limit.

"Turning Zone". An irregular portion of the horizontal plane included within the two (2) mile enclosure but excluding the outer area.

"Outer Limits of Turning Zone". An arc with a radius of two (2) miles having its center located at the end of a runway or landing strip at the longitudinal centerline and extending between the angular bisectors of adjacent runways or landing strips in the case of a multiple system. For a single runway or landing strip the arc at both ends extends ninety degrees left and right of the longitudinal centerline and these semi-circles are connected by straight lines, parallel to and two (2) miles on either side of the longitudinal centerline.

"Administrator". Administrator, as used, except as otherwise specifically provided in the Federal Aviation Regulations shall mean the Administrator of the Federal Aviation Administration or an officer or employee of the Administrator of the Federal Aviation Administration designated by him in writing for the purpose specified in such designation.

For the purposes of these regulations, the singular shall include the plural, the plural the singular, and the masculine the feminine.

seaplane bases or landing facilities for seaplanes, amphibious planes, or non-conventional types of aircraft such as lighter-than air aircraft, helicopters, gliders or autogyros shall be such as the Department may prescribe in this Part with reference to each application for the establishment, management or operation thereof.

a) Heliports. The mimum requirements for the establishment, management or operation of heliports or landing facilities for rotary-wing aircraft shall be in accordance with the standards and limitations shown in Table C and sub-paragraphs of Section 14.680(a).

1) Approach Zones.

A) In order to be eligible for a certificate of approval under these rules a heliport shall initially and continue to provide at least two approach zones which shall be free of obstructions within the ratios and height limitations shown in Appendix C. At least two of the approach zones shall be so located that the lines bisecting them shall form an arc of not less than 90 degrees at their intersection.

B) Each of said approach zones shall be trapezoidal, starting at a width of 200 feet and widening out to 1400 feet at a distance of 2400 feet from the take-off area or areas. In addition, every such heliport shall provide for approach and transitional slopes as shown in Appendix C. Curved approach and departure zones are also permissible provided that no curve shall commence within 300 feet of the approach or departure point, and such curve shall have a minimum radius of approximately 700 feet from the approach or departure point.

2) Facilities. All the requirements of Section 14.675 shall apply to general heliports except Section 14.675(1). All the requirements of Section 14.675 apply to utility heliports except Sections 14.675(c) and (1). All the requirements of Section 14.675 apply to helistops except Sections 14.675(a), (c), (d), (e), (f), (g), and (h). In lieu of Section 14.675(1), it is required that every such general and utility heliport shall indicate the direction of its approach zones by suitable markings and shall provide an adequate aircraft parking area. Helistops are not required to provide aircraft parking. A helistop is a heliport which is exempted, pursuant to Section 14.680(a)(2), from meeting all the requirements of Section 14.675.

b) Balloon Ports. The minimum requirements for the establishment, management, and operation of balloon ports shall be in accordance with the standards and limitations shown in the following subparagraphs and shall be designated as balloon ports.

1) Balloon Port Physical Standards. The minimum diameter of the launch circle shall be at least 200 feet.

2) Minimum Departure Slope. In order to be eligible for a certificate of approval under these rules, a balloon port must initially have and continue to provide a 200' clear circular surface with a 1:1 departure slope as measured from the nearest edge of the circle throughout its entire 360 degree circumference, except that all public utility lines, towers of all types, and inhabited buildings or dwellings must be cleared by at least 5:1 as measured from the nearest edge of the circle.

3) Facilities. Every balloon port shall provide at least the following facilities:

A) Hangar of Office.
B) Wind direction and velocity indicator.
C) Sanitary drinking water.
D) First-aid kit.
E) Sanitary toilet.
F) Adequate fire protection equipment.
G) Auto parking area fenced to prevent autos from entering.
H) Accessible telephone.
I) Fencing of airport perimeter and spectator areas, sufficient to prevent persons and vehicles from interfering with aircraft operations.

c) Seaplane Base.

1) Issuance of a certificate of approval to an operator of a seaplane base does not exempt the operator from compliance with rules promulgated by the Federal Aviation Administration (FAA) or the U.S. Coast Guard governing seaplane operators.

2) Approaches and take-offs. All approaches to and take-offs from the water area shall be made in such a manner as to clear all structures on the land by at least 100 feet and wherever the area of the body of water will permit, such landing and take-offs shall be made at a distance of not less than 300 feet, both laterally and vertically, from any boat or person on the surface of the water, or as near to 300 feet as the area of the water will permit.

Section 14.685 Responsibility of Certificate Holder

a) The holder of a certificate of approval of an airport or his authorized agent is authorized to enforce applicable State aeronautical laws and regulations.

b) Within the meaning of this paragraph, any fixed base operator other than the certificate holder of an airport, who is based thereon, with the permission of the certificate holder, or the manager-employee of such certificate holder, shall be deemed by the Department to be the "authorized agent" of the certificate holder for the purpose of enforcing local, State or Federal laws, rules and regulations, unless the contrary is affirmatively demonstrated by such certificate holder.

c) The certificate holder is authorized to and shall:

1) Immediately designate any field condition rendering transient aircraft landings and take-offs hazardous by displaying prominently an "X" of contrasting color having minimum dimensions as set forth in Appendix A.

2) Supervise or cause the supervision of all aeronautical activity in connection with the airport in the interest of public safety, except such activity as may be controlled by a certified air-traffic control tower operator or proper control tower agency.

3) Be in attendance or designate suitable personnel to be in attendance at the airport at all times during which it can normally be used or provide an available means of communication at the airport satisfactory to the Department. In the event that operating conditions render it impracticable to comply with the foregoing, it shall be satisfactory for the certificate holder or his authorized agent to post a prominent notice of the existing situations such as (Gone for the Day), (Telephone Available Inside) or whatever the existing situation may be and (Nearest Available Telephone At....).

4) Prescribe local field rules which may be reviewed, approved or disapproved by the Department in the interest of public safety.

5) Follow, on the property subject to his control, such operating, maintenance and repair practices as will keep the landing area free from vegetative growth, ditches, washes, depressions, soft spots or other natural conditions, free from livestock running at large and free from other uses or practices, any of which conditions, livestock uses or practices constitute undue hazards to the operation of aircraft using the designated landing area.

6) Notify the Department by the most expeditious means of any condition existing on the airport or in connection therewith or concerning any facilities ordinarily available thereat which adversely affect the use of the airport, and to further notify the Department when the reported condition has ceased to exist.

Agency Note: Material change in conditions such as the erection of obstructions in the approach zones or adjacent to the runway or landing strip or soft terrain which would be hazardous for landing and take-off, would be examples of conditions which would be reported to the Department.

7) Furnish the Department upon request with information concerning aircraft using the field as an operating base, person exercising managerial or supervisory functions at the field, accidents and the nature and extent of aeronautical activity occurring at the field.

8) Prior to the issuance of an order by the Department closing an airport, obliterate all signs and markings which might indicate

that the facility is still operative as an airport and in addition, unless the facility is or is proposed to be operated as a restricted landing area, place an "X" on the field of contrasting color having minimum dimensions as set forth in Appendix A.

Sections 14.695 Waivers

a) The Department shall waive strict compliance with any paragraph or subparagraph of Subpart F of these regulations in connection with any particular application or request for a waiver if applicant demonstrates that said waiver would not adversely affect air traffic, interfere with future development of the airport or substantially impair the public's use of the airport. In determining whether or not a grant of waiver would adversely affect air traffic, interfere with future airport development or substantially impair the public use of the airport, the Department will consider, but is not limited to considering, the volume and type of aircraft using the airport, the type of navigational aids used at the airport, and length and width the Department, whether or not the airport has instrument runways, the relationship of the airport to the current National and State Airways Plans, the nature of the terrain and the possibilities for future development.

b) All requests for a waiver shall be on forms prescribed by the Department, shall be sworn to by the applicant and shall contain a clear concise statement of the facts together with a prayer that a certain regulation be waived. Requests for waivers may also be incorporated into an application for an airport or an alteration or extension of existing airport.

SUBPART G: RESTRICTED LANDING AREA

Section 14.710 Operation Without Certificate of Approval Unlawful

It shall be unlawful for any municipality or other political subdivision, or officer or employee thereof, or for any person, company, or association of persons to use or operate any restricted landing area for which a certificate of approval has not been issued by the Department; provided, that no certificate of approval shall be required for the use or operation of a restricted landing area which was licensed by the Illinois Aeronautics Commission and in existence on or before July 1, 1945. (Section 47 of the Act)

Section 14.720 Application for Certificate of Approval

Application for a certificate of approval of a restricted landing area shall be made on forms prescribed by the Department and shall be filed in triplicate in the offices of the Department in Springfield.

Section 14.730 Transfer of Certificates

Certificates of approval of restricted landing areas shall be issued in the name of the applicant and may be assigned or transferred subject to the approval of the Department. Application for transfer of a certificate of approval of a restricted landing area shall be made on forms prescribed by the Department and shall be filed in the office of the Department in Springfield.

Section 14.740 Alteration or Extension of an Existing Restricted Landing Area Unlawful Without Certificate of Approval

It shall be unlawful for any municipality or other political subdivision or officer of employee thereof, or for any person to make any material alteration or extension of an existing restricted landing area ...for which a certificate of approval has not been issued by the Department. Application for approval of an alteration or extension shall be made on forms prescribed by the Department and shall be filed in triplicate in the offices of the Department in Springfield. (Section 47 of the Act)

Section 14.750 Standards for Issuing Certificates of Approval

In determining whether it shall issue a certificate of approval for any ... restricted landing area, or any alteration or extension thereof, the Department shall take into consideration its proposed location; size, layout, the relationship of the proposed restricted landing area to the then current national airport plan, the then current Federal airways system, the then current State Airport Plan, and the then current State airways system, whether there are safe areas available for expansion purposes, whether the adjoining area is free from obstructions based on a proper glide ratio, the nature of

the terrain, the nature of the uses to which any such proposed restricted landing area will be put, the possibilities for future development, and such other factors as, under the circumstances, it regards as having an important bearing thereon, and in accordance with the minimum standards hereafter prescribed. (Section 48 of the Act)

Section 14.760 Location

A restricted landing area shall be located a sufficient distance from every existing commercial airport or restricted landing area to permit the safe operation of both at the same time without hazard from conflicting traffic patterns. The size of each such commercial airport or restricted landing area and its potential type and volume of use shall be considered.

Section 14.765 Landing Area

A restricted landing area shall provide a landing area sufficient for a safe operation taking into consideration the type of aircraft proposed to be used and the skill of the pilots proposing to use the facility. In no case shall a proposed restricted landing area be approved unless it provides one or more landing strips or runways each of which shall be at least 1600' in length (15:1 approach slope) and at least 70' in width (4:1 transition slope), except that in the case of a restricted landing area to be used for rotary-wing aircraft the dimensions and slopes shall be as otherwise provided herein.

a) Obstruction and Landing Strip Marking. The ends of an effective landing strip (based on a 15:1 approach slope over all utility lines, railroads, public roads, and inhabited dwellings) shall be clearly outlined. For the purpose of this paragraph, operating railroads shall be considered an obstruction of 25 feet over the top of the nearest rail and public roads an obstruction of 15 feet over the nearest edge of the road, with the exception of interstate highways which shall be considered an obstruction of 17 feet.

b) Restricted Landing Areas for Non-Conventional Aircraft. The minimum requirements for the establishment, management or operation of restricted landing area-seaplane bases or landing facilities for seaplanes, amphibious planes, or non-conventional types of aircraft such as lighter-than-air aircraft, balloons, gliders or autogyros shall be such as the Division may prescribe with reference to each application for the establishment, management or operation thereof, in the light of all the conditions and circumstances which exist in connection therewith.

Section 14.770 Responsibility of Certificate Holder

It shall be the responsibility of the holder of a restricted landing area certicate:

a) To supervise or cause the supervision of all aeronautical activity in connection with and in conformity with the limitations herein prescribed for a restricted landing area.

b) To maintain the landing area so as to permit a safe operation.

c) To notify the Department by the most expeditious means of any condition existing on the restricted landing area or in connection therewith which might affect its safe use and to further notify the Department when the reported condition has ceased to exist.

d) To furnish the Department, upon request, with information concerning the aircraft using the field as an operating base and the nature and extent of aeronautical activity occurring at the field.

Section 14.775 Restrictions on Use

a) Except as provided in Section 14.780, the following operations shall not be conducted on a restricted landing area: carrying of passengers for hire other than the carrying of passengers for hire under a continuing bilateral contract or contracts; student instruction; rental of planes; air meets or exhibitions; sale of gasoline and oil; or advertising for any of the above.

b) The carrying of passengers for hire in a continuous flight from and to any one given location other than a certificated commercial airport is expressly prohibited unless in accordance with Section 14.780(b). Flight from Public Roads is also expressly prohibited.

Section 14.780 Exceptions

The Department may issue an order of approval for the following if a request is made at least fifteen (15) days before the intended operation or transaction and forms which shall thereupon be provided by the Department are properly completed prior to such operation or transaction:

a) Student instruction, by approved flight school operators: provided, if the runways or landing strips are less than 2400' in effective length (15:1 clear approach slope) with a width of 70' (4:1 transition slope) but not less than 1900' in actual length, such landing area may be approved if the applicant demonstrates to the satisfaction of the Department that the flight equipment to be used will take off with 50% of the total landing strip length and clear all obstacles in the take-off path by 50'.

1) Advertising for students will be permitted provided all requirements of this Section shall have been met.

2) For the purpose of this regulation, in the case of a request for approval of conduct of flight instruction on or from a given restricted landing area or areas, an approved flight school operator shall be defined as any individual or organisation who shall furnish satisfactory evidence to the Department that he operates a bona fide flight training operation from a commercial airport within the State of Illinois during the period of the waiver for conducting flight instruction on a restricted landing area or areas.

3) The approved flight school operator shall be responsible for the utilisation of properly certificated flight instructors and

properly certificated and properly maintained aircraft.

4) This entire demonstration will be based on normal operation of the aircraft to be used under average conditions of wind and temperature and an optimum air speed.

b) The carrying of passengers for hire provided application is made by and the proposed operation is sponsored by and contracted for by a vocational association for the purpose of furthering investigation of a specific vocational objective unconnected with aeronautics in which the association is at the time of application actively interested and engaged, and provided further that the landing area must meet the requirements as set out in Section 14.780(a). If the area proposed for such use is not already certificated as a Restricted Landing Area, the Department may, upon application being made on forms prescribed by the Department specifically for such purpose, issue a Temporary Certificate as a restricted landing area therefor. No landing or take-offs are permitted from any areas that do not meet the minimums for restricted landing areas or such area that is as necessitated or published by the aircraft manufacturer whichever is the greater.

c) Sale of petroleum products provided they are sold only to aircraft regularly based at the restricted landing area or, in the case of emergencies, to transient aircraft, and provided further that the gasoline so dispensed is stored in a fueling facility equipped with sumps and nozzle screen. The dispenser must have immediately available a water detecting paper, compound, salve or other means of detecting the presence of water.

Section 14.785 Illinois Aeronautical Chart

No restricted landing area will be included by the Department unless the certificate holder thereof shall have made affirmative application for such inclusion to the Department, provided that any such application shall certify to the fact that the physical characteristics, location, and orientation thereof as the same shall have existed at the time of certification or as of the time the alteration or extension thereof shall have been approved by the Department remains and will remain unchanged unless and until any change thereof has been approved by the Department.

Section 14.790 Restricted Landing Area - Heliport

A restricted landing area utilized for the operation of rotary-wing aircraft shall be designated as a restricted landing area-heliport, and shall provide a touchdown area of sufficient dimensions to accommodate the operational characteristics of the type and size of rotary-wing aircraft to be operated from said restricted landing area. A circular area having a minimum diameter of twice the diameter of the rotor system of any rotary-wing aircraft to be operated from said restricted landing area, and having as its center a point which is coincident to the center of the touchdown area, shall be free of all obstructions.

Section 14.792 Restricted Landing area - Heliport Approach Zones

Every such restricted landing area utilized for the operation of rotary-wing aircraft shall provide at least two approach zones, which approach zones shall have an intersecting arc of not less than 90 degrees and shall have a glide slope not exceeding 5:1 in the case of aircraft having a weight of over 3000 pounds. Each such approach zone shall be at least 100' wide with a 2:1 side slope.

Section 14.795 Subchapter G to Apply to Restricted Landing Area-Heliports

All provisions and requirements of subchapter G shall apply to restricted landing area - heliports unless otherwise provided.

Section 14.797 Restricted Landing Area - Balloon Ports

In order to be eligible for a certificate of approval under these rules, a restricted landing area - balloon port must have a clear circular area at least 100' in diameter with departure slopes of at least 1:1 throughout its 360 degree circumference as measured from the nearest edge of the circle, except that all public utility lines of all types, towers of all types, and inhabited buildings and dwellings shall be cleared by at least 5:1 as measured from the nearest edge of the circular area.

a) Every restricted landing area - balloon port shall provide at least the following facilities: Wind direction and velocity indicator.

b) All provisions and requirements of Subpart G shall apply to restricted landing area - balloon ports unless otherwise provided.

Section 14.799 Waivers

a) The Department may, in its discretion, waive strict compliance with any paragraph or subparagraphs of Subpart G of these regulations or connection with any particular application or Petition for a Waiver subject to the conditions hereinafter set forth.

b) All Petitions for a Waiver shall be on forms prescribed by the Division of Aeronautics, shall be sworn to by the applicant and shall contain a clear concise statement of the facts together with a prayer that a certain regulation be waived. Requests for Waivers may also be incorporated into an application for a restricted landing area or for an extension or alteration of an existing restricted landing area.

c) Waiver to permit student instruction may be issued by Order of the Division provided Notice of the Division's intent to issue such Waiver be given and an opportunity afforded to persons, municipalities, or any political subdivision affected thereby to request a public hearing as to the validity or reasonableness of said Order. Said notice and hearing shall be in accordance with the procedures set forth in Section 60 of the Illinois Aeronautics Act pertaining to "Order Without Prior Hearing".

SUBPART H: SPECIAL PURPOSE AIRCRAFT

Section 14.810 Operation Without Certificate of Registration Unlawful

It shall be unlawful for any municipality or other political subdivision, or officer or employee thereof, or for any person, company, or association of persons to operate a "Special Purpose Aircraft" to or from an uncertificated area without first having applied for and received a Certificate of Registration as a "Special Purpose Aircraft" from the Division of Aeronautics where provided for hereinafter. (Section 42 of the Act)

Section 14.820 Special Purpose Aircraft Designation

The following aircraft are hereby designated "Special Purpose Aircraft":

a) Gas and hot air balloons.
b) Sailplanes, gliders and other powerless, heavier than air, aircraft.
c) Agricultural Aircraft during the time they are being used solely for agricultural purposes such as crop dusting, crop spraying, or planting.
d) Helicopters. A helicopter cannot conduct more than 25 operations (take-offs or landings) in a period of three consecutive months or 50 operations in a period of one year from the same uncertificated area.
e) Seaplanes. A seaplane cannot conduct more than 25 operations (take-offs or landings) in a period of three consecutive months or 50 operations in a period of one year from the same uncertificated area.

Section 14.830 Registration

Aircraft designated as "Special Purpose Aircraft" under Section 14.820 above, operating to or from uncertificated areas in the State of Illinois shall be registered as "Special Purpose Aircraft" with the Division of Aeronautics, Department of Transportation of the State of Illinois; said registration shall be made on forms prescribed by the Division of Aeronautics, the name of the owner of the certificated area from which the "Special Purpose Aircraft" has its principal base of operations, together with any other supporting information and documents as may be required from time to time by the Division for the registration of a "Special Purpose Aircraft" under the provisions of Section 14.820. No aircraft shall be considered a "Special Purpose Aircraft" until the Division of Aeronautics of the Department of Transportation has issued a Certificate of Registration to the owner of said aircraft The Certificate of Registration shall be carried in the said "Special Purpose Aircraft" at all times while the same is being operated in the State of Illinois as a "Special Purpose Aircraft".

Section 14.840 Exemption from Registration

Aircraft designated as "Special Purpose Aircraft" under the provisions of

Section 14.820(a) and (b) which are owned by non-residents and based outside the State of Illinois are exempt from the special purpose aircraft registration requirements during such time that said aircraft are engaged in air exhibitions or contests provided said aircraft shall comply with all other applicable paragraphs of these Rules.

Section 14.850 Compliance with Aircraft Registration

Regardless of any other provisions in this Subpart H, no aircraft shall be registered as a "Special Purpose Aircraft" unless said aircraft is properly registered as required by the Illinois Revised Statutes, chapter 15 1/2, par. 22.42 as amended from time to time.

Section 14.860 Principal Base of Operations

All "Special Purpose Aircraft" with their principal base in the State of Illinois must have as their principal base of operations an Airport, Balloon Port, Heliport, Seaplane Base, or a restricted landing area, a restricted landing area - heliport, restricted landing area-balloon port, or restricted landing area - seaplane base, which has been issued a Certificate of Approval by the Department.

Section 14.865 Liability

The pilot in command and the owner of a "Special Purpose Aircraft" operating to or from an uncertificated area shall be responsible for and by so operating, does assume the responsibility and liability which may arise out of such operations, and these regulations shall not be interpreted to nor do they give the pilot in command and/or the owner of a "Special Purpose Aircraft" the right to trespass upon the land of another. (Section 47 of the Act)

Section 14.870 Prohibitions on Use

Aircraft designated as "Special Purpose Aircraft" under Section 14.820(b), (c), (d) and (e) may not utilize the privileges accorded to that designation when they are being used for:

a) Flight Instruction; or
b) Maintenance test flights.

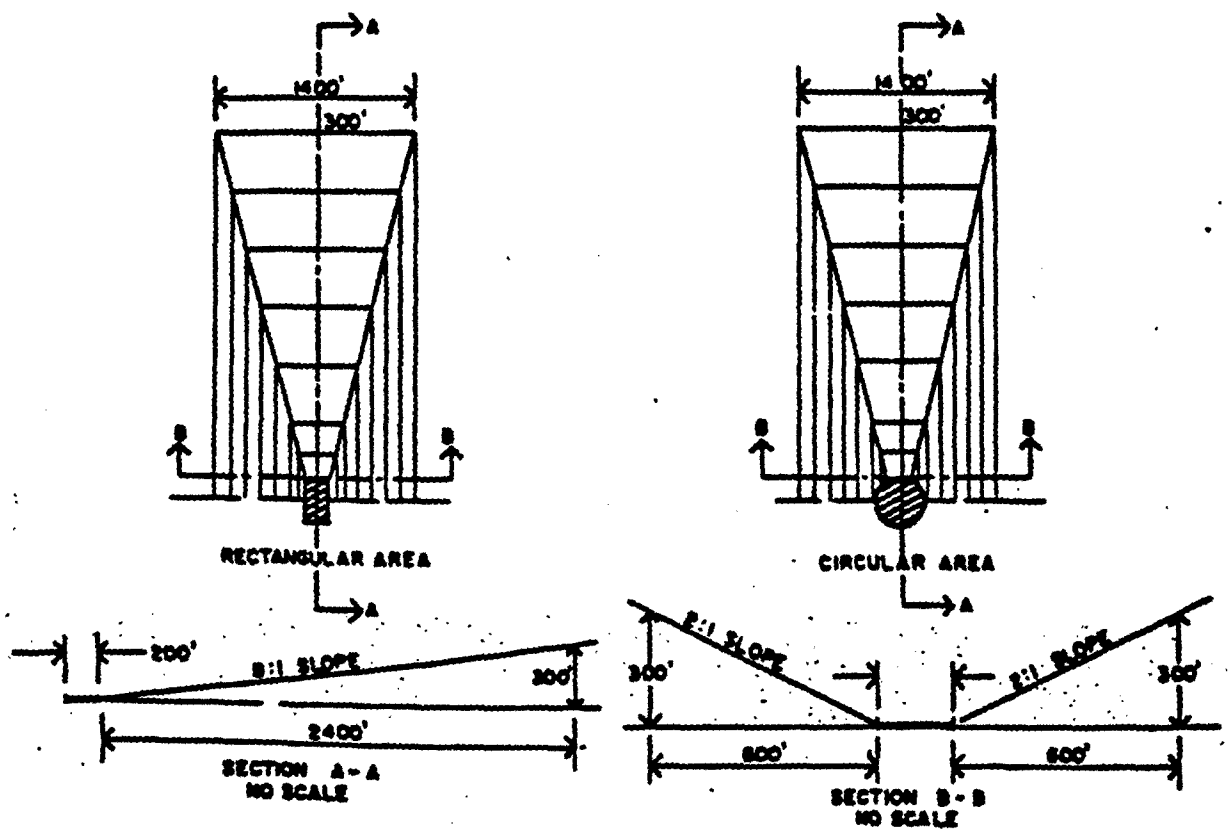
Section 14.875 Proximity

No aircraft designated as "Special Purpose Aircraft" under Section 14.820(b), (c), (d) and (e) shall take-off or land within 1,000 feet of a public or private school and/or church, while occupied, or any public assembly.

Section 14.880 Glider - Sailplane Operations

Aircraft designated as "Special Purpose Aircraft" pursuant to the provisions of Section 14.820(b) may utilize an uncertified area for landings but are

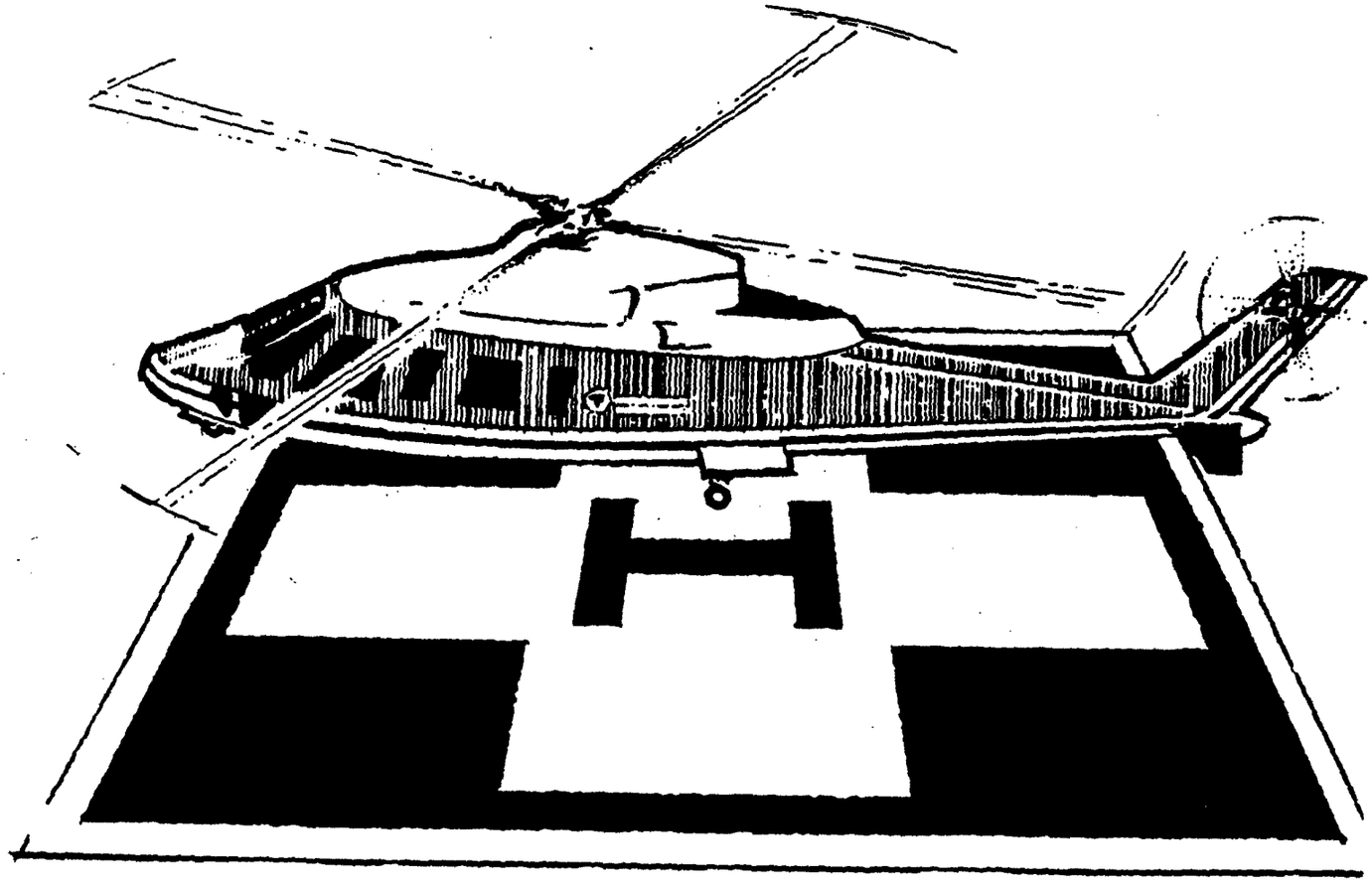
Section 14.APPENDIX C Approach Zones for Heliports Including Glide and Transition Slopes



Section 14.TABLE C Heliport Physical Standards

Type	Landing Area
General	Two (2) times the length of the largest helicopter using the facility.
Utility	One and one-half (1 1/2) times the length of the largest helicopter using the facility.
Helistop	One and one-half (1 1/2) times the length of the largest helicopter using the facility.

Hospital Heliport Guidelines



Illinois Department of Transportation

3/94

revised 7/12/94

Illinois Department of Transportation
Division of Aeronautics

(Illinois Requirements Underlined)

General

Helicopters have proven to be an effective means of transporting inured persons from the scene of an accident to a hospital, and in transferring patients in critical need of specialized services from one hospital to another hospital having that capability.

A fully functional hospital heliport may be as simple as a cleared area on the lawn, together with a wind indicator (wind sock) and two clear approach/takeoff paths. To the extent feasible, the approach/takeoff paths should be aligned with the dominate winds.

These guidelines contain recommendations for hospitals to use in designing a heliport to accommodate air ambulance operations and emergency medical service personnel and equipment.

Final Approach and Takeoff Area (FATO) or (CLEAR AREA)

A hospital heliport must have at least one FATO.

A. FATO Location

The FATO may be at ground or roof top level. Objects or structures should be outside of the FATO to permit two clear approach/takeoff paths at least 90 degrees apart.

To avoid or minimize the need for additional ground transport, the FATO should be located to have ready access to the hospital's emergency room. Portions of the FATO of rooftop heliports may extend into the clear airspace beyond the building's edge.

B. FATO Size

The minimum dimension of a hospital FATO is 100' x 100' (50' radius from center clear of all objects).

C. Gradients

Gradients may range from 0.5 percent to 2.0 percent for any area on which the helicopter is expected to land. Drainage should be directed away from hospital buildings and areas occupied by people.

Touchdown and Lift-off Area (TLOF) or (HELIPAD)

A paved TLOF is not required. When a paved or other hard surfaced TLOF is provided, it is normally centered on the FATO. Irregularly shaped or oversized FATOs should have the center of the TLOF located at least 3/4 of the design helicopter's overall length in from the FATO boundaries.

Hard surface TLOFs are recommended to provide an all-weather wearing surface for the helicopter and a firm working surface for hospital personnel and the wheeled equipment used in moving patients.

A. TLOF Size

The recommended minimum dimension of the TLOF is 40 feet (12 m).

B. Surface Characteristics

Paved TLOF surfaces should have a roughened finish that will provide a skid resistant surface for helicopters and a non-slippery footing for hospital personnel. The TLOF should be constructed to support 1.5 times the weight of the design helicopter.

C. Gradients

The recommended gradient for a TLOF range from a minimum of 0.5 percent to a maximum of 2.0 percent.

Roof top Heliports

Roof-top heliport TLOFs may be constructed of wood, metal, or concrete. Elevator penthouses, cooling towers, exhaust/fresh air vents, and other raised features impact roof top helicopter operations. The TLOF of a roof top heliport should be elevated above the level of any obstacle in the FATO.

Other objects or structures should be outside the FATO to permit two approach/takeoff paths at least 90 degrees apart. Elevated platforms should be designed to support 1.5 times the maximum take off weight of the design helicopter. When the TLOF is on a platform elevated more than 30 inches (75 cm) above its surroundings, a 5 foot (1.5 m) wide safety net or shelf should be provided.

The safety net or shelf should have a load carrying capability of 25 pounds per square foot (122 Kg per sq. m). The net or shelf should not project above the level of the TLOF.

Approach/Takeoff Surface

A. *Approach/Takeoff Path*

A hospital heliport must have two approach/takeoff paths at least 90° apart. To the extent practical, they should be aligned with the dominate winds. Two approach/takeoff paths, oriented to be 90 to 180 degrees apart, minimize the times when the helicopter would have to land or takeoff with a crosswind or tailwind.

Approach/takeoff paths may curve to avoid objects and/or noise sensitive areas and utilize the airspace above public lands such as a freeway or river.

B. *Approach/Takeoff Surface*

An approach/takeoff surface is centered on each approach/takeoff path and should conform to the dimensions of the heliport approach surface illustrated in the appendix. The surface should be free of object penetrations.

C. *Approach Protection*

It is recommended that as much of the approach/takeoff surface as possible should overlay hospital property.

Helicopter Parking

A separate helicopter parking area is required at heliports that will accommodate more than one helicopter at a time. Helicopter parking areas should not lie under an approach/takeoff surface.

Helicopter Markers and Markings

Markers and/or painted markings are recommended to define the perimeters of the FATO and TLOF surfaces and to identify the facility as a hospital heliport.

A. *Perimeter Markings*

The perimeter of the FATO and/or TLOF should be defined with in-ground markers and/or painted lines. When TLOF edges are obvious, such as a paved TLOF in a turf FATO, perimeter markings may not be required.

(1) Unpaved Surfaces

The perimeter of a turf FATO should be identified with in-ground markers that will not catch helicopter skids or create barriers to helicopter maneuvering. Markers are placed at the corners and as needed along the edges of the FATO.

(2) Paved Surfaces

A 12-inch (30 cm) wide dashed white line defines the FATO perimeter. The segments and separation between segments should be even. The corners must be defined and the edge segments should be approximately 5 feet (1.5 m) in length. A 12 inch (30 cm) wide white line defines the perimeter of a TLOF. See appendix for illustration.

B. Identification Marking

A hospital heliport is identified by a red capital letter H centered on a white cross. The recommended maximum dimensions of the cross are 30 feet (9m) by 30 feet (9 m) as illustrated. The red H is centered in the cross with the H oriented to align with the preferred direction of approach.

To enhance the symbols visibility in areas subject to snow, the pavement between the cross and the white TLOF perimeter line may be painted red. See appendix for illustration.

C. Closed Heliport

All markings of a permanently closed hospital heliport should be obliterated. If obliteration is impractical, a yellow X should be painted over the existing markings. The X must be large enough to ensure early pilot recognition.

Heliport Lighting

Because ambient lighting is usually inadequate, the landing area and the wind indicator (sock) should be lighted for night operations.

A. Perimeter Lights

At least 3 uniformly spaced lights are recommended per side of a square or rectangular FATO or TLOF with a light located at each corner. A minimum of eight lights are needed to define a circular FATO or TLOF. The interval between lights should not exceed 25 feet (7.5 m).

(1) FATOs

Flush lights may be located on, or within 1 foot (30 cm) of the FATO edge. Raised light fixtures, modified to be no more that 8 inches (20 cm) in height, should be located 10 feet (3 m) out from the edge of the FATO.

(2) TLOFs

Flush lights may be located on, or within 1 foot (30 cm) of, the TLOF edge. Raised light fixtures modified to be no more that 8 inches (20 cm) in height, may be located 10 feet (3 m) out from the TLOF edge and should not penetrate a horizontal plane at the TLOF's elevation.

(3) Raised TLOFs

Flush lights may be placed within 1 foot (30 cm) of the edge of a raised TLOF. In snow areas it is suggested that the lights be placed along the outer edge of the safety net or shelf, not to exceed the TLOF surface.

B. Floodlights

Floodlights may be used to illuminate the heliport. To eliminate the need for tall poles, these floodlights may be mounted on an adjacent building. Care should be taken, however, to place floodlights clear of the FATO and the approach/takeoff surface(s).

Floodlights should be aimed down and provide a minimum of 3 foot candles (32 lux) of illumination over the heliport surface. Floodlights which might interfere with pilot vision during take off and landings must be capable of being turned off during landings and take offs.

C. Heliport Beacon

A beacon may not be necessary when the location of the hospital can be readily determined by the lighting on a prominent building or landmark near the heliport. When a beacon is provided, it should be located on the highest point on the roof of the hospital.

D. Wire Marking

Where practical, it is recommended that unshielded electric and telephone wires located within 500 feet (150 m) of the FATO, as well as those within 1/2 mile (1 km) that are beneath and up to 100 feet (30 m) to the side of an approach/takeoff path be marked to make them more conspicuous.

Wind Direction Indicator

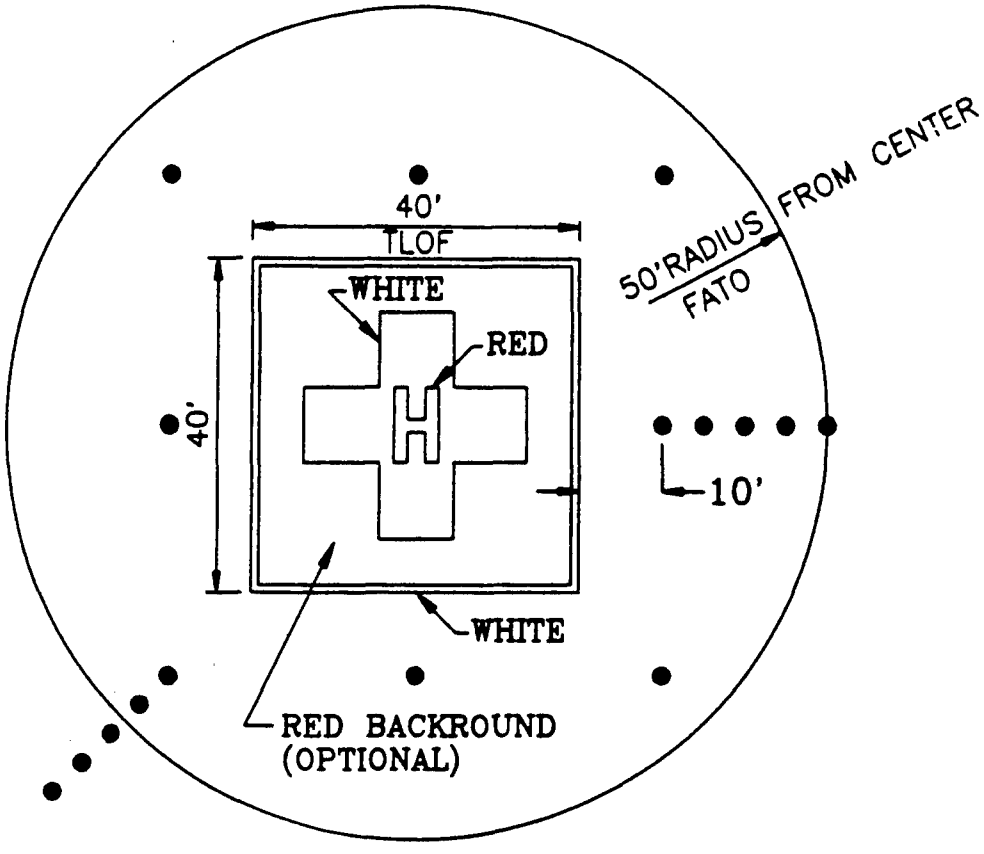
A hospital heliport must have at least one wind indicator. A wind sock is the preferred indicator as it shows both the direction and magnitude of the wind. The wind sock should be placed where it provides a true indication of surface wind and clear of the FATO and the approach/takeoff surface(s). The wind sock may be internally or externally lighted for night operations, or alternatively be located in an illuminated area.

Magnetic Resonance Imagers (MRI)

Hospital equipment, such as an MRI used in diagnostic work, can create a strong magnetic field which will cause temporary aberrations in the helicopter's magnetic compass and may interfere with other navigational systems. Heliport proponents should be alert to the location of any Magnetic Resonance Imagers (MRI) with respect to the heliports location.

A warning sign alerting pilots to the presence of an MRI is recommended. Verbal warning that the MRI is operating should be given in radio contacts with an approaching EMS helicopter.

SURFACE HOSPITAL HELIPORT – TYPICAL



FATO

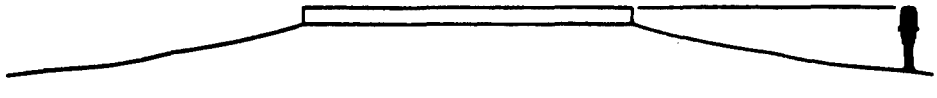
1. 50' RADIUS FROM PAD CENTER TO BE CLEAR OF ALL OBJECTS HIGHER THAN TLOF ELEVATION.

2. LEAD IN LIGHTS SPACED APPROXIMATELY 5' APART BELOW TLOF LEVEL.

3. HOSPITAL MARKING SCHEME:
   WHITE PERIMETER STRIPE – 12"
   RED BACKGROUND
   WHITE CROSS – 30' x 30'
   RED H – 10'

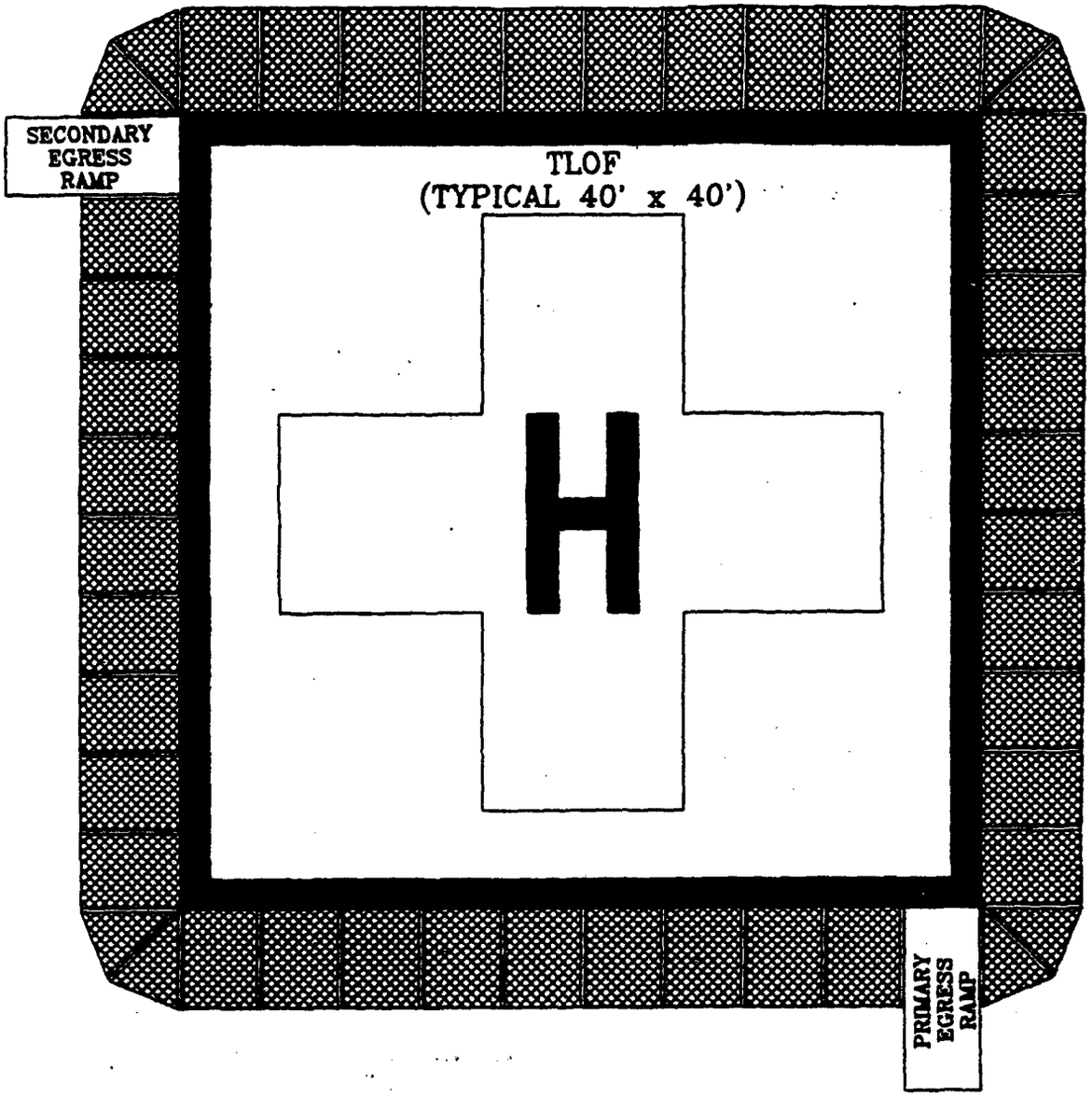
TLOF

4. TYPICAL SURFACE PAD 40' x 40' x 6" REINFORCED CONCRETE. EIGHT YELLOW PERIMETER LIGHTS. APPROACH LEAD-IN LIGHTS (RECOMMENDED).

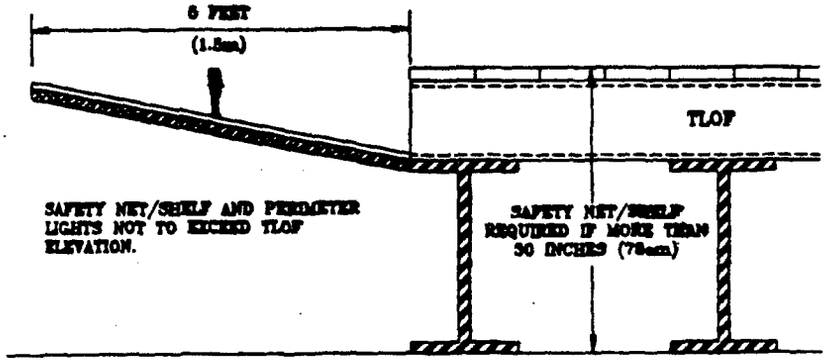


5. RECOMMEND BERMING PAD UP ONE TO TWO FEET. LIGHTS APPROXIMATELY 10' FROM PAD EDGE OFF SHOULDER NO HIGHER THAN PAD ELEVATION.

ROOFTOP OR ELEVATED HOSPITAL HELPORT – TYPICAL



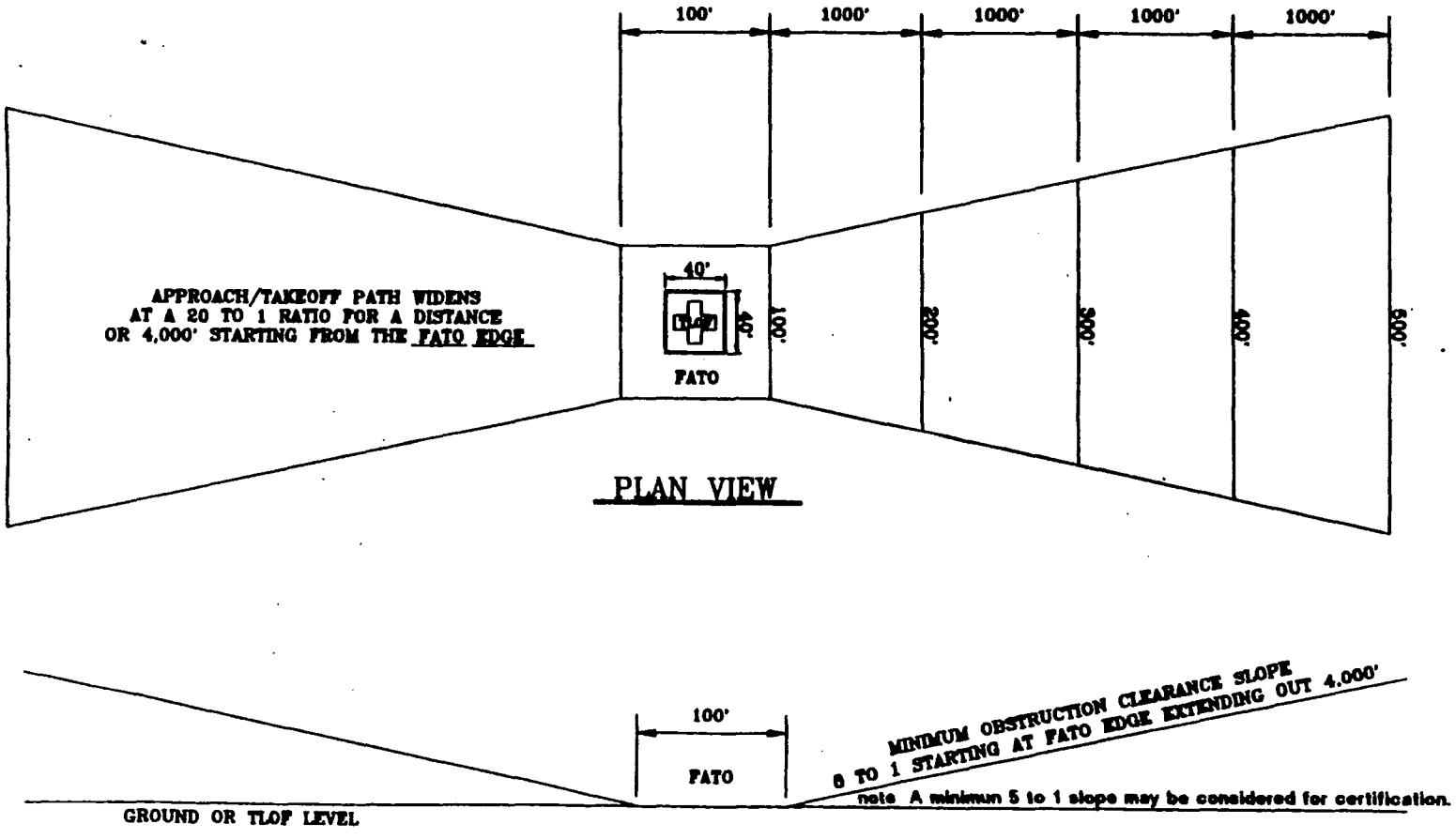
CAUTION HELICOPTER LANDING AREA
AUTHORIZED PERSONNEL ONLY



SIDE PROFILE VIEW

TYPICAL HELIPORT WITH APPROACH/TAKEOFF PATHS 180° APART (MINIMUM OF 90° REQUIRED)

* PATHS MAY CURVE TO AVOID OBSTRUCTIONS OR NOISE-SENSITIVE AREAS.



State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES ✓ NO___
   b. Hospital Heliports: YES ✓ NO___
   c. Public Heliports: YES ✓ NO___

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

   a. Expect no effect: YES___ NO___ N/A ___
   b. Expect a small decrease in costs: YES___ NO___ N/A ___
   c. Expect a large decrease in costs: YES___ NO___ N/A ___
   d. Expect a small increase in costs: YES___ NO___ N/A ___
   e. Expect a large increase in costs: YES___ NO___ N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES____	NO____	N/A ____
b.	Expect a small decrease in costs:	YES____	NO____	N/A ____
c.	Expect a large decrease in costs:	YES____	NO____	N/A ____
d.	Expect a small increase in costs:	YES____	NO____	N/A ____
e.	Expect a large increase in costs:	YES____	NO____	N/A ____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown ✓

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown ✓

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ✓
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown ____

9. If we have questions concerning your responses, who could we contact for further discussion?

made, but in no case will payments exceed the project applicant's participation. *(Indiana Department of Transportation; Reg 6, Payments; filed Aug 20, 1973, 11:10 a.m.: Rules and Regs. 1974, p. 32; filed Jun 8, 1988, 10:15 a.m.: 11 IR 3143) NOTE: Transferred from Department of Transportation (100 IAC 3-2-6) to Indiana Department of Transportation (105 IAC 3-1-6) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Rule 2. Preapplication and Project Applications for Airport Aid Program

105 IAC 3-2-1 Definitions
105 IAC 3-2-2 Submission of preapplication and project application

105 IAC 3-2-1 Definitions

Authority: IC 8-9.5-5-8; IC 8-9.5-5-13
Affected: IC 8-21-1-8

Sec. 1. Definitions. (A) "Municipality"—any political subdivision, district, public corporation or authority in this state which is or may be authorized by law to acquire, establish, construct, maintain, improve or operate airports or other air navigation facilities.

(B) "Public Agency" and "Sponsor"—have the same meaning as set forth in the Federal Airport and Airway Development Act of 1970 Pub. L. 91-258, as amended. *(Indiana Department of Transportation; Reg 7,Sec 1; filed Sep 11, 1978, 4:25 p.m.: 1 IR 637) NOTE: Transferred from Department of Transportation (100 IAC 3-3-1) to Indiana Department of Transportation (105 IAC 3-2-1) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

105 IAC 3-2-2 Submission of preapplication and project application

Authority: IC 8-9.5-5-8; IC 8-9.5-5-13
Affected: IC 8-21-1-8

Sec. 2. Preapplications and Applications. (A) Any sponsor that desires to implement the Airport Aid Program for airport development or planning grant projects under the Airport and Airway Development Act is required to submit thru the Aeronautics Commission of Indiana the Preapplication and Project Application for its review. These documents shall be in accordance with the Federal Aviation Regulations Part 152.

(B) The Commission, after its review, will forward these documents to the appropriate Airport District Office of the Federal Aviation Administration with comments not later than five working days after the second Commission meeting on the receipt of the said documents. *(Indiana Department of Transportation; Reg 7,Sec 2; filed Sep 11, 1978, 4:25 p.m.: 1 IR 637) NOTE: Transferred from Department of Transportation (100 IAC 3-3-2) to Indiana Department of Transportation (105 IAC 3-2-2) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Rule 3. Airport Site Approvals and Operating Certificates of Approval

Cited in: 105 IAC 3-3-1; 105 IAC 3-3-3; 105 IAC 3-3-4; 105 IAC 3-3-6; 105 IAC 3-3-9; 105 IAC 3-3-10; 105 IAC 3-3-13; 105 IAC 3-3-14; 105 IAC 3-3-15; 105 IAC 3-3-17; 105 IAC 3-3-19; 105 IAC 3-3-23; 105 IAC 3-3-24; 105 IAC 3-3-26; 105 IAC 3-3-27; 105 IAC 3-3-32; 105 IAC 3-3-34.

105 IAC 3-3-1 Purpose
105 IAC 3-3-2 Definitions
105 IAC 3-3-3 Classification of airports
105 IAC 3-3-4 Requirements for public-use airports
105 IAC 3-3-5 General policy
105 IAC 3-3-6 Establishment of airport without site approval unlawful
105 IAC 3-3-7 Failure to apply for certificate of site approval
105 IAC 3-3-8 Application for certificate of site approval
105 IAC 3-3-9 Standards for issuing certificate of site approval
105 IAC 3-3-10 Alteration or expansion of an existing public-use airport
105 IAC 3-3-11 Requirements for annual operating certificates of approval
105 IAC 3-3-12 Requirements for annual operating certificates of approval—heliports and seaplane bases
105 IAC 3-3-13 Waivers
105 IAC 3-3-14 Non-compliance with regulations
105 IAC 3-3-15 Enforcement of department actions
105 IAC 3-3-16 Inspections
105 IAC 3-3-17 Requirements for private-use airports
105 IAC 3-3-18 General policy
105 IAC 3-3-19 Establishment of airport without site approval unlawful

105 IAC 3-3-20 Failure to apply for certificate of site approval
105 IAC 3-3-21 Application for certificate of site approval
105 IAC 3-3-22 Standards for issuing certificate of site approval
105 IAC 3-3-23 Waivers
105 IAC 3-3-24 Enforcement of department actions
105 IAC 3-3-25 Inspections
105 IAC 3-3-26 Change of status or abandonment
105 IAC 3-3-27 Requirements for temporary airports
105 IAC 3-3-28 Establishment of temporary airport without approval unlawful
105 IAC 3-3-29 Application for approval of temporary airport
105 IAC 3-3-30 Standards for issuing notices
105 IAC 3-3-31 Failure to apply for approval notice
105 IAC 3-3-32 Specific exemptions
105 IAC 3-3-33 Penalties
105 IAC 3-3-34 Severability

105 IAC 3-3-1 Purpose

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 1. The purpose of this regulation (100 IAC 3-4) *[this rule]* is to further the public interest and aeronautical progress, provide for the protection and promotion of safety in aeronautics, and contribute to the principle of effecting uniform regulations of aeronautics, in order that those engaged in aeronautics of every character may so engage with the least possible restriction consistent with the safety and rights of others. *(Indiana Department of Transportation; 105 IAC 3-3-1; filed Jan 6, 1983, 1:55 p.m.: 6 IR 309) NOTE: Transferred from Department of Transportation (100 IAC 3-4-1) to Indiana Department of Transportation (105 IAC 3-3-1) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

105 IAC 3-3-2 Definitions

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 2. (a) Aircraft—any contrivance now known, or hereinafter invented, used or designed for navigation of or flight in the air.

(b) Airport—any area, site or location, either on land, water or upon any building, which is specifically adapted and maintained for the landing and taking off of aircraft, and includes its buildings and facilities, if any.

(c) Certificate of Site Approval Holder—the current owner and/or operator of an airport.

(d) Department—the Indiana department of transportation, division of aeronautics.

(e) FAA—Federal Aviation Administration.

(f) Heliport—any area designated and designed for the exclusive use of rotary wing and vertical take off and landing (VTOL) aircraft.

(g) Lighter-Than-Air-Aircraft—a gas or hot air filled free balloon, with or without airborne heaters or engines, or any other type of balloon designed to transport persons or goods.

(h) Municipality—any county, city, or incorporated town, of this state and any other political subdivision, public corporation, authority, or district in this state which is or may be authorized by law to acquire, establish, construct, maintain, improve, and operate airports and other air navigation facilities.

(i) Operating Certificate of Approval Holder—the owner and/or operator of a public-use airport.

(j) Overall Runway Length—the distance measured to include the usable runway length plus the area beyond the runway threshold specifically designed as runway for use by aircraft.

(k) Person—any individual, firm, partnership, corporation, company, association, joint stock association, or body politic, including any trustee, receiver, assignee, or other similar representative thereof.

(l) Personal Use Airport—an airport that is used exclusively by the owner.

(m) Private Use Airport—an airport that is for the exclusive use of the owner or other persons specifically authorized by the owner.

(n) Provisional Landing Site—any area, site or location which is not classified as an airport, has no based aircraft, and is only used on an occasional basis with the landowner's permission by helicopters, lighter-than-air aircraft, or

aircraft engaged in aerial applications to agricultural lands in accordance with IC 8-21-1-10.1.

(o) Public Use Airport—an airport, whether privately or publicly owned, which the owner or persons having a right of access and control invite, encourage or allow flight operations by the general public without prior authorization, and which usually has commercial operations.

(p) Runway—that portion of an airport, either turf or paved, which is designated for landing and taking off of aircraft.

(q) Runway Safety Area—an area symmetrically located about the runway centerline, the dimensions of which include the runway width, and which is maintained for emergency aircraft operation.

(r) Seaplane Base—an area of water specifically designated for the landing and taking off of seaplanes.

(s) Temporary Airport—an airport which is intended to be used for a period of less than thirty (30) consecutive days for special events or emergency services.

(t) Threshold—a point at which a minimum 20:1 obstruction clearance is obtained and which is represented by a line perpendicular to the runway centerline indicating the beginning of the usable landing length of the specific runway.

(u) Ultralight—an aircraft that is used only for recreation or sport purposes, and satisfies all criteria and requirements of the Federal Aviation Regulations, Part 103.

(v) Ultralight Flightpark—an area, site, or location which is specifically adapted and used or intended to be used for the landing and taking off of ultralights.

(w) Usable Landing Length—the distance measured from any runway threshold to the opposite end of that runway. *(Indiana Department of Transportation; 105 IAC 3-3-2; filed Jan 6, 1983, 1:55 p.m.: 6 IR 309) NOTE: Transferred from Department of Transportation (100 IAC 3-4-2) to Indiana Department of Transportation (105 IAC 3-3-2) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

105 IAC 3-3-3 Classification of airports

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 3. All airports in Indiana shall be classified as one of the following:

(1) Public-Use

(2) Private-Use

(3) Temporary

Any landing strip, which is specifically adapted and maintained for the landing and taking off of aircraft shall be classified as an airport, whether or not facilities are provided for the shelter, servicing or repair of aircraft.

Unless stated otherwise, the term "airport", as used in this regulation (100 IAC 3-4) *[this rule]*, shall include heliports, seaplane bases, and any area designated for the exclusive use of ultralights. *(Indiana Department of Transportation; 105 IAC 3-3-3; filed Jan 6, 1983, 1:55 p.m.: 6 IR 310) NOTE: Transferred from Department of Transportation (100 IAC 3-4-3) to Indiana Department of Transportation (105 IAC 3-3-3) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

105 IAC 3-3-4 Requirements for public-use airports

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 4. Sections 5 through 16 of this regulation (100 IAC 3-4) *[this rule]* shall apply to all public-use airports in the state, except as hereinafter exempted from the requirements. *(Indiana Department of Transportation; 105 IAC 3-3-4; filed Jan 6, 1983, 1:55 p.m.: 6 IR 310) NOTE: Transferred from Department of Transportation (100 IAC 3-4-4) to Indiana Department of Transportation (105 IAC 3-3-4) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

105 IAC 3-3-5 General policy

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 5. It shall be the policy of the department to certificate all applicable public-use airports meeting the following requirements excepting those requirements which have been waived by the department. *(Indiana Department of Transportation; 105 IAC 3-3-5; filed Jan 6, 1983, 1:55 p.m.: 6 IR 310) NOTE: Transferred from Department of Transportation (100 IAC 3-4-5) to Indiana Department of Transportation (105 IAC 3-3-5) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4.

105 IAC 3-3-6 Establishment of airport without site approval unlawful

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 6. (a) It shall be unlawful for any municipality or person to acquire, establish, construct, activate, or lease any public-use airport without first being issued a certificate of site approval by the department.

(b) A certificate of site approval issued by the department shall remain valid indefinitely, unless it is revoked by the department, pursuant to section 15 of this regulation (100 IAC 3-4) *[this rule]*, or until such time as the airport is closed, whether voluntarily by the owner, or by order of the department or any court of general jurisdiction.

(c) Any person or municipality who desires to open or reactivate any public-use airport which has been closed and/or for which the certificate of site approval has been revoked by the department must apply for a new certificate of site approval pursuant to section 8 of this regulation (100 IAC 3-4) *[this rule]. (Indiana Department of Transportation; 105 IAC 3-3-6; filed Jan 6, 1983, 1:55 p.m.: 6 IR 311) NOTE: Transferred from Department of Transportation (100 IAC 3-4-6) to Indiana Department of Transportation (105 IAC 3-3-6) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4; 105 IAC 3-3-7; 105 IAC 3-3-26.

105 IAC 3-3-7 Failure to apply for certificate of site approval

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 7. Failure to apply for a certificate of site approval for a public-use airport from the department as required in section 6 *[of this rule]* shall result in appropriate actions by the department to close the airport. The department may invoke the aid of any court of general jurisdiction to carry out its orders by injunction or other legal process. *(Indiana Department of Transportation; 105 IAC 3-3-7; filed Jan 6 1983, 1:55 p.m.: 6 IR 311) NOTE: Transferred from Department of Transportation (100 IAC 3-4-7) to Indiana Department of Transportation (105 IAC 3-3-7) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4.

105 IAC 3-3-8 Application for certificate of site approval

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 8. (a) Application for a certificate of site approval for a public-use airport shall be made on forms prescribed and furnished by the department, and shall be accompanied by:

(1) A section of a current federal or state sectional aeronautical chart or topographic map depicting an area of at least a 25 nautical mile radius surrounding the plotted position of the proposed public-use airport.

(2) A detailed drawing on forms provided by the department, which shows the proposed site and the immediate adjacent area, prepared in such manner as will clearly indicate the initial and ultimate stages of airport development, airport property lines, obstructions, other general characteristics of the area including distance and direction to the nearest

city or town, and depict the air traffic pattern for the proposed public-use airport.

(3) Written consent of the property owner(s) unless the applicant holds title in fee simple to the proposed site.

(4) A statement of the location of any sanitary landfills or open dumps within 2 miles of the proposed public-use airport boundaries.

(5) Evidence that the applicant has obtained approval from the local zoning authority to establish a public-use airport at the proposed site.

(b) In addition to the information required above, FAA Form 7480-1, "Notice of Landing Area Proposal," as required by FAA, will be furnished by the department and may be filed along with the state application for site approval. *(Indiana Department of Transportation; 105 IAC 3-3-8; filed Jan 6, 1983, 1:55 p.m.: 6 IR 311) NOTE: Transferred from Department of Transportation (100 IAC 3-4-8) to Indiana Department of Transportation (105 IAC 3-3-8) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4; 105 IAC 3-3-6.

105 IAC 3-3-9 Standards for issuing certificate of site approval

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 9. (a) In determining whether it shall issue a certificate of site approval for any proposed public-use airport, the department shall take into consideration its proposed location, size, and layout, the relationship of the proposed airport to the current national and state airport systems plans and any applicable airport master plans, whether there are safe areas available for expansion purposes, whether the adjoining area is free from obstructions based on a proper approach ratio, the nature of the terrain, the nature of the uses to which the proposed airport will be put, the possibilities for future development, and such other factors as, under the circumstances, it regards as having an important bearing thereon, including the minimum safety standards hereinafter prescribed, in section 11(C) *[of this rule]*.

(b) Certificates of site approval may be granted with such restrictions and limitations as the department deems reasonable and necessary for safe airport operations.

(c) A certificate of site approval shall not be issued by the department in the following circumstances:

(1) When the Federal Aviation Administration has issued an objectionable airspace determination,

(2) When the local governing body has not given land use approval to establish a public-use airport at such site, if that body has adopted a zoning ordinance, or

(3) When the proposed airport site is:

(A) Within 10,000 feet of any open dump, waste disposal site or sanitary landfill where the proposed airport would be used by turbojet aircraft, unless the landfill is used exclusively for the disposal of rock and earth.

(B) Within 5,000 feet of any open dump, waste disposal site, or sanitary landfill, where the proposed airport would be used only by piston type aircraft, unless the landfill is used exclusively for the disposal of rock and earth.

(d) In addition to the foregoing requirements, a certificate of site approval for a public-use seaplane base shall not be issued by the department unless any governmental body or authority having jurisdiction over the body of water has given approval for use of the site as a public-use seaplane base.

(e) In addition to the foregoing requirements, a certificate of site approval for a public-use heliport shall not be issued by the department unless the heliport will satisfy all conditions imposed by the FAA in their airspace analysis determination. The heliport should conform, as

much as practicable, with the design criteria in the Heliport Design Guide (FAA Advisory Circular 150/5390-1B) and any subsequent amendments. *(Indiana Department of Transportation; 105 IAC 3-3-9; filed Jan 6, 1983, 1:55 p.m.: 6 IR 311) NOTE: Transferred from Department of Transportation (100 IAC 3-4-9) to Indiana Department of Transportation (105 IAC 3-3-9) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4.

105 IAC 3-3-10 Alteration or expansion of an existing public-use airport

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 10. (a) No municipality or person shall make any alteration or expansion to a public-use airport without prior written approval from the department. Application for approval of an alteration or expansion shall be made by filing a copy of either FAA Form 7480-1, "Notice of Landing Area Proposal" or FAA Form 7460-1, "Notice of Proposed Construction or Alteration", with the department. The department shall not withhold approval for any alteration or expansion project at an airport which holds a valid Air Carrier Operating Certificate issued under Federal Aviation Regulations, Part 139. The phrase "alteration or expansion" shall include, but not be limited to, any of the following:

(1) any change in the length, width, direction or surface of runways or landing strips;

(2) construction or installation of any building or other obstacle on the airport property; including aircraft parking or tiedown areas;

(3) change in any marking or lighting facilities.

(b) Subsequent evidence shall be given by the applicant that airspace determination is approved by the FAA. This section of the regulation (100 IAC 3-4) *[this rule]* shall not apply to any airport improvement project that is funded in part by federal and/or state funds. *(Indiana Department of Transportation; 105 IAC 3-3-10; filed Jan 6, 1983, 1:55 p.m.: 6 IR 312) NOTE: Transferred from Department of Transportation (100 IAC 3-4-10) to Indiana Department of Transportation (105 IAC 3-3-10) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4.

105 IAC 3-3-11 Requirements for annual operating certificates of approval

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 11. (a) It shall be unlawful for any municipality or person to initiate operations at any public-use airport without first being issued an operating certificate of approval by the department; however, the department shall issue such certificate to any airport which already holds a valid Air Carrier Operating Certificate issued under Federal Aviation Regulations, Part 139.

(b) It shall be unlawful for any municipality or person to continue to operate any public-use airport for which an annual operating certificate of approval has not been issued by the department, except as hereinbefore provided.

(c) All public-use airports shall be inspected at least once a year by the department and must conform to the following minimum safety standards prior to receiving an operating certificate of approval unless the airport already holds a valid Air Carrier Operating Certificate issued under FAR Part 139. Compliance with these minimum safety standards is required at all times in order to maintain a valid operating certificate of approval. These standards do not apply to public-use heliports, seaplane bases, or ultralight flightparks.

(1) Physical Standards

*Minimum Usable Runway Length	2000'

Minimum Width for:	
**Runway Safety Area	150'
Paved Runway	40'
Turf Runway	100'
Minimum Distance Between Runway Centerline and:	
Building Restriction Line	150'
Edge of Tie-Down Area	125'
Taxiway Centerline	100'
Approach and Departure Surface Width at:	
Threshold of Runway	150'
4000' from Threshold	350'

*If there is more than one (1) runway at the airport, only one (1) runway must meet the 2000' minimum usable length requirement; however, all other runways must have at least 1500' minimum usable length.

**Although the minimum standard width for a runway safety area is 150', low crops, such as soybeans, alfalfa, and wheat, may be grown within the runway safety area beginning no closer than 50' from the runway centerline. High crops, such as corn and sorghum, shall not be grown in the 150' runway safety area at all.

(2) Line of Sight. Any public-use airport which has two (2) or more intersecting runways where aircraft must operate out of the sight of each other shall have warning signs posted at the departure end of each runway or at the taxiway entrance to the runway. The warning signs shall be clearly visible and distinguishable from at least 100' away, and shall include language which clearly indicates the inherent danger. The following language is recommended by the department: "Warning: Aircraft Using Runway 4/22 Cannot Be Seen."

(3) Airport and Runway Markings.

(A) All paved runways shall be marked in accordance with a marking diagram provided by the department, which will include, at a minimum, runway numbers and centerline.

(B) Boundary markers for turf runways will be required if the usable landing area is not clearly defined as observed from an altitude of 1500 feet AGL. Markers shall consist of orange traffic cones or such other material approved by the department.

(C) Turf runway thresholds shall be marked with orange traffic cones or such other material approved by the department, and shall consist of three (3) cones placed perpendicular to the runway centerline on both sides of the runway, located no further than 10 feet from the longitudinal edges of the runway.

(D) Threshold markers for all runways, whether paved or turf, shall be located such that they will provide, at a minimum:

(i) 15' vertical clearance over all public use roads at a 20:1 glide angle taken from such thresholds.

(ii) 23' vertical clearance over all railroads at a 20:1 glide angle taken from such thresholds.

(iii) At a 20:1 glide angle commencing at such thresholds, clearance over all objects within the approach and departure surface symmetrical about the extended centerline of the runway for a distance of 4000' from such thresholds. (Cross-reference with (c)(1) of this section.)

(4) Airport and Runway Lighting.

(A) Any public-use airport which is open for night time operations shall have an operating lighting system which satisfies the following standards, and a lighted wind indicator.

(B) The lighting system may be operated on a photo cell, by radio control or be manually operated based on prior request. Operation information shall be listed in the airman's information manual.

(C) Runway lights shall meet or exceed the following minimum standards:

(i) Shall have clear lenses,

(ii) Located no more than 10 feet off of the edge of a paved runway,

(iii) Located on the edge of a turf runway,

(iv) Shall be uniformly placed and not exceed 200 feet between lights except where a taxiway intersects the runway,

(v) Shall not exceed 30 inches AGL in height.

(D) Taxiway lights shall meet or exceed the following minimum standards:

(i) Shall be blue in color,

(ii) Located no more than 10 feet off of the edge of a paved taxiway,

(iii) Located on the edge of a turf taxiway,

(iv) Shall be uniformly placed and not exceed 200 feet between lights except where the taxiway intersects another taxiway,

(v) Shall not exceed 30 inches AGL in height.

(E) Threshold lights shall meet or exceed the following minimum standards:

(i) Shall be green in color,

(ii) Located to provide minimum obstruction clearance,

(iii) Consist of a minimum of three (3) lights on each side of the runway perpendicular to the runway centerline,

(F) Lights between the end of a runway and relocated or displaced runway threshold shall meet or exceed the following minimum standards:

(i) Shall be red in color,

(ii) Located no more than 10 feet off of the edge of a paved runway,

(iii) Located on the edge of a turf runway,

(iv) Shall not exceed 30 inches AGL in height.

The minimum standards set forth above in paragraphs (C) through (F) shall not apply to any airport which has an operational lighting system that was funded in whole or in part by federal and/or state funds.

(5) General Airport Maintenance. In addition to complying with the minimum safety standards set forth above, all public-use airport owners and operators shall continuously maintain aircraft operational areas on the airport. All aircraft operational areas on the airport should be inspected at least once a day. In addition, it is the responsibility of the airport owner or operator to identify, assess and disseminate information by notices to airmen through the appropriate FAA Flight Service Station (FSS) concerning conditions on or in the vicinity of the airport that affect, or may affect, the safe operation of aircraft.

(6) Other Requirements. All public-use airports shall have and maintain the following:

(A) At least one wind direction indicator, so located to show a true indication of the wind on the landing area and readily visible to aircraft. A wind sock shall be considered minimal equipment and must be lighted if the airport is open for night operations.

(B) A telephone shall be available continuously for emergency use and flight plan closing.

(C) An approved segmented circle with runway turn indicators when a non-standard traffic pattern is used.

(D) A suitable area for parking of automobiles, adequately marked off or fenced to prevent dangerous overrunning of the landing area and aircraft parking area by automobiles.

(E) A copy of current airport safety rules and regulations posted conspicuously at the airport and filed with the department. The airport rules and regulations should address air traffic patterns, taxi instructions, calm

wind runway usage, and any emergency readiness programs.

(Indiana Department of Transportation; 105 IAC 3-3-11; filed Jan 6, 1983, 1:55 p.m.: 6 IR 312) NOTE: Transferred from Department of Transportation (100 IAC 3-4-11) to Indiana Department of Transportation (105 IAC 3-3-11) by P.L. 112-1989, SECTION 5, effective July 1, 1989.

Cited in: 105 IAC 3-3-4; 105 IAC 3-3-9; 105 IAC 3-3-13; 105 IAC 3-3-14; 105 IAC 3-3-23.

105 IAC 3-3-12 Requirements for annual operating certificates of approval—heliports and seaplane bases

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 12. (a) All public-use heliports shall be inspected at least once a year by the department and shall maintain compliance with all standards which were required by the department as a condition of receiving a certificate of site approval.

(b) All public-use seaplane bases shall be inspected at least once a year by the department and shall maintain compliance with the following minimum requirements:

(1) The body of water shall have a minimum usable length of at least one (1) mile and shall be of sufficient width and depth to permit the safe operation of aircraft on the surface.

(2) All approaches to the landing area shall be sufficiently clear of obstruction to permit a 20:1 approach angle to the nearest point of the usable landing area, provided that if any structure on the land is located within 300 feet of the centerline of the approach path, such approach angle shall be computed so as to provide a clearance of at least 100 feet above such structure.

(3) Any hazards, including underwater obstructions in the landing, approach, departure and taxi areas shall be marked with durable markers so as to be clearly visible from traffic pattern altitude.

(Indiana Department of Transportation; 105 IAC 3-3-12; filed Jan 6, 1983, 1:55 p.m.: 6 IR 314) NOTE: Transferred from Department of Transportation (100 IAC 3-4-12) to Indiana Department of Transportation (105 IAC 3-3-12) by P.L. 112-1989, SECTION 5, effective July 1, 1989.

Cited in: 105 IAC 3-3-4; 105 IAC 3-3-13; 105 IAC 3-3-14; 105 IAC 3-3-23.

105 IAC 3-3-13 Waivers

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 13. (a) The department may, in its discretion, waive strict compliance with the minimum safety standards and requirements set forth in section 11(C) and section 12 *[of this rule]* when it is determined that the public-use airport was in existence at the time this regulation (100 IAC 3-4) *[this rule]* was adopted, and that the owner of the airport held a valid certificate of approval based on compliance with the then existing minimum safety standards.

(b) All petitions for a waiver shall be on forms prescribed and furnished by the department, shall be sworn to by the applicant and shall contain a clear concise statement of the facts together with a request that a certain requirement be waived. Any waiver shall be conditional upon compliance with all other non-waived requirements, and said waiver shall remain valid as long as the conditions and circumstances at the airport remain unchanged. *(Indiana Department of Transportation; 105 IAC 3-3-13; filed Jan 6, 1983, 1:55 p.m.: 6 IR 314) NOTE: Transferred from Department of Transportation (100 IAC 3-4-13) to Indiana Department of Transportation (105 IAC 3-3-13) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4.

105 IAC 3-3-14 Non-compliance with regulations

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 14. Any public-use airport which is not in compliance with the minimum safety standards (section 11(C) *[of this rule]*) or requirements of section 12 *[of this rule]*, as determined by a department inspection, shall correct the noted deficiencies within 30 days following notice of the deficiencies from the department. The department will provide technical assistance, as requested by any public-use airport owner or operator, to assist the airport in satisfying the minimum safety standards, however, failure to correct the noted deficiencies within the established time element shall result in the department taking appropriate actions to close the airport pursuant to section 15 of this regulation (100 IAC 3-4) *[this rule]*. The department will consider any request for a time extension to correct the noted deficiencies when it is determined that such an extension is needed and that the deficiencies will not pose a substantial or immediate threat to public safety or safety in the air. *(Indiana Department of Transportation; 105 IAC 3-3-14; filed Jan 6, 1983, 1:55 p.m.: 6 IR 314) NOTE: Transferred from Department of Transportation (100 IAC 3-4-14) to Indiana Department of Transportation (105 IAC 3-3-14) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4.

105 IAC 3-3-15 Enforcement of department actions

Authority: IC 8-9.5-5-8
Affected: IC 4-21.5; IC 8-9.5; IC 8-21-1

Sec. 15. (a) The department shall after notice and opportunity for hearing to any holder of a certificate of site approval and/or operating certificate of approval, revoke such certificate(s) and order said public-use airport closed when it shall reasonably determine:

(1) that there has been a failure within the time prescribed, or if no time was prescribed, within a reasonable time to develop the site as a public-use airport;

(2) that there has been failure to maintain compliance with the conditions of the certificate(s);

(3) that the physical appearance would indicate that there has been an abandonment of the site as a public-use airport;

(4) that because of change of physical or legal conditions or circumstances that site is no longer suitable for aeronautical purposes for which the approval was granted.

(b) Continued use and operation of a public-use airport without a valid operating certificate of approval shall result in the department invoking the aid of the courts to carry out its orders by injunction or other legal process.

(c) Any person adversely affected by this regulation (100 IAC 3-4) *[this rule]* or any department orders issued under it may appeal the decision according to the procedures for review set forth in the Indiana Administrative Adjudication Act (Indiana Code 4-22-1, et. seq.).

(d) Upon the abandonment, temporary or permanent change in such status or condition of a public-use airport or site, the owner or operator shall notify the department, in writing, of such abandonment or change immediately, and shall notify the appropriate Federal Flight Service Station (FSS) of such change.

(e) When any public-use airport or runway is closed, whether voluntarily or by order of the department, the owner of the airport shall cause it to be marked in accordance with the FAA Advisory Circular 150/5340-1D Appendix 1 and subsequent amendments. *(Indiana Department of Transportation; 105 IAC 3-3-15; filed Jan 6, 1983, 1:55 p.m.: 6 IR 315) NOTE: Transferred from Department of Transportation (100 IAC 3-4-15) to Indiana Department of Transportation (105 IAC 3-3-15) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4; 105 IAC 3-3-6; 105 IAC 3-3-14.

105 IAC 3-3-16 Inspections

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 16. An applicant for, or a holder of, a public-use airport operating certificate or site approval shall offer full cooperation to any authorized representative of the department inspecting the airport or airport site. The department is entitled to reasonable access to the lands, buildings, equipment, and operating records of a certificated airport or approved airport site. To fulfill its safety inspection at any airport, state law provides that a person who recklessly prevents or obstructs the department from inspecting an airport commits a Class B misdemeanor. *(Indiana Department of Transportation; 105 IAC 3-3-16; filed Jan 6, 1983, 1:55 p.m.: 6 IR 315) NOTE: Transferred from Department of Transportation (100 IAC 3-4-16) to Indiana Department of Transportation (105 IAC 3-3-16) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-4.

used to approve private-use helipports.

105 IAC 3-3-17 Requirements for private-use airports

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 17. Sections 18 through 26 of this regulation (100 IAC 3-4) *[this rule]* shall apply to all private-use airports in the state. *(Indiana Department of Transportation; 105 IAC 3-3-17; filed Jan 6, 1983, 1:55 p.m.: 6 IR 315) NOTE: Transferred from Department of Transportation (100 IAC 3-4-17) to Indiana Department of Transportation (105 IAC 3-3-17) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

105 IAC 3-3-18 General policy

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 18. It shall be the policy of the department to encourage and support the establishment of private-use airports in the state and to issue certificates of site approval to all private-use airports meeting the following requirements excepting those requirements which have been waived by the department. *(Indiana Department of Transportation; 105 IAC 3-3-18; filed Jan 6, 1983, 1:55 p.m.: 6 IR 315) NOTE: Transferred from Department of Transportation (100 IAC 3-4-18) to Indiana Department of Transportation (105 IAC 3-3-18) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-17.

105 IAC 3-3-19 Establishment of airport without site approval unlawful

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 19. (a) It shall be unlawful for any person to establish, construct, activate or operate any private-use airport without first being issued a certificate of site approval by the department. Depiction of a private-use airport on state aeronautical charts is not required.

(b) A certificate of site approval issued by the department shall remain valid indefinitely, unless it is revoked by the department, pursuant to section 24 of this regulation (100 IAC 3-4) *[this rule]*, or until such time as the airport is closed, whether voluntarily by the owner, or by order of the department or any court of general jurisdiction.

(c) Any person or municipality who desires to open or reactivate any private-use airport which has been closed and/or for which the certificate of site approval has been revoked by the department must apply for a new certificate of site approval pursuant to section 21 of this regulation (100 IAC 3-4) *[this rule]*. *(Indiana Department of Transportation; 105 IAC 3-3-19; filed Jan 6, 1983, 1:55 p.m.: 6 IR 315) NOTE: Transferred from Department of Transportation (100 IAC 3-4-19) to Indiana Department of Transportation (105 IAC 3-3-19) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-17; 105 IAC 3-3-20.

105 IAC 3-3-20 Failure to apply for certificate of site approval

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 20. Failure to apply for a certificate of site approval for a private-use airport from the department as required in section 19 *[of this rule]* shall result in appropriate actions by the department to close the airport. The department may invoke the aid of any court of general jurisdiction to carry out its orders by injunction or other legal process. *(Indiana Department of Transportation; 105 IAC 3-3-20; filed Jan 6, 1983, 1:55 p.m.: 6 IR 316) NOTE: Transferred from Department of Transportation (100 IAC 3-4-20) to Indiana Department of Transportation (105 IAC 3-3-20) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-17.

105 IAC 3-3-21 Application for certificate of site approval

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 21. (a) Application for a certificate of site approval for a private-use airport shall be made on forms prescribed and furnished by the department, and shall be accompanied by:

(1) A section of a current federal or state sectional aeronautical chart or topographic map depicting an area of at least a 25 nautical mile radius surrounding the plotted position of the proposed private-use airport.

(2) A detailed drawing on forms provided by the department, which shows the proposed site and the immediate adjacent area, prepared in such manner as will clearly indicate the initial and ultimate stages of airport development, airport property lines, obstructions, other general characteristics of the airport including distance and direction to the nearest city or town, and depict the air traffic pattern for the proposed private-use airport.

(b) In addition to the information required above, FAA Form 7480-1, "Notice of Landing Area Proposal," as required by FAA, will be furnished by the department and may be filed along with the state application for site approval.

(c) The applicant for a private-use airport shall have sole responsibility for notifying and satisfying any requirements of a local governing body that has adopted an applicable zoning ordinance. *(Indiana Department of Transportation; 105 IAC 3-3-21; filed Jan 6, 1983, 1:55 p.m.: 6 IR 316) NOTE: Transferred from Department of Transportation (100 IAC 3-4-21) to Indiana Department of Transportation (105 IAC 3-3-21) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-17; 105 IAC 3-3-19.

105 IAC 3-3-22 Standards for issuing certificate of site approval

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 22. (a) In determining whether it shall issue a certificate of site approval for any private-use airport, the department shall take into consideration its proposed location, size and layout, whether there are safe areas available for expansion purposes, whether the adjoining area is free from obstructions based on a proper approach ratio, the nature of the terrain, the nature of the uses to which the proposed airport will be put, the possibilities for future development, and such other factors as, under the circumstances, it regards as having an important bearing thereon.

(b) Certificates of site approval may be granted with such restrictions and limitations as the department deems reasonable and necessary for safe airport operations.

(c) A certificate of site approval shall not be issued by the department when the Federal Aviation Administration has issued an objectionable airspace determination.

(d) The following commercial operations are prohibited at private-use airports unless specifically approved by the department: the carrying of passengers or cargo for hire; student instruction; rental or sales of aircraft; sale of aviation fuel or oil; air meets or exhibitions; advertising

for any of the above; or any activity which solicits the general public to use the airport.

(e) In addition to the foregoing requirements, a certificate of site approval for a private-use seaplane base shall not be issued by the department unless any governmental body, authority or person having jurisdiction over the body of water has given approval for use of the site as a private-use seaplane base. *(Indiana Department of Transportation; 105 IAC 3-3-22; filed Jan 6, 1983, 1:55 p.m.: 6 IR 316) NOTE: Transferred from Department of Transportation (100 IAC 3-4-22) to Indiana Department of Transportation (105 IAC 3-3-22) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-17; 105 IAC 3-3-23.

105 IAC 3-3-23 Waivers

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 23. (a) The department may, in its discretion, waive strict compliance with the requirements set forth in section 22(C) and (D) *[of this rule]* subject to the following conditions:

(1) When the Federal Aviation Administration has issued an objectionable airspace determination, the department will consider a petition for a waiver if the private-use airport owner changes the airport status to "personal-use" with FAA, and agrees to not have the airport shown on any aeronautical charts. Under no circumstances will the department grant a waiver if the objectionable airspace determination by FAA is due to incompatible air traffic patterns with any other airport, whether private or public-use.

(2) When the owner of a private-use airport petitions the department to issue a waiver concerning the prohibition of commercial operations at the airport, the department will review the request based on the following criteria:

(A) whether the proposed commercial operations are the type that will solicit the general public to use the private-use airport; and

(B) whether the design and layout of the private-use airport would satisfy the minimum safety standards and requirements set forth in sections 11(C) or 12 *[of this rule]* and required of all public-use airports.

Any waiver of commercial operations by the department at a private-use airport does not authorize the use of the airport by any person or municipality other than the owner and persons specifically authorized by the owner of the private-use airport.

(b) All petitions for a waiver shall be on forms prescribed and furnished by the department, shall be sworn to by the applicant and shall contain a clear concise statement of the facts together with a request that a certain requirement be waived. Any waiver granted by the department shall remain valid as long as the conditions and circumstances at the airport remain unchanged. *(Indiana Department of Transportation; 105 IAC 3-3-23; filed Jan 6, 1983, 1:55 p.m.: 6 IR 316) NOTE: Transferred from Department of Transportation (100 IAC 3-4-23) to Indiana Department of Transportation (105 IAC 3-3-23) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-17.

105 IAC 3-3-24 Enforcement of department actions

Authority: IC 8-9.5-5-8
Affected: IC 4-21.5; IC 8-9.5; IC 8-21-1

Sec. 24. (a) The department shall after notice and opportunity for hearing to any holder of a certificate of site approval, revoke such certificate and order said private-use airport closed when it shall reasonably determine:

(1) that there has been a failure within the time prescribed, or if no time was prescribed, within a reasonable time to develop the site as a private-use airport;

(2) that there has been failure to maintain compliance with the conditions of the certificate of site approval;

(3) that the physical appearance would indicate that there has been an abandonment of the site as a private-use airport;

(4) that because of change of physical or legal conditions or circumstances that site is no longer suitable for aeronautical purposes for which the approval was granted.

(b) Any person adversely affected by this regulation (100 IAC 3-4) *[this rule]* or any department orders issued under it may appeal the decision according to the procedures for review set forth in the Indiana Administrative Adjudication Act (Indiana Code 4-22-1, et. seq.). *(Indiana Department of Transportation; 105 IAC 3-3-24; filed Jan 6, 1983, 1:55 p.m.: 6 IR 317) NOTE: Transferred from Department of Transportation (100 IAC 3-4-24) to Indiana Department of Transportation (105 IAC 3-3-24) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-17; 105 IAC 3-3-19.

105 IAC 3-3-25 Inspections

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 25. The department may, in its discretion, inspect any private-use airport to determine whether a certificate of site approval should be issued, to investigate any complaints received concerning the airport, to determine whether a petition for a waiver should be granted, or for any other probable cause. An applicant for, or a holder of, a private-use airport certificate of site approval shall offer full cooperation to any authorized representative of the department inspecting the airport or airport site. To fulfill its safety inspection at any airport, state law provides that a person who recklessly prevents or obstructs the department from inspecting an airport commits a Class B misdemeanor. *(Indiana Department of Transportation; 105 IAC 3-3-25; filed Jan 6, 1983, 1:55 p.m.: 6 IR 317) NOTE: Transferred from Department of Transportation (100 IAC 3-4-25) to Indiana Department of Transportation (105 IAC 3-3-25) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-17.

105 IAC 3-3-26 Change of status or abandonment

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 26. (a) Any person who desires to expand and change a private-use airport to a public-use airport must first apply to the department for a new certificate of site approval for a public-use airport as specified in section 6 of this regulation (100 IAC 3-4) *[this rule]*.

(b) Upon the abandonment or closure of any private-use airport, the owner or operator shall notify the department, in writing, of such abandonment or closure immediately, and shall notify the appropriate Flight Service Station (FSS) of such closing. *(Indiana Department of Transportation; 105 IAC 3-3-26; filed Jan 6, 1983, 1:55 p.m.: 6 IR 317) NOTE: Transferred from Department of Transportation (100 IAC 3-4-26) to Indiana Department of Transportation (105 IAC 3-3-26) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-17.

105 IAC 3-3-27 Requirements for temporary airports

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 27. Sections 28 through 31 of this regulation (100 IAC 3-4) *[this rule]* shall apply to all temporary airports in the state. *(Indiana Department of Transportation; 105 IAC 3-3-27; filed Jan 6, 1983, 1:55 p.m.: 6 IR 318) NOTE: Transferred from Department of Transportation (100 IAC 3-4-27) to Indiana Department of Transportation (105 IAC 3-3-27) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

105 IAC 3-3-28 Establishment of temporary airport without approval unlawful

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 28. It shall be unlawful for any municipality or person to establish, construct, use or operate any temporary airport without prior written approval from the department. *(Indiana Department of Transportation; 105 IAC 3-3-28; filed Jan 6, 1983, 1:55 p.m.: 6 IR 318) NOTE: Transferred from Department of Transportation (100 IAC 3-4-28) to Indiana Department of Transportation (105 IAC 3-3-28) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-27.

105 IAC 3-3-29 Application for approval of temporary airport

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 29. (a) Application for approval of a temporary airport shall be made on forms prescribed and furnished by the department and shall be accompanied by:

(1) A section of a current federal or state sectional aeronautical chart or topographic map depicting an area of at least a 25 nautical mile radius surrounding the plotted position of the proposed temporary airport.

(2) A detailed drawing on forms provided by the department, which shows the dimensions of the proposed airport facilities, property lines, any obstructions in the approach areas, and the air traffic pattern for the proposed temporary airport.

(3) Written consent of property owner(s) unless applicant holds title in fee simple to the proposed site.

(4) A statement pertaining to the type of temporary use proposed for the site.

(b) Such application must be received by the department at least fifteen (15) days prior to the date the applicant wishes to use the area. This time requirement may be waived where it is clearly shown that an emergency exists. *(Indiana Department of Transportation; 105 IAC 3-3-29; filed Jan 6, 1983, 1:55 p.m.: 6 IR 318) NOTE: Transferred from Department of Transportation (100 IAC 3-4-29) to Indiana Department of Transportation (105 IAC 3-3-29) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-27.

105 IAC 3-3-30 Standards for issuing notices

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 30. (a) The department shall inspect the proposed site for a temporary airport and if it finds the site to be of such size and nature, in the opinion of the department, as to be safe for use by the type of aircraft that will be used in the operations and to have clear and unobstructed approaches to the landing area, the department shall issue an approval notice.

(b) The department may issue an approval notice for a temporary airport for any specified amount of time, not to exceed thirty (30) days. Upon a clear showing by the applicant that an emergency exists, the department may grant time extensions to the approval notice. *(Indiana Department of Transportation; 105 IAC 3-3-30; filed Jan 6, 1983, 1:55 p.m.: 6 IR 318) NOTE: Transferred from Department of Transportation (100 IAC 3-4-30) to Indiana Department of Transportation (105 IAC 3-3-30) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-27.

105 IAC 3-3-31 Failure to apply for approval notice

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 31. Failure to apply to the department for approval notice for a temporary airport at least 15 days prior to beginning operations shall result in appropriate actions by the department to close the airport. The department may invoke the aid of any court of general jurisdiction to carry out its orders by injunction or other legal process. *(Indiana Department of Transportation; 105 IAC 3-3-31; filed Jan 6, 1983, 1:55 p.m.: 6 IR 318) NOTE: Transferred from*

Department of Transportation (100 IAC 3-4-31) to Indiana Department of Transportation (105 IAC 3-3-31) by P.L. 112-1989, SECTION 5, effective July 1, 1989.

Cited in: 105 IAC 3-3-27.

105 IAC 3-3-32 Specific exemptions

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1; IC 15-3-3.6-6

Sec. 32. This regulation (100 IAC 3-4) *[this rule]* pertaining to the department's authority to issue certificates of site approval, operating certificates of approval, and approval notices does not apply to provisional landing sites.

A provisional landing site is any area, site or location which is not classified as an airport, has no based aircraft, and is only used on an occasional basis with the landowner's permission by helicopters, lighter-than-air aircraft, or aircraft engaged in aerial applications to agricultural lands in accordance with the following statutory restrictions:

(a) Agricultrual *[sic.]* applications if the applicator:

(1) is licensed as a pesticide operator by the state chemist and has met the requirements of Indiana Code 15-3-3.6-6, and

(2) has received permission to use the land for agricultural aviation purposes from the owner or lessee of the land.

(b) Helicopters if the operator of the helicopter:

(1) meets FAA qualifications for operation of the specific aircraft;

(2) determines that air routes to and from the site are acceptable to the aircraft's limitations and that proposed routes in congested areas provide for emergency landings in the event that an autorotation descent is necessary;

(3) follows all FAA regulations covering landings in the event that an autorotation descent is necessary;

(4) has received permission to use the site from the owner or lessee of the site.

(c) Lighter-than-air aircraft. However, no person may operate a lighter-than-air aircraft from any landing site unless the pilot is in compliance with:

(1) all applicable federal air regulations, and

(2) the department's rules and regulations which relate to the operation of lighter-than-air aircraft (100 IAC 4-1) *[105 IAC 4-1]*.

(Indiana Department of Transportation; 105 IAC 3-3-32; filed Jan 6, 1983, 1:55 p.m.: 6 IR 318) NOTE: Transferred from Department of Transportation (100 IAC 3-4-32) to Indiana Department of Transportation (105 IAC 3-3-32) by P.L. 112-1989, SECTION 5, effective July 1, 1989.

Cited in: 105 IAC 3-3-33.

105 IAC 3-3-33 Penalties

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 33. (a) State law provides that any person who does not fall within the exemptions set forth above and who uses a provisional landing site for agricultural applications or helicopter operations commits a Class B infraction.

(b) State law provides that any person who operates a lighter-than-air aircraft in violation of this exemption commits a Class B infraction. *(Indiana Department of Transportation; 105 IAC 3-3-33; filed Jan 6, 1983, 1:55 p.m.: 6 IR 319) NOTE: Transferred from Department of Transportation (100 IAC 3-4-33) to Indiana Department of Transportation (105 IAC 3-3-33) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

Cited in: 105 IAC 3-3-32.

105 IAC 3-3-34 Severability

Authority: IC 8-9.5-5-8
Affected: IC 8-9.5; IC 8-21-1

Sec. 34. The provisions of this regulation (100 IAC 3-4) *[this rule]* are severable, and the finding by any court that any provision is invalid

does not affect the validity of the remaining portions. *(Indiana Department of Transportation; 105 IAC 3-3-34; filed Jan 6, 1983, 1:55 p.m.: 6 IR 319) NOTE: Transferred from Department of Transportation (100 IAC 3-4-34) to Indiana Department of Transportation (105 IAC 3-3-34) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

ARTICLE 4. LIGHTER-THAN-AIR AIRCRAFT

Cited in: 105 IAC 4-1-1; 105 IAC 4-1-2.

Rule 1. General Provisions

Rule 1. General Provisions

Cited in: 105 IAC 3-3-32.

105 IAC 4-1-1 Applicability
105 IAC 4-1-2 Operations
105 IAC 4-1-3 Area of operations
105 IAC 4-1-4 Minimum standards

105 IAC 4-1-1 Applicability

Authority: IC 8-21-1-8
Affected: IC 8-21-1-10.1

Sec. 1. Applicability. These regulations shall apply to any lighter-than-air aircraft and to any pilot-in-command of a lighter-than-air aircraft, including free balloons (both hot air with and without an airborne heater and gas) and airships (both hot air with and without an airborne heater and gas), but specifically excluding any moored balloons, kites, unmanned rockets and unmanned free balloons and any lighter-than-air aircraft that are not subject to Federal Aviation Regulations as now in effect or hereafter amended, operating within the territorial limits of the State of Indiana. *(Indiana Department of Transportation; 105 IAC 4-1-1; filed Mar 26, 1980, 4:05 p.m.: 3 IR 925) NOTE: Transferred from Department of Transportation (100 IAC 4-1-1) to Indiana Department of Transportation (105 IAC 4-1-1) by P.L. 112-1989, SECTION 5, effective July 1, 1989.*

105 IAC 4-1-2 Operations

Authority: IC 8-21-1-8
Affected: IC 8-21-1-10.1

Sec. 2. Operations. All operations of balloons, airships, and other lighter-than-air aircraft operating in the State of Indiana shall be in compliance with the Federal Aviation Regulations and the Regulations of the Aeronautics Commission of Indiana.

All lighter-than-air aircraft shall carry airworthiness certificates, registrations, certificates of inspections, and display the state registration sticker with the airworthiness certificate.

For purposes of this article, a person, other than a student pilot, shall be deemed to be the pilot-in-command with respect to any period of time during which he is manipulating the controls of a lighter-than-air aircraft or acting as flight instructor on said aircraft. A student pilot shall be deemed to be the pilot-in-command only when he is manipulating the controls of a lighter-than-air aircraft during a solo flight.

Each pilot-in-command of lighter-than-air aircraft shall assure the following items:

(1) Before beginning a flight, familiarize himself/herself with all available information concerning that flight including weather reports and forecasts.

(2) All flights shall be properly logged in the pilot log book and shall contain information locating initial takeoff and final landing sites, date, time of flight and number of intermediate landings.

(for the purposes of this article, an intermediate landing, shall be any contact of the aircraft with earth or any object thereon).

(3) Minimum fuel required for initial takeoff will be sufficient to allow for an estimated 30 minutes of flight on hot air balloons with airborne heaters.

(4) Maximum flight time will allow for a minimum of 15% usable fuel, by volume, to remain in one tank at the time of final landing.

(5) Before inflation and initial takeoff passengers and crew members shall be instructed as to the appropriate procedures relating to the operation of said aircraft, the retrieval of said aircraft after final landing and the appropriate methods of crowd control to promote the safety of persons and property within the near vicinity of said aircraft.

(Indiana Department of Transportation; 105 IAC 4-1-2; filed Mar 26, 1980, 4:05 p.m.: 3 IR 925) NOTE: Transferred from Department of Transportation (100 IAC 4-1-2) to Indiana Department of Transportation (105 IAC 4-1-2) by P.L. 112-1989, SECTION 5, effective July 1, 1989.

105 IAC 4-1-3 Area of operations

Authority: IC 8-21-1-8
Affected: IC 8-21-1-8; IC 8-21-1-10.1

Sec. 3. Area of Operations. If a balloon takeoff or landing area is located where operations do not endanger lives or property on the ground and do not interfere with other authorized use of the navigable airspace, the takeoff or landing area need not be approved, licensed or registered by the Commission. Operations at the takeoff or landing area shall be carried out in a prudent manner and with due regard for safety.

(1) The pilot-in-command assumes financial responsibility for any damage caused by the takeoff, landing or the recovery of the balloon.

(2) The pilot-in-command shall make every reasonable effort to contact the property owner on whose property a final landing has been made.

In the case of a Balloon School.

(1) If it is an approved school under Part 141 of the Federal Aviation Regulations, the field must have Aeronautics Commission site approval.

(Indiana Department of Transportation; 105 IAC 4-1-3; filed Mar 26, 1980, 4:05 p.m.: 3 IR 925) NOTE: Transferred from Department of Transportation (100 IAC 4-1-3) to Indiana Department of Transportation (105 IAC 4-1-3) by P.L. 112-1989, SECTION 5, effective July 1, 1989.

105 IAC 4-1-4 Minimum standards

Authority: IC 8-21-1-8
Affected: IC 8-21-1-8; IC 8-21-1-10.1

Sec. 4. Minimum Standards. All pilots-in-command and/or owners of hot air balloons with airborne heaters shall comply with the following equipment requirements to be carried on board the balloon in addition to those items normally required by the aircraft manufacturer or the Federal Aviation Regulations. Aircraft normally required to carry items as listed shall not be required to duplicate.

(1) A dry type fire extinguisher of the type and kind normally used to extinguish electrical and liquid fuel fires.

(2) At least two methods of pilot light ignition such as a stirker *[sic.]* and a cigarette lighter, or two strikers or a stirker *[sic.]* and matches.

(Indiana Department of Transportation; 105 IAC 4-1-4; filed Mar 26, 1980, 4:05 p.m.: 3 IR 926) NOTE: Transferred from Department of Transportation (100 IAC 4-1-4) to Indiana Department of Transportation (105 IAC 4-1-4) by P.L. 112-1989, SECTION 5, effective July 1, 1989.

ARTICLE 5. RAILROADS

Rule 1. Tariffs and Rates
Rule 2. Abandonment of Railway Stations; Establishment of Interlocking Systems
Rule 3. Reporting of Railroad Accidents
Rule 4. Railroad Construction; Lateral and Vertical Clearance Requirements
Rule 5. Rail Service Continuation Subsidies
Rule 6. Railroad Policemen; Basic Training and Fitness Standards

Hospital Heliports are certified unless they meet the following standards.

(c) The provisions of section 10 of this chapter relating to the department's authority to issue certificates of approval for airport sites do not apply to provisional landing sites for helicopters if the operator of the helicopter:

(1) meets Federal Aviation Administration qualifications for operation of the specific aircraft;

(2) determines that air routes to and from the site are acceptable to the aircraft's limitations and that proposed routes in congested areas provide for emergency landings in the event that an autorotation descent is necessary;

(3) follows all Federal Aviation Administration regulations covering landing on and departing from the site; and

(4) has received permission to use the site from the owner or lessee of the site.

(d) The provisions of section 10 of this chapter relating to the department's authority to issue certificates of approval for airport sites do not apply to provisional landing sites which are used for lighter-than-air aircraft. However, no person may operate a lighter-than-air aircraft from any landing site unless the pilot is in compliance with:

(1) all applicable federal air regulations; and

(2) all rules and regulations adopted by the department which relate to the operation of a lighter-than-air aircraft.

As added by Acts 1979, P.L.100, SEC.1. Amended by Acts 1980, P.L.74, SEC.312; Acts 1982, P.L.62, SEC.13.

8-21-1-10.2 Violation of IC 8-21-1-10.1 as Class B infraction

Sec. 10.2. (a) Any person not meeting the qualifications of section 10.1 of this chapter who uses a provisional aircraft landing site, which has not been issued a certificate of approval from the department, for agricultural application or helicopter operations commits a Class B infraction.

(b) Any person who operates a lighter-than-air aircraft in violation of section 10.1 of this chapter commits a Class B infraction. *As added by Acts 1979, P.L.100, SEC.2. Amended by Acts 1980, P.L.74, SEC.313.*

8-21-1-10.5 Airport approval certificates; number of flights

Sec. 10.5. (a) As used in this section, "hospital" means a facility licensed under IC 16-10-1.

(b) The provisions of section 10 of this chapter relating to the department's authority to issue certificates of approval for airport sites apply to a landing site operated by a hospital or fire department only if the hospital or fire department regularly receives or dispatches an average of more than one (1) helicopter during seven (7) consecutive days.

(c) The average number of helicopter flights under subsection (b) shall be determined and reviewed on an annual basis. *As added by P.L.105-1993, SEC.1.*

8-21-1-11 Repealed

(Repealed by Acts 1982, P.L.1, SEC.71.)

8-21-1-12 Obstructing airport inspection

Sec. 12. A person who recklessly prevents or obstructs the department from inspecting an airport as authorized by this chapter commits a Class B misdemeanor. *(Formerly: Acts 1945, c.360, s.12; Acts 1975, P.L.93, SEC.12.) As amended by Acts 1978, P.L.2, SEC.858; Acts 1980, P.L.74, SEC.315.*

8-21-1-13 Repealed

(Repealed by Acts 1980, P.L.74, SEC.434.)

8-21-1-14 Public use airport development; utilization of airport facilities; use of airport development funds; duties of sponsor

Sec. 14. (a) The department shall encourage the development of public use airports (as defined in 49 U.S.C. 2202).

(b) The department shall encourage the utilization and preservation of necessary airport facilities that are included in the National Airport and Airways System Plan and the state airports system plan and that:

(1) have been developed and maintained by private enterprise;

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:
Our (Iowa) Statutes deal with inspection and certification of public-use facilities. We have never had any public-use heliports, so it has not been an issue until recently..... a hospital heliport in Hawarden declared itself public-use. Our state inspector evaluated the facility along with an FAA inspector, using the AC as a guide. Our state standards do not consider heliports.

2. Does your state law require a license, certificate, or some other form of state approval for:

a. Private Heliports: YES___ NO___
b. Hospital Heliports: YES___ NO___
c. Public Heliports: YES___ NO___

Only public-use facilities are subject to certification requirements, whether they be privately-owned, public-owned, or hospital-owned.

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ___
No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a. Expect no effect: YES___ NO___ N/A ___ Unknown
b. Expect a small decrease in costs: YES___ NO___ N/A ___
c. Expect a large decrease in costs: YES___ NO___ N/A ___
d. Expect a small increase in costs: YES___ NO___ N/A ___
e. Expect a large increase in costs: YES___ NO___ N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

9. **If we have questions concerning your responses, who could we contact for further discussion?**

CHAPTER 720
IOWA AIRPORT REGISTRATION

[Prior to 6/3/87, Transportation Department [820]—[04,C]Ch 1]

761—720.1(328) Scope. This chapter establishes site approval, registration and registration renewal requirements and minimum safety standards for airports open for use by the public. It also establishes site approval requirements for airports maintained for private use.

761—720.2(328) Definitions. The definitions in Iowa Code section 328.1 and rule 761—700.1(328) shall apply to this chapter of rules. In addition:

"Maintained for private use" means available for use by the owner only or by the owner and other persons authorized by the owner.

"Open for use by the public" means available for use by the general public without a requirement for prior approval from the owner or operator.

"Public use" means open for use by the public.

This rule is intended to implement Iowa Code sections 328.1, 328.19 and 328.35.

761—720.3(328) Airport site approval required. A person or governmental subdivision planning to construct or establish an airport shall obtain a certificate of airport site approval from the department before the site is acquired or before the airport is constructed or established.

This rule is intended to implement Iowa Code section 328.19.

761—720.4(328) Public-use airport. The site approval requirements of this rule apply to proposed public-use airports. The remaining requirements apply to existing public-use airports.

720.4(1) *Application for site approval.* The sponsor shall complete Form 300025, "Airport Site Approval and Registration Application," and submit it to the department at the address given in rule 761—700.2(17A).

a. The sponsor shall include a written description of the minimum airport standards, stated in rule 720.10(328), that are attainable at the site.

b. The sponsor shall submit a signed statement issued by the appropriate local official or agency that the site complies with all applicable local zoning provisions or that local zoning does not exist.

720.4(2) *Site requirements.* Before issuing a certificate of airport site approval, the department shall:

a. Review the application and, if necessary, inspect the site. The sponsor shall ensure access to the site for the inspection at a reasonable time convenient for department personnel.

b. Require a current airspace determination issued by the FAA which concludes that the proposed site will not adversely affect the safe and efficient use of airspace.

720.4(3) *Certificate of site approval.*

a. After the application, inspection and FAA approval requirements have been met, the department shall issue a certificate of site approval for the airport if it complies with the minimum airport safety standards established by the department.

b. The certificate of site approval shall locate the proposed airport by geographical coordinates; section, township and range; and distance and direction from an established nearby community.

c. The certificate of site approval shall be valid for two years from the date of issuance.

d. The department may revoke the certificate of site approval as specified in Iowa Code subsection 328.19(3) or if aircraft operation is permitted, except in an emergency, before the airport registration certificate is issued.

720.4(4) *Registration.* When construction is complete, the sponsor shall notify the department. If Form 300025 has not been submitted, the sponsor shall complete it and submit it to the department. The department shall inspect the airport and, if it complies with Iowa Code subsection 328.19(1), shall issue the airport registration certificate.

720.4(5) *Registration renewal.* The department shall issue a registration certificate annually to each airport which is in compliance with the registration requirements. The registration shall be valid for one year.

720.4(6) *Airport inspection.* Each registered public-use airport is subject to inspection by the department at any reasonable time. If the departmental inspection reveals an unsafe condition or failure to meet the minimum safety standards, the department shall record that fact and shall notify the airport sponsor in writing. An FAA inspection may be accepted in lieu of an inspection by the department.

720.4(7) *Posting.* The airport registration certificate shall be posted in a prominent place available to the public at the airport. If there are no buildings at the airport, the registration shall be displayed at the office of the airport manager or caretaker.

720.4(8) *Revocation.* The department may revoke the registration of an airport pursuant to Iowa Code subsection 328.19(1).

This rule is intended to implement Iowa Code sections 328.12, 328.19 and 328.35.

761—720.5(328) Private-use airport. The following applies to a proposed, new airport to be maintained for private use.

720.5(1) The sponsor shall complete an application for a certificate of site approval on Form 300025 and submit it to the department at the address given in rule 761—700.2(17A). In the application, the sponsor shall certify that the airport, when completed, will be safe and adequate for the sponsor's intended use.

720.5(2) The application shall be accompanied by:

a. A signed statement issued by the appropriate local official or agency that the site complies with all applicable zoning provisions or that local zoning does not exist.

b. A current airspace determination issued by the FAA which concludes that the site will not adversely affect the safe and efficient use of airspace.

This rule is intended to implement Iowa Code sections 328.19 and 328.35.

761—720.6(328) Private airport. Rescinded IAB 1/5/94, effective 2/9/94.

761—720.7 to 720.9 Reserved.

761—720.10(328) Minimum safety standards. The minimum safety standards for a public-use airport are as follows:

720.10(1) *Obstruction hazards.*

a. The following areas of the airport shall be free of obstruction hazards:

(1) Within 60 feet (18 meters) of the centerline of a nonpaved runway.

(2) Within 125 feet (38 meters) of the centerline of a paved runway having either a visual or nonprecision instrument approach procedure.

(3) Within 150 feet (45 meters) of the centerline of a paved runway having a precision instrument approach procedure.

(4) Within 200 feet (60 meters) of the end of any hard-surfaced runway.

b. An object of natural growth, terrain, or permanent or temporary construction within the areas listed in paragraph *"a"* of this subrule shall be removed by the sponsor.

c. Frangible equipment that provides an essential aviation service is not considered an obstruction hazard.

720.10(2) *Runway.*

a. Width. The minimum usable prepared runway width shall be 50 feet (15 meters).

b. Marking. A hard-surfaced runway or taxiway shall be marked according to FAA Advisory Circular 150/5340-1F as amended through August 16, 1991. A turf landing strip or area shall have markers at all corners of the runway to delineate the runway limits. All markers shall be readily discernible from both the air and the ground.

c. Line of sight. The runway sight distance shall provide an unobstructed line of sight from any point five feet (1.5 meters) above the runway surface to any other point five feet (1.5 meters)

above the runway surface for the entire length of the runway; or the sponsor shall post in a conspicuous location a warning about the obstruction in the line of sight.

d. Temporary warning. Any part of the runway environment other than the runway which has become temporarily unsafe, or for any reason is not available for use, shall be marked by suitable flags, barriers or flares clearly showing the boundaries of the unsafe or unusable area.

e. Building location. No building on or around the airport shall be closer than 250 feet (75 meters) to the centerline of a runway having an established instrument approach procedure or closer than 125 feet (38 meters) to the centerline of a runway having only a visual approach procedure.

720.10(3) *Approach zones.*

a. Approaches shall be clear of obstructions above a glide path of 20:1 from the ends of each usable runway. If an obstruction exists in an approach zone, the runway threshold on a paved runway shall be displaced in accordance with FAA Advisory Circular 150/5300-13, Appendix 2, as amended through February 24, 1992, and marked in accordance with FAA Advisory Circular 150/5340-1F, as amended through August 16, 1991. On a turf runway, the runway end markers shall be relocated to provide the prescribed obstruction clearance. The runway length remaining between the displaced threshold and the departure end of the runway is the landing distance available.

b. When the approach zone to any runway crosses a road or railroad, the glide path on a 20:1 ratio shall pass at least 17 feet (5 meters) above an interstate highway, 15 feet (4.5 meters) above any other public roadway, 10 feet (3 meters) above a private road, and 23 feet (7 meters) above a railraod.

720.10(4) *Facilities.* The airport shall provide all of the following facilities:

a. Wind indicator. The airport shall be equipped with a wind cone, blaze orange in color, which shall be clearly visible from the traffic pattern altitude within one mile of the airport during daylight hours. If the airport is lighted for night operation, the wind cone or wind tee shall also be lighted.

b. Lighting. If an airport is lighted for night operation, the system shall be lighted from dusk to dawn. An air-to-ground controller for the lighting system shall be considered to meet this requirement.

c. Telephone. A telephone, capable of direct contact with the nearest FAA flight service station, shall be available for public use 24 hours each day. A list shall be posted in a conspicuous place near the telephone with telephone numbers for emergencies (fire department, police, ambulance) and service (manager or person in charge of the airport).

d. Fire extinguisher. At least one fire extinguisher capable of extinguishing all classes of fires shall be readily accessible to aircraft operational areas. Fire extinguishers shall be inspected and serviced as necessary, but at least once a year.

This rule is intended to implement Iowa Code sections 328.12, 328.19 and 328.35.

761—720.11 to 720.14 Reserved.

761—720.15(328) Airport closing.

720.15(1) *Notice.* When an airport ceases operation for any reason, the sponsor shall notify the department, return the registration certificate and mark the landing area to clearly indicate that the airport is closed to air traffic.

720.15(2) *Marking.* All marking indicating a usable runway shall be obliterated. The sponsor shall place at a central location a yellow X with bars a minimum of 8 feet (2.5 meters) wide by 40 feet (12 meters) long.

720.15(3) *Temporary closing.* When conditions require the temporary closing of a runway, it shall be marked on both ends with a yellow X with bars a minimum of 8 feet (2.5 meters) wide by 40 feet (12 meters) long.

This rule is intended to implement Iowa Code section 328.19.

[Filed 8/3/76, Notice 6/14/76—published 8/23/76, effective 9/27/76]
[Filed 5/11/87, Notice 3/11/87—published 6/3/87, effective 7/8/87]
[Filed 9/2/87, Notice 7/15/87—published 9/23/87, effective 10/28/87]
[Filed 12/5/90, Notice 10/3/90—published 12/26/90, effective 1/30/91]
[Filed 1/15/92, Notice 12/11/91—published 2/5/92, effective 3/11/92]
[Filed 12/16/93, Notice 11/10/93—published 1/5/94, effective 2/9/94]

CHAPTERS 721 to 749
Reserved

Form 300025
10-94

Iowa Department of Transportation

Iowa

Airport Site Approval and New Registration Application

(Airport Site Approval only for Private Use)

To: Iowa Department of Transportation
Office of Transportation Inventory
100 E. Euclid, Suite 7
Des Moines, Iowa 50313 Telephone: (515) 237-3301

Date _____

The undersigned hereby requests Airport Site Approval and Registration in accordance with the Iowa Airport Registration Law for:

_____ (Name of Proposed Facility) located _____ (No.) miles(s) _____ (Direction)

of _____ (City or Town) in _____ County.

1. **Type of Use:**
   - ___ Public *(Government Owned or Leased)*
   - ___ Public *(Privately Owned or Leased)*
   - ___ Private *(Government Owned or Leased)*
   - ___ Private *(Privately Owned or Leased)*

2. **Category:**
   - ___ Airport
   - ___ Seaplane Base
   - ___ Heliport
   - ___ Ultralight flight park

3. **Location:** Latitude _____ Longitude _____

   Section _____ Township _____ Range _____ Acres in Airport _____

4. **Applicant/Landowner Information:**

   (a) Landowner's Name _____ Phone _____

   Address _____ Zip _____

   Applicant's Name _____ Phone _____

   Address _____ Zip _____

   Manager's Name _____ Phone _____

   Address _____ Zip _____

   (b) If Applicant is not Landowner a copy of official authorization to construct the aviation facility requested on said property: ☐ is attached ☐ will be forwarded by _____ (Date)

5. **Landing Surface Type:** _____ (Sod, Water, Asphalt, etc.)

6. **Facility Diagram:** Attach a copy of Federal Aviation Administration Form 7480-1 and associated drawings showing the location and size of the facility and orientation of runway or sealanes.

7. **Land Use Zoning:** Attach a statement from the city of county zoning agency showing evidence of compliance with municipal *(city of county)* zoning requirements. Where there is no local zoning a statement of that fact from an official of the appropriate governmental agency of the jurisdiction shall be submitted with the application.

8. **Airspace:** Enclose a copy of a notice of airspace determination issued by the Federal Aviation Administration which concludes that the site will not adversely affect the safe and efficient use of airspace.

9. **Minimum Safety Standards:** The Minimum Safety Standards for a public-use airport are shown on the back of this form. Does the facility for which application is being made meet the standards? ☐ Yes ☐ No

I hereby certify that the statements and the information contained herein and on the required supporting documents are true and correct.

_____ (Signature of Applicant) _____ (Date)

_____ (Type or print name and title)

761—720.10(328) Minimum safety standards. The minimum safety standards for a public-use airport are as follows:

720.10(2) *Obstruction hazards.*

a. The following areas of the airport shall be free of obstruction hazards:

(1) Within 60 feet (18 meters) of the centerline of a nonpaved runway.

(2) Within 125 feet (38 meters) of the centerline of a paved runway having either a visual or nonprecision instrument approach procedure.

(3) Within 150 feet (45 meters) of the centerline of a paved runway having a precision instrument approach procedure.

(4) Within 200 feet (60 meters) of the end of any hard-surfaced runway.

b. An object of natural growth, terrain, or permanent or temporary construction within the areas listed in paragraph "a" of this subrule shall be removed by the sponsor.

c. Frangible equipment that provides an essential aviation service is not considered an obstruction hazard.

720.10(2) *Runway.*

a. Width. The minimum usable prepared runway width shall be 50 feet (15 meters).

b. Marking. A hard-surfaced runway or taxiway shall be marked according to FAA Advisory Circular 150/5340-1F as amended through October 22, 1987. A turf landing strip or area shall have markers at all corners of the runway to delineate the runway limits. All markers shall be readily discernible from both the air and the ground.

c. Line of sight. The runway sight distance shall provide an unobstructed line of sight from any point five feet (1.5 meters) above the runway surface to any other point five feet (1.5 meters) above the runway surface for the entire length of the runway; or the sponsor shall post in a conspicuous location a warning about the obstruction in the line of sight.

d. Temporary warning. Any part of the runway environment other than the runway which has become temporarily unsafe, or for any reason is not available for use, shall be marked by suitable flags, barriers or flares clearly showing the boundaries of the unsafe or unusable area.

e. Building location. No building on or around the airport shall be closer than 250 feet (75 meters) to the centerline of a runway having an established instrument approach procedure or closer than 125 feet (38 meters) to the centerline of a runway having only a visual approach procedure.

720.10(3) *Approach zones.*

a. Approaches shall be clear of obstructions above a glide path of 20:1 from the ends of each usable runway. If an obstruction exists in an approach zone, the runway threshold on a paved runway shall be displaced in accordance with FAA Advisory Circular 150/5300-13, Appendix 2, as amended through February 24, 1992, and marked in accordance with FAA Advisory Circular 150/5340-1F, as amended through August 16, 1991. On a turf runway, the runway end markers shall be relocated to provide the prescribed obstruction clearance. The runway length remaining between the displaced threshold and the departure end of the runway is the landing distance available.

b. When the approach zone to any runway crosses a road or railroad, the glide path on a 20:1 ratio shall pass at least 17 feet (5 meters) above an interstate highway, 15 feet (4.5 meters) above any other public roadway, 10 feet (3 meters) above a private road, and 23 feet (7 meters) above a railroad.

720.10(4) *Facilities.* The airport shall provide all of the following facilities:

a. Wind indicator. The airport shall be equipped with a wind cone, blaze orange in color, which shall be clearly visible from the traffic pattern altitude within one mile of the airport during daylight hours. If the airport is lighted for night operation, the wind cone or wind tee shall also be lighted.

b. Lighting. If an airport is lighted for night operation, the system shall be lighted from dusk to dawn. An air-to-ground controller for the lighting system shall be considered to meet this requirement.

c. Telephone. A telephone, capable of direct contact with the nearest FAA flight service station, shall be available for public use 24 hours each day. A list shall be posted in a conspicuous place near the telephone with telephone numbers for emergencies (fire department, police, ambulance) and service (manager or person in charge of the airport).

d. Fire extinguisher. At least one fire extinguisher capable of extinguishing all classes of fires shall be readily accessible to aircraft operational areas. Fire extinguishers shall be inspected and serviced as necessary, but at least once a year.

This rule intended to implement Iowa Code sections 328.12, 328.19 and 328.35.

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

✓ a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. Does your state law require a license, certificate, or some other form of state approval for:

a. Private Heliports: YES ✓ NO___
b. Hospital Heliports: YES ✓ NO___
c. Public Heliports: YES ✓ NO___

Please attach procedure or form. REGISTRATION PROCEDURES FOR LANDING AREAS IN LOUISIANA - F.A.R. PART 77 (SEE ATTACHED PACKAGE

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ✓
No ___

If Yes, please provide a brief description of your plan: BY PERIODIC INSPECTIONS AND SUBSEQUENT REPORTS TO OWNER/SPONSOR.

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a. Expect no effect:	YES___	NO___	N/A ___
b. Expect a small decrease in costs:	YES___	NO___	N/A ___
c. Expect a large decrease in costs:	YES___	NO___	N/A ___
d. Expect a small increase in costs:	YES ✓	NO___	N/A ___
e. Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion. ESTIMATED - GENERALLY HELIPORTS IN LOUISIANA EXCEED CURRENT MINIMUM STANDARD. ANY CHANGE WILL GENERATE ADDITIONAL COST.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

SEE ABOVE

6. Within your state, please estimate the percentage of private lieliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

CHIP CHIASSON, DEAN GOODELL, OR ANTHONY CULP
(504) 358-9149 (504) 358-9148 (504) 379-1242

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES___	NO X
b.	Hospital Heliports:	YES___	NO X
c.	Public Heliports:	YES X	NO___

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ___
No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO X	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO X	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

9. If we have questions concerning your responses, who could we contact for further discussion?

Jeni O'Bryon or Dave Nelson
Office of Passenger Transportation
16 State House Station
Augusta, ME 04333
207-287-2413

General Comments and/or suggestions for the Revision:

We are just getting started on working heliport issues, so our current information is limited.

PLEASE MAIL YOUR RESPONSES NO LATER THAN 01/09/98 TO:

Mr. Robert Bonanni
FAA, AAS-100
800 Independence Ave. SW
Washington DC 20591
(202) 267-8761

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES___	NO X
b.	Hospital Heliports:	YES___	NO X
c.	Public Heliports:	YES X	NO___

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ___
No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A X
b.	Expect a small decrease in costs:	YES___	NO___	N/A X
c.	Expect a large decrease in costs:	YES___	NO___	N/A X
d.	Expect a small increase in costs:	YES___	NO___	N/A X
e.	Expect a large increase in costs:	YES___	NO___	N/A X

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES____	NO____	N/A X
b.	Expect a small decrease in costs:	YES____	NO____	N/A X
c.	Expect a large decrease in costs:	YES____	NO____	N/A X
d.	Expect a small increase in costs:	YES____	NO____	N/A X
e.	Expect a large increase in costs:	YES____	NO____	N/A X

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a.	Between 0 and 20%	____
b.	Between 20 and 40%	____
c.	Between 40 and 60%	____
d.	Between 60 and 80%	____
e.	Between 80 and 100%	____
f.	Unknown	X

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a.	Between 0 and 20%	____
b.	Between 20 and 40%	____
c.	Between 40 and 60%	____
d.	Between 60 and 80%	____
e.	Between 80 and 100%	____
f.	Unknown	X

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a.	Between 0 and 20%	____	Zero public-use heliports in Maryland
b.	Between 20 and 40%	____	
c.	Between 40 and 60%	____	
d.	Between 60 and 80%	____	
e.	Between 80 and 100%	____	
f.	Unknown	____	

9. If we have questions concerning your responses, who could we contact for further discussion?

Mr. Bruce F. Mundie
Office of Regional Aviation Assistance
Maryland Aviation Administration
P.O. Box 8766
BWI Airport MD 21240-0766
(410) 859-7064

Parris N. Glendening
Governor

David L. Winstead
Secretary

Maryland Aviation Administration

*"To provide services to our customers and the air transportation industry
To foster and develop aviation in Maryland • To develop and empower our employees."*

Theodore E. Mathison Executive Director

December 12, 1997

Mr. Robert Bonanni
Airport Safety and Standards Office AAS-100
Federal Aviation Administration
800 Independence Avenue SW
Washington DC 20591

Dear Mr. Bonanni:

Thank you for the opportunity to respond to the questionnaire regarding the new Heliport Design Guide, AC 150/5390-2A. As you can see by our response to the questionnaire, the State of Maryland envisions minimum impact from the changes to heliport design criteria.

The State has no active public-use heliports. The only one ever licensed has been closed for approximately five years. The remaining heliports for hospital or other private use are not licensed or registered by the Maryland Aviation Administration (MAA). The MAA assists heliport proponents in proper design of heliports to conform with the criteria contained in the Advisory Circular(AC). Any change in the criteria would not necessarily force change of existing heliports, however, the MAA will advise all heliport operators of the new design dimensions once the AC is published, but will not actively pursue involuntary changes to meet the new criteria.

I hope this explanation and our responses to the questionnaire meet your needs for the FAA survey. If you have questions or need more information, please contact Bruce Mundie, MAA Director of Regional Aviation Assistance, at (410) 859-7064.

Sincerely,

Nicholas J. Schaus
Deputy Administrator

cc: Mr. Bruce F. Mundie, Director, Regional Aviation Assistance

P.O. Box 8766, BWI Airport, Maryland 21240-0766 (410) 859-7100
TOLL FREE: 1 (800) I-FLY-BWI • FAX: (410) 850-4729 • TDD for the hearing impaired: (410) 859-7227
The Maryland Aviation Administration is an agency of the Maryland Department of Transportation

State Aviation Questionnaire

RECEIVED
- 8 1997
COMM. OF MASS.
AERONAUTICS COMMISSION

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

a. Private Heliports:	YES___	NO_x_
b. Hospital Heliports:	YES_x_	NO___
c. Public Heliports:	YES_x_	NO___

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

Yes ___
No _x_

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a. Expect no effect:	YES___	NO___	N/A ___
b. Expect a small decrease in costs:	YES___	NO___	N/A ___
c. Expect a large decrease in costs:	YES___	NO___	N/A ___
d. Expect a small increase in costs:	YES_x_	NO___	N/A ___
e. Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Due to the engineering changes, the cost factor would rise.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES_X_	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

if an enlargement was a required item, it definately would increase the cost.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% _X_
e. Between 80 and 100% ___
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% _X_
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% _X_
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

Insp. Richard I. Bunker 617/973-8887

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

Hospital heliport and Public heliport markings per AC.

2. **Does your state law require a license, certificate, or some other form of state approval for:**

a. Private Heliports:	YES___	NO X
b. Hospital Heliports:	YES X	NO___
c. Public Heliports:	YES X	NO___

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

Yes ___
No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a. Expect no effect:	YES___	NO___	N/A ___
b. Expect a small decrease in costs:	YES___	NO___	N/A ___
c. Expect a large decrease in costs:	YES___	NO___	N/A ___
d. Expect a small increase in costs:	YES X	NO___	N/A ___
e. Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

THE PROPOSED CHANGES CALL FOR SLIGHTLY LARGER OBJECT FREE AREAS (FATO & TLOF) AND CLEARANCES.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES X	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% X
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

Juan Zapata 517-335-7677
ZAPATAJ@STATE.MI.US

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   (b) The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   (c) The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary: USED AS A DESIGN GUIDE WHEN OUR OFFICE WORKS WITH A PROPONENT IN ESTABLISHING OR ALTERING A HELIPORT. MORE PARTS WILL BE ADOPTED AS WE REVISE OUR AGENCY RULES.

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES ✓ NO ___
   b. Hospital Heliports: YES ✓ NO ___
   c. Public Heliports: YES ✓ NO ___

Please attach procedure or form.
(FORMS ATTACHED)

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ✓
   No ___

If Yes, please provide a brief description of your plan: INSPECTING EXISTING HOSPITAL HELIPORTS TO UPGRADE THEM & BRING INTO COMPLIANCE WITH OUR AGENCY RULES.

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

   a. Expect no effect: YES ___ NO ✓ N/A ___
   b. Expect a small decrease in costs: YES ___ NO ✓ N/A ___
   c. Expect a large decrease in costs: YES ___ NO ✓ N/A ___
   d. Expect a small increase in costs: YES ✓ NO ___ N/A ___
   e. Expect a large increase in costs: YES ___ NO ✓ N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO ✓	N/A ___
b.	Expect a small decrease in costs:	YES___	NO ✓	N/A ___
c.	Expect a large decrease in costs:	YES___	NO ✓	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO ✓	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion. IF THE DESIGN INVOLVES MORE OF ANYTHING, INCLUDING PROTECTED AIRSPACE THE COSTS WILL BE PROPORTIONATELY MORE.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ✓
e. Between 80 and 100% ___
f. Unknown ___

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

9. **If we have questions concerning your responses, who could we contact for further discussion?**

RICK BRAUNIG 612.296.8059
RICK.BRAUNIG@AERO.DOT.STATE.MN.US

Minnesota Rules, Table of Chapters

Table of contents for Chapter 8800

8800.1400 GENERAL AIRPORT LICENSING PROVISIONS.

Subpart 1. **Approval; exemption.** Every airport before operating as such shall be approved and licensed by the commissioner. Airports owned or operated by public corporations formed pursuant to the Metropolitan Airports Commission Act need not be licensed.

Subp. 2. **Application and fee.** Application for license shall be made on forms supplied by the commissioner and accompanied by the appropriate fee and renewed annually.

Type of License	Fee
Public Airport (privately or publicly owned)	$15
Private Airport (restricted use)	$15
Personal-use Airport	None

Subp. 3. **Inspection.** The applicant for any license shall offer full cooperation in respect to any inspection which may be made of the airport premises upon proper demand at reasonable hours by any authorized representative of the commissioner, prior to or subsequent to the issuance of a license.

Subp. 4. **Ownership.** The applicant shall show right of access to and control of the land, or right of access to the water area to be licensed, as owner, coowner, tenant, or by any other right of entry.

Subp. 5. **Agency approvals.** No airport shall be licensed unless the applicant meets the requirements of other federal or state government agencies or their political subdivisions.

Subp. 6. **License display.** The license issued under this part shall be posted in a prominent place at the airport.

Subp. 7. **Nontransferability.** Licenses shall not be transferable.

Subp. 8. **Restricted operation.** A letter of authority granting temporary or restricted operation may be issued pending full compliance with the provisions of these rules and shall have an expiration date.

Subp. 9. **Change of operational status.** The licensee shall immediately notify the commissioner of any proposed construction, alteration, or change in the operational status of the airport. The licensee is also responsible for properly notifying the Federal Aviation Administration of such alterations or changes.

Subp. 10. **Danger area or closed airport.** Any part of the landing strip or runway which has become temporarily unsafe, or for any reason is not available for use, shall be marked by suitable warning flags and/or flares which shall clearly show the boundaries of the danger area. Upon the closing, abandonment, or cessation of any airport the licensee shall immediately notify the commissioner, return the current license, and mark the landing area in a manner that clearly indicates

that the airport is closed to air traffic. All markings indicating a usable runway must be obliterated. An "X" must be placed at a central location, the minimum size to be 3 feet by 30 feet, and of contrasting colors to the surrounding surface where the "X" is placed. In the event that the licensee fails to do the above, then and in such case, and without excusing the licensee, the commissioner may go upon the premises and remove the markings that indicate a usable runway and may also mark the airport as indicated above.

STAT AUTH: MS s 360.015 subd 3; 360.018 subd 1

HIST: 17 SR 1279

Current as of 08/27/97

8800.1800 PUBLIC HELIPORT LICENSING.

Subpart 1. **Minimum requirements.** A public heliport shall be granted a license when it has met the general provisions of parts 8800.1400 and 8800.1500 and the following minimum requirements of subparts 2 to 11.

Subp. 2. **Landing and takeoff area.** "Landing and takeoff area" means that specific area in which the helicopter actually lands and takes off, including the touchdown area. The minimum landing and takeoff area length shall be 2.0 times the overall length of the largest helicopter expected to use the heliport, and the width of the area shall be 1.5 times the overall length of the largest helicopter expected to use the heliport.

Subp. 3. **Obstructions.** An object will be considered an obstruction to a public heliport if it is of greater height than any of the following heliport imaginary surfaces:

A. Heliport primary surface: the primary surface of a heliport coincides in size and shape with the designated takeoff and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

B. Heliport approach surface: the heliport approach surface begins at each end of the primary surface, with the same width as the primary surface and extends outward and upward at a slope of 8:1 for a horizontal distance of 4,000 feet where its width is 500 feet.

C. Heliport transitional surface: the heliport transitional surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2:1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

Subp. 4. **Touchdown area.** The minimum length and width of the touchdown area shall be equal to the rotor diameter of the largest helicopter expected to use the heliport.

Subp. 5. **Peripheral area.** A peripheral area surrounding the landing and takeoff area, with a minimum width of one-quarter the overall length of the largest helicopter expected to use the heliport, but not less than ten feet, is recommended as an obstruction-free safety zone.

Subp. 6. **Approach-departure paths.** Approach-departure paths are selected to provide the most advantageous lines of flight to and from the landing and takeoff area. These paths begin at the edge of the landing and takeoff area and should be aligned as directly as possible into the prevailing winds. Approach-departure paths coincide in size with the imaginary surfaces described in subpart 3, except that an approach-departure path may be curved. If the approach-departure path is curved, its centerline must have a turning radius of not less than 700 feet. If the approach-departure path is curved, the curved portion of the

path must begin at a distance not less than 300 feet from the landing and takeoff area.

A public heliport must have at least two approach-departure paths which must be separated by an arc of at least 90 degrees. These two paths must be obstruction-free.

Emergency landing areas must be available along the approach-departure paths.

Subp. 7. **Fuel filters**. All aviation fuel dispensed on any public heliport shall be filtered to be free of solid matter in excess of five microns particle size and to have a free water content of less than 30 parts per million parts of fuel.

Subp. 8. **Fire extinguishers**. At least one properly maintained fire extinguisher shall be available. It must be a minimum of 20 B. rating or its equivalent.

Subp. 9. **Wind indicator**. All public heliports shall be equipped with an operable wind sock, three feet by 12 feet, blaze orange in color. If the heliport is lighted for night operations the wind indicator must also be lighted.

Subp. 10. **Safety barriers**. Access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas. Suitable placards warning of the dangers of turning rotors shall be prominently displayed in pedestrian access areas. If a fence is used, it shall not penetrate the heliport imaginary surfaces described in subpart 3.

Subp. 11. **Rooftop egress**. Rooftop heliports should have two exits, one at each side of the landing and takeoff area, which should be provided in accordance with local building codes.

Subp. 12. **Application to IFR and transport**. Subparts 3, 5, and 6 are predicated upon VFR operations by helicopters certificated in the normal category. The commissioner may set additional requirements for heliports which will conduct IFR operations and/or operations by transport category heliports.

STAT AUTH: MS s 360.015 subd 3

Current as of 08/27/97

8800.2100 PRIVATE HELIPORT LICENSING.

Subpart 1. **Restricted facility**. The private heliport shall not be held out for public use nor shall it be displayed on aeronautical charts except as a restricted facility.

Subp. 2. **Minimum requirements**. A private heliport shall be granted a license when it has met the general provisions of parts 8800.1400 and 8800.1500 and the following minimum requirements of subparts 3 to 9.

Subp. 3. **Landing and takeoff area**. That specific area in which the helicopter actually lands and takes off, including the touchdown area. The minimum landing and takeoff area length shall be 2.0 times the overall length of the largest helicopter expected to use the heliport, and the width of the area shall be 1.5 times the overall length of the largest helicopter expected to use the heliport.

Subp. 4. **Touchdown area**. The minimum length and width of the touchdown area shall be equal to the rotor diameter of the largest helicopter expected to use the heliport.

Subp. 5. **Peripheral area**. A peripheral area surrounding the landing and takeoff area, with a minimum width of one-quarter the overall length of the largest helicopter expected to use the heliport, but not less than ten feet, is recommended as an obstruction-free safety zone.

Subp. 6. **Obstructions**. An object will be considered an obstruction to a private heliport if it is of greater height than any of the following heliport imaginary surfaces.

The primary surface of a heliport coincides in size and shape with the designated takeoff and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

The heliport approach surface begins at each end of the primary surface, with the same width as the primary surface and extends outward and upward at a slope of 8:1 for a horizontal distance of 4,000 feet where its width is 500 feet.

The heliport transitional surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2:1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

Subp. 7. **Approach-departure paths**. Approach-departure paths are selected to provide the most advantageous lines of flight to and from the landing and takeoff area. These paths begin at the edge of the landing and takeoff area and should be aligned as directly as possible into the prevailing winds.

Approach-departure paths coincide in size with imaginary surfaces described in subpart 6, except that an approach-departure path may be curved. If the

approach-departure path is curved, its centerline must have a turning radius of not less than 700 feet. If the approach-departure path is curved, the curved portion of the path must begin at a distance not less than 300 feet from the landing and takeoff area.

A private heliport must have at least two approach-departure paths which must be separated by an arc of at least 90 degrees. These two paths must be obstruction-free.

Adequate emergency landing areas must be available along the approach-departure paths.

Subp. 8. **Fuel filters**. All aviation fuel dispensed on any private heliport shall be filtered to be free of solid matter in excess of five microns particle size and to have a free water content of less than 30 parts per million parts of fuel.

Subp. 9. **Fire extinguishers**. At least one properly maintained fire extinguisher shall be available. It must be a minimum of 20 B. rating or its equivalent.

Subp. 10. **Wind indicator**. All private heliports shall be equipped with a wind sock.

Subp. 11. **Safety barriers**. Access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas. Suitable placards warning of the dangers of turning rotors shall be prominently displayed in pedestrian access areas. If a fence is used, it shall not penetrate the heliport imaginary surfaces described in subpart 6.

Subp. 12. **Hazards**. A private heliport shall not impose undue hazards upon adjoining property or its occupants or endanger the user or use of existing surface transportation or power and communication transmission lines.

Subp. 13. **Commercial use**. A private heliport may be used for limited commercial operations as provided in parts 8800.3100 and 8800.3200.

STAT AUTH: MS s 360.015 subd 3
Current as of 08/27/97

8800.2200 PERSONAL-USE AIRPORT, SEAPLANE BASE, AND HELIPORT LICENSING.

Subpart 1. **Types.** There are three types of licenses: personal-use airport license; personal-use seaplane base license; and personal-use heliport license.

Subp. 2. **Minimum requirements.** Personal-use airports shall be granted a license when they have met the general provisions of parts 8800.1400 and 8800.1500 and the following general requirements.

Subp. 3. **Size.** A personal-use airport shall be of sufficient length and width and the approaches shall be sufficiently clear of obstructions to permit safe operations by the aircraft intended to use it.

Subp. 4. **Surface.** The landing surface shall be smooth and free from hazards or obstructions.

Subp. 5. **Operation.** A personal-use airport shall not interfere with the safe operation of any public airport or with the safety of any federal airways.

Subp. 6. **Restrictions.** A personal-use airport shall not be operated except in accordance with the restrictions set forth below:

A. A personal-use airport shall not be held out as available for public use, nor shall the public use of a personal-use airport be invited, permitted, or tolerated.

B. A personal-use airport shall not be used for commercial activities which include the operation of aircraft for the purpose of carrying passengers, providing air charter, flight instruction, aircraft rental and/or leasing, or other operations deemed similar in character by the commissioner. However, a personal-use airport may be used for commercial activities which include the operation of aircraft for the purpose of aerial spraying and dusting, banner towing, balloon operations, aerial photography, pipeline/powerline patrol, or other operations deemed similar by the commissioner.

C. A personal-use airport shall not be displayed on any chart for public distribution.

Subp. 7. **Hazards.** A personal-use airport shall not impose undue hazards upon adjoining property or its occupants or endanger the user or use of existing surface transportation or power and communication transmission lines.

Subp. 8. **Seaplane base or heliport.** In addition to the general requirements listed heretofore for the licensing of personal-use airports, the following specific requirements must be met before a personal-use airport license can be granted for a personal-use seaplane base or a personal-use heliport:

A. For a personal-use heliport license: part

8800.1800, subparts 1 to 11, except that the landing and takeoff area minimum length and width shall be 1.5 times the overall length of the helicopter expected to use the heliport; part 8800.1800, except that a personal-use heliport must have as a minimum one approach-departure path meeting those requirements.

B. A personal-use seaplane base license shall apply to the land area from which operations are conducted. When two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate personal-use seaplane base license. A personal-use seaplane base license will not be granted for those lakes upon which seaplane operations are prohibited by part 8800.2800.

Safety barrier: access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas.

STAT AUTH: MS s 360.015 subd 3
Current as of 08/27/97

MINNESOTA DEPARTMENT OF TRANSPORTATION
OFFICE OF AERONAUTICS
222 East Plato Blvd.
St. Paul, MN 55107-1618

Application for New Landing Area

Please fill in all applicable spaces and return to the address listed above.
For help call 296-8202, or 1-800-657-3922 in greater Minnesota.

Landing Area Information

Landing Area Name			
Associated City			
Type of Area:	☐ Airport	☐ Heliport	☐ Seaplane Base
Type of Use:	☐ Open to the Public	☐ Private/Restricted	☐ Personal Use Only

Location/Legal Description

Section	Township	Range
Associated City	Direction From City	Distance
Nearest Public Airport	Direction to Area	Distance
County	Name of Lake or River (Seaplane Base Only)	

Management

Applicant	Telephone
Address	
Owner	Telephone
Address	
Operator or Manager	Telephone
Address	
Largest Aircraft to Operate from this Area	

When the applicant and operator are different from the property owner, include authorization from the property owner.

Based Aircraft (Attach additional sheets if required.)

Make	"N" Number	Make	"N" Number

Continued on Other Side

Mn/DOT TP 80261 (4-79)

LANDING AREA LOCATION

In addition to the Form FAA 7480-1, please show the layout of your proposed landing area referenced to section corners with township and range designated. This sketch should show heights of any growths, buildings, pole lines, etc., that are adjacent to the landing area or within the approaches. Also, please indicate the difference in elevation between the runway end and any roads, railroads, or highways that are adjacent to or in the approach to the landing strip or runway.

LANDING AREA _____ NEAREST TOWN _____

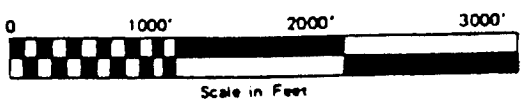
SECTION _____ TOWNSHIP _____ RANGE _____

ONE SQUARE MILE

NW¼	NE¼
SW¼	SE¼

DRAWN BY:
DATE:

NORTH



Scale in Feet

1" = 1000'

5010 Inspection Form

EXAMPLE

Airport Base Data

City: Le Sueur **Airport Name:** Le Sueur Municipal
3. CBD to Arpt: 02S **5. County:** Le Sueur **Site Nr:** 10780.A
Mn/DOT District: MKT **Aeronautics Region:** South **Airport ID:** 12Y

Manager Interview

10. Ownership: Public
11. Owner: City Of Le Sueur **13. Phone Nr:** 507-665-6401
12. Address: 203 S. Second Street, Box 176
Le Sueur, MN 56058

14. Manager: Mr. Dean Kunze **16. Phone:** 507-665-2266
15. Address: 203 S. Second Street, Box 176
Le Sueur, MN 56058

17. Attendance Schedule:
Months: Unattended **Days:** **Hours:**
Servicing Phone Nr: 507-665-3313 *For hours outside attendance schedule*
Public Phone Nr: 507-665-9904 *Number or None*
18. Airport Use: Public
19. Airport Lat: N44°26.25' **20. Airport Long:** W93°54.76'
21. Arpt Elev: 868 Est **22. Acreage:** 96
23. Right Trfc Rwys: No *List Rwy Nr or None.*
Trfc Pattern Alt: 1668 *Give altitude for light aircraft*
24. Non-Comm Landing Fee: No
71. Airframe Rprs: N *Major / Minor / None*
72. Pwr Plant Rprs: N *Major / Minor / None*
73. Bottled Oxygen: N **74. Bulk Oxygen:** N *Yes / No*
75. Tsnt Storage: Hgr Tie *Hanger, Tiedowns*
76. Other Services: Agri, Sales *List off Comm Ops License*
81. Arpt Lgt Sked: Dusk-Dawn *81. Schedule for beacon; if lights on different from beacon list as a remark. If no beacon list light schedule.*

82. Unicom: **CTAF:** 122.9 **85. Control Twr:** No
AWOS: No **AWOS Phone:** **MnWAS:** No

Based Aircraft		Operations	
90. Single Eng:	16	**100. Air Carrier:**	0
91. Multi Eng:	0	**101. Commuter:**	0
92. Jet:	0	**102. Air Taxi:**	0
Total:	16	**103. G A Local:**	1,500
93. Helicopters:	6	**104. Itinerant:**	1,000
94. Gliders:	0	**105. Military:**	60
95. Military:	0	**Total**	2,560
96. Ultra-Light:	0		

2. Airport Name: Le Sueur Municipal

5010 Inspection Form

EXAMPLE

Inspector Survey

Bulletin Board: Yes	**License Date:** 02/19/97
Trfc Rules:	**Area Map:**
Toilet:	*Mn/DOT will provide Trfc Rules and Map*
Adequate Fencing:	*Separates cars from aircraft. Yes / No. Remark if no.*
Ramp Cond:	*Good / Fair / Poor*
Taxiway Cond:	*Remark if Fair or Poor*
70. Fuel:	*A, A1, A1+, B, B-, Mogas, 80, 100, 100LL, 115*
Fire Ext:	*minimum size: 20 lb.*
Last Service Date:	
Number of Tiedowns:	*Rules require three more than used by based aircraft.*
80. Arpt Beacon:	*C-G=Clear-Green, C=Clear, S=Split, Y=Yellow, None.*
83. Windsock:	*Good/Fair/Poor. Remark if Fair or Poor*
84. Segmented Circle:	*Yes / No*

110 Remarks:

111 Inspector: Don Goserud **Surveying Tool Used:** **112. Last Insp:** 08/02/96

2. Airport Name: Le Sueur Municipal

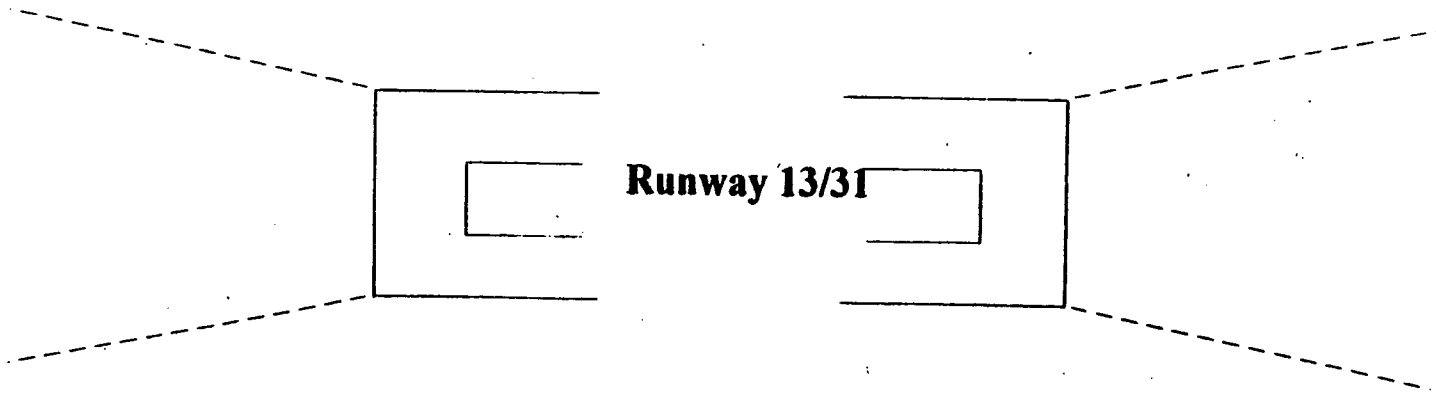
5010 Runway Data

EXAMPLE

Airport Name: Le Sueur Municipal		FAA Site Nr: 10780.A	Runway Ident: 13/31
Length: 3005	Width: 75	Primary Surface Width: 250	Gross Wt:
Primary Surface Obstructions:			SW:
			DW:
Transitional Surface Obstructions:			DTW:
			DDTW:
Rwy Surf: Asph-G	Runway Condition:		
Treatmt:			

FAR 77 Cat:	A(V)	Mark/Light	
Disp Thshld:		Edge Intensity:	
Rwy Hdg:		Mark Type:	BSC-G
Side Flare:	20/200	VASI:	V2L
Flare Angle:	5°42'38"	Thr Xing Hgt:	
Cntlg Obstn:	Trees	Glide Angle:	
Hgt Abv Rwy End:	26	Cntrln-TDZ:	
Dist fm Rwy End:	350	Rwy Vis Range:	
Cntrln Offset:	130R	REIL:	
Clnc Slope:	5:1	Aprch Lights:	
Close-in Obstn:		Obstn Lgtd:	

FAR 77 Cat:	A(V)	Mark/Light	
Disp Thshld:		Edge Intensity:	Med
Rwy Hdg:		Mark Type:	BSC-G
Side Flare:	20/200	VASI:	V2L
Flare Angle:	5°42'38"	Thr Xing Hgt:	
Cntlg Obstn:	Tree	Glide Angle:	
Hgt Abv Rwy End:	30	Cntrln-TDZ:	
Dist fm Rwy End:	1096	Rwy Vis Range:	
Cntrln Offset:	272L	REIL:	
Clnc Slope:	29:1	Aprch Lights:	
Close-in Obstn:		Obstn Lgtd:	



The Primary Surface extends 200' beyond the runway ends for paved runways.
Ctlg Obstns: Acft, Ant, Berm, Bldg, Boat, Brdg, Fence, Gnd, Hill, Pline, Pole, Road, RR, Sign, Stack, Tank, Tower, Tree, Trees, None
Close-in Obstns are objetcs above runway end elevation in the primary surface beyond the end of the runway.

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

THE AC IS RECOMMENDED FOR USE IN LOCATING & CONSTRUCTING NEW HELIPORTS OR FOR EVALUATING EXISTING SITES.

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES___ NO X
   b. Hospital Heliports: YES___ NO X
   c. Public Heliports: YES___ NO X

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

   a. Expect no effect: YES___ NO___ N/A ___
   b. Expect a small decrease in costs: YES___ NO___ N/A ___
   c. Expect a large decrease in costs: YES___ NO___ N/A ___
   d. Expect a small increase in costs: YES X NO___ N/A ___
   e. Expect a large increase in costs: YES X NO___ N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

THE NEW STDS. REQUIRE MORE "DEDICATED" LAND, WHICH WILL INCREASE COSTS!

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES X	NO___	N/A ___
e.	Expect a large increase in costs:	YES X	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

SAME AS 4.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

9. **If we have questions concerning your responses, who could we contact for further discussion?**

ELTON E. JAY, DIRECTOR
AERONAUTICS DIVISION, MDOT
P.O. BOX 1850
JACKSON, MS. 39215-1850
(601) 359-7850 FAX (601) 359-7855

Missouri

DEC 0 8 1997

MULTIMODAL OPERATIONS

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

AC used for proposed heliports when state is contacted.

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES___	NO ✓
b.	Hospital Heliports:	YES___	NO ✓
c.	Public Heliports:	YES___	NO ✓

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ___
No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Proposed AC would require larger areas around heliports.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Same as question 4

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ✓
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ✓
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ✓
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

Ronald W. Deatherage
Senior Airport Inspector
Missouri Department of Transportation
105 West Capitol Ave. P.O. Box 270
Jefferson City, MO 65102
(573) 751-7477

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES___ NO ✓
   b. Hospital Heliports: YES___ NO ✓
   c. Public Heliports: YES___ NO ✓

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

   a. Expect no effect: YES___ NO___ N/A ✓
   b. Expect a small decrease in costs: YES___ NO___ N/A ✓
   c. Expect a large decrease in costs: YES___ NO___ N/A ✓
   d. Expect a small increase in costs: YES___ NO___ N/A ✓
   e. Expect a large increase in costs: YES___ NO___ N/A ✓

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ✓
b.	Expect a small decrease in costs:	YES___	NO___	N/A ✓
c.	Expect a large decrease in costs:	YES___	NO___	N/A ✓
d.	Expect a small increase in costs:	YES___	NO___	N/A ✓
e.	Expect a large increase in costs:	YES___	NO___	N/A ✓

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ✓
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

9. **If we have questions concerning your responses, who could we contact for further discussion?**

JAMES GREIL
AVIATION SUPPORT OFFICER
MONTANA AERONAUTICS DIVISION
(406) 444-2506

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

1988 version is referenced state's rules & reg's.

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES___	NO_X_
b.	Hospital Heliports:	YES___	NO_X_
c.	Public Heliports:	YES_X_	NO___

Please attach procedure or form.

See attached Chapter 2, section 004

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ___
No _X_

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES_X_	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES_X_	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

There are no public heliports in Nebr., so AC compliance is optional. A few might decide to upgrade, but most ignore the AC or use it as a guide but don't follow all the criteria.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ✓
e. Between 80 and 100% ___
f. Unknown ___

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ✓
e. Between 80 and 100% ___
f. Unknown ___

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X - there are no public use heliports in Nebr. and none planned.

9. **If we have questions concerning your responses, who could we contact for further discussion?**

Diane Hofer
P.O. Box 82088
Lincoln NE 68501
402 · 471 · 2371

TITLE 17 - NEBRASKA DEPARTMENT OF AERONAUTICS

Chapter 2 - AIRPORT/HELIPORT LICENSING STANDARDS

001 General

The sponsor of a proposed public-use airport/heliport or a commercial agricultural airport shall, (1) submit a Federal Aviation Administration (FAA) Form 7480-1 "Notice of Landing Area Proposal", meet or exceed the conditions outlined in the FAA "Airspace Determination", (2) file an application for license with the Nebraska Department of Aeronautics and, (3) request and assure an on-site inspection by a representative of the Nebraska Department of Aeronautics. The airport configuration, runway length, clearances and other controlling features shall meet the minimum licensing standards as listed under 17 NDA 2-002.02 A-H and 2-004.01 A-B for heliports.

002 Licensing - Public Use Airports

002.01A An existing airport which is open to the public shall be licensed annually by the Department of Aeronautics. These airports shall maintain or exceed the minimum standards for the primary runway as outlined in 17 NDA 2-002.02 A-H.

002.01B Airports licensed and maintained prior to 21 May 1971 which do not meet the current licensing criteria may continue to be licensed by the Department of Aeronautics, as provided for by the State of Nebraska Laws, as amended.

002.02 Minimum Standards for Public Use Airports

002.02A The effective runway length shall be at least 1400 feet plus 25% of the MSL (Mean Sea Level) elevation of the site. The landing strip shall be 400 feet (200 feet at each end) longer than the effective runway length requirements. The landing strip is required, but the runway is optional.

002.02B The approach surface to each end of each runway extends outward from the runway, and shall be unobstructed along a 20 to 1 vertical slope for a horizontal distance of 1,000 feet. The width of the approach slope is to be 250 feet at the beginning and widens out to 450 feet at a

distance of 1,000 feet from the beginning of the approach slope. The approach slope shall begin at a point 200 feet outward from the runway threshold, or at the landing strip threshold (normally end of landing strip), or at a marked displaced threshold.

002.02C The runway (the paved surface) shall be 50 feet or more in width, and the landing strip shall be 100 feet or more in width. There shall be a primary surface (unobstructed area) 250 feet wide, 125 feet on each side of the runway or landing strip centerline. The primary surface extends the full length of the landing strip. All structures beyond this primary surface and the approach slope shall clear a 7 to 1 transitional or lateral slope as measured from the outside edge of the primary surface or approach slope.

002.02D The aircraft parking apron area, all buildings, structures, fences, and vehicle parking areas shall be located outside the primary surface and clear the 7 to 1 lateral slopes along such surface.

002.02E All farm crops (except hay) are considered as structures. The height of such structures shall be considered the height of the crops when fully grown, regardless of the crops actual height at any specific time.

002.02F Roads and railroads are considered to be structures or obstructions 15 feet and 23 feet high respectively above their traveled surface when determining obstructions. An interstate highway shall be cleared by 17 feet above the closest edge of a paved surface.

002.02G The effective length of a runway or landing strip is determined as the total distance between thresholds, plus the length of the shortest overrun area, when both thresholds are displaced.

002.02H The threshold of a landing strip is considered to be that point on the landing strip or landing strip end,

properly marked, from which a clear 20 to 1 approach slope is available. The threshold of a runway is 200 feet inside the threshold of the landing strip.

003 Licensing - Commercial Agricultural Airports

For a commercial agricultural airport to be licensed by the Nebraska Department of Aeronautics it must meet the following minimum requirements.

003.01A The airport must be the permanent base of operation for an aerial pesticide applicator, located within the boundaries of the State of Nebraska, who is a certified applicator under Chapter 4 of the Nebraska Department of Aeronautics Rules and Regulations (17 NDA 4).

003.00B The airport is for the exclusive operation of agricultural aircraft and shall not be open to the public.

004 Licensing - Public Use Heliport

004.01A A public use heliport shall be licensed annually by the Nebraska Department of Aeronautics.

004.01B The sponsor of a proposed public use heliport shall adhere to the technical information and guidelines of the DOT, Federal Aviation Administration, Advisory Circular No. 150/5390-2, "Heliport Design" dated January 4, 1988.

005 Temporary Commercial Heliport

This is a site for which a license can be issued for no more than ten days. Its operation will be limited to VFR day or VFR night with adequate illumination. A license to operate such a site may be issued subject to the following minimum requirements:

005.01A application to the Department must be made at least ten days prior to its first intended use;

005.01B no public or private school, hospital, or nursing home is within 1,000 feet of the boundary of the proposed

site;

005.01C the approach and departure routes to and from the proposed site will not be within 200 feet horizontally of any public or private schools, hospitals, and nursing home or any public gathering and shall be free of obstructions based on an 8:1 slope; and

005.01D the Department will conduct an on-site inspection of the proposed heliport and make safety recommendations based on the guidelines set out in the Federal Administration Advisory Circular No. 150/5390-2 "Heliport Design" dated January 4, 1988. The sponsor must comply with these recommendations to be licensed.

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES ✓ NO___
   b. Hospital Heliports: YES ✓ NO___
   c. Public Heliports: YES ✓ NO___

Please attach procedure or form. All proposed heliports must pass the State Clearinghouse review for approval.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion. Many airports in Nevada were established years ago for mining operations without regard for safety compliance.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

See question #4

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ✓
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

9. If we have questions concerning your

STATE OF NEVADA
Department of Transportation
BOB MILLER Governor

DENNIS TAYLOR
Statewide Aviation Planning Coordinator

FORMING PARTNERSHIPS IN TRANSPORTATION

1263 S. Stewart Street
Carson City, Nevada 89712

Office (702) 888-7353
Fax (702) 888-7207

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   XXX The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

e. Generally speaking we do not inspect heliports. We have an optional approval process, but it does not tie the heliports to AC 150/5390-2A. At this point, no landing areas have undergone the voluntary approval process.

2. **Does your state law require a license, certificate, or some other form of state approval for:**

a. Private Heliports:	YES____	NO_x_
b. Hospital Heliports:	YES____	NO_x_
c. Public Heliports:	YES____	NO_x_

State requires registration (but no standards are required) for commercial landing areas.
Please attach procedure or form.
See attached Landing Area Registration form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

Yes ____
No _X_

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a. Expect no effect:	YES_X_	NO____	N/A ____
b. Expect a small decrease in costs:	YES____	NO_X_	N/A ____
c. Expect a large decrease in costs:	YES____	NO_X_	N/A ____
d. Expect a small increase in costs:	YES____	NO_X_	N/A ____
e. Expect a large increase in costs:	YES____	NO_X_	N/A ____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.
None of our airports are required to meet AC 150/5390-2A standards.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES X	NO ___	N/A ___
b.	Expect a small decrease in costs:	YES ___	NO X	N/A ___
c.	Expect a large decrease in costs:	YES ___	NO X	N/A ___
d.	Expect a small increase in costs:	YES ___	NO X	N/A ___
e.	Expect a large increase in costs:	YES ___	NO X	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

See 4.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% X
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% X
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

There are no public heliports in our State.

9. If we have questions concerning your responses, who could we contact for further discussion?

Joakim Karlsson
NHDOT, Division of Aeronautics
65 Airport Rd
Concord NH 03301

(603) 271-1675
n64jok@dot.state.nh.us

Rev. 05/27/97

DEPARTMENT OF TRANSPORTATION - DIVISION OF AERONAUTICS
65 Airport Road, Concord, NH 03301-5298
(603) 271-2551

APPLICATION FOR LANDING AREA REGISTRATION

NAME OF APPLICANT:_____ **PHONE #:** _____

ADDRESS:_____

NAME OF OWNER: (If other than Applicant)_____

NAME OF AIRPORT:_____ **LOCATION:** _____

TYPE OF AIRPORT: (Check one in each column):

( ) Land Airport	( ) Municipal Airport	( ) Turf Surface
( ) Ice Airport	( ) Private Commercial*	( ) Gravel Surface
( ) Seaplane Base	( ) Private Non-Commercial	( ) Paved Surface
( ) Heliport		

LONGEST RUNWAY (IF APPLICABLE): _____ _____
(length) (width)

STATUS ( ) Open to public (no limitations) ( ) Private use (prior permission required)

NOT REQUIRED FOR UNATTENDED PRIVATE NON-COMMERCIAL LANDING STRIPS

Airport Manager_____ Telephone_____

Address_____

Authorized Representative(s)_____

I hereby acknowledge acceptance of my appointment as Airport Manager and accept the responsibility of the duties of that position as prescribed by RSA 422:22.

_____ _____
Signature of Airport Manager Date signed

OPTIONAL: Airport Manager may be deputized as a law enforcement officer.

I, undersigned, being duly authorized to make application for, and to operate the airport described above, hereby apply for permission to operate the airport pursuant to the Aeronautics Act of New Hampshire and the rules and regulations duly promulgated thereunder. I certify that the above statements are true.

_____
Signature of Applicant

NOTE: Most new or changed landing areas also require FAA notification on FAA Form 7480-1, "Notice of Landing Area Proposal."

*A REGISTRATION FEE OF $_____ PAYABLE TO "TREASURER, STATE OF NH" IS REQUIRED FOR EACH PRIVATE COMMERCIAL LANDING AREA. NO FEE IS REQUIRED FOR A MUNICIPAL OR PRIVATE NON-COMMERCIAL LANDING AREA. (RSA 422:37)

Airport planning review by_____ Application approved by_____ Field rules approved by_____

Certificate #_____ Issue date_____ By_____ Fee received by (if required)_____

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   ✓ c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:
THERE ARE NO STATE REGULATIONS ~~ARE~~ RELATIVE TO AIRPORT/HELIPORT REQUIREMENTS. AC'S ARE UTILIZED WHEN FEDERAL AID STATE IS INVOLVED

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES___ NO ✓
   b. Hospital Heliports: YES___ NO ✓
   c. Public Heliports: YES___ NO ✓

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.
WOULD DEPEND ON HELIPORT SIZE. IF PAD IS BIGGER AND MORE THAN HEELS CLEARING COSTS WOULD GO UP

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

IF PRIVATE HELIPORT IS SMALLER THAN G.A. THEN COSTS WOULD GO DOWN

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a.	Between 0 and 20%	___
b.	Between 20 and 40%	___
c.	Between 40 and 60%	___
d.	Between 60 and 80%	___
e.	Between 80 and 100%	___
f.	Unknown	✓

WE DO NOT DEAL WITH PRIVATE FACILITIES

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a.	Between 0 and 20%	___
b.	Between 20 and 40%	___
c.	Between 40 and 60%	___
d.	Between 60 and 80%	___
e.	Between 80 and 100%	___
f.	Unknown	✓

THEY ARE usually NOT A PART OF OUR JURISDICTION AREA

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a.	Between 0 and 20%	___
b.	Between 20 and 40%	___
c.	Between 40 and 60%	___
d.	Between 60 and 80%	✓
e.	Between 80 and 100%	___
f.	Unknown	___

MOST ARE BUILT WITH FAA ASSISTANCE TO FAA STANDARDS

9. If we have questions concerning your responses, who could we contact for further discussion?

JOE SHAIN
505-827-1525

General Comments and/or suggestions for the Revision:

RECENT HELIPAD CONSTRUCTION WITHIN NEW MEXICO HAS BEEN VERY LOW. A FEW ALMOSTS, FELL THROUGH. AT MOST NEW MEXICO AIRPORTS THEY ARE LOW PRIORITY. WITH NO F.A.A MONEY, NOT MUCH ACTIVITY. THE HOSPITALS GO THEIR OWN WAY AND DO NOT LIKE THE FAA ASSOCIATED BURAUCRACY SLOW DOWNS.

PLEASE MAIL YOUR RESPONSES NO LATER THAN 01/09/98 TO:

Mr. Robert Bonanni
FAA, AAS-100
800 Independence Ave. SW
Washington DC 20591
(202) 267-8761

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).
General Business Law Section 249 (applies to privately owned facilities only)

Please expand on your answer if necessary:

Design consultants use AC when designing facilities.

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES___	NO_x_
b.	Hospital Heliports:	YES___	NO_x_
c.	Public Heliports:	YES___	NO_x_

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ___
No x

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO_x_	N/A ___
b.	Expect a small decrease in costs:	YES___	NO_x_	N/A ___
c.	Expect a large decrease in costs:	YES___	NO_x_	N/A ___
d.	Expect a small increase in costs:	YES_x_	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO_x_	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Costs to accommodate increases in dimensional standards.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO x	N/A ___
b.	Expect a small decrease in costs:	YES___	NO x	N/A ___
c.	Expect a large decrease in costs:	YES___	NO x	N/A ___
d.	Expect a small increase in costs:	YES x	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO x	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Same as question 4.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown x

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown x

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown x

9. If we have questions concerning your responses, who could we contact for further discussion?

Douglas Fox (518) 457 2821
New York State Department of Transportation
Aviation Services Bureau

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES ✓ NO ___
   b. Hospital Heliports: YES ✓ NO ___
   c. Public Heliports: YES ___ NO ✓

Please attach procedure or form.
ONLY WITH REGARDS TO APPROACH SURFACE CLEARANCES OVER ADJACENT PUBLIC ROADS

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES ___	NO ___	N/A ___
b.	Expect a small decrease in costs:	YES ___	NO ___	N/A ___
c.	Expect a large decrease in costs:	YES ___	NO ___	N/A ___
d.	Expect a small increase in costs:	YES X	NO ___	N/A ___
e.	Expect a large increase in costs:	YES ___	NO ___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES X	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% X
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% X
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% X
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

9. **If we have questions concerning your responses, who could we contact for further discussion?**

BRUCE MATTHEWS
919 571-4904

General Comments and/or suggestions for the Revision:

Suggest a separate section on low use hospital heliports. Big problem in NC with a small hospital with only 12-15 uses per year, but encouraged to meet full, heavy use criteria.

More attention to low-cost lighting, minimal paving areas, etc.

PLEASE MAIL YOUR RESPONSES NO LATER THAN 01/09/98 TO:

Mr. Robert Bonanni
FAA, AAS-100
800 Independence Ave. SW
Washington DC 20591
(202) 267-8761

North Dakota

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary: We did heliport guide book (see sample)

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES___	NO X
b.	Hospital Heliports:	YES___	NO X
c.	Public Heliports:	YES___	NO X

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ___
No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A X
b.	Expect a small decrease in costs:	YES___	NO___	N/A X
c.	Expect a large decrease in costs:	YES___	NO___	N/A X
d.	Expect a small increase in costs:	YES___	NO___	N/A X
e.	Expect a large increase in costs:	YES___	NO___	N/A X

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES X	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Most heliports are @ hospitals & they'd try to update.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% X
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% X
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% X
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

Mark J. Holzer, Aviation Planner
701-328-9657

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

Local level are not responsible for inspection.

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES X	NO ___	Registration
b.	Hospital Heliports:	YES X	NO ___	Registration
c.	Public Heliports:	YES X	NO ___	Registration

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes X 5010 inspection letters (public only) apply AC Criteria.
No ___

If Yes, please provide a brief description of your plan:

Use criteria and AC or letter.

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES ___	NO ___	N/A ___
b.	Expect a small decrease in costs:	YES ___	NO ___	N/A ___
c.	Expect a large decrease in costs:	YES ___	NO ___	N/A ___
d.	Expect a small increase in costs:	YES X	NO ___	N/A ___
e.	Expect a large increase in costs:	YES ___	NO ___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.
Additional purchase of land to meet 2x rotor size criteria and land clearance.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES X	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Same as #4, larger number of private heliports.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% X
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

Kevin Rogge (614) 793-5047

Ohio Department of Transportation
Office of Aviation

State of Ohio
Application for Landing Site

State of Ohio Revised Code Chapter 4561 along with Ohio Administrative Code Chapter 5501 require persons establishing a Public/Commercial airport, heliport or seaplane base shall be approved by the ODOT Aviation before being used. Private/Noncommercial airports, heliports and seaplane bases are required to register with ODOT Aviation.

General Information

Please complete application by type or print in each section as required. Please include a copy of FAA forms and documentation for your facility.

After completion mail original to:

Ohio Department of Transportation
Office of Aviation
2829 West Dublin Granville Road
Columbus, Ohio 43235
Attn.: Kevin L. Rogge, Aviation Specialist
Phone: (614) 793-5047

Specifications

Public/Commercial Airports

(A) General Requirements
(1) The entire runway must be maintained for safe operation of aircraft under normal weather conditions.
(2) The landing area must be in such condition that two aircraft at rest on the same runway shall be visible to each other except on airports where traffic control exists and is exercised.
(3) The landing areas shall be clearly indicated by runway markers setting out usable area. The landing area shall also be marked by threshold markers and or lights indicating the base of the approach departure slope at a minimum of one foot vertical for each twenty foot horizontal above all obstructions such as existing and proposed man made objects, objects of natural growth terrain and imaginary surfaces prescribed in Section (8) Part 77.23 of the Federal Aviation Regulations. Such markers shall be clearly visible from 1,000 feet.
(4) All airports must be equipped with an operating wind indicator
(5) Must comply with rule 5501:1-1-07 of Administrative Code, fire extinguisher.
(6) After January 1, 1968, no new airport shall be approved for commercial purposes which does not have an unobstructed 20-1 glide slope unless approved by the ODOT Aviation.

(B) Airport Class I
(1) Must meet all requirements for an airport Class II.
(2) The runway shall not be less than 4,000 feet usable length by seventy-five feet width, hard surface.
(3) Two-way radio communications facilities - taxiway turnarounds, and ramp areas.
(4) Building line must comply with all federal aviation administration specifications.
(5) Runway and indicator must be lighted.
(6) The airport manager or assistant must be in attendance at all times while the airport is in operation.

(C) Airport Class II
(1) Must meet all requirements for an airport Class III
(2) The runway shall be not less than 3,000 feet usable length by fifty feet width, hard surface, taxiways and/or turnaround areas.
(3) Centerline of runway not less than 200 feet from building or property line.
(4) The airport manager or an assistant must be in attendance during daylight hours.
(5) Must have two-way radio communication (Unicom acceptable).

(D) Airport Class III
(1) The landing area shall not be less than 1,800 feet usable length by fifty feet width and may be either turf or hard surface.
(2) The airport manager may be in full or part time attendance.

Private/No Commercial Activity Airports

Airports of this type shall be designated Class IV airports and shall be considered to be for the personal use of the owner No specifications or restrictions are placed on the field; however, the owner shall be required to register with ODOT Aviation giving name of town, airport name, miles and direction, elevation, owner, phone and address, runway direction, length-width and obstruction data.

ODOT Aviation Form 5501.1-02 (rev. 4-96) Supersedes Previous Edition

Public/Commercial Heliports

(A) Landing areas shall be of the following minimum dimensions: an area at least seventy-five feet by seventy-five feet shall be provided when one helicopter is being operated. An area of one hundred feet by one hundred feet shall be provided when two or more helicopters are being operated.
(B) The landing area must include an unobstructed approach-departure glide slope of at least six to one.
(C) Any other size landing area shall require prior approval by ODOT Aviation.
(D) No heliport shall be approved which requires helicopters to fly in close proximity to persons or property.
(E) A fire extinguisher, first aid kit and suitable wind indicator shall be provided.

Public/Commercial Seaplane Bases

(A) Any seaplane base at which commercial operations such as student instruction, carrying of passengers for hire, and charter operation are conducted must have suitable float or mooring facility at some point on shore adjoining the landing area, together with life saving equipment and a power boat in constant readiness for emergency use.
(B) Where adequate ramp or suitable base facilities for beaching of aircraft are available, the dock or float may be omitted.
(C) Fire extinguishers, first aid kits, and fuel, oil and drinking water shall be provided.
(D) No seaplane base shall be approved which requires aircraft to fly in such close proximity to a bridge or powerline, public bathing or boat dock as to be dangerous to persons or property.

Instructions

Section 1 - General Application

Select appropriate action of establishment or change of status along with type of facility. If change of status is selected please provide a brief description of requested change.

Section 2 - Proposed Use

Public/Commercial Activity Facility

A commercial facility shall be deemed to be making repeated or successive flights for compensation, student training for hire, or offering to the general public for compensation any other services pertaining to aircraft or aviation.

Private/No Commercial Activity Facility

Facilities of this type shall be considered to be for the personal use of the owner

Select requested use: Public/Commercial Activity or Private/No Commercial Activity. If Public/Commercial Activity is requested, selection of class is required.

Section 3 - Location of Landing Site

- Associated City - Closest City, not necessarily the city mailing address.
- County - Name of County facility is located.
- Direction and Distance from Associated City - Straight Line nautical mile distance and magnetic bearing from associated city.
- Name of Landing Area - Applicants discretion.
- Latitude/Longitude - Record location based on Degrees, Minutes and Seconds North Latitude and West Longitude.
- Elevation - Reference point elevation for facility.

Section 4 - Landing Area Data

Airport, Seaplane Base Data

- Magnetic Bearing of Runway - Expressed in standard format 01/19, 02/20, 03/21 etc.
- Length and Width - Expressed in feet.
- Runway Surface - Turf, Asphalt, etc.
- Obstruction Data - Height of and distance to obstructions in the approach slope.

Heliport Data

- Dimensions of Pad - Length and Width expressed in feet.
- Pad Surface - Turf, Asphalt, etc.

Section 5 - Federal Aviation Administration Part 157 Compliance

Part 157 of Federal Aviation Administration requires complete of Form 7480-1 Notice of Landing Area Proposal with the FAA 90 days before beginning construction, establishment or activation of an airport. Forms are available from the nearest FAA Airports District Office or Regional Office along with ODOT Aviation.

Section 6 - Certification

Complete this section as specified. Complete signature with ink pen. Telephone number information is very important in resolving discrepancies or answering question.

Ohio Department of Transportation
Office of Aviation

State of Ohio
Application for Landing Site

General Information

Name of Proponent, Individual or Organization	Address of Proponent, Individual or Organization *(No.,Street, City, State, Zip Code)*

1. Application

☐ Establishment
☐ Change of Status } OF ☐ Airport ☐ Seaplane Base ☐ Heliport ☐ Other

If Change of Status, Please Describe

2. Proposed Use

☐ Public/Commercial Activity

Class of Commercial Certification Requested (See attachment) } ☐ Class I ☐ Class II ☐ Class III

☐ Private/No Commercial Activity (Class IV)

3. Location of Landing Site

Associated City	County	Direction and Distance from Associated City	
Name of Landing Area	Latitude	Longitude	Elevation

Address of Landing Area (If different than proponent address)
(No.,Street, City, State, Zip Code)

4. Landing Area Data

		Rwy 1	Rwy 2	Rwy 3
Airport, Seaplane Base Data	Magnetic Bearing of Runway			
	Length of Runway			
	Width of Runway			
	Runway Surface (Turf, Asphalt, etc.)			
	Obstruction Data			
Heliport Data	Dimensions of Pad (Length x Width)			
	Pad Surface (Turf, Asphalt, etc.)			

5. Federal Aviation Administration Part 157 Compliance

Form 7480-1 on file with the FAA ☐ Yes ☐ No

6. Certification

Name, Title of person filing application	Signature	
	Date of Application	Telephone Number ( )

Office Use Only

Application Received:	DataLink #:	Approved ☐	Not Approved ☐
State Official:		Date:	

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ODOT Aviation Form 5501.1-02 (rev. 4-96) Supersedes Previous Edition

Oklahoma

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

THE STATE INSPECTS ONLY PUBLIC USE FACILITIES.

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES___ NO ✓
   b. Hospital Heliports: YES___ NO ✓
   c. Public Heliports: YES___ NO ✓

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A —
b.	Expect a small decrease in costs:	YES___	NO___	N/A —
c.	Expect a large decrease in costs:	YES___	NO___	N/A —
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A —

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

- Simply to meet new standard requires more ground, and heliports tend to be in congested areas where ground cost are higher. Of course, this impact would be on a site specific basis.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ✓
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ✓
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ✓
e. Between 80 and 100% ___
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

WILLIAM SCHULLER
(405) 521-4076

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES ✓ NO ___
   b. Hospital Heliports: YES ✓ NO ___
   c. Public Heliports: YES ✓ NO ___

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES ✓	NO ___	N/A ___
b.	Expect a small decrease in costs:	YES ___	NO ___	N/A ___
c.	Expect a large decrease in costs:	YES ___	NO ___	N/A ___
d.	Expect a small increase in costs:	YES X	NO ___	N/A ___
e.	Expect a large increase in costs:	YES ___	NO ___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

THIS IS A BEST GUESS ESTIMATE. PROBABLY LITTLE EFFECT ON EXISTING FACILITIES, BUT WILL HAVE SOME IMPACT ON THE APPROVAL OF NEW FACILITIES. MORE LAND & SITE PREP WILL BE NECESSARY. NON-FEDERAL SITES WILL STILL HAVE TO COMPLY WITH STATE STANDARDS.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES_X_	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% _X_
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% _X_
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% _X_
f. Unknown ___

9. **If we have questions concerning your responses, who could we contact for further discussion?**

YES. GERALD EAMES (503) 378-4880

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES X NO___
   b. Hospital Heliports: YES X NO___
   c. Public Heliports: YES X NO___

ATTACHED

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes X
   No ___

If Yes, please provide a brief description of your plan:

INSPECTING ALL HOSPITAL HELIPORTS TO BRING INTO COMPLIANCE WITH STATE REGS.

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a. Expect no effect:	YES___	NO X	N/A ___
b. Expect a small decrease in costs:	YES___	NO___	N/A ___
c. Expect a large decrease in costs:	YES___	NO___	N/A ___
d. Expect a small increase in costs:	YES___	NO___	N/A ___
e. Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO X	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% X
f. Unknown ___

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% X
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the existing public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% X
f. Unknown ___

9. If we have questions concerning your responses, who could we contact for further discussion?

John Melville (717) 705-1223

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

555 Walnut Street
Forum Place • 8th Floor
Harrisburg, PA 17101-1900

BUREAU OF AVIATION

Administrative Offices
Phone - (717) 705-1260
Fax - (717) 705-1255

January 8, 1998

Mr. Robert Bonanni
FAA, AAS-100
800 Independence Ave. SW
Washington DC 20591

Dear Mr. Bonanni:

The Pennsylvania Department of Transportation, Bureau of Aviation, has reviewed the proposed revision of Advisory Circular (AC) 150/5390-2A and offers the following comments:

Private Use

The most obvious change proposed is the deletion of the Private-Use Heliport criteria (existing AC chapter 2). We disagree with the elimination of this category. There are currently over 180 private-use heliports licensed in Pennsylvania. Licensing criteria for heliports in Pennsylvania is based largely upon the guidelines established in AC 150/5390-2B. Therefore, we request this category be retained with the existing design criteria.

General Aviation

General Aviation heliports should require additional safety precautions and maneuver space; however, we feel the proposed 200 feet for FATO length is excessive. We would prefer a minimum FATO length of 2.0 x OL, to match the proposed FATO width of 2.0 x OL.

Hospital

Pennsylvania has over 124 hospital and medical center heliports, which are inspected periodically by state safety inspectors. The proposed changes in AC 150/5390-2 for hospital heliports would cause a significant impact upon those facilities who desire to maintain standards as recommended by the advisory circular. Many of these facilities are severely constrained by limited space available for aeromedical services. The Bureau of Aviation is satisfied with the current existing criteria for hospital heliports. We recommend no change to hospital design criteria.

Transport

Concur with proposed changes.

VFR Airspace

The proposed change to the VFR trapezoid is broader and more generous than that existing for a greater-than-utility/ visual runway at airports. While we agree that the design guidelines should offer a larger approach surface for helicopters, we feel a trapezoid of 1000 ft wide at 4000' horz. & 500' vertical would be sufficient.

Thank you this opportunity to provide comment to the revision of the advisory circular. A summary of our recommended criteria is depicted in the enclosed table. Also enclosed are the completed State Aviation Questionnaire and the procedures for licensing heliports in Pennsylvania. If you have any questions concerning our recommendations, please contact Mr. Craig Hornberger, at (717) 705-1218.

Sincerely,

for Demetrius D. Glass, Director
Bureau of Aviation

Enclosures

Certified No. P 606 443 195

Procedures for Licensing of Heliports in Pennsylvania

Authority: Pennsylvania Regulations Relating to Aviation, Title 67, Part I, Subpart B, Article IV, Section 471.3. - No person may establish, maintain or operate an airport, (heliport),...unless authorized to do so by the Pennsylvania Bureau of Aviation.

Individuals wishing to operate a heliport must first apply for license with the Bureau of Aviation.

1. The licensing process is initiated with the submission of an Application for Site Development and a check for $25.

2. A initial site inspection is then conducted and all applicable licensing criteria are discussed.

3. Once site development is complete, the applicant must submit an Application for License with a check for $30.

4. A second inspection is conducted to ensure compliance with all licensing criteria. If compliant, then a license is issued for a period of 3 years.

5. Every three years private and hospital heliport owners must apply for relicense. A license compliant inspection may or may not be conducted at this time.

Recommended Changes to AC 150/5390-2 from the State of Pennsylvania				
	Private Use	**General Aviation**	**Hospital**	**Transport**
FATO				
Width	1.5 x OL	2.0 x OL	1.5 x OL	2.0 x RD or 100'
Length	1.5 x OL	2.0 x OL	1.5 x OL	200 ft + (A)
TLOF	1.5 x UC	1 RD	40 ft	1 RD or 50 ft
Safety Zone	10 ft or 1/3 RD	30 ft or ½ RD	10 ft or 1/3 RD	30 ft
Protection Zone	N/D	400 ft	N/D	800 ft
Clearances:				
Taxiway Width	N/D	2.0 x UC	N/D	2.0 x UC
Taxiway Route	N/D	2 RD	N/D	2RD or 1RD + 60'
Parking Clearance				
Skid	N/D	30 ft or ½ RD	N/D	30 ft or ½ RD
Wheeled	N/D	30 ft or ½ RD	N/D	30 ft or ½ RD
VFR Airspace	Trapezoid - 1000 ft wide at 4000' Horz. & 500' Vert.			

TELEPHONE CONVERSATION WITH CRAIG HORNBERGER,
PENNSYLVANIA BUREAU OF AVIATION
February 4, 1998

1. FAA QUESTION: In Mr. Glass's letter of January 8, 1998, he recommended that the FAA retain in the Heliport Design AC the chapter on private heliports. Industry has long argued that this chapter was appropriate because a lower standard of safety was adequate at a private heliport. The FAA has proposed to delete this chapter because we see no basis for the such a position. We don't do this for private airports. On what basis do you make your recommendation to retain this chapter?

ANSWER: A change in the FAA Heliport Design AC will require some action on the part of the state. We rely on the AC in our regulation of heliports and we are concerned about the resources that will be required to adjust our regulatory process to the changes proposed. **When the AC is revised, we would like to see something that states specifically that the recommended design guidance also applies to private heliports.**

2. FAA QUESTION: Do you have any objective data to support your objections?

ANSWER: No

3. FAA QUESTION: In Mr. Glass's letter of January 8, 1998, he recommended that the minimum length of the FATO should be twice the overall length (2.0 x OL) of the design helicopter. The FAA has proposed a longer FATO based on an analysis of helicopter performance limitations (FAA/RD-90/4, Heliport VFR Airspace Based on Helicopter Performance). Are you familiar with this report? On what basis do you make your recommendation to use (2.0 x OL)?

ANSWER: (Same as for questions 1 and 2.)

FAA RESPONSE: The FAA's recommendations are based an analysis of helicopter performance limitations and the longstanding industry insistence on retaining the 8:1 approach/departure slope. The proposed FATO has sufficient acceleration distance to allow helicopters to climb out on an 8:1 departure slope. Less acceleration distance requires a flatter slope. In the upcoming discussions with industry, trade-offs (acceleration distance versus departure slope) will probably be an issue of discussion.

4. FAA QUESTION: In Mr. Glass's letter of January 8, 1998, he stated that the proposed changes proposed in AC 150/5390-2 for hospital heliports would cause a significant impact upon those who desire to maintain standards as recommended by the AC. On specifically what issues do you anticipate a problem?

ANSWER: On rooftop hospital heliports, a change in recommended FATO would cause us concerns.

5. FAA QUESTION: In Mr. Glass's letter of January 8, 1998, he agreed that the FAA Heliport Design AC should recommend a larger approach surface but he recommended that a 1000 foot width at a distance of 4000 feet would be adequate. On what basis do you make this recommendation?

ANSWER: (Same as for questions 1 and 2.)

6. FAA QUESTION: For private heliports and hospital heliports, your January 8 letter recommends that the FAA should make no recommendations on a number of design parameters (TLOF protection zone, taxiway clearances, and parking clearances). On what basis do you make these recommendations?

ANSWER: (Same as for questions 1 and 2.)

7. FAA QUESTION: For private heliports, general aviation heliports, hospital heliports and transport heliports, your January 8 letter recommends a number of specific dimensions for various heliport design parameters. On what basis do you make these recommendations?

ANSWER: (Same as for questions 1 and 2.)

8. PENNSYLVANIA DISCUSSION: We would like to see safer helicopter operations. However, we are concerned about the state resources that will be required to adjust our regulatory process to the changes proposed. Admittedly, we are looking at this situation from a selfish perspective.

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state:.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

C. THE AC IS A VALUABLE PLANNING DOCUMENT WHEN DISCUSSING A PROPOSED HELISTOP WITH HOSPITAL OR CORPORATE EXECUTIVES AND ENGINEERS

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES ✓ NO___
   b. Hospital Heliports: YES ✓ NO___
   c. Public Heliports: YES ✓ NO___

Please attach procedure or form. STATE ASSISTS OWNER IN SUBMITTING 7480-1 STATE AERONAUTICS CONDUCTS INITIAL SAFETY INSPECTION AND ISSUES A LETTER OF AUTHORIZATION AND OPERATING CONSIDERATIONS

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ✓
   No ___

If Yes, please provide a brief description of your plan:
STATE AERONAUTICS CONDUCTS PERIODIC SAFETY INSPECTIONS OF ALL HELISTOPS WITHIN THE STATE OF RI

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

A. MOST PRIVATE HELISTOPS ARE OPEN AREAS
D. HOSPITAL HELISTOPS ARE LOCATED IN-CLOSE WITH OBSTRUCTIONS TO BE MARKED AND LIGHTED.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

D. GENERAL AVIATION STANDARDS WITH NIGHT CAPABILITY WOULD INCREASE COSTS. CORPORATE USERS WOULD NOT HAVE A PROBLEM WITH ENHANCED SAFETY SPECIFICATIONS.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a.	Between 0 and 20%	___	
b.	Between 20 and 40%	___	
c.	Between 40 and 60%	✓	SOME AMBIENT LIGHTING, NON-PAVED SURFACES
d.	Between 60 and 80%	___	
e.	Between 80 and 100%	___	
f.	Unknown	___	

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a.	Between 0 and 20%	___	
b.	Between 20 and 40%	___	
c.	Between 40 and 60%	___	
d.	Between 60 and 80%	___	
e.	Between 80 and 100%	✓	LIMITED TAKEOFF APPROACH PATHS. SPECIFIED FATO/TLOF AREAS REVERT TO AUTOMOBILE PARKING USE.
f.	Unknown	___	

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a.	Between 0 and 20%	___	
b.	Between 20 and 40%	✓	LIMITED PARKING, LIMITED NIGHT USE
c.	Between 40 and 60%	___	
d.	Between 60 and 80%	___	
e.	Between 80 and 100%	___	
f.	Unknown	___	

9. **If we have questions concerning your responses, who could we contact for further discussion?**

T.V. DROZDZ OR A.S. MODER 401-737-4000 EXT 228/227
RHODE ISLAND AIRPORT CORP., T.F. GREEN STATE AIRPORT
2000 POST ROAD WARWICK, RI 02886

General Comments and/or suggestions for the Revision:

A DISTINCTION BETWEEN PRIVATE AND GENERAL AVIATION SHALL CONTINUE TO BE LIABILITY.

TABLE 1 SIZE INCREASES ARE PRUDENT.

HOSPITAL HELISTOP DESIGNS MUST BE FLEXIBLE DUE TO OBSTRUCTIONS AND LIMITED OPERATING AREA. EXPERIENCED FLIGHT CREWS WITH MULTI ENGINE EQUIPMENT WILL BENEFIT FROM ENHANCED STANDARDS PROPOSED.

A.S. MODER
AERONAUTICS INSPECTOR
RI AIRPORT CORP
T.F. GREEN STATE AIRPORT
2000 POST ROAD
WARWICK, RI
02886

PLEASE MAIL YOUR RESPONSES NO LATER THAN 01/09/98 TO:

Mr. Robert Bonanni
FAA, AAS-100
800 Independence Ave. SW
Washington DC 20591
(202) 267-8761

South Dakota

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. Does your state law require a license, certificate, or some other form of state approval for:

a. Private Heliports:	YES ✓	NO___	Privately Owned for Private Use - Approval
b. Hospital Heliports:	YES ✓	NO___	Hospital for Emergency Use - Approval
c. Public Heliports:	YES ✓	NO___	Private or Public owned for public use - License

Please attach procedure or form.

We use the FAA 7480-1 for Approval; Attached for Annual License

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

   Yes ___
   No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a. Expect no effect:	YES___	NO___	N/A ___
b. Expect a small decrease in costs:	YES___	NO___	N/A ___
c. Expect a large decrease in costs:	YES___	NO___	N/A ___
d. Expect a small increase in costs:	YES X	NO___	N/A ___
e. Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

1) Larger FATO
2) Complying with larger VFR Trapezoidal surface
3) Larger safety + Protection zone

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES ✓	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

Same as 4

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ✓
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ✓
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ✓
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

9. **If we have questions concerning your responses, who could we contact for further discussion?**

Wayne Nelson - Acting Supervisor Office of Aeronautics
605 773 4162 or
WayneN@dot.state.sd.us

APPLICATION FOR LICENSING OF AIRPORTS
STATE OF SOUTH DAKOTA

SAMPLE

The City of Canton hereby makes application for an operating license for the Canton Municipal Airport, as required by Chapter 2, Section 2.0111 of the 1960 Supplement to the South Dakota Code of 1939. Said license to be for the purpose of operating the said Airport as a public facility open to the public in the State of South Dakota.

The subject Airport is located in Section 13, Township 98N, Range 49W (West 5th P.M.) (East B.H.M.) Lincoln County, South Dakota. Latitude 43^18'43", Longitude 96^34'25".

The subject Airport has on its premises the facilities shown on the Facility Record attached hereto and made a part hereof and said facilities when and if licensed will be open to the public.

THEREFORE: Be It hereby requested that representatives of the South Dakota Aeronautics Commission inspect the subject Airport and issue an operating license authorizing the City of Canton to operate the Canton Municipal Airport as a Public-use Airport open to and for public aviation in the State of South Dakota.

Respectfully submitted this 16th day of December, 1997.

BY Canton Municipal Airport Board

Signature [illegible]

Title President

ATTEST:

[illegible]

CANTON MUNICIPAL AIRPORT
SOUTH DAKOTA AERONAUTICS COMMISSION
AIRPORT FACILITIES RECORD

AIRPORT NAME	CANTON MUNICIPAL AIRPORT	FIELD MARKINGS: BASIC RWY 17/35	FIRE EQUIP. CITY
CITY	CANTON		RADIO(G.TO AIR) NONE
COUNTY	LINCOLN		UNICOM 122.8
			INST.APPRC. NONE
PROP. OWNER	CITY OF CANTON	TOTAL ACRES 130	FAA FLT SER. HURON
ADDRESS	123 S. MAIN, CANTON, SD 57013		
AIRPORT MGR.	DEAN LIBRA 1000 RIDGEVIEW RD	G.A. AIRPORT X	WEATHER SERVICE (TYPE) HRN FSS 1-800-992-7433
ADDRESS	CANTON SD 57013	AIR CARRIER	
PERSON RESPONSIBLE FOR MAINTENANCE		MAINTENANCE PERF.	TELE. ON AIRPORT: 987-9010
NAME	CITY OF CANTON	MOWING X	HOURS AVAILABLE: 24
ADDRESS	1000 RIDGEVIEW RD CANTON SD	SNOW X	
PHONE	605-987-2100 & 9010 HM987-2389	OTHER	MEALS AT AIRPORT NONE
			LODGING IN TOWN
SECTION 13		OFFICE OR BLDG	TOILET FAC. MODERN
TOWNSHIP 98 NORTH		SIZE	SAT. WATER YES
RANGE 49 WEST		TYPE CONST. WD/MET	FIRST AID YES

LANDING AREA DATA		APPROACHES	CONTROLLING OBSTRUCTION	DIST. FM THRESHOLD	APPROACH RATIO	THRESH. MARKERS
RUNWAY	17/35	RWY END 17	ROAD	530'	25:1	
LENGTH	3600'	RWY END 35	TREES	1500'	34:1	
WIDTH	60'	RWY END				
SURFACE	ASPH	RWY END				
MAX.GR.WT.	12.5	RWY END				
		RWY END				

SERVICES AVAILABLE TO THE PUBLIC

FIXED BASED OPERATORS	FUEL TYPE	FUEL CAPACITY	FUEL OCTANE	HGR. STORAGE	REPAIRS MAJOR	REPAIRS MINOR	CHARTER SERVICE	FLIGHT INSTRUCT.	OTHER (SPECIF
LIBRA AIR	A.G.	2000	100LL	X		X		X	AG SPRAY SERVICE

FAX 605-987-2100 E-mail l.libra@sd.cybernex.net

LANDING LIGHTS	
RWY(NO. RWYS)	17/35
STRIP	NONE
FLOOD	NONE
OBSTRUCTION	NONE
APPROACH	NONE
REILS	NONE
VASI	NONE
PAPI	NONE
OTHER	NONE

ROTATING BEACON	X	COLOR	C/G
		SIZE	10"
WIND CONE		X	
LIGHTED		X	
TETRAHEDRON LIGHTED		NO	
OPERATING SCH. OF RWY LIGHTS DUSK - DAWN			

HANGARS	
T-TYPE	0
CONVENTIONAL	4
NO. BASED AIRCRAFT	7
SINGLE ENGINE	7
TWIN ENGINE	1 ~~0~~
TIEDOWNS-AVAILABLE	6

DO NOT WRITE BELOW THIS LINE
REMARKS:

Dean Libra MGR
SIGNATURE AND TITLE
DATE: 12/19/97

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES ___	NO ✓
b.	Hospital Heliports:	YES ✓	NO ___
c.	Public Heliports:	YES ✓	NO ___

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes
No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES ✓	NO ___	N/A ___
b.	Expect a small decrease in costs:	YES ___	NO ✓	N/A ___
c.	Expect a large decrease in costs:	YES ___	NO ✓	N/A ___
d.	Expect a small increase in costs:	YES ___	NO ✓	N/A ___
e.	Expect a large increase in costs:	YES ___	NO ✓	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES ✓	NO ___	N/A ___
b.	Expect a small decrease in costs:	YES ___	NO ✓	N/A ___
c.	Expect a large decrease in costs:	YES ___	NO ✓	N/A ___
d.	Expect a small increase in costs:	YES ___	NO ✓	N/A ___
e.	Expect a large increase in costs:	YES ___	NO ✓	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. **Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ✓
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

9. **If we have questions concerning your responses, who could we contact for further discussion?**

Paul Perry
(615) 532-5238
FAX (615) 741-4959
P.O. Box 17326
Nashville, TN 37217

HELIPORT INSPECTION FORM

NAME_____ LOCATION_____

DATE_____ OWNER_____

CONTACT_____

ADDRESS_____

PHONE_____

LATITUDE_____N LONGITUDE_____W

OPERATION

PRI_____ SECOND_____

USER

PRI_____ SECOND_____

DIMENSIONS

TO LAND_____ TOUCHDOWN_____

TYPE OF SURFACE_____

GROUND OR ELEVATED_____

LIGHTING_____

WINDSOCK_____ CONDITION_____ LIGHTED_____

PAD MARKED_____ DESCRIBE_____

COND_____

PERIMETER LIGHTS_____

FIRE EXTINGUISHER_____

TYPE_____

FENCE_____ DESCRIPTION_____

HANGER_____ DESCRIPTION_____

RAMP_____ DESCRIPTION_____

COMMUNICATIONS_____ FREQUENCY_____

APPROACH DIRECTION

PRIMARY_____ SECONDARY_____

APPROACH MEETS STANDARDS?_____

COMMENTS

_____
_____
_____
_____
_____
_____
_____

SKETCH ON BACK

(Rule 1680—1—2—.09, continued)

STATE OF TENNESSEE
APPLICATION FOR
PUBLIC AIRPORT LICENSE

Name of Airport County City

Name of Owner Type of Operation * (See below)

Address of Owner Phone Number

Name or Manager

Address of Manager Phone Number

Name of Aviation Committee Chairman (If applicable) Phone Number

Name(s) of Mayor and/or County Judge if Publicly Owned

REMARKS:

Application is hereby made for license of the airport described above. The information shown on the reverse of this application has been made current, as applicable, including local radio navigation aids, availability of food services, etc.

Signature of Owner/Designated Represented

Title

*Reference type of operation: Enter either commercial or personal use. Enter commercial if any type of commercial operation is conducted, such as aircraft or associated equipment rental, sale of aviation products, flight instruction or carrying or passengers or cargo for compensation.

Exhibit No. 4

(Rule 1680—1—2—.09, continued)

Airport Name _____

Geographic Coordinates Lat. _____ N, Long _____ W

Runway Size _____ Long _____ Wide

(Heliport) Ground Level _____ Elevated _____

Elevation:

Use:

Facilities:

Communications:

Location from town:

Distance and Radial from closest VOR:

Operation Information

_____ Open to Public

_____ Prior Permission Requested

_____ Restricted, emergency only

Do you want your Airport listed on a sectional Aeronautical Chart? _____

Authority: T.C.A. §§42—2—102 and 42—2—119. Administrative History: Original rule filed August 12, 1974; effective September 11, 1974. Amendment filed December 12, 1986; effective January 26, 1987.

Exhibit No. 7

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES___ NO ✓
   b. Hospital Heliports: YES___ NO ✓
   c. Public Heliports: YES___ NO ✓

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ✓
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES___	NO___	N/A ✓
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

9. If we have questions concerning your responses, who could we contact for further discussion?

JIM CUMMINS
TEXAS DEPARTMENT OF TRANSPORTATION
1-800-68 PILOT
SEE ATTACHED LETTER

Texas Department of Transportation

AVIATION DIVISION

125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • 512/416-4500 • FAX 512/416-4510

December 12, 1997

Mr. Robert Bonanni
FAA, AAS-100
800 Independence Ave. SW
Washington DC 20591

Dear Mr. Bonanni:

We received the attached questionnaire from Ms. Lori Lehnerd of NASAO, Silver Spring, Maryland. Her cover letter asked that we complete this questionnaire and return it to you. Instead of only completing and returning the questionnaire, I thought it better to accompany it with this letter. As you can see, every block on the questionnaire is checked "NO", "N/A", or "Unknown". In order to explain this State's level of participation in heliports and further explain why every question generated a negative response, the following is offered.

The State of Texas does not license, certificate, approve, or in any way regulate heliports. We do Airport Master Record inspections (normally referred to as 5010 inspections) at a very small number of heliports. These particular heliports, even though listed as "open to the public", are not obligated to this office by grant contract or any other means to maintain the helipad site or the approach/departure surfaces to any certain size or slope. The remaining heliports are listed as "private use" or "medical use only" and are not a part of our annual on-site inspection schedule. In light of this level of oversight, we do not have sufficient information to offer comments as to the anticipated effects that changes to the heliport design AC would bring about.

If you have further questions about the State of Texas' participation in heliport regulation, please do not hesitate to call me at 1-800-68-PILOT.

Sincerely,

Jim Cummins
Airport Planner

attachment

State Aviation Questionnaire

1. How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?

a. The AC has been adopted within the state's regulatory statutes in its entirety.
b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
e. The AC is not used when evaluating the heliports within the state.
(Please indicate below what state regulations govern, if any).
(f.) None of the above.

Please expand on your answer if necessary:
We do not regulate heliports at the state level.

2. Does your state law require a license, certificate, or some other form of state approval for:

a.	Private Heliports:	YES___	NO ✓
b.	Hospital Heliports:	YES ✓	NO___
c.	Public Heliports:	YES___	NO ✓

Please attach procedure or form.

3. Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?

Yes ___
No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
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c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ✓
f. Unknown ___

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

9. If we have questions concerning your responses, who could we contact for further discussion?

Robert P. Barrett
Director, Utah Division of Aeronautics
(801) 533-5057

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. ✓ The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

a.	Private Heliports:	YES___	NO ✓
b.	Hospital Heliports:	YES___	NO ✓
c.	Public Heliports:	YES ✓	NO___

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

Yes ___
No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

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c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. **With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES ✓	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

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b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

7. **Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ✓

8. **Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.**

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ✓
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown ___

9. **If we have questions concerning your responses, who could we contact for further discussion?**

MR. STEVEN R. MCNEELY, CHIEF AIRPORT ENGR.
(804) 236-3632

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
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   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

   a. Private Heliports: YES ✓ NO___
   b. Hospital Heliports: YES ✓ NO___
   c. Public Heliports: YES ✓ NO___

Please attach procedure or form.

SEE ATTACHMENTS A & B & C

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

   Yes ___
   No ✓

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES___	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

Don't know. believe No for all listings.

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES____	NO ✓	N/A ____
b.	Expect a small decrease in costs:	YES____	NO ✓	N/A ____
c.	Expect a large decrease in costs:	YES____	NO ✓	N/A ____
d.	Expect a small increase in costs:	YES____	NO ✓	N/A ____
e.	Expect a large increase in costs:	YES____	NO ✓	N/A ____

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ✓
e. Between 80 and 100% ____
f. Unknown ____

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ____
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ✓
e. Between 80 and 100% ____
f. Unknown ____

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ✓
b. Between 20 and 40% ____
c. Between 40 and 60% ____
d. Between 60 and 80% ____
e. Between 80 and 100% ____
f. Unknown ____

We don't have any public heliports in our state.

9. If we have questions concerning your responses, who could we contact for further discussion?

Wisconsin Department of Transportation

Division of Transportation Infrastructure Development
Bureau of Aeronautics
4802 Sheboygan Avenue, Rm 701
P O Box 7914
Madison, WI 53707-7914

Telephone: (608) 266-3351
Facsimile (FAX): (608) 267-6748
TTY (Teletypewriter): (608) 266-3351

December 10, 1997

(address)

Heliport Site Approval

This letter is to notify you that approval for the site of your proposed heliport is required and to briefly describe the standards applicable to all heliports in Wisconsin.

Wisconsin Law, 114.134 Stat., requires that no person shall construct, establish, or activate an airport within this state unless issued a Certificate of Airport Site Approval from our office. The statutes define a heliport as an airport. Your site will be approved if the location is compatible with existing and planned transportation facilities in the area. There is no fee for this action.

Enclosed are copies of the Application For Site Approval and FAA Form 7480-1, "Notice of Landing Area Proposal". The FAA must be notified of your proposal in order to comply with their regulations.

Complete the Application for Airport Site Approval and 7480-1. Please attach a quadrangle map or equivalent, accurately depicting the outline of the heliport with dimensions of the landing area. Approach and departure paths should also be shown. It is important that all **distances from public roads be clearly indicated**. Return the completed forms to our office and we will forward the 7480-1 to the FAA for you. Your application will be reviewed to assess the proposal's impact on other air and surface transportation facilities. The process takes about two months.

The issuance of a Certificate of Approval does not waive or preempt any ordinances, laws or regulations of any other governmental body or agency. We suggest you contact your local town or village board, and city and county zoning administrators, as appropriate, with your proposal, if you have not already done so.

If you have any questions or need assistance in completing the forms, please give us a call.

Sincerely,

(author)
Aviation Consultant
(608) (phone)

mdp
Enclosure
15ops.dot/r.05/12/93

Att A

AIRPORT SITE APPROVAL APPLICATION

AE11 994 Ch. 114.134, Wis. Stats.

A. PURPOSE

1. Establishment of ☐ Airport ☐ Seaplane Base ☐ Heliport ☐ Ultralight Airport	2. Type of Proposed Use ☐ Public (Open to Public) ☐ Private (Permission Required) ☐ Personal (By Owner Only)
3. Estimated Construction Dates if Site is Approved Begin: Completion:	4. Estimated Annual Operations ☐ < 50 ☐ 50-100 ☐ 100-500 ☐ > 500

B. LOCATION OF PROPOSED LANDING AREA

1. Name of Landing Area	2. Airport Elevation
3. Nearest City or Village	4. Distance and Direction to Nearest City or Village From Landing Area Miles: Direction:
5. Owner's Name	Street Address City, State, Zip Code
6. Section(s) _____ Range(s) ☐E Township(s) T_____N R_____ ☐W	7. Town of 8. County
9A. Runway Data (Primary) Magnetic Bearing _____ Width _____ Length Surface	9B. Runway Data (Secondary / XWind) Magnetic Bearing _____ Width _____ Length Surface

C. LOCATION OF OTHER LANDING AREAS IN VICINITY	Direction From Landing Area	Distance From Landing Area (Miles)

CERTIFICATION: I certify that all of the above statements made by me are true and complete to the best of my knowledge. I am in receipt of Wisconsin airport standards and certify that the airport will be operated and maintained in accordance with established standards.

Signature _____ Date _____

Title _____ Area Code & Telephone Number _____

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF AERONAUTICS
P. O. BOX 7914
MADISON, WI 53707-7914
(608) 266-3351

Att. B

Wisconsin Department of Transportation

Wisconsin Department of Transportation
4802 Sheboygan Avenue
Post Office Box 7914
Madison, WI 53707-7914

Division of Transportation Infrastructure Development
Bureau of Aeronautics
4802 Sheboygan Avenue, Rm 701
P O Box 7914
Madison, WI 53707-7914

Telephone: (608) 266-3351
Facsimile (FAX): (608) 267-6748
TTY (Teletypewriter): (608) 266-3351

CERTIFICATE OF AIRPORT SITE APPROVAL

The Wisconsin Department of Transportation, pursuant to Section 114.134, Wisconsin Statutes, hereby issues a Certificate of Site Approval to (who) for the location of a heliport, known as (which) Heliport, in (where) as described in the Application for Airport Site Approval dated (date).

This Certificate is issued subject to the following conditions:

1. The above site is approved for a (type) use heliport only.

2. Aerial approaches to all runways/landing area shall clear all public roads, highways, railroads, waterways, and other traverse ways in accordance with Section 114.134(2), Wisconsin Statutes.

3. This Certificate shall expire eighteen months from the date issued below if the heliport has not been completed. The applicant may request additional time to complete the heliport, and the Department of Transportation may issue an extension or require the applicant to submit a new Application for subsequent determination.

4. This Certificate is issued and based upon the determination by the Department of Transportation that the above location for the proposed heliport is compatible with existing and planned transportation facilities in the area. This determination in no way pre-empts or waives any ordinances, laws, or regulations of any other governmental body or agency.

5. In the event the above location is no longer used as a heliport the owner shall notify the Department of Transportation immediately, and the Certificate will expire three months after such notice is received.

6. A non-obstructing windsock shall be installed near the marked landing area. The windsock and marked landing area shall be lighted if the facility is used for night operations.

APPROVED:

Charles H. Thompson, Secretary
Department of Transportation

By:

R. W. Kunkel, P.E., Director
Bureau of Aeronautics

Date

(Seal)

mdp
18ops.dot/r.07/03/95

DT1454

Att C

State Aviation Questionnaire

1. **How is the current Advisory Circular (AC) 150/5390-2A, *Heliport Design*, being applied within your state?**

   a. The AC has been adopted within the state's regulatory statutes in its entirety.
   b. The AC has been adopted within the state's regulatory statutes in part. (Please indicate below which part(s)).
   c. The AC is used as a guideline when inspecting heliport facilities at the state and local level.
   d. The AC is used as a guideline when inspecting heliport facilities at the local level only.
   e. The AC is not used when evaluating the heliports within the state.
   (Please indicate below what state regulations govern, if any).

Please expand on your answer if necessary:

2. **Does your state law require a license, certificate, or some other form of state approval for:**

a.	Private Heliports:	YES___	NO X
b.	Hospital Heliports:	YES___	NO X
c.	Public Heliports:	YES___	NO X

Please attach procedure or form.

3. **Does your state have an upgrade program to bring heliports into compliance with the existing AC 150/5390-2A, or state regulations?**

Yes ___
No X

If Yes, please provide a brief description of your plan:

Please refer to Table 1. Existing and Proposed Design Changes (attached) as areference for answering the following questions:

4. **With the changes to AC 150/5390-2A, would you expect any effect on heliport costs in your state?**

a.	Expect no effect:	YES X	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

5. With just the incorporation of private heliport design recommendations into the General Aviation category, would you expect any effect on heliport costs in your state?

a.	Expect no effect:	YES X	NO___	N/A ___
b.	Expect a small decrease in costs:	YES___	NO___	N/A ___
c.	Expect a large decrease in costs:	YES___	NO___	N/A ___
d.	Expect a small increase in costs:	YES___	NO___	N/A ___
e.	Expect a large increase in costs:	YES___	NO___	N/A ___

For b., c., d., or e., please provide details to show how you arrived at that conclusion.

6. Within your state, please estimate the percentage of private heliports that meet all of the existing private heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

7. Within your state, please estimate the percentage of hospital heliports that meet all of the existing hospital heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

8. Within your state, please estimate the percentage of public heliports that meet all of the public heliport requirements of Table 1.

a. Between 0 and 20% ___
b. Between 20 and 40% ___
c. Between 40 and 60% ___
d. Between 60 and 80% ___
e. Between 80 and 100% ___
f. Unknown X

9. If we have questions concerning your responses, who could we contact for further discussion?

OKAY.
RICHARD SPAETH
WYOMING

APPENDIX 3. REASONS FOR STATE HELIPORT DESIGN REGULATIONS

While it may come as a surprise to many, the Federal Aviation Administration (FAA) does not have the statutory authority to regulate the design of private airports, vertiports, or heliports. This limitation in the FAA charter is based on constraints that the Constitution places on the Federal Government, constraints that are unlikely to change. The design regulation of these private facilities comes under the authority of the states. Since roughly 98 percent of US heliports are private, the authority to regulate the design of these facilities belongs to the states. States also have the right to regulate public heliports.

Of the 650 advisory circulars published by the FAA, the Heliport Design Advisory Circular (AC150-5390-2A) is one of the most controversial. Over the last 20 years, the FAA has revised this advisory circular several times, doing so within the context of an FAA/Industry Working Group. With each revision, Working Group debate has been intense. In addition to the working group debate, Industry lobbies FAA management intensely. The result is a balance of power where each side contents that the other has the upper hand.

Developing or revising heliport design regulations is an expensive and controversial task. Little wonder then that the states choose not to duplicate the FAA's efforts. Typically, when states enact heliport design regulations, they are heavily based on the FAA Heliport Design Advisory Circular (AC150-5390-2A).

Looking closely at state regulation of heliport design, one sees great variety from state to state. Some states have exercised their authority, developed a significant body of heliport regulations that apply to all types of heliports, and have a staff of people to enforce these regulations. Some states have exercised their authority, developed a small body of heliport regulations that apply to some types of heliports, and have an individual who enforces these regulations to the extent that time and resources allow. Some states have no heliport regulations at all.

One might ask, why such great variation in state regulation? One might also ask the more basic question, why do any states have heliport design regulations? Earlier in this report, the various states' responses to the NASAO survey give partial answers to these questions. A full answer to both of these questions is beyond the scope of this report. However, the following white papers give partial answers. Although these white paper has also been published elsewhere (see FAA/ND-00/1, Heliport/Vertiport Design Deliberations: 1997 – 2000), they are included here to provide a broader context to the debate on these questions.

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LOCAL ZONING REGULATIONS – A HISTORICAL PERSPECTIVE AS A FOUNDATION FOR A DISCUSSION OF STATE HELIPORT DESIGN REGULATIONS

Robert D. Smith, FAA, AND-520

August 2, 1999

Local Zoning Regulations

Consider the individual who owns a single-family home and has lived there for decades. Right next door is a very large piece of undeveloped property. The owner died recently and the property was sold by her estate. The new owner plans to use this property for a pig farm, or a sewage treatment plant, or an apartment complex including two dozen 18-story buildings, or a mall with 500,000 square feet of commercial floor space and 20,000 parking spots. Sounds like a nightmare? To a large degree, such nightmares are either precluded or mitigated by local zoning regulations.

Local zoning regulations are based on enabling legislation at the state level. The movement toward this type of regulation started in the early 1920's. Basically, the idea was that it would be better to group various land uses geographically. Thus, commercial land use areas would be separated from residential land use areas. High-density residential housing would be separated from single-family housing. It was an idea that people supported in the 1920's and one that is still widely supported seventy years later. Prior to the 1920's, local zoning regulations were in place in only a handful of large cities (like New York City). By the early 1970's, approximately 50 percent of cities and towns in the USA had developed local zoning regulations. By the late 1990's, approximately 90 percent of cities and towns in the USA have developed local zoning regulations.

The acceptability of zoning regulations is dependent on the attitudes of the general population. While such regulations are in widespread use in the USA, this use is not universal. For example, zoning has not been widely accepted in many areas in the Western USA where people often have the perspective that they ought to be able to do whatever they want to do with "their land". As the only major city without local zoning regulations, Houston TX is an example of this. In discussions of zoning regulations, city planners often point to Houston to show what happens in the absence of such regulations. Many argue that, in the absence the central planning associated with zoning, Houston is an ugly city. (It should be noted that Houston does have a requirement that you obtain a permit before you can do certain things with your land. Restrictive covenants also place constraints on what can be done with the land in different areas of the city. However, permits and covenants are often less constraining and less effective than zoning regulations.)

Some cities in the Southwest **require** that new buildings above a certain height have a helicopter landing site on the roof. These local building regulations grew out of the experience of rooftop evacuations during certain high rise building fires in Las Vegas. In contrast, New York City prohibits roof top heliports under all circumstances based on a 1977 accident at the Pan Am Building rooftop heliport in Manhattan. (This accident

spread debris over an area roughly 4 city blocks wide and 6 city blocks long. Two blocks from the accident, one pedestrian on the corner of Madison Avenue and 43rd Street was killed and another was seriously injured when they were struck by a section of the rotor blade that was over 2 feet long.) These local building regulations differ dramatically and yet both are based on traumatic experiences that led the public to demand and support new regulations

State Heliport Design Regulations

The Federal Aviation Administration does not have the statutory authority to regulate the design of private airports, vertiports, or heliports. This limitation in the FAA charter is based on Constitutional limitations placed on the Federal Government. The design regulation of these private facilities comes under the authority of the states. Since roughly 98 percent of US heliports are private, the states have the authority to adopt design regulations for the vast majority of heliports. Some states have exercised this authority, developed a significant body of heliport regulations that apply to all types of heliports, and have a staff of people to enforce these regulations. Some states have exercised this authority, developed a small body of heliport regulations that apply to some types of heliports, and have an individual who enforces these regulations to the extent that time and resources allow. Some states have no heliport regulations at all.

Throughout the USA, public attitudes toward helicopters and heliports vary. In some parts of the country, people have demanded/supported state heliport regulations for reasons similar to those that led to zoning regulations. They want to protect their investment (in their residence or their office building) and they want to protect themselves from the noise, the privacy intrusion, and the perceived safety risks associated with helicopters. Thus, the existence or lack of state heliport regulations is often a function of the desires of the public.

Texas is a state that proudly announces that they do not regulate heliports in any way. Many Texans are concerned about their "right to do whatever they want with their land" and they are apparently willing to accept the consequences when their neighbors do something undesirable with the adjacent land. The desire to have the state government protect them from the actions of their neighbors does not appear to be a strong in Texas. Thus, in a state like Texas, it seems unlikely that state heliport regulations will be developed in the foreseeable future.

Another factor involves the number of existing heliports. As an example, Wyoming has only three heliports. One could question whether the problems to be avoided through the use of heliport regulations are smaller in scale that the cost associated with developing and enforcing such regulations.

State heliport design regulations make sense in states where the citizens want some predictability and some control over what goes on near their homes, schools, and places of work. State heliport design regulations also make sense in states like New York where

a high-profile accident has vividly demonstrated that a heliport accident can kill or injure a "third party" who is several blocks away.

Summary

City planners often comment that local zoning helps to keep the worst things from happening but it does not always permit the best things to happen. More recently, zoning regulations in some areas have been structured as a list of both minimum requirements and goals. This provides a developer greater flexibility but this flexibility comes with additional requirements. In this way, developers are encouraged to do more, on whatever issues are of particular concern to the local authorities, in return for greater flexibility on other issues.

Current FAA heliport design recommendations are largely a matter of "one-size-fits-all". From a standardization perspective, there is something to be said for a high degree of design consistency between the vast majority of heliports in the country. In recent FAA/Industry discussions, however, it has become clear that the wide variety of helicopter missions and heliport environments argue against one-size-fits-all. As an example, the lighting needed for nighttime operations at the Wall Street Heliport in Manhattan differs significantly from what is needed for nighttime operations at a private heliport at a western Kansas farm.

It seems clear to both FAA and Industry that FAA heliport design recommendations need to address the different requirements of various heliport environments. How do we find and maintain the right balance between flexibility and standardization? How can we express this in a way that the minimum heliport design recommendations are clear and unambiguous without being excessive? How do we develop more sophisticated guidance without making the advisory circular so complicated that it becomes difficult to understand? How do we encourage a gradual improvement in the safety margin provided by good heliport design? These are among the challenges that the FAA and Industry face over the next several years.

HOSPITAL HELIPORT - FAA DESIGN RECOMMENDATIONS
A HISTORICAL PERSPECTIVE

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June 18, 1999

INTRODUCTION

This white paper discusses some of the historical background that led to the development of FAA hospital heliport design recommendations. It raises issues about the adequacy of these recommendations, asks questions about what should be done to improve the safety of hospital heliports, and articulates the need for a source of funding to pay for such improvements.

BACKGROUND – PAN AM ROOFTOP HELIPORT ACCIDENT

On May 16, 1977, the right landing gear of a New York Airways, Inc., Sikorsky S-61L failed while the helicopter was parked, with rotors turning, on the rooftop heliport of the Pan Am Building in New York City. At the time of the accident, passengers were boarding. The four passengers and three crewmembers already onboard received minor or no injuries. However, four passengers who were outside the aircraft waiting to board were killed and one passenger was seriously injured. One pedestrian on the corner of Madison Avenue and 43rd Street was killed and another was seriously injured when they were struck by a separated portion of one of the main rotor blades. (At approximately two blocks from the accident, they were hit by a section of the rotor blade that was 2 foot, 3 inch in length.)

Two automobiles located on the streets below the accident site were damaged by separated main rotor blade leading edge counterweights. An office on the 36th floor of the west side of the Pan Am Building was extensively damaged when an 11-foot section of a main rotor blade penetrated a window. The New York Airways passenger waiting/control tower area located in the east corner of the heliport had five windows shattered and a light fixture knocked from its structure. A six-foot section of the rooftop edge railing on the north side was penetrated and bent outward by a main rotor blade section.

With the collapse of the landing gear, the helicopter rolled over on its right side and was substantially damaged. The five color-coded main rotor blades struck the surface of the heliport and fractured. Each blade was 28 feet 10 inches long and weighed 209.3 pounds. The outboard sections of the five rotor blades were thrown from the heliport. These outboard sections, including the tip caps, were recovered in the area below the heliport, on the roofs of lower buildings or at street level. The longest distance traversed by the blade portions was 4 blocks north and 1 block west of the Pan Am Building. [Appendix D of the National Transportation Safety Board (NTSB) report no. NTSB-AAR-77-9 shows a wreckage distribution chart. Of a total of 25 pieces, only 2 were

recovered on the roof of the Pan Am Building. The remaining 23 pieces were thrown from the roof. The NTSB wreckage chart shows a distribution roughly 4 city blocks wide and 6 city blocks long.]

COMMENTARY ON THE PAN AM HELIPORT ACCIDENT

In the aftermath of the accident, this rooftop heliport was permanently closed and City regulators decided that there would be no other rooftop heliports in New York City. Twenty years afterwards, Federal Aviation Administration (FAA) discussion with City regulators indicated that this prohibition was still in effect and that they intended to enforce a long-term continuation of this policy.

This single accident has had a profound effect, not only throughout the USA but also internationally. It would be difficult to overestimate the number of rooftop heliports that have been precluded as a result of this accident. The death of four boarding passengers was tragic, but the flash point in this matter was the death of one pedestrian and the injury of a second pedestrian. In choosing any form of transportation, the passengers consciously or unconsciously accept the associated risk of an accident. However, these pedestrians had accepted no risk of an aviation accident in walking the New York City sidewalk. This is why there was such a public reaction to the Pan Am accident. "Third-party" liability is an issue that the helicopter industry can not afford to ignore. (In this context, third parties are anyone besides aircraft passengers or crew members.) The vertical flight Industry has good reason for trying to avoid future accidents that could cause the same type of public reaction that was caused by the Pan Am accident.

BACKGROUND – EMS HELICOPTER ACCIDENT HISTORY

In the USA, the first commercial emergency medical service (EMS) operation began in 1972. Since that time, the number of patients transported annually has grown dramatically. In 1984, the aviation community began to discern a significant rise in number of EMS accidents. In 1986, 14 major EMS helicopter accidents destroyed or substantially damaged 9 percent of the total commercial EMS helicopter population, killing 13 EMS helicopter occupants, and causing serious injury to 5 other occupants. At this point, the National Transportation Safety Board (NTSB) decided to undertake a safety study to examine the accident rates and safety factors related to commercial EMS helicopter operations. The following are some of the many conclusion of this study. (The numbering shown below is the same as used in NTSB report no. NTSB/SS-88/01.)

> 2. The accident rate for commercial EMS helicopters involved in patient transport missions is slightly less than twice the accident rate of 14 CFR Part 135 nonscheduled air taxi helicopter operators, and approximately 1 ½ times the accident rate of all turbine helicopters from 1980 to 1985; the fatal accident rate for EMS helicopters for this period is approximately 3 ½ times that of 14 CFR Part 135 nonscheduled helicopter air taxis and of all turbine helicopters; the injury

accident rate for EMS helicopters is slightly less than that of commercial air taxis and of all turbine helicopters.

3. From 1978 to 1986, the Safety Board investigated 59 commercial EMS helicopter accidents; 19 of these were fatal accidents in which a total of 53 people died; 19 were pilots, 28 were medical personnel, and 6 were patients.

4. Weather-related accidents are the most common and the most serious type of accident experienced by EMS helicopters, and are also the most easily prevented. Twenty-five percent of the 59 accidents investigated by the Safety Board (1978-1986) involved reduced visibility/spatial disorientation as a factor; 73 percent of these were fatal. Reduced-visibility accidents account for 61 percent of all fatal commercial EMS accidents. All of the reduced-visibility accidents in the Safety Board's database occurred during a patient transport mission.

6. All of the 15 reduced-visibility weather-related accidents occurred in uncontrolled airspace at low altitude.

12. Pilot fatigue has been identified as a factor in only one commercial EMS helicopter accident. However, commercial EMS helicopter pilots work in a high-stress environment with rotating shifts; this predisposes them to acute and chronic fatigue.

15. EMS helicopter flying is both a challenging and a stressful occupation. Pilots are often under self-imposed and externally-imposed pressure to complete EMS missions. These pressures can negatively influence pilot judgment.

16. Most hospitals participate in the EMS interior configuration design and specify the type of medical equipment installed. The suitability of this equipment for the aviation environment is often not considered, since no technical design standards or performance standards relative to the aviation environment exists for this equipment.

24. EMS helicopter program management is often composed of two structures: the 14 CFR Part 135 operator, which manages the pilots, and the hospital, which manages the medical personnel and day-to-day operations. The interface of these two management structures is less than ideal, since pilot management is often not on-site and the hospital program management has no control over the pilots.

25. Hospital EMS program management can have significant impact on the program's safety. Effective communication between the helicopter operator management and the hospital EMS program management is essential to safe EMS helicopter operations.

26. Competition between EMS helicopter programs can adversely impact safety of the programs' operations.

COMMENTARY ON THE EMS HELICOPTER ACCIDENT HISTORY

During the mid-1980's, a number of EMS helicopter pilots complained publicly that hospital management had threatened to fire them if they did not fly a particular visual flight rules (VFR) mission in instrument flight rules (IFR) weather. Some pilots refused the missions and were fired. Some pilots accepted missions they should have declined. A number of pilots and helicopter maintenance personnel complained that many EMS helicopter programs were understaffed and that they were working excessively long hours and experiencing chronic fatigue as a result. Pilots also complained that hospital management was making, or forcing pilots to make poor decisions on aeronautical operational issues and that these managers were unqualified to supervise aviation operations as they were doing.

Coupled with the high EMS helicopter accident rate, these pilot complaints brought the EMS industry a great deal of attention from the media, from hospital administrators, from Congress, from the NTSB, and from the FAA. Based on NTSB recommendations and on an intensive FAA inspection of EMS helicopter programs, the aviation community and the medical community took a number of actions and cut the EMS helicopter accident rate significantly. But the pain involved with so many fatal accidents traumatized many of the people involved in the EMS industry (both pilots and medical personnel) and led to a distrust that remained for years in some hospital EMS programs.

BACKGROUND – HELICOPTER ACCIDENTS AT HOSPITALS

On several occasions, representatives from the air ambulance helicopter community have stated publicly that there have been only a very few accidents at hospital heliports, that all of these have been minor accidents, and that current FAA hospital design recommendations are adequate. While the FAA has not done a thorough accident analysis of heliport accidents since the early 1990's, a very quick look at NTSB accident files has identified the following air ambulance helicopter accidents at hospitals. The text below is taken from NTSB reports.

> 1. The helicopter contacted power lines and the terrain during an attempted takeoff from a hospital after a cancelled med-evac flight. The hospital is located in a box canyon surrounded by high terrain and power lines. The pilot was aware of the power line that crossed the proposed flight path. (Editorial comment: The pilot had just flown over these wires on the approach to the hospital.) A passenger stated, after the accident, that the pilot hovered back to the end of the landing area to initiate the takeoff. The helicopter struck the unmarked power lines during climbout and descended to ground impact. A witness described the weather as cold and clear with calm ground winds near the hospital. They also stated that the night was bright because of a full moon. **[This was a fatal accident.]** DEN86FA054

2. The aircraft had just discharged two passengers on the rooftop helipad and was preparing for departure. The aircraft was picked up to a hover and the tail rotor struck a heliport surface perimeter light. The tail rotor separated from the aircraft and the aircraft rotated to the right. Throttles were reduced to stop the rotation and the aircraft settled back down to the helipad. The aircraft bounced side to side and rolled off the helipad and came to rest on its left side. The pilot exited and extinguished a small fire that had started near the engine exhaust. **[This was a near-fatal accident.** When the helicopter rolled off the helipad, it fell only a few feet onto the roof. On two other sides of the helipad, the helicopter would have gone off the edge of the building and fallen either 6 stories or 7 stories to the ground.] CHI86FA129

3. After loading a seriously burned patient in the helicopter, the pilot started the engine and lifted off from the hospital parking lot. Immediately after lift-off, he started forward translational flight. About 65 feet from the lift-off point, an advancing main rotor blade struck an unmarked lamppost. The helicopter then crashed in the parking lot, just beyond the lamppost. The pilot and one medical attendant were fatally injured; the other medical attendant was seriously injured. Reportedly, the patient did not sustain any additional discernible injury from the crash. **[This was a fatal accident.]** ATL85FA170

4. The helicopter crashed during a forced landing following a loss of engine power on takeoff. The commercial pilot and the two medical crewmembers received serious injuries, and the helicopter sustained substantial damage. The positioning flight was operating under Title 14 CFR Part 91 and was en route to pick up a patient for transport back to the medical center. Visual meteorological conditions prevailed and a company flight plan was filed. Witnesses reported that they heard a loud bang and saw black smoke coming from the helicopter shortly after it lifted off from the hospital helipad. According to local authorities, the helicopter descended into a parking lot, the main rotor struck a light pole, and the helicopter came to rest on its right side. **[This was not a fatal accident.]** FTW98LA239

5. The helicopter was being operated from a temporary landing zone (LZ) in a parking lot, while the hospital heliport was being resurfaced. As the pilot was preparing to takeoff at night to get a patient at another location, he noted personnel in the area of the LZ and advised the dispatcher of the lack of security. At that time, the weather (10 miles east at Houston Hobby Airport) was in part: 900 feet overcast, visibility 8 miles with light drizzle, wind from 040 degrees at 14 knots. The pilot began a vertical takeoff to climb over obstacles. He reported that after lift-off, the helicopter encountered turbulence and a venturi effect from wind blowing around the buildings. Also, he indicated that his visual cues were reduced as he was watching for people in the area of the LZ. At about that time, witnesses observed the helicopter drift backward. Subsequently, the tail rotor contacted the top of a garage, then the helicopter began an uncontrolled spin and

crashed. The pilot and both medical crew members were seriously injured. **[This was not a fatal accident.]** FTW89FA078

COMMENTARY ON THE HOSPITAL HELIPORT ACCIDENT HISTORY

All of these accidents touch on issues of landing site design. A thorough search would probably turn up other such accidents as well. Circumstances similar to those that led to these accidents still exist at hospital heliports.

These accidents involve collisions with objects during ground maneuvers or during departure operations. Such accidents are among the more common helicopter accidents and the air ambulance industry has not been immune from such events.

In the mid-1980's, many air ambulance helicopter accidents occurred when the pilots were "scud running" (flying at very low altitudes to stay beneath the clouds in order to continue flying by visual reference to ground objects), often at night. Much of the reduction of air ambulance helicopter accidents has been attributed to the reduction in the number of flights during bad weather. (Bear in mind the NTSB conclusion that "Weather-related accidents are the most common and the most serious type of accident experienced by EMS helicopters, and are also the most easily prevented.") As the air ambulance industry moves to implement global positioning system (GPS) instrument approaches at hospital heliports, the number of air ambulance flights in bad weather can be expected to increase. Since pilots will be flying IFR en route rather than scud running, one does not expect to see an abundance of en route accidents. Will we see an increase in the number of air ambulance helicopter accidents at hospitals? What steps should be taken to mitigate such accidents?

While any aviation accident is tragic, en route accidents seldom involve third party injuries or deaths. (In this context, third parties are anyone except aircraft passengers or crew members.) At a hospital, however, there are many third parties in close proximity. Thus, the risk of third party injury or death is much higher than with en route helicopter accidents. Any such accidents involving a third party could result in a public reaction similar to what occurred after the air ambulance accidents of the mid-1980's and the earlier Pan Am Heliport accident. What steps should be taken to mitigate the risk associated with such accidents?

BACKGROUND – FAA HOSPITAL HELIPORT DESIGN RECOMMENDATIONS

The FAA first included specific design recommendations for hospital heliports in the January 20, 1994 issue of the Heliport Design advisory circular, AC150/5390-2A. Prior to the addition of a specific chapter on hospital heliports in the 1994 advisory circular (AC), hospital heliports were considered as private heliports. Design guidance could be found in the private heliport chapter but it was limited and it did not specifically address hospital heliports.

During the late 1980's, the FAA and many in the helicopter industry became concerned with the high AIR AMBULANCE accident rate and the risk that a hospital heliport accident could have a widespread impact on the entire helicopter industry. Industry voiced this concern to the FAA in the discussions of the FAA/Industry Heliport Design Working Group (circa 1993). The FAA responded by drafting a hospital heliport chapter. After considerable negotiation with a working group that represented the AIR AMBULANCE industry, a modified version of this chapter was published in the 1994 version of the FAA Heliport Design AC. If the various sections of the 1994 Heliport design AC were listed from highest degree of safety to lowest degree of safety, the list would look as follows:

1. Transport Heliports
2. General Aviation Heliports
3. Hospital Heliports
4. Private Heliports

In the late 1990's, the FAA initiated a revision of the Heliport Design AC with the specific intention of deleting the chapter on private heliports and adopting certain safety enhancement recommendations. If the various sections of the 1999 revision to the 1994 Heliport Design AC were listed from highest degree of safety to lowest degree of safety, the list would look as follows:

1. Transport Heliports
2. General Aviation Heliports
3. Hospital Heliports

By looking at the AC in this manner, one sees a rather curious thing. Even after two attempts to "raise the bar" regarding the FAA recommendations for hospital heliport design standards, these standards still represent the lowest level of safety among the various chapters in this AC. Should steps be taken to bring the FAA hospital heliport design recommendations up to the same level of safety as GA heliports?

HOSPITAL HELIPORTS – ONE AREA OF PARTICULAR CONCERN

The hospital-to-hospital transfer of medical patients is usually "one way". That is, patient transfers are usually from a secondary or tertiary hospital to a primary hospital. This primary hospital might be a trauma center, a burn center, or some other specialty hospital. The hospital that is gaining a patient has an economic incentive to ensure that their hospital heliport is an adequate facility. With the advent of GPS heliport approach procedures, many of these primary hospitals (or their air ambulance helicopter operators) are starting to invest in GPS procedures. Economically this is a sensible business decision since the IFR approach capability increases the number of critical-care patients that the hospital can receive by decreasing the percentage of time that bad weather prevents their helicopters from operating. Medically this is also a good decision since it

is likely to increase the number of lives saved with the higher level of care available at the primary hospital.

Consider the perspective, however, of the secondary or tertiary hospitals that are losing patients. They have an economic DIS-incentive to invest in their hospital heliports since a better heliport is likely to mean that more patients will use this means to leave the hospital. (Secondary and tertiary hospitals seldom have an air ambulance helicopter of their own. Any helicopters are generally "visiting" from another hospital facility.) Thus, if their hospital heliport does not meet FAA Heliport Design guidance, the hospital management is often unwilling to fund improvements. If larger visiting helicopters start using their hospital heliport (larger than the helicopter for which the heliport was designed), the hospital management is often unwilling to fund an expanded facility. If visiting helicopters start using their hospital heliport at night, the hospital management is often unwilling to pay for heliport lighting. If there is a need for an instrument approach procedure, the hospital management is often unwilling to pay for procedure development or any associated ground infrastructure expenses.

Who should pay for such hospital heliport safety improvements? The primary hospital receiving the patients is generally unwilling to pay for heliport improvements at other secondary or tertiary hospitals. The secondary or tertiary hospitals have an economic DIS-incentive to invest in their hospital heliports since it is a patient exit, not an entrance. The air ambulance helicopter operator has sometimes been willing to pay for the development of a private GPS procedure (which means that competitors probably can NOT use the same procedure). However, the air ambulance helicopter operator is seldom willing to pay for other hospital heliport improvements. Who should bear the cost of such expenses?

Over the years, there have been periodic discussions about paying for hospital heliport improvements via Airport Improvement Program (AIP) funding. Historically, FAA Order 5990.33, Field Formation of the National Plan for an Integrated Airport System (NPIAS), has specifically precluded any funding of hospital heliports. This prohibition has been based on the FAA's "interpretation of the will of Congress" that hospital heliports are private facilities since prior permission is required to land there. It is understood that public funds should not be spent on private facilities. However, while hospital heliports are private facilities, the public does receive a benefit from such facilities when they are used for the transportation of medical patients on an emergency of critical-care basis. Considering the continued importance of hospital heliports and the rapidly growing use of instrument approach/departure procedures at such sites, is it appropriate for the FAA to reconsider its "interpretation of the will of Congress"?

REFERENCES

Aircraft Accident Report - New York Airways, Inc., Sikorsky S-61L, N619PA Pan Am Building Heliport, New York, New York, May 16, 1977, National Transportation Safety Board report no. NTSB-AAR-77-9, October 13, 1977, Washington DC.

Analysis of Helicopter Mishaps At Heliports, Airports, and Unimproved Sites, Len D. Dzamba, Robert J. Hawley; Federal Aviation Administration report no. FAA/RD-90/8, January 1991, Washington DC.

Analysis of Rotorcraft Accident Risk Exposure at Heliports and Airports, Richard Adams, Edwin D. McConkey, Len D. Dzamba, Robert D. Smith; Federal Aviation Administration report no. FAA/RD-90/9, August 1991, Washington DC.

Heliport Design, Federal Aviation advisory circular AC150/5390-2A, January 20, 1994, Washington DC.

Safety Study, Commercial Emergency Medical Service Helicopter Operations, National Transportation Safety Board report no. NTSB/SS-88/01, January 28, 1988, Washington DC.

APPENDIX 4. ACRONYMS

AC	advisory circular
AK	Alaska
AL	Alabama
AR	Arkansas
AZ	Arizona
CA	California
CO	Colorado
CT	Connecticut
DE	Delaware
FAA	Federal Aviation Administration
FAR	Federal aviation regulation
FL	Florida
GA	Georgia
HI	Hawaii
IA	Iowa
ID	Idaho
IL	Illinois
IN	Indiana
KS	Kansas
KY	Kentucky
LA	Louisiana
MA	Massachusetts
MD	Maryland
ME	Maine
MI	Michigan
MN	Minnesota
MO	Missouri
MS	Mississippi
MT	Montana
N/A	not applicable
NASAO	National Association of State Aviation Officials
NC	North Carolina
ND	North Dakota
NE	Nebraska
NH	New Hampshire
NJ	New Jersey
NM	New Mexico
NV	Nevada
NY	New York
OH	Ohio
OK	Oklahoma
OR	Oregon
PA	Pennsylvania
RI	Rhode Island

SC	South Carolina
SD	South Dakota
TN	Tennessee
TX	Texas
UT	Utah
VA	Virginia
VT	Vermont
WA	Washington
WI	Wisconsin
WV	West Virginia
WY	Wyoming