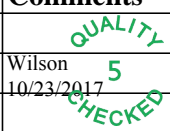


<b>Flight Procedure Tracking Form</b>		<b>Action:</b> FLIGHT CHECK	<b>Task Type:</b> TEXTUAL DP	<b>Date Open:</b> 05/05/2017	<b>Task #:</b> 2017011931910501002	<b>Request #:</b> 20170119319105
<b>Procedure:</b> LITTLE ROCK AR KAR62 AMDT 1			<b>Airport ID:</b> KAR62	<b>Airport:</b> ARKANSAS CHILDREN'S HOSPITAL		<b>Reimbursable #:</b> NO
<b>City:</b> LITTLE ROCK	<b>ST:</b> AR	<b>GPS #:</b>	<b>Estimated Chart Date:</b> 03/29/2018		<b>FICO #:</b> 1195447	
<b>Fac ID:</b> N/A		<b>Fac. Type:</b>			<b>Specialist:</b> KELLY DEAN	
<b>Procedure Review</b>						
	<b>Rec'd</b>	<b>Rel'd</b>	<b>Full Name</b>	<b>Comments</b>		
<b>Lead:</b>	06/22/2017	09/08/2017	DAVID DANNER			
<b>QA:</b>	09/08/2017	09/08/2017	DAVID DANNER			
<b>Liaison:</b>	09/08/2017	09/08/2017	MARY MCDONALD			
<b>Procedure Comments:</b>			<b>Remark Type:</b> INFORMATION			
<p>8260-1: DEVELOP SPECIAL COPTER TAKEOFF MINIMUMS AND ODP</p> <p>POC FOR THIS ACTION IS DON LANIER 405-954-8242</p> <p>09/13/2017 THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/20/2017 CHANGED HEADING FROM TITLE 14 CFR PART 97.37 TO SPECIAL COPTER</p> <p>10/02/2017 THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/20/2017 CHANGED AMDT NUMBER FROM 2 TO 1</p> <p>10/23/2017 THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/20/2017. CHANGED TAKEOFF NOTES REFERENCES: DER TO HELIPAD; CENTERLINE TO DEPARTURE COURSE</p>						

**1. FLIGHT PROCEDURE IDENTIFICATION:**

LITTLE ROCK, AR  
ARKANSAS CHILDREN'S HOSPITAL (AR62)  
SPECIAL COPTER TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE (ODP)

**2. WAIVER REQUIRED AND APPLICABLE STANDARD:**

FAA ORDER 8260.46F APP F1 - Obstacle departure procedures (ODPs) for helicopter operations be developed to accommodate IFR diverse departures because diverse departure criteria does not exist.

**3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):**

Heliport has two helipads built on top of the hospital roof which provides a clear 20:1 surface of all obstacles on a heading of 240 (241T) to an altitude of 400 ft above heliport using a standard climb gradient for helicopters. Once reaching 400 ft above heliport, obstacle surface is clear of obstacles in all directions using a standard climb. A diverse departure would allow for Standard Minimums.

Per user, utilizing the Proceed VFR or Visual DP requires aircraft to climb to a height which does not support IMC operations due to the requirement to remain VMC because of obstacles in the IDF Obstacle Eval Surface. Heliport is located inside Little Rock Class D airspace. Changing to different courses and locations may cause interference with normal operations at Bill and Hillary Clinton National / Adams Field (KLIT).

**4. EQUIVALENT LEVEL OF SAFETY PROVIDED:**

SEE ATTACHED POSITION PAPER

**Documentation:**

- A. Utilized 8260-15A to document ODP for Diverse Departure reflecting Takeoff Minimums for H1 and H2 as Standard IAW FAA Order 8260.3 Vol 1 Chap 3 Table 3-5-1.
- B. Utilized 8260-15A to document Textual Departure Procedure instructions Climb Heading and Termination Altitude before proceeding on course".
- C. Developed and documented a Copter RNAV SID on an 8260-15B/C to comply with RNAV Departure requirements in FAA Order 8260.42.

**5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:**

- A. Continuing with ODP SID is not feasible as it requires an IDF Flat Surface Eval which identifies an excessive VMC altitude to cross due to obstacles (718 Twr + 50 AC + 250 ROC = 1018) and an excessive climb gradient of 1012 ft per nm.
- B. Changing the IDF location on the current RNAV SID relative to the helipad is not feasible as:
  - 1. Courses are limited by KLIT Class D airspace.
  - 2. Other obstacle evaluations result in the same climb to altitude.
  - 3. Moving the IDF further from the helipad on the currently published course to a point where obstacle surface is clear would exceed the maximum flight distance from the helipad allowed by criteria (2 nm) and require the aircraft to fly extensive distance in adverse weather conditions.

**6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):**

AJV-54:\_\_\_\_\_

**7. SUBMITTED BY:**

DATE	OFFICE IDENTIFICATION	TITLE	SIGNATURE
	AJV-54	Inst Flt Proc Group, Manager	

**8. AFS ACTIONS:**

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

COMMENTS:

DATE	ROUTING SYMBOL	SIGNATURE
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# Federal Aviation Administration

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## Memorandum

Date:

To: Mark Steinbicker, Manager, Flight Technologies and Procedure Division  
THRU: Danny E. Hamilton, Manager, Flight Procedure Implementation and Oversight Branch

From: Lonnie Everhart, Manager, Instrument Flight Procedures (IFP) Coordination Team, AJV-5310

Subject: FAA Helicopter Instrument Departure Criteria – Arkansas Children's Hospital, Little Rock, AR (AR62)

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Request authorization to establish Helicopter Obstacle Departure Procedure (ODP) criteria to be used at AR62. This is necessary as current criterion does not provide operational capabilities to the user. Authorization to develop criteria will allow the publication of a Special Copter Takeoff Minimums and Obstacle Departure (ODP) Procedure. We will only require this authorization until the FAA Orders are amended to allow Copter ODP's from helipads/heliports.

1. General – Current criterion only allows for Point-In-Space (PinS) departures to IFR operations from VFR certified helipads. User has requested an ODP to allow IFR operations from the VFR heliport instead of the transition at an Initial Departure Fix (IDF).
2. This document is an addendum to helicopter instrument procedure guidance. Existing acronyms apply. Criterion is based on the assumption that the helicopter will climb at a minimum gradient of 400 feet per nautical mile until reaching the enroute altitude. When evaluating a heliport for instrument departure procedures, the ODP provides the ability to construct the most simple and flexible procedure possible. It allows for both Satellite and Conventional departures.
3. Issues:
  - a. The existing PinS procedures at AR62 do not provide adequate operational departure capabilities for the user.
  - b. A criterion does not exist for the development of ODP procedures.
  - c. Heliport is a VFR only heliport.
    - i. Heliport does not have approval for IFR departures.
    - ii. IFR Heliport operational and inspections standards do not exist.

- iii. No Point of Contact (POC) exists or has any training on maintaining and oversight of heliport.
    - iv. Heliport does not meet standards provided in AC 150/5390-2C.
  - d. Survey standards do not exist; therefore no survey has been completed at the heliport.
  - e. Standard takeoff minimums are not defined for helicopters in the 8260.3.
  - f. Publication system of Takeoff Minimums and Departure Procedure standards are not provided in the 8260.19.
  - g. ODP procedure has not been developed or utilized before at Non-Military heliports. Operational organizations are not trained or familiar with concept.
  - h. Procedure maintenance standards do not exist.
- 4. Solutions: While this document provides for the TERPs concepts to build a procedure, it does not associate legal requirements for IFR operations from a non-certified heliport. FAA continues to maintain the responsibility to ensure all regulatory requirements are met which are not contained in this document. For example, IFR helipad standards, pilot training, procedure documentation, procedure maintenance, airspace, and Air Traffic Control (ATC) coordination. Recommend these functions be assessed and provided:
  - a. Maintain existing PinS DP and supplement with the newly developed ODP.
  - b. Utilize this paper combined with the processed waiver to develop the ODP.
  - c. Certify heliport as an IFR certified.
    - i. Establish requirements to be maintained.
    - ii. Develop inspection and maintenance criterion.
    - iii. Safety inspections be conducted by a designated POC.
    - iv. Helipads be updated to meet the Advisory Circular. This would include review of structural standards, dimensions, markings, entry/egress plans, equipment, etc.
  - d. No action is required for this procedure as obstacles were assessed per guidance of the 8260.19. However, only obstacles were assessed by the Area criteria listed in item 6 below. Any operations in and around the area which do not follow the criteria have not been evaluated.
  - e. Standard Takeoff Minimums be defined and provided to user.
  - f. Procedure Package contains developed Takeoff Minimums and Obstacle (ODP) procedure.
    - i. AFS to review format of documentation provided in Procedure Package.
    - ii. Train pilots on procedure prior to utilization.
  - g. ATC receive briefing from Chief Pilot, coordinate any desired filing requirements and any specific airspace requirements.
  - h. Require AJV to implement procedure into POET database and maintain IAW item 8 below.
- 5. Findings: The ODP evaluation revealed clear obstacle surfaces and allows for a Diverse Departure – A diverse departure procedure provides the pilot the option of choosing an unrestricted departure course after reaching 842 feet msl on a 240 heading. Takeoff Minimums for the procedure are: standard or as required by FAR / OPSPEC operation requirements. While there is no applicable standard for the ceiling unless the ceiling is

utilized to mitigate penetrations above 200 feet, Low Close-In obstacles are annotated when the OCS is penetrated below 200 feet.

6. TERPs Area – Diverse Departure principles follow the criteria outlined in 8260.3 Chapter 14 except the following:
  - a. Establish an AB line from the helipad coordinates perpendicular to the DP heading to 25 Nautical Miles (NM) left/right of the helipad. AB line serves as the Departure Reference Point (DRP) at the helipad.
  - b. Apply 15 degree splay from DP heading beginning 500 feet left/right of the helipad intersecting the AB line extending to a point abeam 1 NM from the helipad on the DP course to establish an Initial Climb Area (ICA). See ICA Climb Area diagram below.
  - c. Utilize an obstacle evaluation from surface of helipad to the end of the ICA, 400 feet above the helipad elevation (442) creating an ICA Elev of 746.
  - d. Build Diverse A and Diverse B sectors to a 25 NM radii from helipad. The AB sector line is established at the helipad coordinates perpendicular to the departure heading intersecting the 25 NM radii creating a Diverse A and Diverse B. See Diverse Sector diagram below.
  - e. Utilize an obstacle evaluation: Diverse A obstacle distance measured from closest point to the ICA. Diverse B obstacle distance measured from helipad or perpendicular to Diverse AB sector line, whichever is closer.
7. Obstacle Clearance Surface (OCS) – The OCS in the ICA and Diverse Sectors rise at a ratio of 1-foot vertically for every 20 feet horizontally (20:1 slope or 5% gradient).
  - a. OCS beginning elevation for the ICA is equal to the elevation of the helipad (442 msl). To determine the elevation of the OCS at an obstacle, measure the distance (d) in feet from the obstacle to the closest point on the AB line.

Use the following formula to calculate the surface elevation at the obstacle:

$$\text{OCS MSL height} = d/20 + e$$

Where d = distance obstacle to OCS from the DRP (AB Line)

e = HRP elevation (442)

**AR62 surface eval throughout the ICA resulted in the OCS (20:1) being clear.**

- b. OCS beginning elevation for Diverse Sectors is the elevation at the end of the ICA (746 msl).
  - i. Diverse A – to determine the elevation of the OCS and an obstacle, measure the distance (d) in feet from the obstacle to the closest point on the ICA.
  - ii. Diverse B – to determine the elevation of the OCS at an obstacle, measure the distance (d) in feet from the obstacle perpendicular to the AB line or direct to the helipad, whichever is closest.

Use the following formula to calculate the surface elevation at the obstacle:

$$\text{OCS MSL height} = d/20 + f$$

Where d = distance obstacle to ICA or AB line

f = ICA OCS elevation (746)

**AR62 surface eval throughout Diverse Sectors A and B resulted in the OCS (20:1) being clear.**

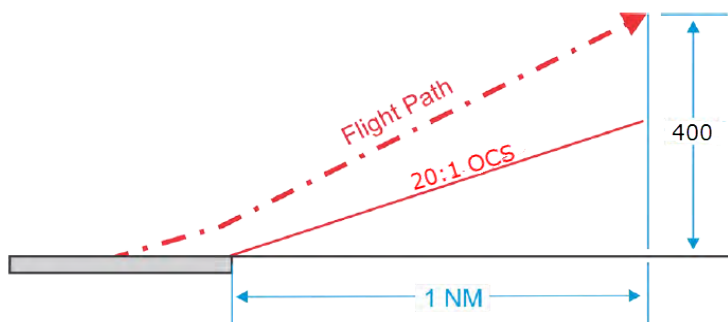
## 8. Maintenance

- a. Procedure will be maintained under the existing Biennial Review process.
- b. Upon approval of procedure, procedure will be entered into POET and eTERPs will incorporate OEAAA to evaluate any new obstacles. Obstacles will be evaluated with a 40:1 slope initially. If 40:1 is penetrated, manual evaluation of the 20:1 surface will be evaluated.

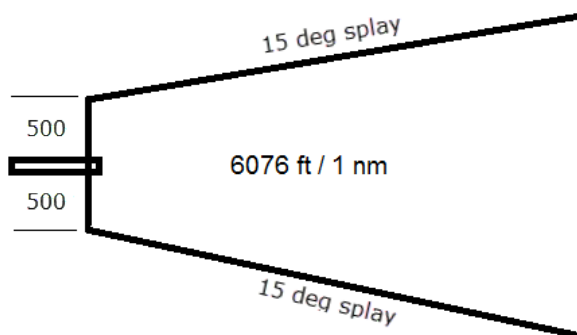
## Conclusion:

1. Utilizing the ODP eval allows for aircraft to depart from either helipad at AR62 on a 240 heading until 842 msl, and then proceed on course as the user desires through normal communications and flight plan routing. All surfaces are clear and provide for standard takeoff minimums. No special equipment is required by the user to utilize the ODP. The evaluation is from the helipad surface and allows for aircraft to depart from the helipad surface, no hover required.
2. The ODP does not provide any assessment of obstacles or surfaces in any other direction than the 240 heading until reaching 842 MSL. Upon reaching 842 MSL, all surfaces are clear in all directions.
3. Aircraft must depart from the helipad utilizing at a minimum, the standard climb of 400 ft per nm until reaching enroute altitude.

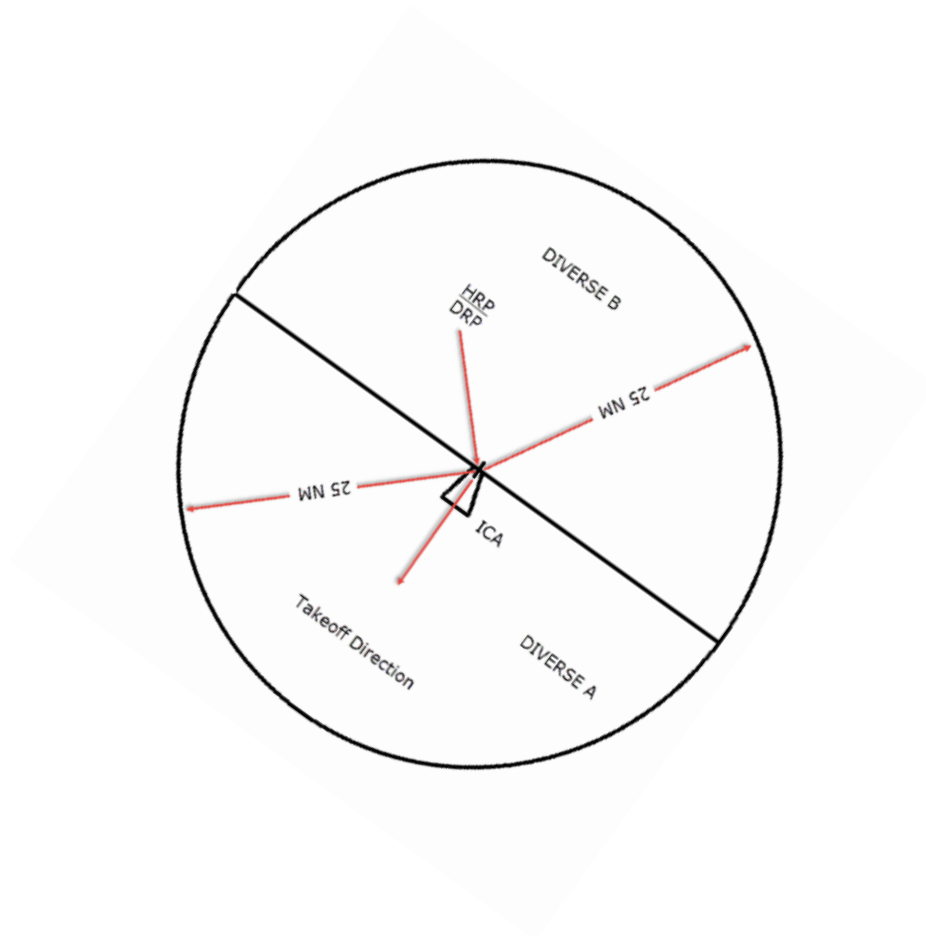
## ICA OCS Diagram



## ICA Initial Climb Area



# DIVERSE Sector Areas





**IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURE****SPECIAL COPTER**

USERS: Heliports that have Departure Procedures (DP's) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or have takeoff minimums other than standard are listed below. Takeoff Minimums and Departure Procedures apply unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DP's specifically designated for obstacle avoidance are referred to as Obstacle Departure Procedures (ODP's) and are textually described below, or published separately as a graphic procedure. If not specifically assigned an ODP, SID, or radar vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: For helicopters—one-half statute mile visibility. This minima applies in the absence of any different minima listed below.

**LITTLE ROCK, AR**

ARKANSAS CHILDREN'S HOSPITAL (AR62)

**TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURE****AMDT 1 (SPECIAL)**

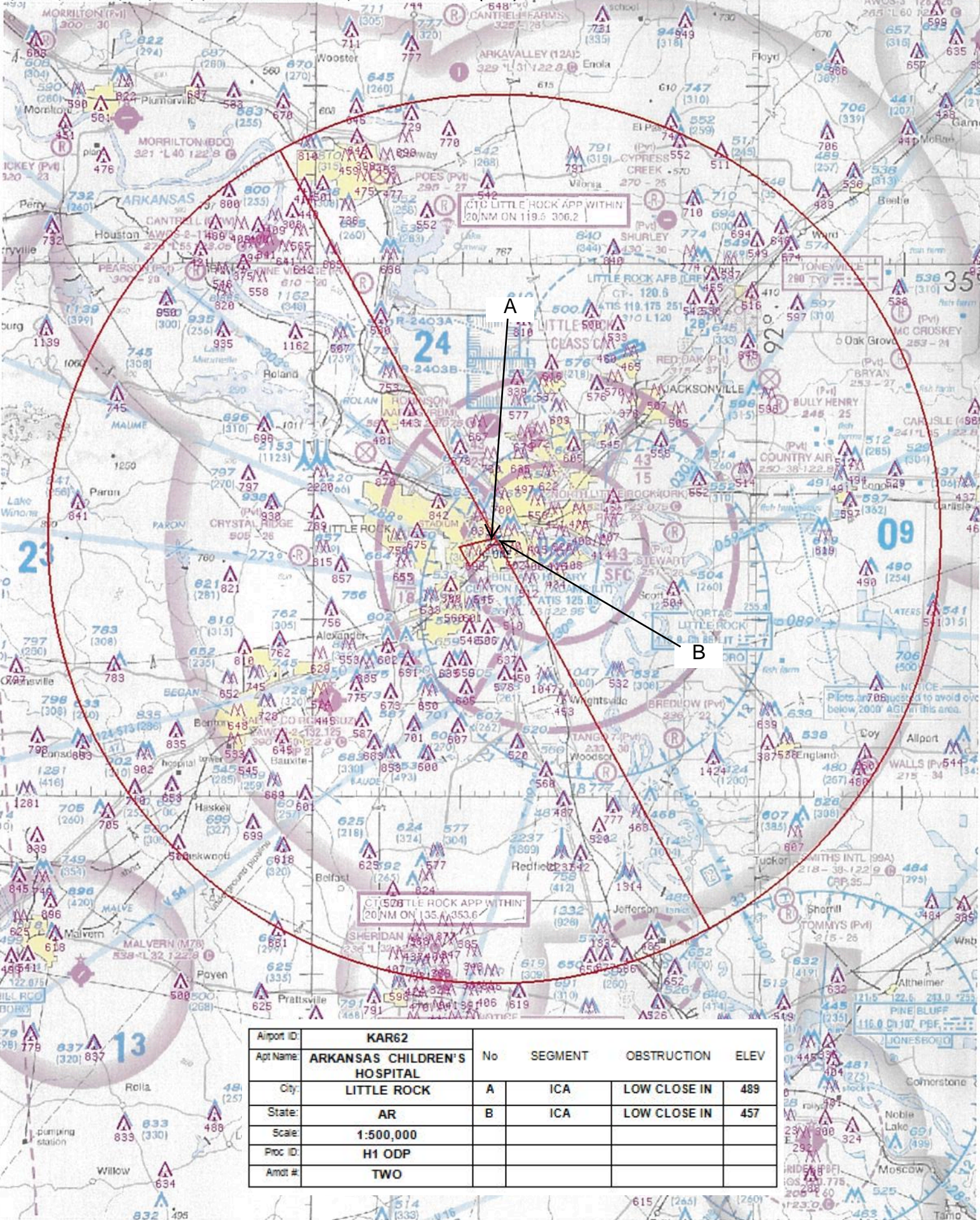
DEPARTURE PROCEDURE: Climb hdg 240 to 842 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **H1**, Acft on H2 helipad, 50' from helipad, 106' left of departure course, 15' AGL/457' MSL. Trees beginning 195' from helipad, 89' left of departure course, up to 100' AGL/489' MSL. **H2**, Trees 137' from helipad, 17' right of departure course, up to 100' AGL/489' MSL.



NM 7 14 21 28 35 42 49  
 FT 42000 84000 126000 168000 210000 252000 294000

fpokdd | car62deph1 (PROD) | 24 Jul 2017 15:51:56 | 1" = 41666.7 feet (MAP)

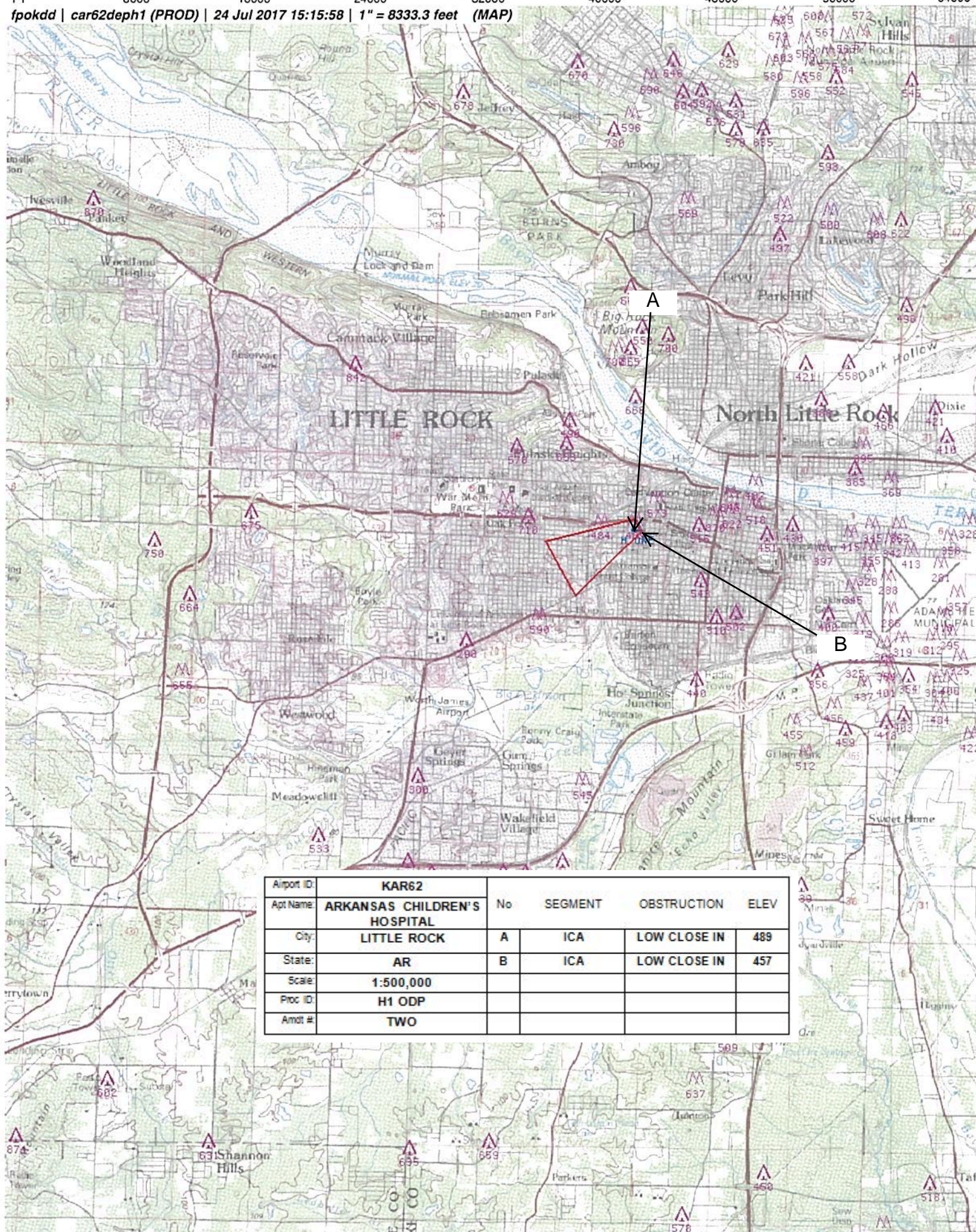


Airport ID:	KAR62	No	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	ARKANSAS CHILDREN'S HOSPITAL				
City:	LITTLE ROCK	A	ICA	LOW CLOSE IN	489
State:	AR	B	ICA	LOW CLOSE IN	457
Scale:	1:500,000				
Proc ID:	H1 ODP				
Amot #:	TWO				



NM 1 2 3 4 5 6 7 8 9 10  
FT 8000 16000 24000 32000 40000 48000 56000 64000

fpokdd | car62deph1 (PROD) | 24 Jul 2017 15:15:58 | 1" = 8333.3 feet (MAP)



Airport ID:	KAR62	No	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	ARKANSAS CHILDREN'S HOSPITAL				
City:	LITTLE ROCK	A	ICA	LOW CLOSE IN	489
State:	AR	B	ICA	LOW CLOSE IN	457
Scale:	1:500,000				
Proc ID:	H1 ODP				
Amdt #:	TWO				



**Airport ID:** KAR62

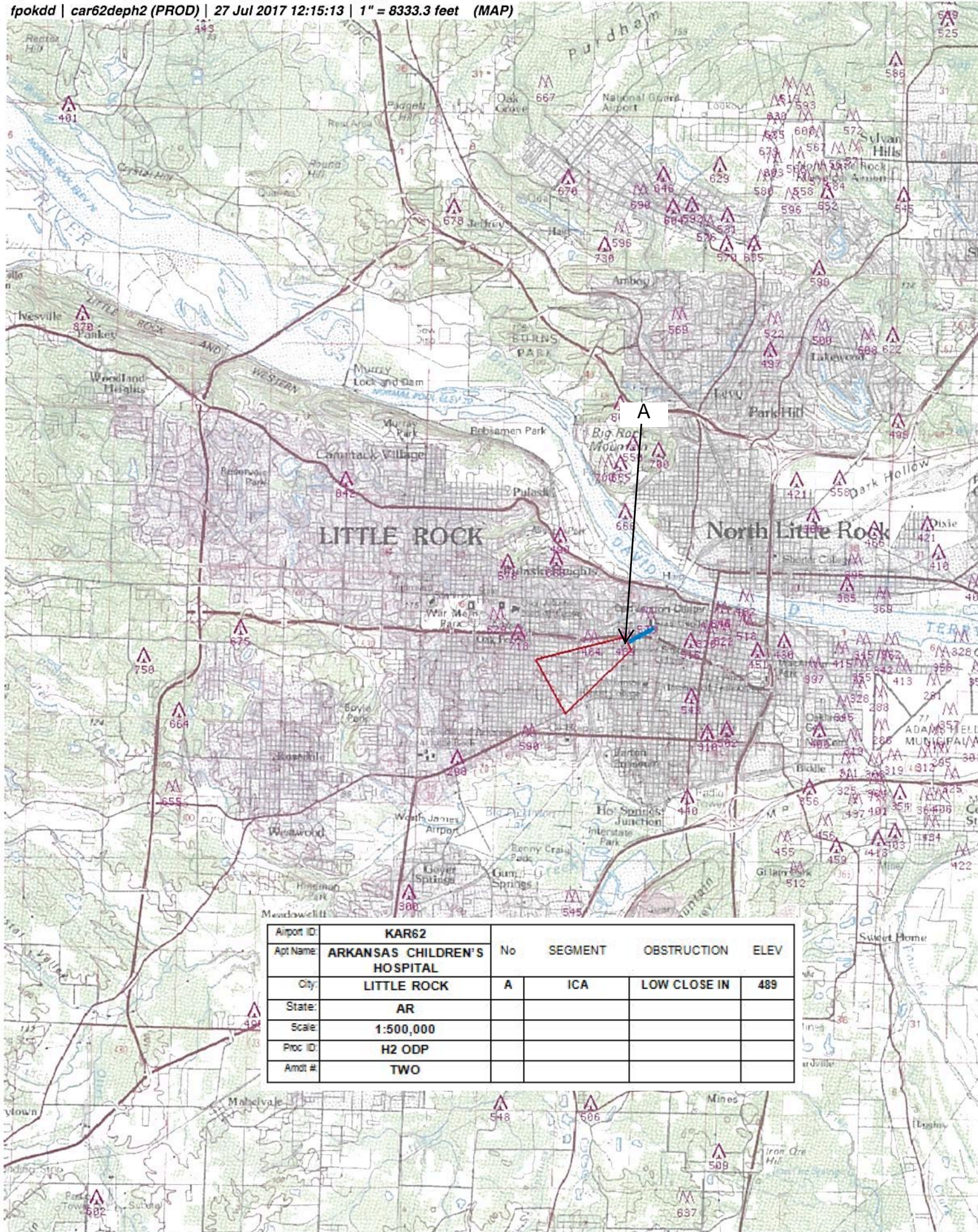
Apt Name:	No	SEGMENT	OBSSTRUCTION	ELEV
ARKANSAS CHILDREN'S HOSPITAL				
City:	A	ICA	LOW CLOSE IN	489
LITTLE ROCK				
State:				
AR				
Scale:				
1:100,000				
Proc ID:				
H2 ODP				
Amdt #:				
TWO				

Altport ID:	KAR62				
Apt Name:	ARKANSAS CHILDREN'S HOSPITAL	No	SEGMENT	OBSTRUCTION	ELEV
City:	LITTLE ROCK	A	ICA	LOW CLOSE IN	489
State:	AR				
Scale:	1:100,000				
Proc ID:	H2 ODP				
Amdt #:	TWO				



NM 1 2 3 4 5 6 7 8 9 10  
FT 8000 16000 24000 32000 40000 48000 56000 64000

fpokdd | car62deph2 (PROD) | 27 Jul 2017 12:15:13 | 1" = 8333.3 feet (MAP)



Airport ID:	KAR62	No	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	ARKANSAS CHILDREN'S HOSPITAL	A	ICA	LOW CLOSE IN	489
City:	LITTLE ROCK				
State:	AR				
Scale:	1:500,000				
Proc ID:	H2 ODP				
Amdt #	TWO				



**CHECKLIST OF EXTRAORDINARY CIRCUMSTANCES IN SUPPORT OF A CATEGORICAL  
EXCLUSION (CE) DETERMINATION:**

Airport: AR62

Projects/Actions: Arkansas Children's Hospital

Prepared by: Richard Todd Adams – Chief Pilot

Signature: Richard Todd Adams

Date: 3/23/2017

Circumstance	Impact Potential		Comments/Follow-up  See attached comments if needed.
	Yes	No	
<b>Effect on Section 106 Historic Properties</b> If no properties in, or eligible for inclusion in, the National Register of Historic Places have been identified within the area of proposed action, it may be considered that there is no impact potential.		X	
<b>Effect on DOT Act, Section (4)(f) Lands</b> If no land is being taken, or used by the proposed action, it may be considered that there is no impact potential.		X	
<b>Controversy on Environmental Grounds</b> If no controversy is known or expected based on the proposed action, it may be considered that there is no impact potential.		X	
<b>Effect on Natural Systems</b> If the overflight of aircraft as a result of the proposed action would have no effect on this circumstance, it may be considered that there is no impact potential.		X	
<b>Effect on Endangered Species</b> If the overflight of aircraft as a result of the proposed action would have no effect on this circumstance, it may be considered that there is no impact potential.		X	
<b>Effect on Wetlands</b> If the overflight of aircraft as a result of the proposed action would have no effect on this circumstance, it may be considered that there is no impact potential.		X	
<b>Effect on Floodplains</b> If the overflight of aircraft as a result of the proposed action would have no effect on this circumstance, it may be considered that there is no impact potential.		X	
<b>Effect on Coastal Zones</b> If the overflight of aircraft as a result of the proposed action would have no effect on this circumstance, it may be considered that there is no impact potential.		X	
<b>Effect on Prime/Unique Farmland</b> If the overflight of aircraft as a result of this proposed action would have no effect on this circumstance, it may be considered that there is no impact potential.		X	
<b>Effect on Energy/Resources</b> If the proposed action would have no significant impact on this circumstance, it may be considered that there is no impact potential.		X	
<b>Controversy Regarding Relocation Housing</b> If no relocation housing would be required as a result of the proposed action, it may be considered that there is no impact potential.		X	

**CHECKLIST OF EXTRAORDINARY CIRCUMSTANCES IN SUPPORT OF A CATEGORICAL  
EXCLUSION (CE) DETERMINATION:**

<b>Circumstance</b>	<b><u>Impact Potential</u></b>		<b><u>Comments/Follow-up</u></b>  See attached comments if needed.
	<b>Yes</b>	<b>No</b>	
<b>Community Disruption</b> If the proposed action would cause no significant disruption, it may be considered that there is no impact potential		X	
<b>Traffic Congestion</b> If the proposed action would cause no significant increase, or create ground traffic congestion, it may be considered that there is no impact potential.		X	
<b>Effect on Noise Levels in Noise Sensitive Areas</b> Refer to your letter to us in response to the fifth paragraph of our Environmental Impact Study/Assessment letter to you.		X	
<b>Effect on Air Quality</b> If the overflight of aircraft as a result of the proposed action would have no effect on this circumstance, it may be considered that there is no impact potential.		X	
<b>Effect on Water Quality</b> If the overflight of aircraft as a result of the proposed action would have no effect on this circumstance, it may be considered that there is no impact potential.		X	
<b>Contains/Affects Hazardous Materials</b> If the proposed action would have no significant impact on this circumstance, it may be considered that there is no impact potential.		X	
<b>Land Use Conflicts</b> If the proposed action would not result in conflicting land use (with the exception of airport property), it may be considered that there is no impact potential.		X	
<b>Induced Impacts</b> If the proposed action would not induce any significant impacts, it may be considered that there is no impact potential.		X	
<b>Wild and Scenic Rivers</b> If the overflight of aircraft as a result of the proposed action would have no effect on this circumstance, it may be considered that there is no impact potential.		X	
<b>Cumulative Impacts</b> If the proposed action would not result in a significant cumulative impact, it may be considered that there is no impact potential.		X	
<b>Inconsistent with Other Environmental Laws</b> If the proposed action is not inconsistent with other environmental laws, it may be considered that there is no impact potential.		X	
<b>Environmental Justice</b> If the proposed action has not been designed to overfly or avoid specific areas based on underlying area economic considerations, it may be considered that there is no impact potential.		X	
<b>Helicopter Tracks Over Major Thoroughfares</b> This is a VFR consideration. Helicopters flying Instrument Approaches will not be following major thoroughfares. This proposed action may be considered to have no impact potential.		X	