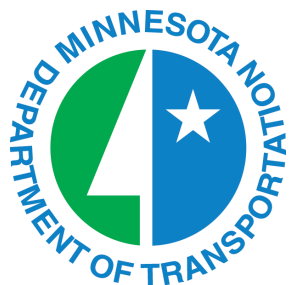


AERONAUTICS BULLETIN



THE STATE OF MINNESOTA PROVIDES THIS TECHNICAL BULLETIN
IN THE INTEREST OF AVIATION SAFETY AND TO PROMOTE
AERONAUTICAL PROGRESS IN THE STATE AND THE NATION

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WHAT FIXED WING PILOTS SHOULD KNOW ABOUT HELICOPTERS

Helicopter photos by Gary Chambers Photography

By **Rachel Obermoller/AvRep**

Helicopters may utilize local airports at any time. When operating at an airport the helicopter is required by Part 91 to "avoid the flow



Obermoller

of fixed wing aircraft." In most cases the helicopter will make an approach to an open area and then hover taxi (skids) or ground taxi (wheels) to the ramp to avoid damaging other aircraft with their rotor wash. The important thing for all pilots, airport managers, and staff to remember is that a helicopter generates significant rotor wash when the blades are turning and that rotor wash can propel rocks and other debris that may cause damage or injury.

Ramps, like runways, should be

checked every day to ensure there is no debris lying around. Occasionally the ramp should be swept to remove the small rocks and sand that can build up especially after the winter and become an eye hazard to people that happen to be on the ramp. People should keep their distance from moving rotor blades and only approach an operating helicopter under the direction of the crew.

If a helicopter is based at the airport,
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the operator and airport staff should identify a safe location for the helicopter to park that will allow for easy access with minimal risk to others. These parking areas may be designated by painting a circle on the pavement, but there isn't an established standard for marking a helicopter parking spot on a ramp. Many skid equipped aircraft operate from a rolling dolly usually made of wood that has wheels under it. Using this dolly the helicopter can be towed to and from a hangar without attaching wheels or starting the rotors. If you see a platform like this on the ramp at an airport be sure to park a safe distance from it.

Another reason helicopters land at airports is to get fuel. Pilots should avoid blocking access to the fuel pumps, and after fueling an aircraft, should move their aircraft away from the pumps so others may have access. While this is a courtesy that should always be followed, it is especially important if a helicopter shows up to get gas.

Many helicopters are equipped to operate in instrument conditions. If a helicopter is landing at an airport in instrument conditions in most cases they fly the same instrument approaches as fixed wing aircraft do. It is impossible for them to avoid the flow of fixed wing aircraft. Most helicopters will fly the approach at around 70 knots so they won't slow things down too much.

Most pilots are surprised to learn that there are nearly 120 heliports across the state, of which about 110 are located at hospitals. If you're using one of Minnesota's 135 public airports, chances are you're not far from a heliport, and there are a few things fixed wing pilots should be aware of. Air ambulance helicopters work 24 hours a day, 7 days per week. They respond to emergencies in the middle of the night, on holidays, and work in both the VFR and IFR environment to provide live-saving services to patients. They utilize the "Medevac" call sign with a patient onboard and receive priority handling from air traffic control.

There are four main commercial air ambulance helicopter services that operate in Minnesota, and they are the primary users of

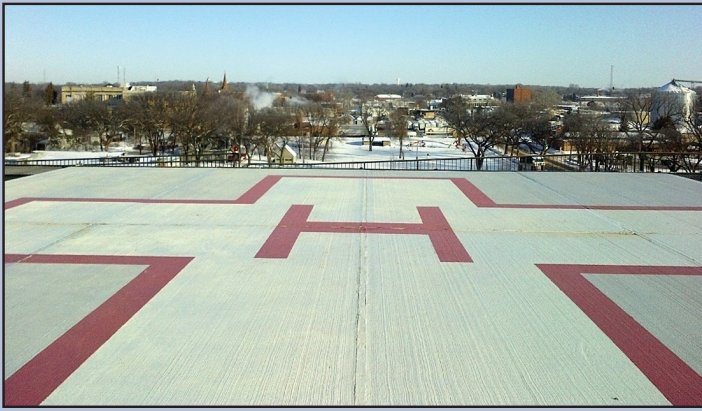
the heliports around the state. They utilize heliports at hospitals throughout the state to bring patients in from accident scenes and to transport patients between hospitals. In some communities where there is not a heliport at the hospital, patient transfers are made at the local airport. At these airports, clearing a helicopter landing spot on the ramp should be a high priority in the airport's snow removal plan.

The air ambulance helicopter operators in Minnesota utilize helicopters which fly at speeds on par with many single-engine piston aircraft in cruise. In cruise flight they generally stay below 3,000 feet agl. They will advise local traffic on the CTAF frequency when they are transitioning the airspace near an airport. Most of these helicopters are equipped for instrument flight and some operators even have private instrument approaches to some of the hospitals. Where an instrument approach to the hospital is not available the helicopter may utilize the airport to transition to or from the instrument environment. In this case the helicopter will fly the instrument approach to the airport and then transition to the hospital VFR under the clouds.

Minnesota, heliports are required to be licensed by the Minnesota Department of Transportation. Although we (Aeronautics) have standards for licensing public use heliports, all of the heliports currently licensed are either private or personal-use. A personal use heliport has several restrictions and may only be utilized by the heliport owner. Hospital heliports are utilized for patient transport so a higher level of safety is appropriate. For this reason, the heliports at hospitals must meet the stricter safety criteria required for a private use license.

A privately licensed facility requires prior permission from the facility owner. Use of a private facility must be approved by the owner prior to use, and they retain the right to refuse to allow use of the facility. Hospital heliports may be needed on short notice so private operators are almost never granted permission to use a hospital heliport.

In addition to the licensed heliports, air ambulance helicopters may respond to emergencies and accidents sites, something that is referred to as a scene landing. There is no way to know where an



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accident will occur so the helicopter pilots have to be extra careful when they use these types of landing sites. They will circle the area before landing looking for hazards such as wires, antennas and poles that can be difficult to see. Because law enforcement is usually the first to these scenes many law enforcement agencies have been trained by the air ambulance operators on how to establish a helicopter landing site near an accident. For scene landings the pilots rely on their judgment and experience to decide if it is safe.

Throughout Minnesota it is not uncommon to find other types of helicopters as well including those flown by the military, helicopters used in agricultural applications such as aerial spraying, fire suppression, and other specialized applications. Fixed wing pilots might encounter helicopters in the airport environment, or in cruise flight. Helicopter pilots are able to adapt and work into

the traffic under many circumstances. But, occasionally they may perform special procedures or require others in the environment to adapt, especially when they are providing transport for a medical patient or are sharing tight quarters on a ramp with other aircraft.

Helipads are ...

- * Helipads are commonly located adjacent to hospitals and are utilized to transport patients into the hospital in an emergency or transfer them to a hospital with the specialized services they need.

- * The approach to a helipad is easiest when there are open areas nearby free from trees, buildings, and other obstructions. Some helipads also have in-pavement lights for night operations.

- * Not all helipads are located at an airport. Some communities and hospitals have a helipad located farther than walking distance from the hospital but nearer than the closest airport. The hospital then uses ambulance services to transport patients between the hospital and helipad.

- * Some helipads around the state are located on rooftops due to limited space at ground level or the presence of obstructions which would limit a helicopter's ability to approach the helipad.

All helipad photo credit: Eric Peltier/AvRep

By understanding the type of work helicopters do in Minnesota as well as how their needs differ from those of fixed wing aircraft, fixed wing pilots can help improve the level of safety for all aircraft utilizing the airspace, airports, and heliports throughout our state.

MnDot selects new Aeronautics Director

Tim Henkel, Assistant Commissioner of Modal Planning and Program Management for the Minnesota Department of Transportation (MnDOT), announced recently that Cassandra Isackson, a 15-year veteran with MnDOT, has been chosen as the new Director of Aeronautics.

She began her new position officially on Wednesday, April 24th. Jay Hietpas the Interim Director will remain at Aeronautics for a short period of time to assist Isackson in the transition.

Cassandra Isackson has worked for the Minnesota Department of Transportation for 15 years. Her most recent position has been as the

director of the Office of Transportation Data and Analysis (TDA). She has served in various roles throughout MnDOT including the Office of Traffic, Safety and Technology, the MnDOT Metropolitan District Traffic office, the Office of Project Management and Technical Support, and Materials and Road Research.

Isackson began her career working for the Alabama Department of Transportation in Materials and Tests. She received her Bachelor of Science in Civil Engineering from the University of Alabama. Cassandra Isackson is a registered professional engineer in the state of Minnesota.



Isackson

*From the
Director's Desk*

Working hard for public

With summer finally here we can all look forward to the beautiful days that are the validation for why many people live here. The beauty that is in Minnesota seems boundless, and the best way to see it is by air. Flying also provides opportunities for aviators to share the excitement and beauty of flying with those who may not have had that opportunity or experience previously. I urge you to take advantage of the great flying weather as often as you can and go see our beautiful state.



I want to take this opportunity to say thank you to the many aviation people I have had the chance to meet and work with. As my time at Aeronautics comes to an end, I can say that it has truly been an enjoyable experience that has significantly broadened my knowledge of transportation on the aviation side of the house. It was moving for me to experience the passion for aviation that I see in nearly everyone I meet. Thanks for your support, cooperation, patience, and friendship. I really do appreciate that very much.

I want to reassure you that during this transition period as the new Director steps in, your office of Aeronautics staff will continue to work hard for you. They are very dedicated, passionate aviation people like you and they are ready to help you.

Thanks again.



— Jay Hietpas
Interim Director, Office of Aeronautics

Photo courtesy of Ray Pittman

Being safe at non-towered airports

As the probability of these tower closures and reduced operating hours nears, it is important to increase our awareness of proper operating practices and procedures at airports without an operating control tower. Although we often hear these airports called “uncontrolled”, you can help ensure continued safe and controlled operations through adherence to published practices and procedures. Of course, “non-towered airport” is the proper term to use for an airport without an operating control tower.

There are many resources that provide advisory information for operations at airports without an operating control tower. These include the FAA Aeronautical Information Manual (AIM), Advisory Circular (AC) 90-66A, CFR 91.113 (Basic Right of Way Rules), CFR 91.126 and CFR 91.127 (Traffic Flow Rules at Non-Towered Airports).

Please also note that some aeronautical experience for pilot certification requires takeoffs and landings at a towered airport. This may increase activity at the remaining towered airports, and will necessitate diligent planning on the part of training

providers, instructors and students.

So, what can I do?

- Always check NOTAMs prior to flight.
- Communicate, Communicate, Communicate. Remember, communication includes listening, not just transmitting.
- Stay alert and continually scan for traffic. This may include turbojet, turboprop or helicopter operators that are not accustomed to “standard traffic patterns” at your airport.
- Be aware that you may now be sharing the traffic pattern with non-radio equipped aircraft or ultralights.
- Spend some time with your CFI improving your knowledge and skills.
- Improve your knowledge by completing one or more of the many on-line courses available through the FAASafety.gov website.

The above information is taken directly from a bulletin at: FAASafety.gov