

DISPATCHES

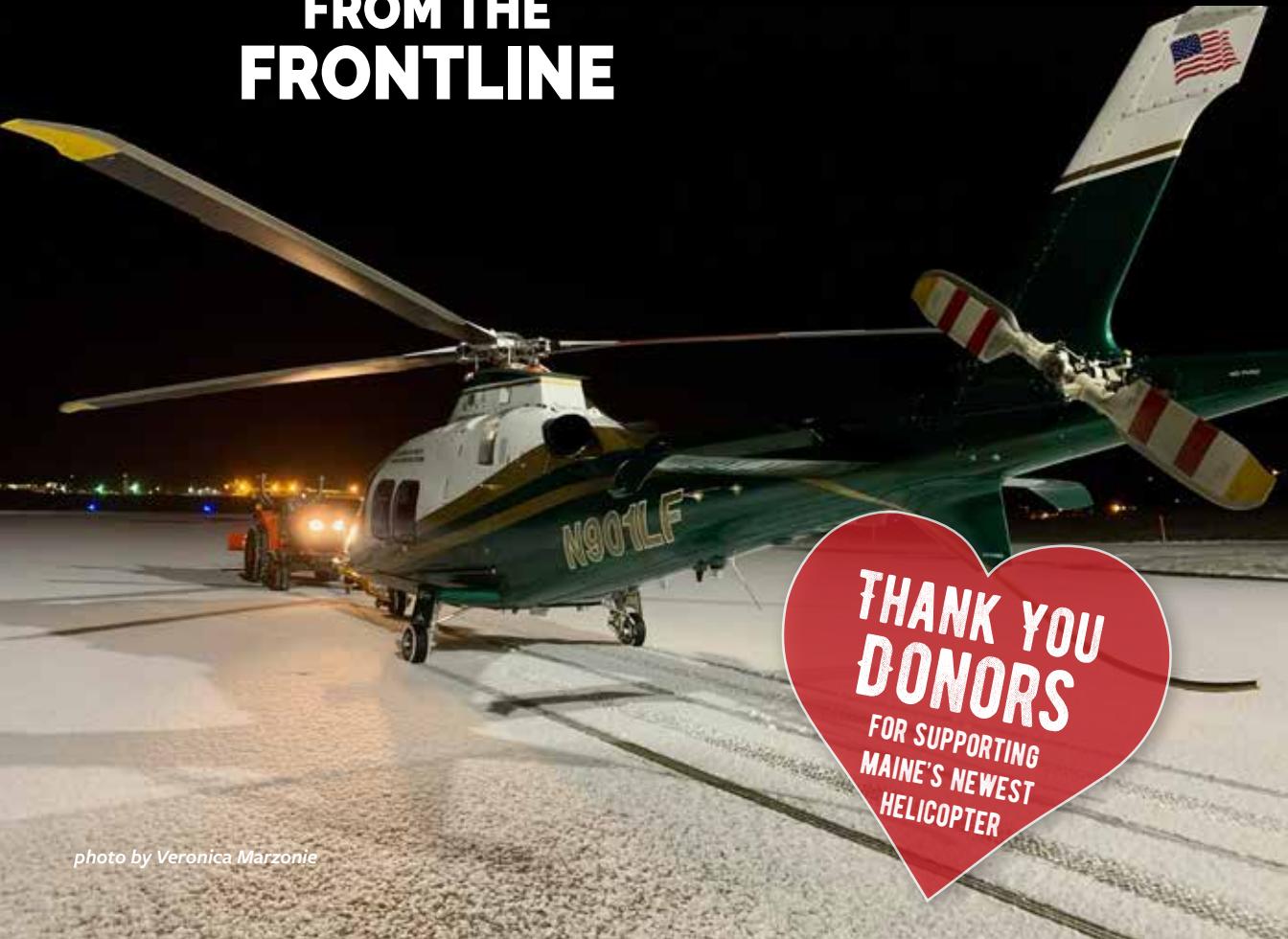
FEBRUARY 2021



PRECISION NAVIGATION

How a modern
infrastructure helps
more patients

SCENES FROM THE FRONTLINE



**THANK YOU
DONORS**

FOR SUPPORTING
MAINE'S NEWEST
HELICOPTER

WELCOME TO MAINE!



photo by Veronica Marzoni

Amid the uncertainty and stress of the last year, LifeFlight has continued to look to the future. We've onboarded new crew and implemented virtual ground safety courses for our EMS partners. Perhaps most strikingly, thousands of donors have continued to support LifeFlight's mission. Some of that support has gone directly to our COVID-19 response, but donors have also never stopped contributing to our aircraft campaign.

Thanks to that support, the people of Maine now have two new emergency helicopters -- N901LF and N901XM.

N901LF arrived last fall and transported its first patient on November 6th. More than 6,000 committed and generous donors made this possible, including several large gifts from individuals, hundreds of smaller gifts, and thousands of donations made to the annual Islesboro Crossing fundraising event over the last three years. It was the first of two helicopters that will replace our oldest models purchased back in 2004 which have seen 16 years of hard work in service to Maine. A fundraising campaign is now underway to secure funds to purchase the next needed helicopter.

N901XM was delivered to Maine in mid-January and was the result of a compelling offer from long time aviation partner, Leonardo Helicopters, to upgrade one of our aircraft to the newest generation model.

Both N901LF and N901XM are Agusta 109 SP models and are part of a larger effort to upgrade and standard-

ize LifeFlight's fleet of helicopters. Today's SP model has a greater weight carrying capacity, more work space for patient care, and can fly faster and farther on the same amount of fuel than our older aircraft. The added workspace and ongoing miniaturization of medical technology allow us to add new therapies for very complex patients.

Additional hi-tech features create "connected" helicopters to facilitate remote diagnostic decision-making (think in-flight telehealth) and establish an infrastructure to support future medical equipment and treatments. For example, we are working with colleagues in Europe to develop mobile technology to diagnose stroke patients and gather images to transmit to specialists at large medical centers who can identify the best treatment options which can immediately be implemented during the transport.

The new models also boast state-of-the-art aviation technology necessary to achieve a new level of safety and reliability on every mission. Maine's harsh and unpredictable weather conditions have long been a chal-



CELEBRATING OUR DONORS!

VIRTUAL OPEN HOUSE

Join us for a firsthand look at N901LF and N901XM and a live Q&A with the crew

THURSDAY, APRIL 15, 2021

Live on Facebook



Flight Medic Greg Milliken and Flight Nurse Kathy Beller restock N901LF's larger cabin after a recent flight. The new Agusta 109 SP model has a greater weight carrying capacity than the older E models and can fly faster and farther on the same amount of fuel.

lenge LifeFlight has worked to overcome. Recently, LifeFlight has partnered with the FAA to establish new flight routes at much lower altitudes than what has existed for the last several decades. These low-level routes will give pilots more options to safely and reliably transport patients.

However, only helicopters with advanced avionics technology will be able to access the new routes. That's

where the SP models come in. Unlike older models, N901LF and N901XM have a 4-axis autopilot and the ability to receive vertical guidance from GPS which allows the aircraft to operate at low-level precision instrument flight routes.

What does that mean for critically ill and injured patients? LifeFlight can answer more calls for help, transporting hundreds of additional patients every year.



Flight Medic Patrick Underwood performs an annual proficiency test with one of LifeFlight's mobile blood analysis devices known as an i-STAT. These small but powerful tools provide a detailed, accurate picture of a critical patient's condition, often while in flight.

How specialized medical equipment aids LifeFlight's COVID-19 response

LifeFlight crews have always taken care of people in respiratory failure, but as COVID-19 has spread across the state, the number of these critical patients has risen dramatically. Most of these patients are intubated and hooked up to a ventilator, a mechanical device that takes over breathing for those who are unable to breathe sufficiently on their own.

Ventilators can be adjusted to control the rate of breathing, the percentage of oxygen being delivered, the amount of pressure being used to inflate the lungs, and the inhalation and exhalation time for each breath — all important inputs to maintain the optimum levels of oxygen and carbon dioxide in the patient's system. Ventilators can also produce the very high flow rates needed for COVID-19 patients who require continuous or bilevel positive airway pressure support.

Flight Nurse Michael McDonough explains, "When you take over breathing for a patient, it's critical that you have the right tools for the job. The amount of carbon dioxide in a patient's system has a direct effect on the pH level of the blood which must fall within a very narrow range. If the pH level gets too high or too low, chemical reactions within cells start to break down and can interfere with the efficacy of some medications. Organ failure is often the result of abnormal pH levels."

One key piece of equipment on board the aircraft

which goes hand-in-hand with the ventilator is a mobile blood analysis device called an i-STAT. With a small blood sample, the i-STAT delivers critical information about the patient's condition in just 2 or 3 minutes. The results provide a real-time picture of the delicate balance between too much or too little oxygen or carbon dioxide in the blood stream, allowing the crew to fine tune the care being delivered. In recent years, we've used the i-STAT on more than half of our missions.

Monitoring the effectiveness of the care being provided is especially important on longer flights when the patient is outside of a hospital for an extended time. Because Maine is so rural with a widely dispersed population, LifeFlight's average flight time is often longer than in urban areas of the country.

This small but powerful tool can also be an additional resource at many of the state's smallest hospitals where the availability of rapid lab results on nights and weekends is never a guarantee. When the LifeFlight crew walks into the hospital with the i-STAT in hand, in some cases they are bringing an additional tool for patient care that was unavailable prior to their arrival.

"The bottom line is that our ability to safely care for a critical patient on a ventilator isn't impaired simply because we're outside of the hospital," says McDonough. "It's the same tool found in larger hospital labs and having the same tool means the quality of care won't deteriorate when the patient is in transport."

PRECISION NAVIGATION

Benefits of Low Altitude Instrument Flight Routes

In the world of air critical care transport, advances in aviation are as vital to the mission as advances in medicine. Just as LifeFlight stays on the leading edge of transport medicine, the organization has also continually worked to build a more comprehensive aviation infrastructure, leveraging new technology as it becomes available to enhance safety and reliability. Our most recent project utilizes satellite-based GPS and the state-of-the-art avionics found on our newest helicopter models purchased in 2020 and 2021 (Agusta 109 SP).

Over the last several years, LifeFlight has developed a public/private partnership with state and federal governments which has provided funding to improve airport runways, build helipads, install more weather reporting stations, and create a statewide network of GPS approach and departure procedures at hospital and community helipads. These efforts laid the groundwork for our newest project.

Starting in early 2020, LifeFlight partnered with the Federal Aviation Administration (FAA) to establish a network of precision helicopter instrument flight routes that connect every community in Maine. You might think of it like an interstate highway system in the sky. The new instrument flight routes currently being established are the main arteries connecting the state's major hospitals and the feeder routes reaching out to smaller community hospitals and islands. Each destination has its own on and off ramps which are the approach and departure

procedures developed over the last several years.

IFR (instrument flight rules) routes have been around for more than 60 years and are the backbone of commercial aviation navigation. However, the routes that exist today are located at higher altitudes because, at the time they were established, avionics were less precise and relied on air traffic voice communications and ground-based radar technology. Using satellite-based GPS data available today, together with updated avionics that include a four-axis autopilot capable of maintaining a highly accurate position in three-dimensional space, the FAA can develop instrument routes at lower altitudes. This first-in-the-nation demonstration project is a key element in LifeFlight's forward-looking efforts to care for the next generation of Mainers.

The first route in Maine was established at the end of 2020 and traverses from Bangor to Bar Harbor. Subsequent routes will link Bar Harbor to Portland, pick up feeder routes from islands and coastal hospitals along the way, and connect Portland, Lewiston and Bangor. Once these initial routes establish an efficient and effective process, LifeFlight and the FAA will fill in the grid with dozens of additional routes which will link all LifeFlight's existing procedures across the state. This enhanced infrastructure, built on modern technology, is safer and more reliable. It means LifeFlight can answer more calls for help and provide increased access to care for all Mainers.

What does all this mean for critically ill and injured patients in Maine?

The ability to fly instrument routes at lower altitudes means our pilots have an option to safely avoid icing conditions that are more common at high altitudes. Today, when high level routes are the only option, we sometimes must turn down a request for help due to icing. The new routes improve safety and help us reliably complete our mission and help another critically ill or injured Mainer.





“I am honored by the opportunity to work with such a fantastic team to protect and expand one of Maine’s most critical resources. This is certainly a challenging environment, but I am confident that we can boldly and strategically navigate the path ahead.”

-- Kate O'Halloran

Mainers show support in even the toughest of times

More than 560 donors supported LifeFlight’s fall appeal

It’s hard to believe that almost a year ago, on March 17, 2020, LifeFlight was called to transport our first patient suspected of having COVID-19. LifeFlight has been working diligently over the past year, implementing new procedures and protocols, and utilizing new technology during transport. We’ve had to find a new way of caring for Maine’s most critically ill and injured patients during the pandemic, and it wouldn’t have been possible without the support of hundreds of individuals, businesses, foundations, civic groups and towns across Maine.

The extremely generous support of critical care in Maine that LifeFlight has recently seen has come at a time when it is needed most. We are delighted to share that over 560 donors, inspired in part by a \$60,000 match from an anonymous donor, came together to support LifeFlight’s fall campaign and gave more than \$260,000. These gifts will help LifeFlight continue to implement new procedures and purchase specialized equipment needed to navigate COVID-19 in Maine.

Since the coronavirus arrived in Maine last March, we’ve transported 1,800 critical patients via helicopter, airplane and ground ambulance. In August of 2020, just over 30% of LifeFlight’s patients were known or presumed to have COVID-19. Today, that number is nearly 75%. One day in late December, LifeFlight crews were called 10 times. Three of those patients were scene calls and we had no way of knowing if they were infected or not. Three others had already tested positive for COVID-19 and the remaining four patients had symptoms consistent with COVID-19. The support LifeFlight has received over the past year from many generous donors meant that the LifeFlight crew could safely answer these calls for help.

While there is a light at the end of this tunnel, we are expecting to transport presumed positive and confirmed positive COVID-19 patients through 2021 and into next year. Philanthropic support is vital to our ability to safely continue LifeFlight’s mission of providing emergency critical care to those who need it most.



The LifeFlight Foundation welcomes new executive director

The LifeFlight Foundation is happy to welcome Kate O’Halloran as its new executive director. Thomas Judge, founder of LifeFlight of Maine and the LifeFlight Foundation, has served as the Foundation’s executive director since 2003 and will work closely with O’Halloran in his ongoing role as executive director of LifeFlight of Maine.

“After a national search which resulted in a number of highly qualified candidates, Kate stood out as the person with not only a wealth of knowledge and expertise but also a strong passion and understanding of LifeFlight’s mission and importance to the state of Maine,” said Dan Daigneault, Chair of the LifeFlight Foundation Board of Trustees.

Kate grew up in Waterville and attended Brown University, after which she has had a successful career in both academia and development. After a prolonged stint in Boston, where she earned an MBA at Babson College and served as the Associate Director for the Arthur Blank Center for Entrepreneurship, Kate returned to Maine to be closer to family. She served as the Associate Director of the Goldfarb Center for Public Affairs and Civic Engagement and also helped lead the Oak Institute for the Study of International Human Rights at Colby College.

Kate transitioned her roles at Colby to an immersion in nonprofit leadership and development. Over the years she has helped lead significant campaigns at

Colby College, MaineGeneral Health, and Carra-bassett Valley Academy. Kate spent the last three years as a strategy and development consultant for numerous Maine nonprofits where she gained experience in a variety of sectors and regions. She’s also served on the boards of nonprofit organizations including Maine Audubon, Maine Huts and Trails, and the Maine Women’s Fund.

The Foundation raises money to help LifeFlight purchase aircraft and medical technology and provide clinical education and training. As the demand for LifeFlight of Maine’s services has grown over the last few years—exacerbated by today’s coronavirus crisis—the need for the financial support provided by the Foundation also grows.

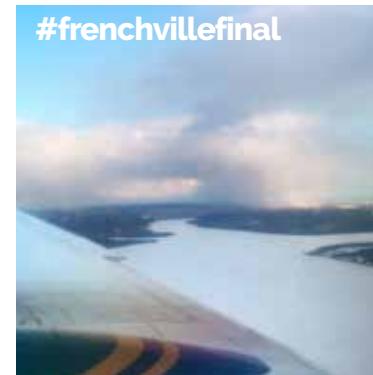
O’Halloran will lead the team at the LifeFlight Foundation to expand the donor base and launch a significant capital campaign to assure LifeFlight of Maine is poised to meet new and growing demands of the increasingly complex emergency medical needs of the nation’s oldest and most rural state.

“Thanks to our donors, we have been able to offer a world-class service to all Mainers at the lowest possible cost with among the lowest charges in the country,” said Judge. “As we look to the future and prepare to care for the next generation of Mainers, we are delighted that Kate has joined our team.”



**SCENES
FROM THE
FRONTLINE**
ACROSS MAINE AND BEYOND

A few shots of where LifeFlight crews have answered the call since the pandemic hit.



#rangeley by Dustin Smiley; #piscataquis by Veronica Marzonie; #mmc by Denise Saucier; #casco bay by John Malcolm; #cleveland by Brad Fisher; #enroutejackman by John Malcolm; #waldocountygeneral by Mike Choate; #mightykatahdin by Tommy Gallant; #deblois by Lorry Sheasgreen; #thomaston by Sarah Thompson; #frenchvillefinal by Veronica Marzonie

LifeFlight crews continue to grapple with Covid

Like our colleagues across the healthcare system, flight crews continue to care for patients in this very challenging environment created by the coronavirus pandemic. For LifeFlight this means constant adjustments in keeping our people and patients safe. Here are a few examples of what those adjustments look like:

- updating our practice protocols and procedures to build additional layers into the safety system;
- adding new biocontainment technologies to support patients' respiratory status without the need to electively intubate and place the patient on a ventilator;
- adding new ultraviolet decontamination technologies and cleaning agents to more quickly get vehicles back in service;
- working to support our staff and keep them safe as they grapple with fatigue and concerns around safety and patient care in this new environment; and
- finding new ways to help our staff care for patients including providing decision support, intervention strategies and coordination with our clinical leaders and referring physicians while in the air headed to patients.

CROSS FOR LIFEFLIGHT

Join us for a reimagined, remote iX2021

The Islesboro Crossing is LifeFlight's largest annual fundraising event. It began in 2013 as a 3-mile swim across Penobscot Bay from Lincolnville to Islesboro. However last year, due to pandemic restrictions the traditional gathering simply wasn't possible.

Instead, participants spread out across Maine to complete "crossings" on their own, embracing the theme of "connecting the corners of Maine." Much like LifeFlight connects critically ill patients to the care they need, participants sought to connect the corners of Maine with hundreds of individual crossings covering 15 Maine counties and 8 states.

People from all walks of life embraced the new remote format, raising more than \$300,000 to support LifeFlight despite the uncertainty, economic strife and devastating loss everyone has experienced in the face of an unrelenting disease.

As we settle in to 2021, the pandemic is undeniably still with us. Although we have begun to see a glimmer of light at the end of the tunnel with the vaccine roll out, we still face many unknowns before it's over. As a frontline organization, LifeFlight sees the effects of and the continuing risks posed by the pandemic every day. We also understand the additional vulnerability an island community like Islesboro faces and recognize these issues likely won't be fully resolved by summer.

For these reasons, the planning team has decided to build on the success of iX2020 and hold a reimagined, remote event again in 2021.

iX2021 will be held August 1 through 31 and we'll be expanding on what we started last year with hundreds of individual and team crossings taking place across Maine and beyond. Through our digital and social platforms we will stay connected and build a community of crossers—swimmers, paddlers, bikers, hikers, runners, rowers, sailors and more—who all have one thing in common: support and love for LifeFlight.

The money raised at this year's event will support LifeFlight's capital purchases including medical equipment and upgraded aircraft, as well as the organization's education and training programs. Over the last 8 years, this event has raised more than \$1.8 million to support LifeFlight — support that has helped thousands of critically ill and injured people in Maine get the care they needed when it mattered most.

Register today at www.islesborocrossing.org.

What you need to know about iX2021

Registration opens
February 15

Registration fee is \$100

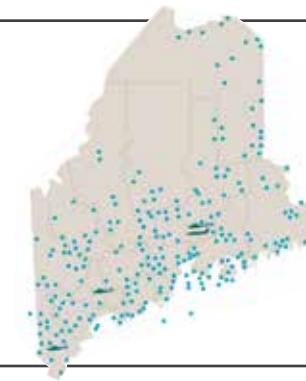
Minimum fundraising
requirement of \$350

Everyone receives one of our renowned swag bags featuring a one-of-a-kind shirt, a special keepsake and useful gear to accompany your crossing!



WELCOME ABOARD!

In 2020, eight new towns joined the LifeFlight family and voted to support LifeFlight in their annual budget: Southwest Harbor, Machias, Woolwich, Verona Island, Limerick, Howland, Boothbay, and Otis.



Growing number of Maine towns give vote of confidence through funding support

Every four hours, LifeFlight answers a call for help from EMS and fire/rescue agencies and hospitals across Maine. Whether seriously injured in an accident or suffering from a critical illness in a small community hospital, these patients desperately need the lifesaving care that can only be found at a distant medical center. To help make sure that LifeFlight can answer these calls, we reach out to municipalities across the state to help us meet this critical need. To date, 232 Maine communities have made a contribution to support our work.

Yet town giving is about much more than just the money. It represents an important vote of support, confidence, and acknowledgment from the many communities who appreciate and have come to depend on LifeFlight. This widespread town support is an important consideration when LifeFlight requests funding from individuals, local businesses, and foundations.

Each year we send a request to all Maine towns, cities, and townships requesting support. The request includes a suggested donation based on population; we use a \$1.00 per capita rate for towns who have up to 1000 residents; a \$0.50 per capita rate for those with up to 2000 residents; and a \$0.25 per capita rate for all others, with asks typically capped at \$2,000. The average gift size in 2020 was \$598.80, as some towns give generously beyond what they are asked.

2020 was certainly a challenging year for cities and towns across the state (country!) as each municipality struggled with increased costs and lost revenues brought on by the pandemic. Knowing that made us even more grateful for the support received from Maine towns (and one in New Hampshire!) which totaled \$104,189.

In the two decades since LifeFlight was founded, nearly half of the towns in Maine have contributed a staggering \$530,000 to support our mission. We are very thankful for our long-term donors such as Winter Harbor as well as our new donors in 2020.

Town Manager Cathy Carruthers said that when she moved to Winter Harbor and learned about LifeFlight, she knew small, rural towns were truly fortunate to have such an important service. Cathy joined the Fire Department and after a couple missions that involved LifeFlight landing at their town office, she was able to attend a ground safety course in Cherryfield to learn even more about the helicopters and crew.

Both Cathy and her father also regularly make a personal donation to LifeFlight and felt strongly that the town should donate as well. The town of Winter Harbor has given for seven years, the amount figured at one dollar for the population of the town at the time they started. Cathy said that she and her Board enjoy the in-person presentation that LifeFlight of Maine Executive Director Tom Judge provides at their town meeting, and that she loves to talk about LifeFlight to proudly help spread the word as one of our most ardent supporters.

LIFEFLIGHT FOUNDATION

DISPATCHES is a publication of The LifeFlight Foundation, which provides fundraising and public relations support to LifeFlight of Maine, the state's only medical helicopter service.

The LifeFlight Foundation is a nonprofit, tax-exempt organization under Section 501 (c)(3) of the Internal Revenue Service Tax Code. It is governed by an elected board of trustees who represent medical, business, legal and educational fields throughout the state.

The Foundation also supports the development and funding of Maine's major air medical needs, such as trauma training statewide; construction of hospital helipads; and installation of weather reporting, navigational and communications systems.

The Foundation's office is located in the town of Camden at 13 Main Street, 2nd floor. You can reach us at 207-230-7092 or by email at info@lifeflightmaine.org.

Donations are tax-deductible.

LIFEFLIGHT OF MAINE

LifeFlight of Maine is a nonprofit statewide critical care medical helicopter service jointly owned by Northern Light Health and Central Maine Healthcare Corporation. LifeFlight's airplane, three helicopters and dedicated ground ambulances, based in Bangor, Lewiston and Sanford and operated by SevenBar Aviation, cover the entire state and offshore islands. LifeFlight complements and supports the work of local EMS and hospital personnel in caring for the critically ill or injured. Each base is staffed by a highly qualified team of pilots, mechanics, flight nurses and paramedics. More than 29,000 patients have been safely transported since LifeFlight's founding in 1998.

LifeFlight was fully re-accredited by the Commission on Accreditation of Medical Transport Systems in 2019.

EDITOR

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LifeFlight of Maine / LifeFlight Foundation



THE LIFEFLIGHT FOUNDATION
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Dispatches is published by The LifeFlight Foundation for friends, supporters and members of the state's Emergency Medical Services community. Comments and suggestions may be directed to the Foundation at Phone: **207-230-7092** Email: info@lifeflightmaine.org



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