

## **LifeFlight of Maine's commitment to safety.**

LifeFlight of Maine, along with our aviation operator EraMED, takes safety seriously. Each day people from across Maine entrust us with their lives and the lives of their loved ones. Our simple, yet profound, philosophy is that we must always be worthy of that trust.

We believe it is important for our partners and the public to understand the essential elements in LifeFlight's approach to safety. Before a call even comes in, LifeFlight has taken steps to ensure the highest level of safety.

For example, LifeFlight continually offers ground safety courses for 911 dispatchers, fire/rescue and public safety agencies, EMS, and hospital personnel throughout the state. Over fifty programs are run annually at no cost to assure the safety of operations.

All calls that come through LifeFlight's communication center must originate from a physician at a hospital or an EMT at the scene of an accident. Both physicians and EMTs are guided by strict medical criteria for air transports, and frequently consult with LifeFlight's medical directors or emergency room physicians at one of the state's three trauma centers. LifeFlight uses very conservative criteria to determine the medical necessity of transports for both helicopters and ground vehicles with LifeFlight teams. Ground critical care is used when there is no time urgency or when the weather prevents safe flight operations.

When a request for transport does come in, the pilot's first consideration must be safety. Pilots are not given any details from the call, whether the patient is a 3-year-old car accident victim or a 57-year-old heart transplant candidate, so that they can make an objective decision about the safety of the flight. Because LifeFlight is a hospital-based, non-profit service, the pilots feel no pressure to make a flight in order to generate revenue. Once the pilot accepts the flight request, the dispatchers are in constant contact with the aircraft, as well as with communication centers from neighboring air medicine services and other EMS agencies.

LifeFlight was built on the premise of achieving the highest performance possible for operating and clinical safety. We believe that by developing a carefully designed and operated system, we can reduce the risks of emergency operations to as low as possible. Some of the essential elements include:

- Recognizing the distinct core competencies of aviation and medicine, LifeFlight works with one of the premier aviation operations in the country. EraMED, formerly Keystone Helicopters, has consistently achieved an exemplary safety record in medical aviation.
- In addition to meeting all applicable licensing standards, LifeFlight maintains full voluntary national, "gold standard" accreditation awarded by the Commission of Accreditation for Medical Transport Systems (CAMTS).
- LifeFlight replaced its original aircraft in January 2005 with the latest generation aircraft incorporating state of the art navigation, weather radar, power, and instrumentation improving safety and services to patients.

- In 2003 Maine voters passed a Transportation Bond that provided funds to build a comprehensive aviation infrastructure across the state. LifeFlight spearheaded the effort and administers the project. This includes building hospital helipads, installing fuel availability in Aroostook County, and a low level instrument flight system (IFR) incorporating new weather reporting stations, instrument approaches, fuel availability, and hospital helipads throughout Maine. One of the major risks identified by the National Transportation Safety Board is using visual flight rules (VFR) in low light and marginal weather conditions. Most air medical operations in the USA are VFR only programs. We believe IFR performance will increase safety at night and in changing weather conditions.
- LifeFlight's night operations have more than doubled in the last decade. Recognizing the additional risks posed by night operations, LifeFlight is in the process of adding night vision technology to the aircraft and operations, incorporated in the latest safety recommendations from the FAA and NTSB.
- LifeFlight is a founding member of the Aviation Safety Network--North America (ASN). First originating in Australia, the ASN is a unique voluntary association with some of the most highly regarded medical organizations in the USA and Canada. We benchmark our performance to these organizations in an effort to meet a set of 84 international best practice aviation standards.
- LifeFlight and EraMED use the latest recommended practices for safety and quality from the Air Medical Safety Advisory Council, (AMSAC) the NTSB, and the FAA to develop program policies and procedures. This includes all operations being conducted under the most restrictive flight rules set by the FAA.
- LifeFlight is a member of the FAA and industry-led International Helicopter Safety Team project (IHST) and LifeFlight personnel lead one of the IHST work groups seeking to improve aviation safety infrastructure.
- Working with the ASN, IHST, and EraMED, LifeFlight is in the process of implementing the gold standard of a fully integrated Safety and Quality Management System (SQMS). Safety Management Systems—a completely integrated approach to safety from the top down and bottom up are standard for the major airlines and NASA.
- LifeFlight and EraMED use regular external assessment of quality with regular audits of both the aviation and clinical operations.
- Careful and continuous medical oversight. LifeFlight has an ongoing Quality Assurance and Performance Improvement program that continuously identifies, audits, and develops specific management risk strategies for any activity with potential for high risk consequence. Eighteen specialist physicians from hospitals in Maine volunteer their time to oversee LifeFlight clinical care.
- LifeFlight is a member of the North East Air Alliance, (NEAA) a collaboration of Boston MedFlight, DHART Dartmouth Hitchcock Medical Center in New Hampshire, the University of Massachusetts, and the LifeSTAR program at the Hartford Hospitals in Connecticut. Unlike other areas in the country with many competing programs, New England has a cooperative approach assuring that there is simultaneous high regard for medical necessity and conservative aviation operations.
- In order to improve communications, LifeFlight dispatchers, or ACS (air-medical communication specialists) run a national certification program every three years with colleagues from NEAA and across the country. All medical crew are also required to attain specialty certifications in flight and critical care transport.

- All of the NEAA programs actively share communications. LifeFlight, working with other NEAA program communication centers, has a long standing control plan for helipads in Boston, as well as at Maine Medical Center, Central Maine Medical Center, Eastern Maine Medical Center, and Dartmouth-Hitchcock Medical Center. Positive communication control of access in and out of helipads is essential in preventing an accident like the one that just occurred in Flagstaff.
- EraMED pilots and MedComm communications specialists (dispatchers) work with colleagues at other NEAA programs on a daily and immediate basis to share weather and safety information.
- LifeFlight, together with the FAA Flight Standards Office in Portland, offers an annual aviation safety conference for all helicopter aviation operations in Maine. This past year's theme was Human Factors in Maintenance.
- LifeFlight works with public safety, 911, EMS, and hospital personnel across the state to assure the safety of operations. LifeFlight and MedComm personnel provide over 50 continuing education safety programs at no cost annually to our partners in care.
- All LifeFlight personnel regularly participate in Crew Resource Management (CRM) programs. High performance, team-based operations have been identified as core clinical and aviation safety elements in building a culture of safety.

We recognize that safety is at the heart of practice, each day and each patient. It is constantly earned.

Over the last year, there were a record number of tragic air medical crashes elsewhere in the country including an unprecedented mid-air collision of two air medical helicopters at the Flagstaff Medical Center in Flagstaff, Arizona. We are looking closely at each of these events to try and understand the causes and learn the lessons of what must be done to improve safety. While we have to wait for final reports from the National Transportation Safety Board, it is clear that each of these events was caused, at least in part, by human error.

Human error is the most pervasive and difficult challenge we face in medicine, as there is no one single strategy we can employ—technically, educationally, or regulatory—that can overcome error. The Institute of Medicine Report “To Error is Human,” published in 2001, estimated that as many as 98,000 people a year die of preventable medical error in hospitals. Most of these deaths are caused by human error, or in the vernacular *human factors*.

Air medicine is among the most complex and high consequence of medical environments. Even a momentary loss of focus may result in disastrous consequences. Emergency operations with limited planning time, the application of critical care medicine, and the ever changing New England weather aviation environment, each present an increased opportunity for human error. Managing risk and reducing error in these operating environments is among the most challenging practice arena of medicine. These are the challenges LifeFlight faces every day.

It is our consistent goal to operate at the highest level of public trust. LifeFlight works nationally and internationally to make sure we are operating at the leading edge of safety and quality. The people of Maine, and our partners in emergency healthcare, deserve a system that is under constant measurement to assure the safety of operations.

Thomas Judge, Executive Director