WHITE PAPER

2017

LZControl

INTERNATIONAL LANDING ZONE DATABASE

INTRODUCTION

In any industry, the first organization to action insights changes the game. The faster information is shared, when processed properly, the better prepared a consumer is to make intelligent decisions. In the aviation industry, and especially the Helicopter Air Ambulance community, insight saves lives.

LZControl.com is an International Landing Zone Database designed to process crowd-sourced data in order to improve safety, communication and information sharing for the Helicopter community. Driven by our vision of offering a unified resource to the aviation community, LZControl.com is a shift in traditional aviation related data aggregation and sharing of information that provides the aviation industry with on-demand access to a variety of real-time details about landing zones and other operationally relevant factors.

LZControl.com simplifies the collection and distribution of information so that the aviation community and supportive entities can focus on what is necessary to achieve operational goals that contribute to mission success.

CHALLENGE

Helipads, heliports and landing zones are an ever-changing component of a dynamic industry. Hospitals in particular are known for unknowingly introducing hazards without considering the effects on flight safety. Owners of LZs and heliports frequently do not share changes with all of the potential operators who may land at their site. Changes to these LZs are typically relayed by flight crews who notice a hazard or change in the flight or landing environment. Unfortunately, the information on the newly identified hazard stays within the company, isolated, leaving other operators to experience it for themselves and repeat the process – sometimes at great risk.

Nearly every helicopter operator builds and maintains a landing zone database of some sort. Even though these databases are generally not proprietary, they are not routinely shared with other operators and could be essential to the safety of other air crews.

Among these databases exist many predesignated LZ's (NTSB best practice). which are used by hundreds of helicopters and provide an added element of decreased risk. Instead of landing where possibly no aircrew has ever landed before, an establish repository of LZ information such as LZControl.com can provide aircrews with a safer option.

The FAA "5010 database" is referenced by more than a dozen apps and web sites. While runway-based airport information is largely accurate, the smaller helicopter facilities in the community are frequently not. An informal analysis by Heliexperts, LLC showed that of helicopter facilities in one state listed in the 5010 database shows that about 50% of the records contain inaccurate data.

5010 database updates are conducted every 4 years by the FAA (Form 5010-2), but fail to capture safety-critical information such as helipads being moved from the ground to roof tops, moved blocks away, changes in the surface and weight tolerances, etc. These changes happen overnight in some cases and in the age of real time information exchange this is outdated and ineffective especially considering the criticality of the issue.

SOLUTiON

Communication, information sharing, real-time data distribution and collaboration

LZControl.com reverses the current antiquated process of data collection and information publication and provides a tool for the consumers of the information to contribute to and manage the information. This works well because there is far more interest among aircrews to exchange information than among the LZ property owners. Whereby owners are occasionally motivated by compliance, aircrews are motivated by self-preservation and safety. This is "crowd-sourcing" for safety - popular and reliable.

This "Self-Governance" model works. Adoption of this model by governing and regulatory entities can only compliment the contributions made by the site members by further vetting information and providing oversight. Transparency is the key to the successes of this effort. The consumer has access to view the sources and history of the information so as to provide them with insight.

LZControl.com provides a centralized repository of pre-designated landing zones, FAA 5010 registered heliports and helistops, and facilities used by air medical, oil/gas, off shore, tour, and power line patrol operators. Updates and alerts are distributed in real time and are readily accessible to the community.

LZControl.com serves as a centralized resource bringing other valuable information, "associated" with an LZ, together in one place:

- o Satellite imagery
- o METAR/TAF
- o Local resources (Fuel, etc.)

FEATURES

A satellite interactive map is associated with each LZ. There also is the capability to save an image of the LZ summary or print for reference in flight.

SAFEGUARDS

• Access: All users must sign up as a member with a valid email address. The user is then granted access to join the crowd-sourcing platform and update or create LZ data. Each update is time stamped and displayed with the user profile name for all other users to see. If a user is found to be unreliable or malicious then they can be rolled back to read only status or banned. To-date, we have yet to ban a user.
• Levels of access: Members can be granted higher levels of access on a case-by-case basis. This gives a user the ability to roll back data to a previous version, lock an LZ from being edited and other higher functions.
• Groups: There is a field for proprietary information that can be attached to a group. Example may be radio/nav GPS codes specific to one flight operator that would not be associated with any other.
• Restrictions: Any LZ can be locked if the owner requests that they maintain their LZ on the platform. An LZ can also be in the database but be made private where other users cannot access it unless they are part of a private group.
• Reliability: The site is saved on multiple cloud servers and has had a greater than 99.99% uptime for the life of the platform.

SUMMARY

LZControl.com offers the aviation community the ability to mine huge amounts of data from diverse sources, display that data in a format that a consumer can understand and derive accurate information in order to make just-in-time, well-informed decisions — and sometimes difficult decisions.
LZControl.com was created to provide a solution. The website provides a means for the aviation community, and others impacted by aviation operations, to communicate.   As a crowd-sourced model of information sharing, LZControl.com is proving itself as an invaluable resource. The website's members remain engaged and adoption & acceptance by the aviation community continues to grow, and as a result, more and more property & life saving information is readily available to stakeholders.

The HAA community continues to embrace LZControl.com as a reliable resource. Because the database is populated real-time by the aviation community at large

(sources documented and disclosed) more accurate information is readily available when compared to resources that depend upon data transferred from the 5010 database. Additionally, information unique to particular types of LZs (airport, hospital, pre-designated remote LZs, and tour/resort helispots) are documented and readily accessible to the aviation community.

The proper use of technology, responsible information sharing, and collaboration are fundamental for the successful day-to-day operations of any organization. LZControl.com provides a means to this end.

Designed and developed with a passion to enhance safety so as to ensure a safe return home for our friends and family.

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