Report of the Ad Hoc Logbook of the World (LotW) Study Committee

17 July 2013

At its January 2013 meeting, the Board of Directors approved a motion to set up an Ad Hoc committee to study the current state of the Logbook of the World (LotW), and to report and make recommendations toward securing Logbook's continuing success and value to the amateur community. This is the first report of that committee.

By the time of the July 2013 Board meeting, the committee will have met twice via webinar/teleconference, and twice face-to-face. The group developed three areas around which to organize its activities—

- Assessing LotW's technical position and needs for technical resources.
- Understanding LotW's costs and revenues.
- Defining LotW's current and future value and presentation to the amateur community.

The group made good progress on each of these topics. A few needed actions are already identified. The committee will work toward final conclusions to be presented at the 2014 Annual Meeting of the Board.

LotW technical position and needs

In the Fall of 2012, users of LotW experienced a series of incidents that raised questions about its reliability and continued viability for the amateur community. Even before the Board chartered this study committee, IT Manager Michael Keane was at work with a group of volunteers to address user interface issues, and to some extent re-architect the LotW application to move tasks back to users' individual logs, and off the central LotW system.

There is an expression—"Pay me now, or pay me later." Those working with LotW have known for some time that it is now in the "pay me later" phase.   Steps avoided or skipped in the development of LotW have finally become unavoidable. This means that LotW now carries a "technical debt" which must be "paid" before progress can be made. The most significant implication of this situation is that basic technical issues must be addressed before adding new features, etc. As the technical group put it "the first rule of getting out of a hole is to stop digging."   The Study Committee agreed that this concept and its implications must be made clear to the Board, since we will be proposing costs. We suggest that there be a moratorium on adding functionality to LotW until we are "out of the hole."

These 5 topics need to be addressed:
1. Record locking and instrumenting the process.
2. Potential reliability improvements.
3. Replacing layer written in C++. This will change 15-30% of the code base.
4. Decide how to upgrade the unsupported database currently used.
5. Examine possibility for changes in data architecture which would result in performance improvements.

In addition to these needs, the group and IT Management are agreed that LotW is seriously understaffed. This level of staffing is an ongoing requirement and requires the addition of at least one Full Time Equivalent person as soon as possible (but with the right qualifications), with further increases likely required once all technical areas are fully assessed. In addition, there is need in several of the 5 topics that will require us to purchase specialized consultant expertise to move beyond those problems.

A motion will be introduced during Directors' Motions at this Board meeting to address these needs. We will include costs of the motion at that time. The technical review of LotW is still not complete, and there will be additional costs beyond those to be proposed at the July 2013 Board meeting; but getting a jump on those costs already known will lower the risk of problems with LotW.

Costs and revenues

Understanding the revenues of LotW is fairly simple, since there are actual payments by users of LotW credits, or organizations using LotW as a source of authentication for their own awards (CQ). Costs are less easily understood, because the resources needed by LotW are shared with many other ARRL activities and products. There are several issues that remain to be followed up before a full description can be brought back to the Board. The committee has put activity in motion to provide this information in our next report.

LotW's value and status

LotW has, by any measure, been a great success. In fact, one might say it has become a victim of its own success, to the extent that many amateurs believe that it should provide extremely high levels of service. Much has been made of the assertion that LotW is a "mission critical service" for ARRL. The Widipedia says: "**Mission critical** refers to any factor of a system (equipment, process, procedure, software, etc.) whose failure will result in the failure of business operations. That is, it is critical to the organization's 'mission'." Whether or not a capability is "mission critical" however, this still does not necessarily mean that it is 100% ("27/7") available, nor that it must provide processing in "real time." At this time, the study committee tends to favor identifying LotW as mission critical, but also agrees that 24/7 and instant availability are service levels beyond what is appropriate.   The committee will propose policy on this question in its concluding report to the Board.

One of the original reasons for the LotW committee was to explore whether there are other services of LotW that could be monetized, or other ways to deliver service, etc. In general, the committee agrees that there are other service definitions, and that these could be an important part of defining Logbook's criticality. Part of "stopping digging", however, is to avoid raising new expectations while we are still shoring up the foundations.

There are a few other operational issues that need to be addressed to help maintain the loyalty of LotW's community, such as a policy about communicating to users about LotW changes and availability. This includes advance indication of maintenance times; communicating about outages, when experienced; and so forth. These will be a natural result of the study committee's work, but will be documented, so they are clear to those who run and use the system, alike.

Need for support

A final point that the committee has observed is that LotW may well be at a crossroads. Having demonstrated to amateurs worldwide the importance of an unimpeachable source of QSLs, Logbook has defined a capability that others could emulate. Two things will sustain ARRL as the owner of the critical capability in this area—continued investment in maintaining a world class world logbook, and ownership and maintenance of the gold-standard awards in amateur radio—principally DXCC.

Logbook has now grown to a point where it requires some additional resources just to maintain its current leadership status. That status is by no means guaranteed, and in fact is at risk with our current level of resourcing. The committee wishes to communicate the criticality of raising the support to LotW, and expects to request specific support both at the July 2013 Board meeting, and also in January 2014.

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