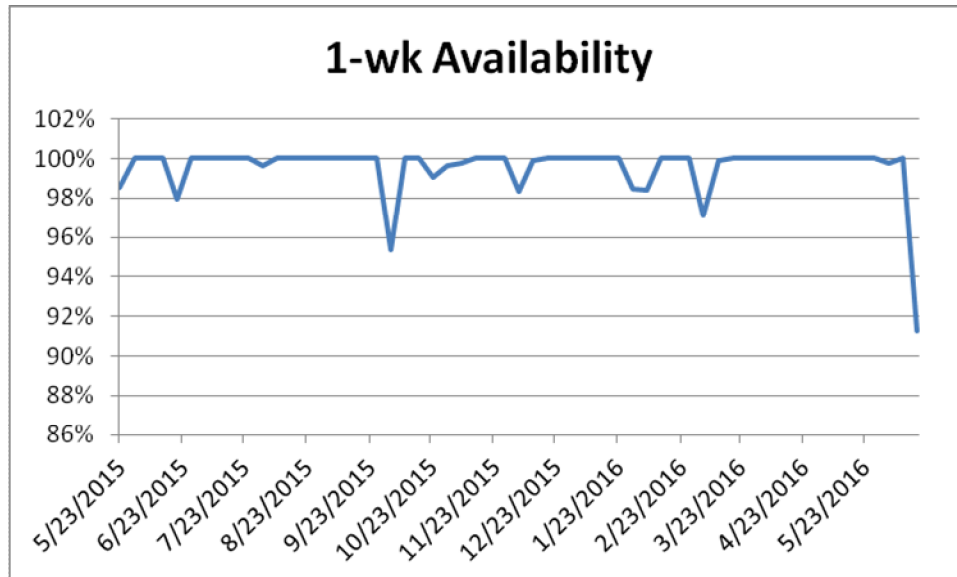


## **LoTW update—14 July 2016**

Ad Hoc Logbook Study Committee

Logbook of the World (LoTW) availability continues to improve, with recent unavailability due to planned maintenance for all of ARRL.org. As reported at the end of 2015, the number of issues reported and discussed on the Yahoo reflector ARRL-LoTW has been very low.

### **Availability**



LoTW availability continued to be good in 2016. As the chart shows, availability has been at or above 98% except for three weeks in the charted period. The chart shows a 14-hour announced unavailability on 13 June for network

maintenance on ARRL.ORG. The only serious unplanned availability occurred in October 2015, when a mal-formed log upload tied LoTW into knots. That issue was traced and code re-written so this situation cannot occur again.

### **2016 Developments**

Early 2016 had some rocky patches as the NPOTA event began. Because of their experience with the Centennial QSO Party, Sean Kutzko and Norm Fusaro in particular, were able to anticipate and prevent many possible problems with the interaction between the NPOTA site [npota.arrl.org](http://npota.arrl.org) and LoTW. Other issues arose due to complexities of the National Parks designation systems, especially in areas where two or more entities were applicable at the same time. This necessitated a series of updates in LoTW configuration information, as well as some updates in TQSL. These issues are not problems with LoTW itself, and in any case appear to be behind us.

Another important achievement of the NPOTA support environment is that it has been the trial of the new definition of how LoTW will interact with awards or other sponsoring organizations. Specifically, as planned a year ago, NPOTA operates as a read-only user of LoTW, only verifying

that contacts have been matched between activator and chaser. The NPOTA application then determines the credit of each confirmed contact to calculate a user's standing. This method permits LoTW to support awards or contests without having to build scoring methods into LoTW itself. We plan to make this available to a variety of sponsoring organizations, large and small, who wish to issue verified awards for a variety of contact classes. We expect to be able to recoup some of LoTW's cost by use fees for other sponsors. Specifics of interested sponsors will be discussed orally at the A&F and Board meeting.

An important prerequisite to working with outside sponsors is the resolution of some security issues concerning their interaction with LoTW. Some sites, such as QRZ.com, have begun offering to store users' logs, passwords and LoTW certificates and manage users' LoTW accounts for them. Though the committee believes this is largely unnecessary, some users are interested in this. And in fact, several of the sponsoring organizations with which we would like to work see this as an important part of what they would like to offer users. Thus, with approval of the A&F committee, the LSC has created a security standard which a third-party site would have to meet. Third parties would request acceptance to this certification program and submit details as required to ensure their practices meet the standards. Sites meeting these requirements would be listed on ARRL.org. There would be some sort of re-inspection and renewal process, and ARRL would require some fee (TBD) probably on an annual basis, in view of the need for monitoring and re-certification.

Though the LSC notes that the "technical debt" carried by LoTW is not yet erased, we also believe that we must begin working with outside sponsors, if we do not wish the field to move on without us. Preliminary exchanges with some key organizations are already proceeding. Work continues, however, to further erase the remaining legacy of technical debt carried by Logbook.

Submitted by,

Greg Widin, KØGW, Chair LSC 2016  
for the Logbook Study Committee July, 2016

Members: KØGW, AA6YQ, N1VXY, NN1N, K1MK, K7GM, Doug Haney, K3DGB, N2ZZ, W3IZ, K1MU/4

## **Appendix—LoTW availability in 2015-2016.**

The messages below were posted on the ARRL-LoTW reflector. LSC committee member Dave Bernstein, AA6YQ runs a script which monitors activity of the LoTW server every 5 minutes, thus assessing availability. Monitoring uses a computer at his home QTH, so it truly reflects the availability of LoTW to users on the Internet, whether influenced by network issues or server issues. The assessments shown are in reverse chronological order. The first message below is the most recent assessment as I write this report. Note the 52-week figures at the end, which are now possible since the script has been running now for one year.

On 2016-06-13 UTC, LoTW was unreachable due to planned network maintenance for a total of 14 hours and 40 minutes. Though this certainly reduces LoTW's accessibility, the outage was planned and did not actually take the server down. Thus, I have included a report of the latest figures just *before* this event, since I believe they are most representative of LoTW's performance. Note that this maintenance was scheduled at a time to inconvenience the fewest number of LoTW users.

A third message with more detailed analysis of LoTW's behavior is also attached. Please also refer to the availability graph presented near the beginning of this report.

### **26991 LoTW Availability**

**Sat Jun 18, 2016 6:44 pm (PDT) . Posted by:**

**["Dave AA6YQ" aa6yq](#)**

Target availability: 99%

Actual availability

- for the UTC week ending 2016-06-18 was 91.27%
- for the 4 UTC weeks ending 2016-06-18 was 97.77%
- for the 13 UTC weeks ending 2016-06-18 was 99.31%
- for the 26 UTC weeks ending 2016-06-18 was 99.42%
- for the 52 UTC weeks ending 2016-06-18 was 99.55%

Outages during the week ending 2016-06-18: down from 1225Z on 2016-06-12 until 0305Z on 2016-06-13 for **planned maintenance**.

### **26952 LoTW Availability**

**Jun 11 10:30 PM** Posted by:

**"Dave AA6YQ" aa6yq**

Target availability: 99%

Actual availability

- for the UTC week ending 2016-06-11 was 100%
- for the 4 UTC weeks ending 2016-06-11 was 99.95%
- for the 13 UTC weeks ending 2016-06-11 was 99.98%
- for the 26 UTC weeks ending 2016-06-11 was 99.76%
- for the 52 UTC weeks ending 2016-06-11 was 99.68%

Outages during the week ending 2016-06-11: none

## **26841 LoTW availability**

**Apr 23 9:48 PM**

Posted by:

Dave AA6YQ

Target availability: 99%

Actual availability

- for the UTC week ending 2016-04-23 was 98.91%
- for the 4 UTC weeks ending 2016-04-23 was 99.73%
- for the 13 UTC weeks ending 2016-04-23 was 99.45%
- for the 26 UTC weeks ending 2016-04-23 was 99.63%
- for the 52 UTC weeks ending 2016-04-23 was 99.45%

Outages during the UTC week ending 2016-04-23: 2016-04-18 from 0435Z to 0625Z (unplanned), appears to have been a network issue, as the LoTW Server processed QSOs throughout this interval.

Over the last 52 weeks, LoTW was unavailable for a total of 47.83 hours. Nearly a third of that unavailability occurred during the week ending 2015-05-02. The next largest weekly unavailability was nearly 8 hours during the week of 2015-10-03.

Availability has improved over the last 52 weeks:

- first 13 weeks: 99% (21.83 hours of unplanned unavailability)
- second 13 weeks: 99.54% (9.42 hours of unplanned unavailability, 0.58 hours of planned unavailability)
- third 13 weeks: 99.82% (3.92 hours of unplanned unavailability)
- fourth 13 weeks: 99.45% (7.25 hours of unplanned unavailability, 4.83 hours of planned unavailability for network upgrades)

73,

Dave, AA6YQ