Cumulative Kepler Object of Interest Table (cumulative) Delivery Log

Date	Comment
2013-01-07	Initial Delivery. The most up-to-date information from the Q1–Q6 KOI table and the Q1–Q8 KOI table combined into a single table.
2013-02-04	Changed to reflect the changes made to the Q1–Q8 KOI table. Updated dispositions of 23 KOIs from planetary candidates (PC) to false-positives (FP). These KOIs were identified as suspect via period and epoch matching between all known KOIs and eclipsing binaries (EBs). Detailed pixel-level follow-up confirmed that these KOIs are a result of contamination by known EBs, either from the Kepler Eclipsing Binary Catalog v3.0 (http://astro9.ast.villanova.edu/) or from ground-based surveys. Notes for each object are provided in the koi_comment field. Here "PRF contamination" means an EB was close enough to the KOI to directly contaminate the KOI's pixels, "cross-talk" means that the EB signal was propagated to the same row and column of another output on the same module via video crosstalk (see Kepler Instrument Handbook, pp.71-72), and "charge-transfer anomaly" is not fully understood, but appears to be contamination from a widely separated EB on the same column, module, and output as the KOI. One additional period-epoch match was found involving KOI 2233.01 and the EB KIC 9101279. However, KOI 2233.01 remains a planet candidate because its transit shape is distinctly different than the EB's primary eclipse and the EB's secondary is not seen at the expected level.
2013-03-06	Changed to reflect the changes made to the Q1–Q8 KOI table. Changed the dispositions of 5 KOIs from planetary candidate (PC) to false-positive (FP). These objects required extra scrutiny and analysis beyond the typical KOI because they have low SNR or other issues that confounded the analysis based on DV reports alone. The extra analysis typically involved examination of pixel-level data including pixel time series and improved centroid techniques.
2013-05-28	Added new KOIs to the cumulative table corresponding to the KOIs that were new in the Q1–Q12 KOI activity table. The fitted parameters are those computed by the Kepler pipeline and reported in the Q1-Q12 DV reports. Note that none of these new KOIs have yet been dispositioned. In other words, this is not a list of planetary candidates, but a list of undispositioned KOIs.
2013-06-06	Updated activity table with new dispositions for 503 KOIs. These KOIs are new in the Q1–Q12 activity and show no evidence of being false positives, so their dispositions have been changed to CANDIDATE.

Date	Comment
2013-06-27	Updated activity table with new dispositions for 64 KOIs to reflect changes made to the Q1–Q12 activity. We changed the dispositions for 63 candidates from NOT DISPOSITIONED to CANDIDATE because they show no evidence of being false positives. We also changed the disposition of K04665.01 from CANDIDATE to FALSE POSITIVE because further analysis of the individual transits indicate that the event is instrumental in nature.
2013-07-31	Updated the cumulative table with new dispositions for 1236 KOIs based on updates to the Q1–Q12 activity. We changed the disposition for 274 KOIs from NOT DISPOSITIONED to CANDIDATE because they show no evidence of being false positives. We also changed the disposition of 962 KOIs from NOT DISPOSITIONED to FALSE POSITIVE.
2013-08-15	Updated activity table with new or confirmed FALSE POSITIVE dispositions for 586 KOIs based on updates to the Q1–Q12 activity. These objects were identified by cross-matching the ephemerides of all KOIs in the current cumulative activity table and all known eclipsing binaries (i.e., the Kepler Eclipsing Binary Catalog v3.0 (http://astro9.ast.villanova.edu/) and a number of published ground-based surveys). Detailed analysis then determined which of these KOIs suffered from flux contamination by another source. The most frequent type of contamination was direct PRF (see Kepler Instrument Handbook, p. 35) contamination, while others suffered from video crosstalk (see KIH, p. 71) or scattered light (see KIH, p. 41) contamination. Note that some of these KOIs were previously NOT DISPOSITIONED and some were dispositioned as CANDIDATE, but many were already dispositioned as FALSE POSITIVE using other metrics.
2013-08-29	Added 317 KOIs because of additions to the Q1–Q8 activity. Of these, 265 have a disposition of FALSE POSITIVE and 52 have a disposition of CANDIDATE. 237 of these objects were found in the Q1–Q6 data, but were not strong planetary candidates and, until recently, were not reviewed by the False Positive working group. They are now included in the Q1–Q8 KOI table to ensure the archive has a complete list of all identified KOIs. The other 80 objects being added to this table were discovered using the Q1–Q8 data, but lacked the required analysis products to immediately make them into KOIs or give them dispositions. We have now completed that work and include them in the Q1–Q8 table.

Date	Comment
2013-09-05	Updated KOIs because of changes to the Q1–Q8 activity and Q1–Q12 activity. The most significant updates to these KOIs include 1) the addition of stellar masses for those objects in the Q1–Q8 table and 2) disposition changes due to period-epoch matching. These period-epoch matches were identified by cross-matching the ephemerides of all KOIs in the current cumulative activity table and all known eclipsing binaries (i.e., the Kepler Eclipsing Binary Catalog v3.0 (http://astro9.ast.villanova.edu/) and a number of published ground-based surveys). Detailed analysis then determined which of these KOIs suffered from flux contamination by another source. The most frequent type of contamination was direct PRF (see Kepler Instrument Handbook, p. 35) contamination, while others suffered from video crosstalk (see KIH, p. 71) or scattered light (see KIH, p. 41) contamination. Note that some of these KOIs were previously NOT DISPOSITIONED and some were dispositioned as CANDIDATE, but many were already dispositioned as FALSE POSITIVE using other metrics.
2013-09-12	Updated the dispositions of 63 objects becaise of changes to the Q1–Q12 activity table. Of these, 16 have a disposition of CANDIDATE and 47 have a disposition of FALSE POSITIVE.
2013-10-25	Updated the fits and dispositions because of changes to the Q1–Q8 table. These values agree with those described in the submitted version of the Q1–Q8 catalog paper (Burke et al. 2013).
2014-01-16	Added 412 KOIs because of changes to the Q1–Q16 table. Of these, 104 are associated with stars that have previously known KOIs (1–4914). Another 111 of these new KOIs (5982–6092) are associated with stars that have no previously known KOIs, but have exactly two Q1–Q16 TCEs detected with nearly identical periods. A KOI number was given to only the first TCE in these systems, as they are most likely eclipsing binaries with the second TCE corresponding to the secondary eclipse. Finally, the remaining 197 new KOIs (6093–6251) are associated with stars that have no previously designated KOIs, but have multiple Q1–Q16 TCEs (not all of which became KOIs). All stellar parameters match those in the Q1–Q16 stellar table. New KOIs belonging to the range 5982–6092 (suspected of being eclipsing binaries) have been given a tentative disposition of FALSE POSITIVE, which may change based on a subsequent, more thorough review. The remaining new KOIs have not been dispositioned at this time.
2014-02-13	Updated the dispositions for 534 KOIs that were previously NOT DISPOSITIONED because of changes to the Q1–Q16 table. Of these, 239 were given the disposition of CANDIDATE and 295 were given the disposition of FALSE POSITIVE. These dispositions are based on the vetting of individual objects, so some of the planet candidates may become false positives when the ephemeris matching is completed. All of these KOIs are new single-planet KOIs found in the Q1-Q16 run within the range 4915–5981.

Date	Comment
2014-06-10	Added 19 KOIs and their dispositions because of changes to the Q1–Q16 table. All 19 KOIs belong to multiple-planet systems around stars previously known to have KOIs (1–4914).
2014-06-10	Updated the dispositions of 2422 KOIs because of changes to the Q1–Q16 table. This delivery completes the dispositioning of the new KOIs found in the Q1-Q16 run of the pipeline. This delivery also includes the redisposition of all previously known KOIs with periods $>$ 50 days.
2014-06-25	Updated the dispositions of 22 KOIs because of changes to the Q1–Q16 table. These KOIs were each identified as FALSE POSITIVE because their Q1–Q16 TCE ephemerides matched at least one other TCE, KOI, or eclipsing binary, and the reason for the match was determined to be contamination. Only 20 of these KOIs were previously marked as CANDIDATE in the cumulative table.
2014-10-23	Updated the dispositions of 133 KOIs (due to changes to the Q1–Q16 table) and added false positive flags for all KOIs identified as FALSE POSITIVE. This delivery is the first to include flags that denote reasons why a KOI was given a disposition of FALSE POSITIVE. The four flags populated with this delivery are: Centroid Offset (koi_fpflag_co), Significant Secondary (koi_fpflag_ss), Ephemeris Match Indicates Contamination (koi_fpflag_ec) and Not Transit Like (koi_fpflag_nt).
2014-10-30	Updated the dispositions of 44 KOIs and added false positive flags for all KOIs identified as FALSE POSITIVE, because of changes to the Q1–Q12 table.
2014-11-20	Updated all KOIs from Q1–Q12 activity table with the most current planetary fits and error bars drawn from an MCMC posterior distribution. Based on this distribution, asymetric error bars are reported for the impact parameter, the star-to-planet radius ratio, and the planetary radius. With this delivery, all KOIs in the cumulative table have been dispositioned.
2014-12-04	Updated all KOIs from Q1–Q16 activity table with the most current planetary fits and error bars drawn from an MCMC posterior distribution. Based on this distribution, assymetric error bars are reported for the impact parameter, the star-to-planet radius ratio, and the planetary radius.
2014-12-16	Updated the dispositions of 8 KOIs to FALSE POSITIVE, because of changes to the Q1–Q16 table. This was done after closer inspection of the habitable zone candidates.
2015-06-04	Added 110 KOIs and updated of dispositions and false positive flags, because of changes to the Q1–Q17–DR24 activity table. These updates are due to robovetter improvements made since the last delivery.
2015-07-23	Changing the dispositions of 97 KOIs from Candidate to False Positive, because of changes to the Q1–Q17–DR24 activity table. These updates are due to improvements made to the robovetter since the last delivery.

Date	Comment
2015-08-27	Updated all KOIs from Q1–Q17 DR24 activity table with planetary fits and error bars drawn from an MCMC posterior distribution. Based on this distribution, asymmetric error bars are reported for the impact parameter, the star-to-planet radius ratio, and the planetary radius.
2015-09-18	Updated KOIs from Q1–Q17 DR24 activity table with the comment column to report the minor flags set by the Robovetter. Additionally, the values for MES, SES, quarters and number of transits are now reported for all KOIs from Q1–Q17 DR24 activity table. No dispositions, false positive flags or transit fit values have been updated.
2017-03-23	Added DR 25 table values, comprising the previously known KOIs (1-7620) and the new KOIs (7621-8297) found in the DR25 TCE table. This delivery contains 8054 KOIs and 4034 CANDIDATES in total. The dispositions have all been determined in a consistent and automated fashion from the Kepler Robovetter. For the majority of the KOIs, the reported transit fits were performed using a Markov chain Monte Carlo approach with error bars calculated from the posteriors.
2017-05-10	Updated KOIs from Q1–Q17 DR25 activity table. This updates the transit fits for 75 KOIs. The metalicity values and errors have been added for all KOIs with transit fits. The error bars for the stellar log(g) and stellar mass have been corrected so that they now agree with the Q1–Q17 DR25 stellar table. This delivery does not change any dispositions, but a few of the disposition score values have changed by an insignificant amount. The minor flags, which indicate why KOIs are FALSE POSITIVEs, have been added to the koi_comments column.
2017-08-31	Updated KOIs from Q1–Q17 DR25 activity table. This updates the transit fit model for two KOIs, K04829.01 and K05664.01. In both cases the period was updated and the full transit fit was performed. This change in period has no effect on the disposition of these KOIs.