

KIC 005035849

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005035849-01	OBS	No	345.943163	445.914650	67.9	2.566	9.7	2.2	77.34	3941	82.08	1016.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005035849-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

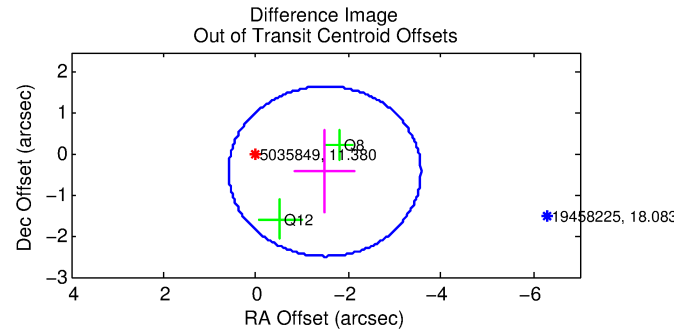
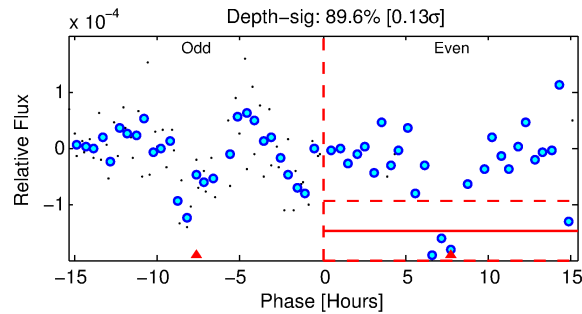
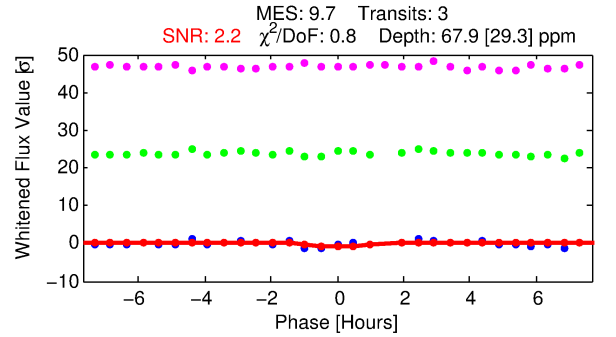
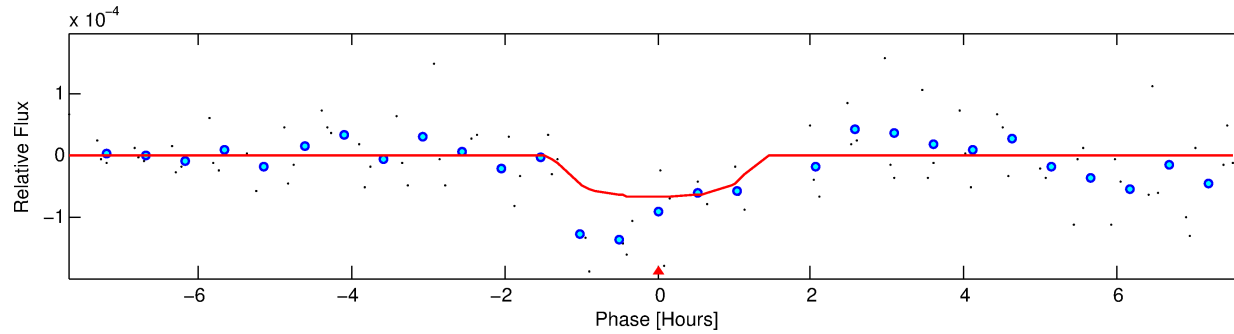
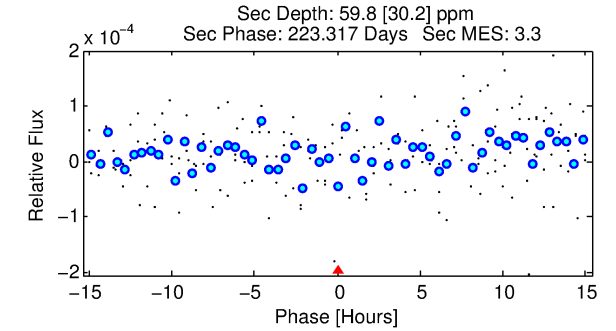
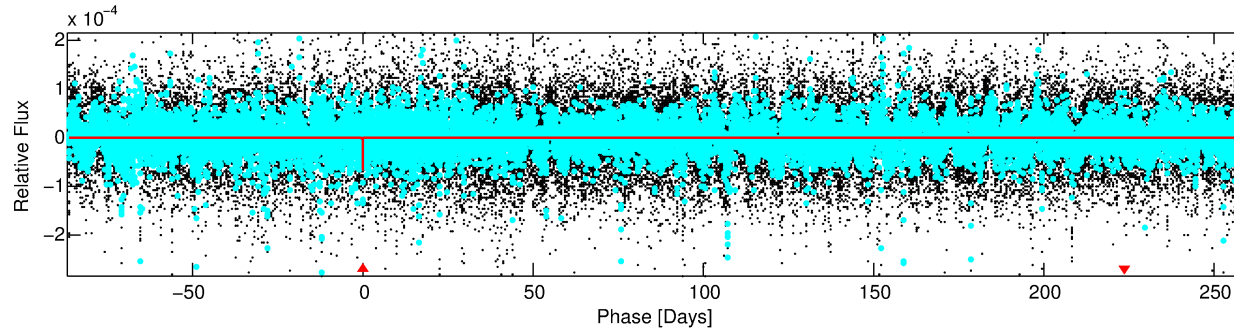
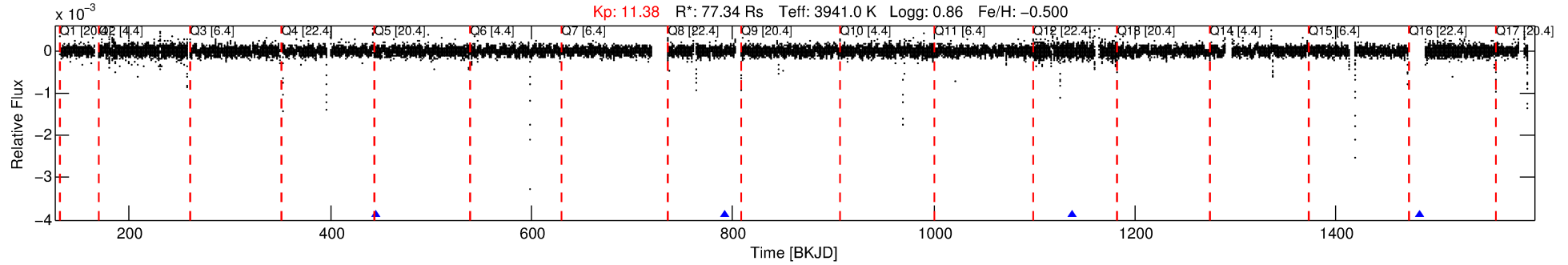
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005035849-01

No Significant Match Found

DV One-Page Summary

KIC: 5035849 Candidate: 1 of 1 Period: 345.943 d



DV Fit Results:

Period = 345.94316 [0.00994] d
Epoch = 445.9146 [0.0118] BKJD
 R_p/R^* = 0.0097 [0.0213]
 a/R^* = 440.09 [3408.16]
 b = 0.91 [1.43]
 Seff = 1016.05 [278.95]
 Teq = 1440 [99] K
 R_p = 82.08 [180.82] R_e
 a = 1.1280 [0.2243] AU
 Ag = 6.22 [27.44] [0.19σ]
 Teffp = 3515 [3871] K [0.54σ]

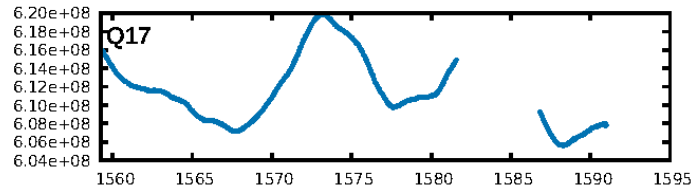
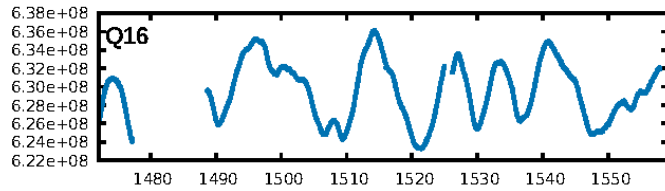
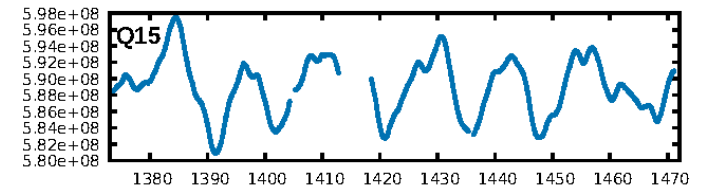
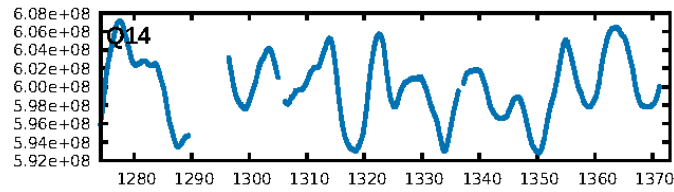
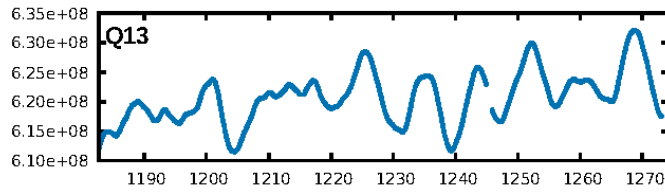
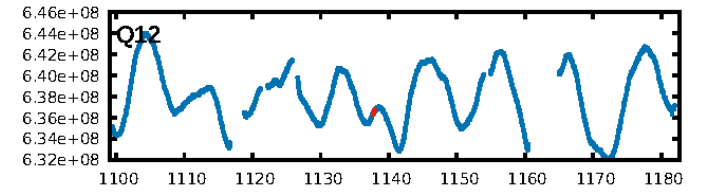
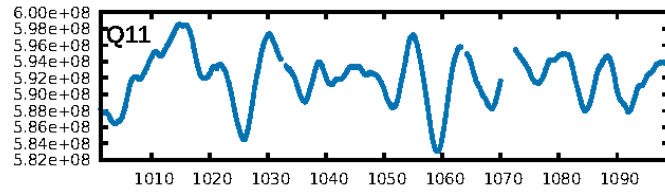
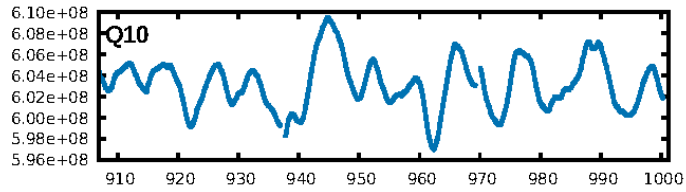
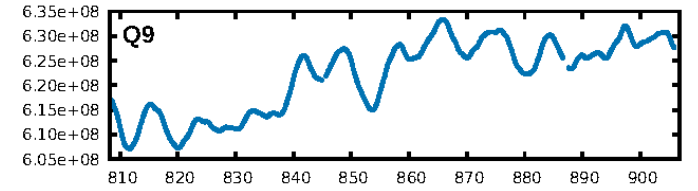
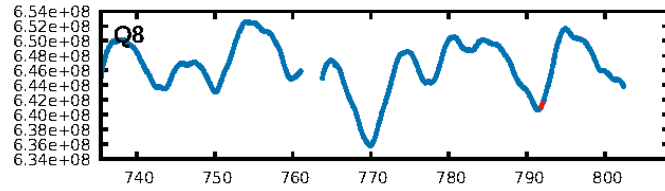
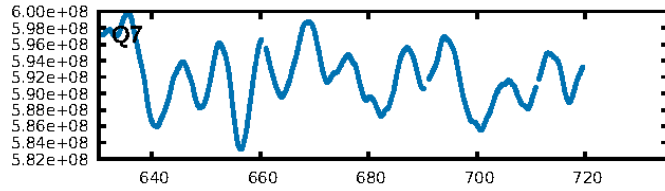
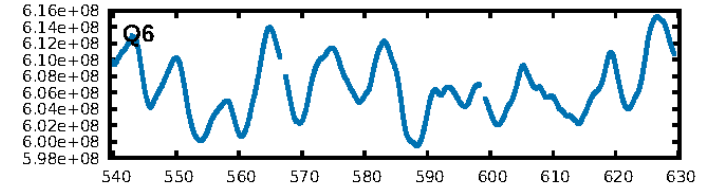
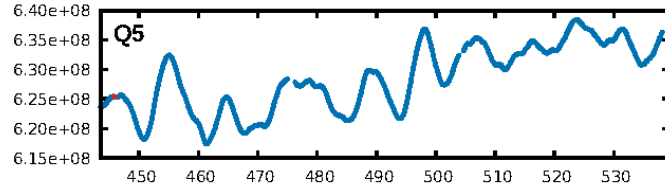
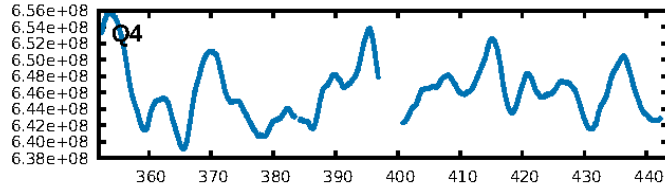
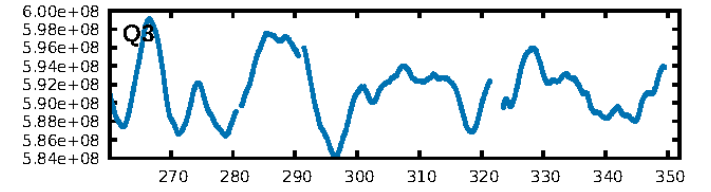
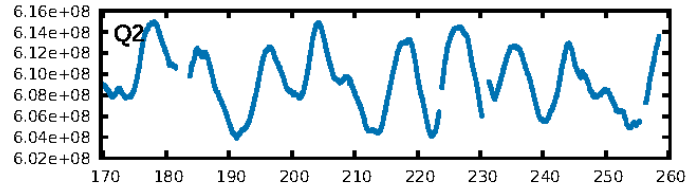
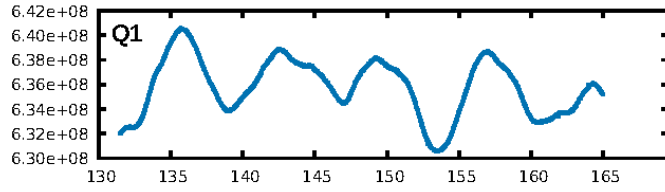
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.5%
ModelChiSquareGof-sig: 81.0%
Bootstrap-pfa: 1.42e-05
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.4418
Centroid-sig: 66.8%
Centroid-so: 2.166 arcsec [0.54σ]
OotOffset-rm: 1.542 arcsec [2.22σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-rm: 1.407 arcsec [1.96σ]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

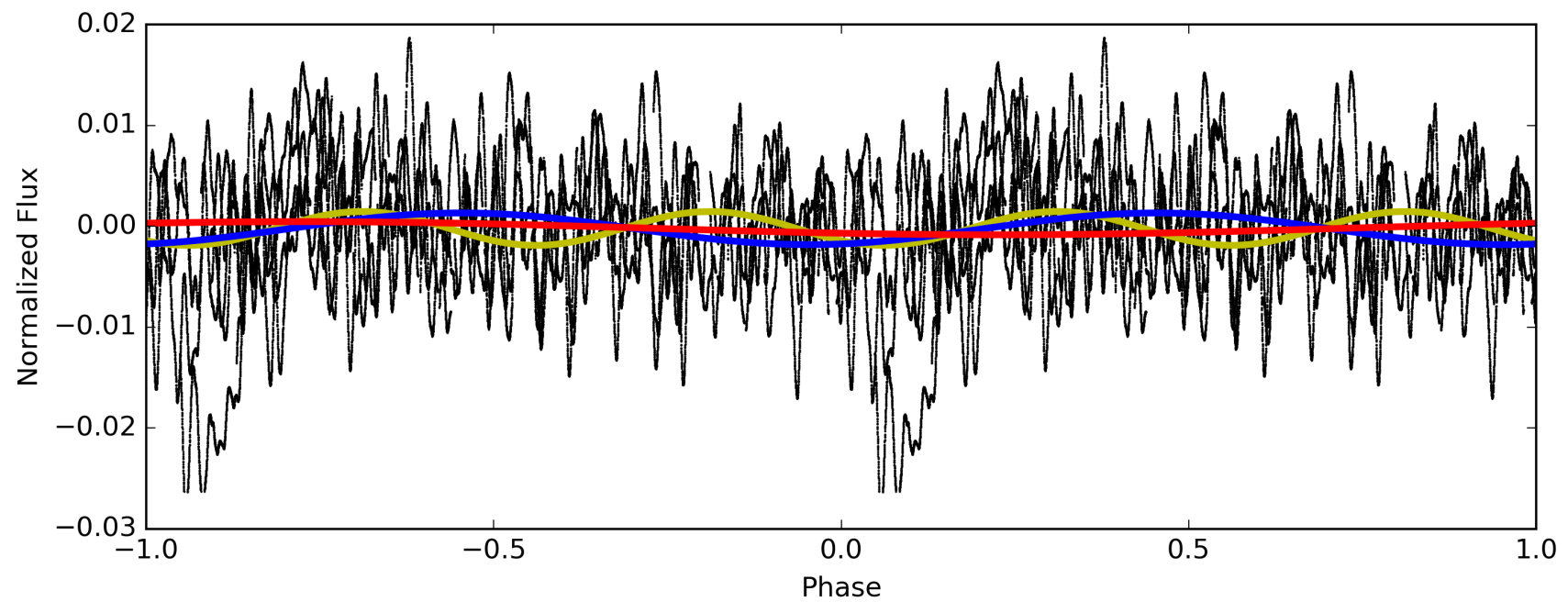
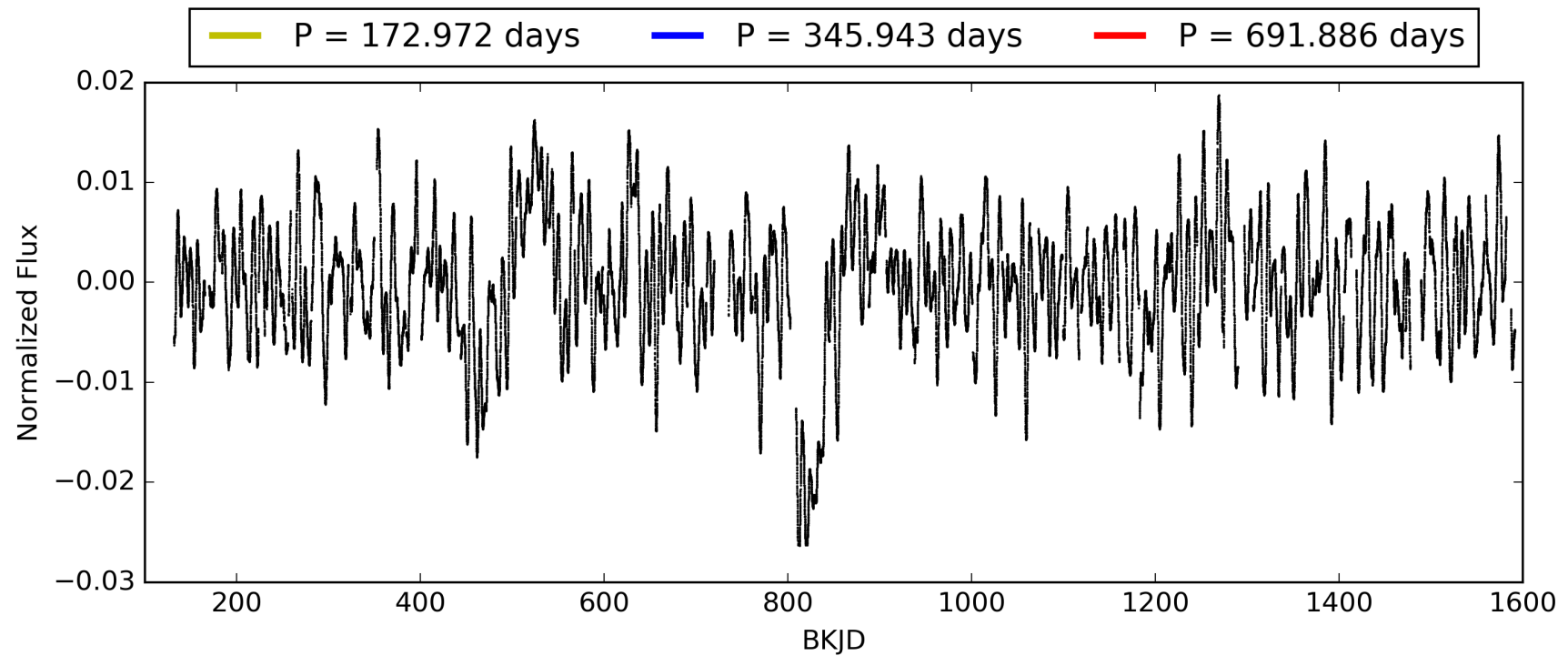
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:29:21 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005035849-01, PDC Light Curves

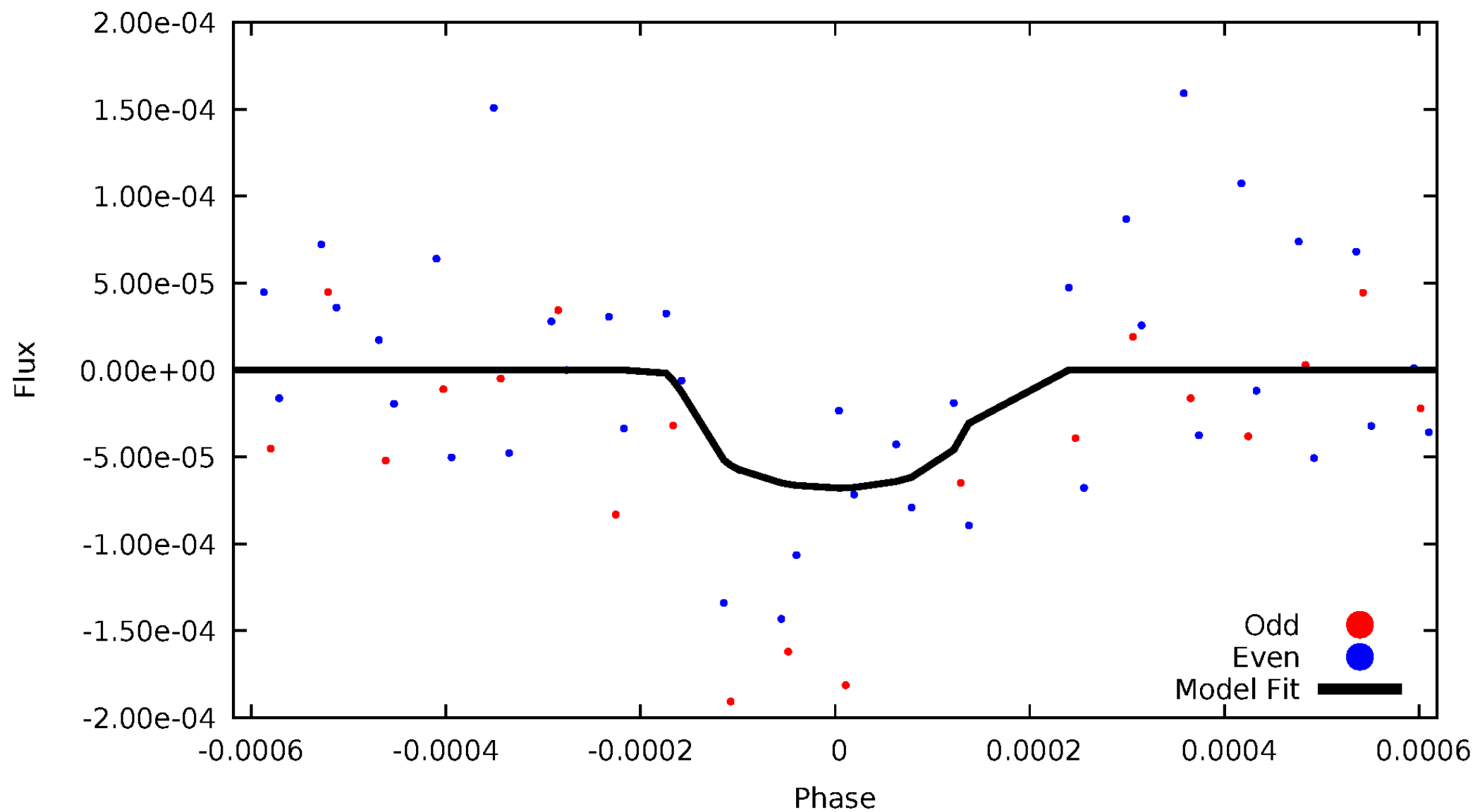


TCE 005035849-01



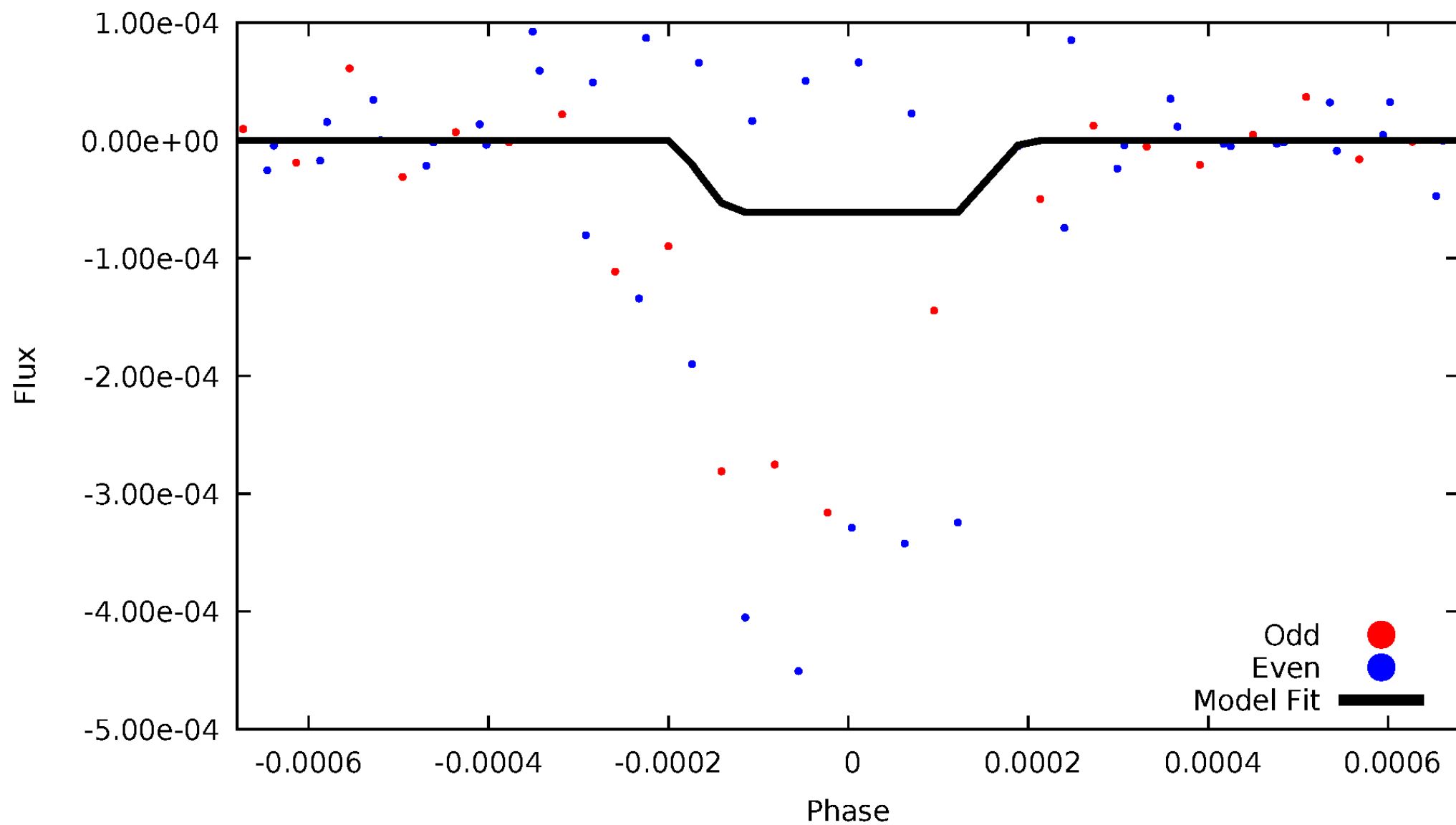
DV Odd/Even

TCE 005035849-01



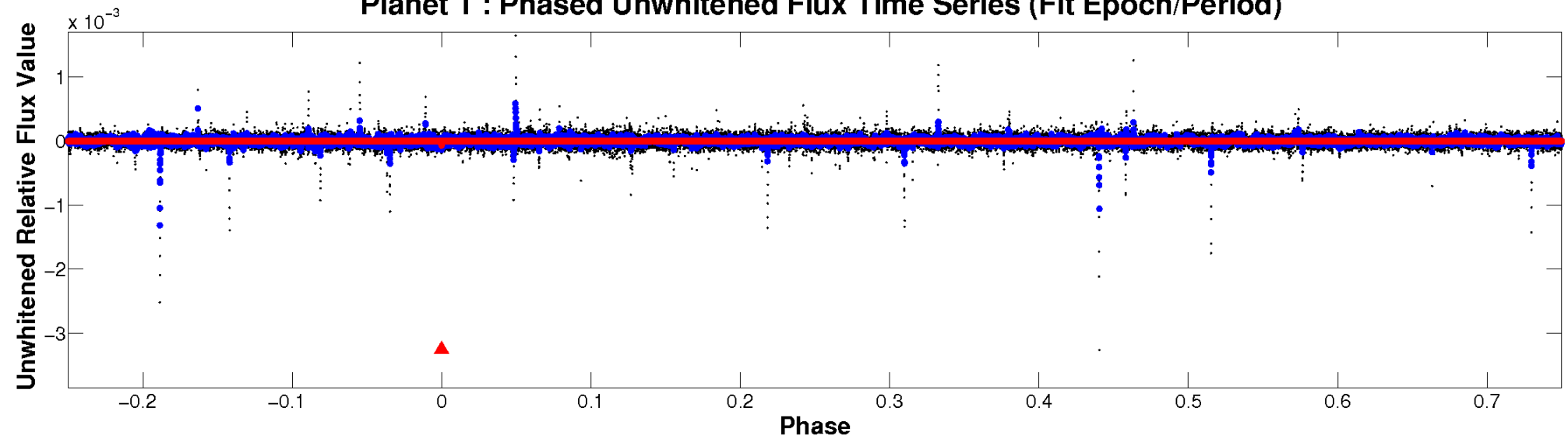
ALT Odd/Even

TCE 005035849-01

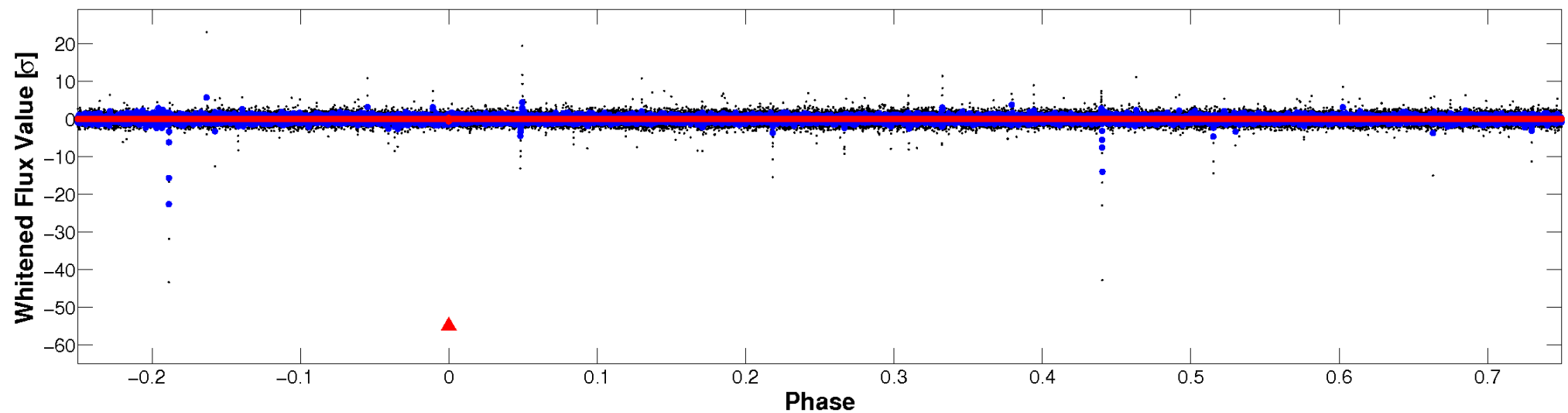


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

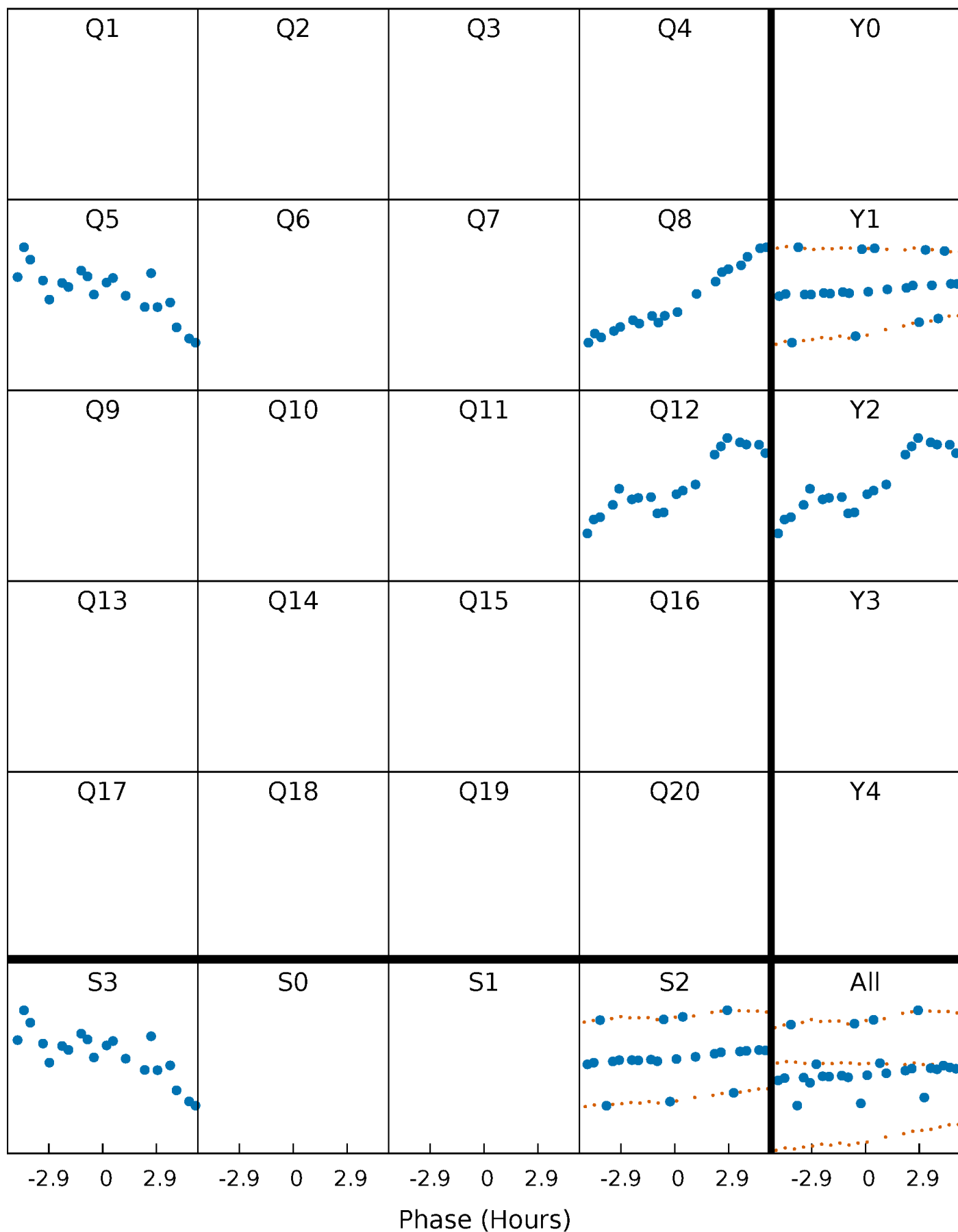


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



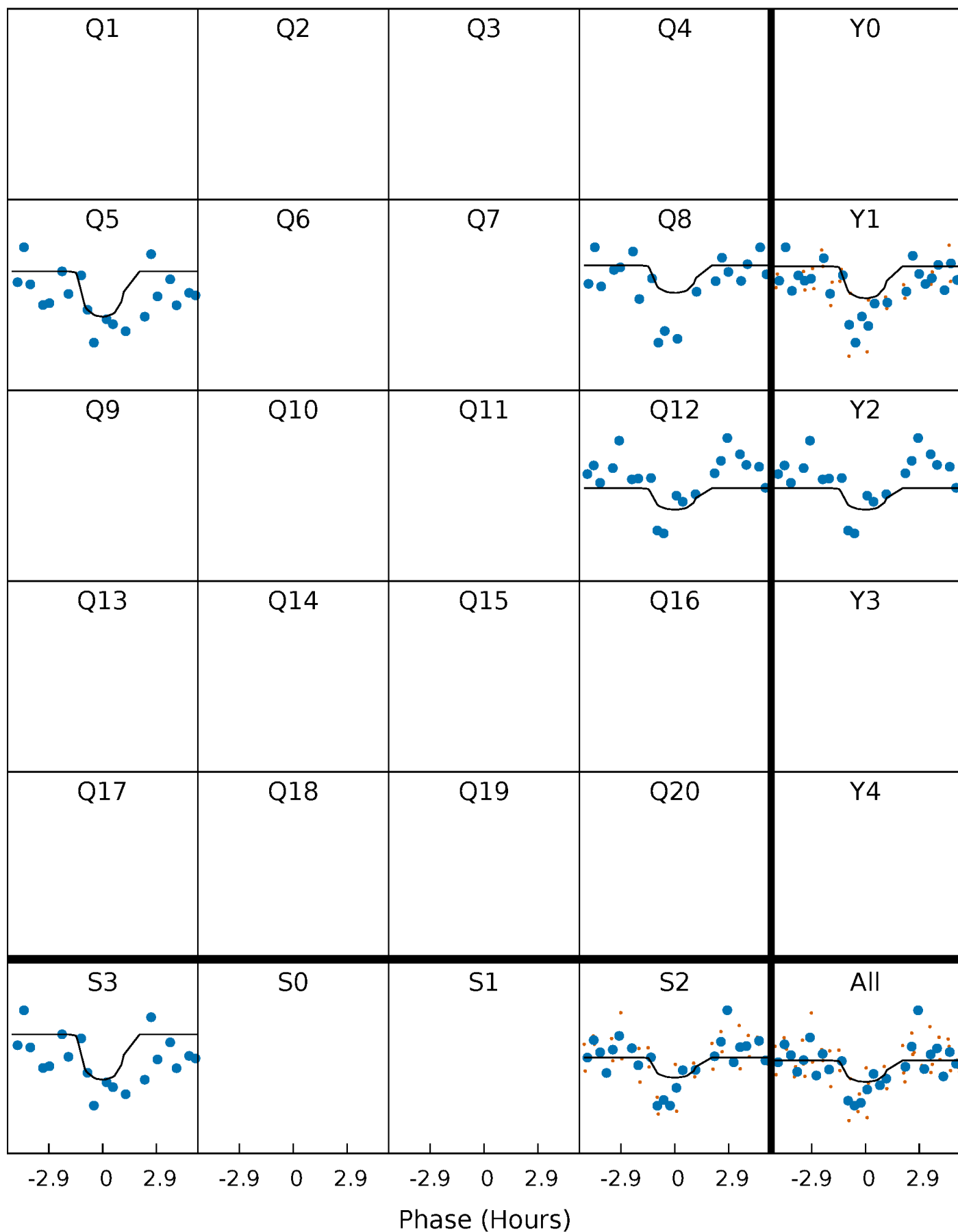
PDC Quarter-Phased Transit Curves

TCE 005035849-01 P=345.943163 Days $T_0=445.914650$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005035849-01 P=345.943163 Days $T_0=445.914650$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

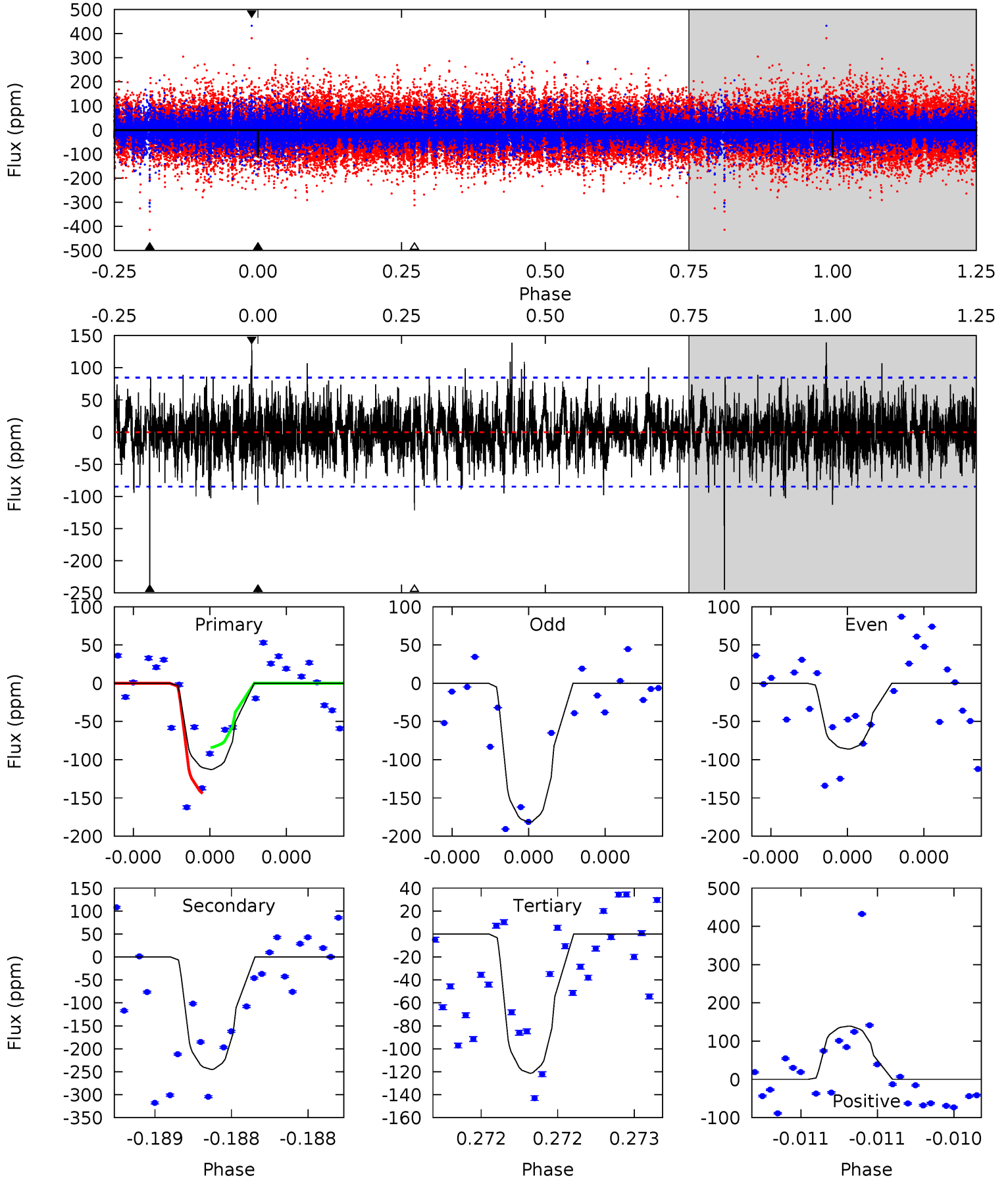
TCE 005035849-01 P=345.931576 Days $T_0=445.937851$ (BKJD)



DV Model-Shift Uniqueness Test

005035849-01, P = 345.943163 Days, E = 99.971487 Days

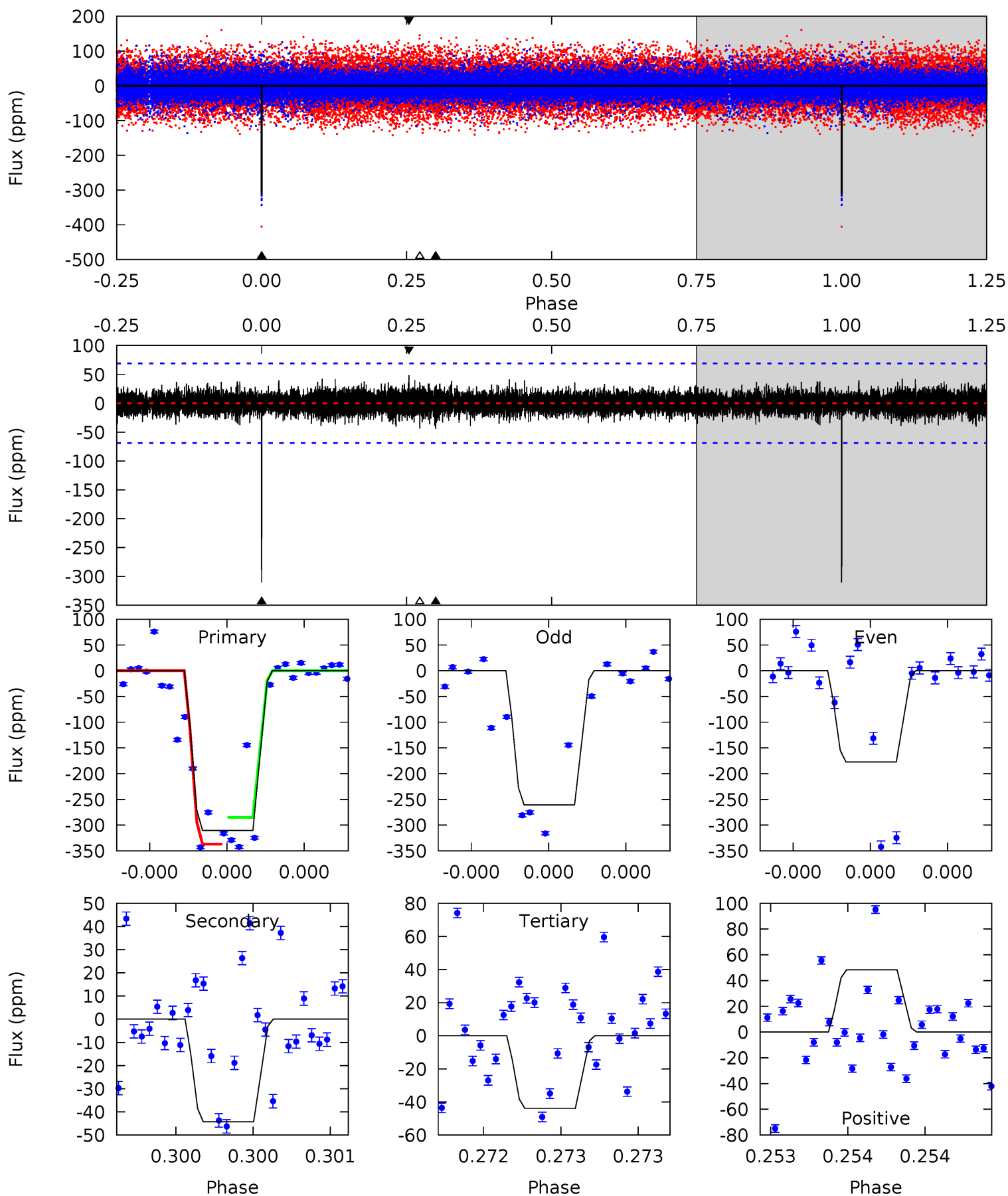
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.47	16.2	8.04	9.22	5.61	3.53	1.71	-0.56	-1.75	8.20	7.01	2.80	1.31	0.36	1.99



Alt Model-Shift Uniqueness Test

005035849-01, P = 345.931576 Days, E = 100.006275 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.4	3.62	3.59	3.96	5.63	3.57	0.79	21.8	21.4	0.03	-0.34	3.95	0.76	0.13	2.15



Stellar Parameters For KIC 005035849

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3941^{+62}_{-70}	$0.865^{+0.132}_{-0.108}$	$-0.500^{+0.150}_{-0.150}$	$77.340^{+8.505}_{-19.846}$	$1.597^{+0.098}_{-0.554}$	$0.000^{+0.000}_{-0.000}$
	+2%/-2%	+15%/-12%	+30%/-30%	+11%/-26%	+6%/-35%	+80%/-27%
Source	SPE74	SPE74	SPE74	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005035849-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-245 ± 15	$156.07^{+152.89}_{-103.75}$	2013^{+83}_{-94}	3667^{+1973}_{-736}	$6.643^{+53.196}_{-4.874}$
Alt.	-44 ± 12	$147.50^{+146.57}_{-97.56}$	2016^{+79}_{-90}	2808^{+1206}_{-881}	$1.336^{+10.201}_{-1.000}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

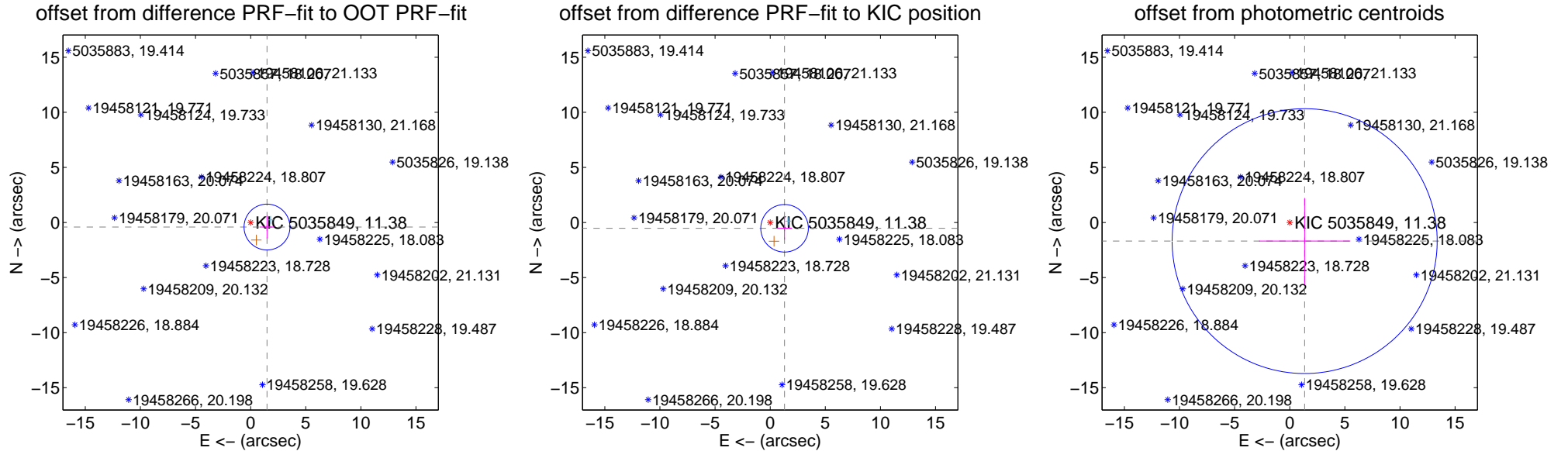
DV Centroid Data

Supplemental centroid analysis for 005035849-01. **Kepler magnitude: 11.38.** Transit SNR 2.23

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.542 ± 0.694	2.22	-1.485 ± 0.661	-0.415 ± 1.024
PRF-fit source offset from KIC position	1.407 ± 0.719	1.96	-1.304 ± 0.656	-0.528 ± 1.023
photometric centroid source offset	2.17 ± 4.01	0.54	-1.35 ± 4.14	-1.69 ± 3.92

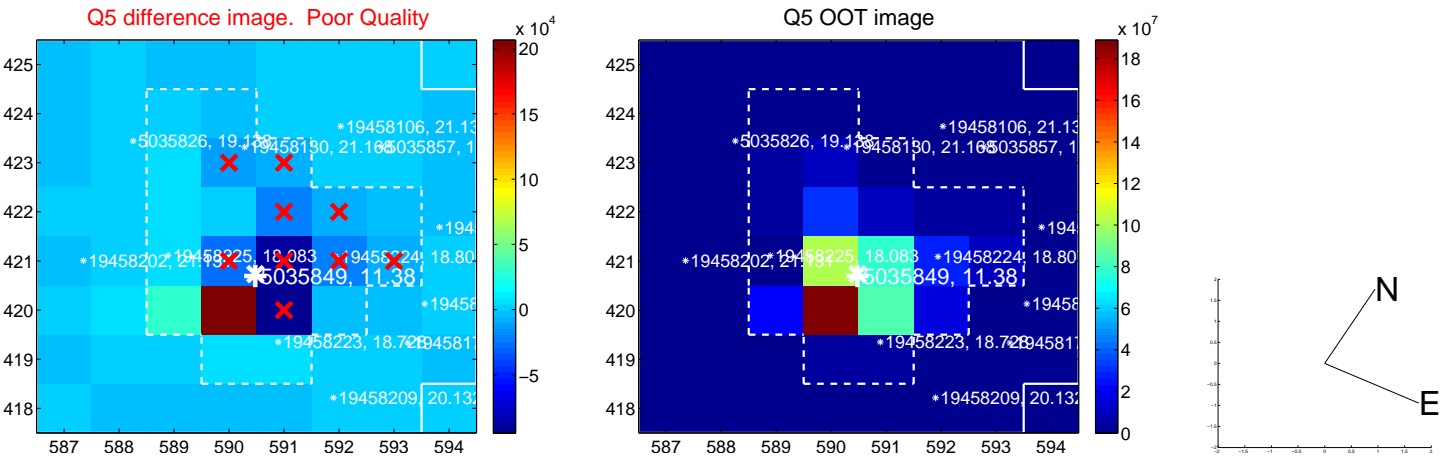


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

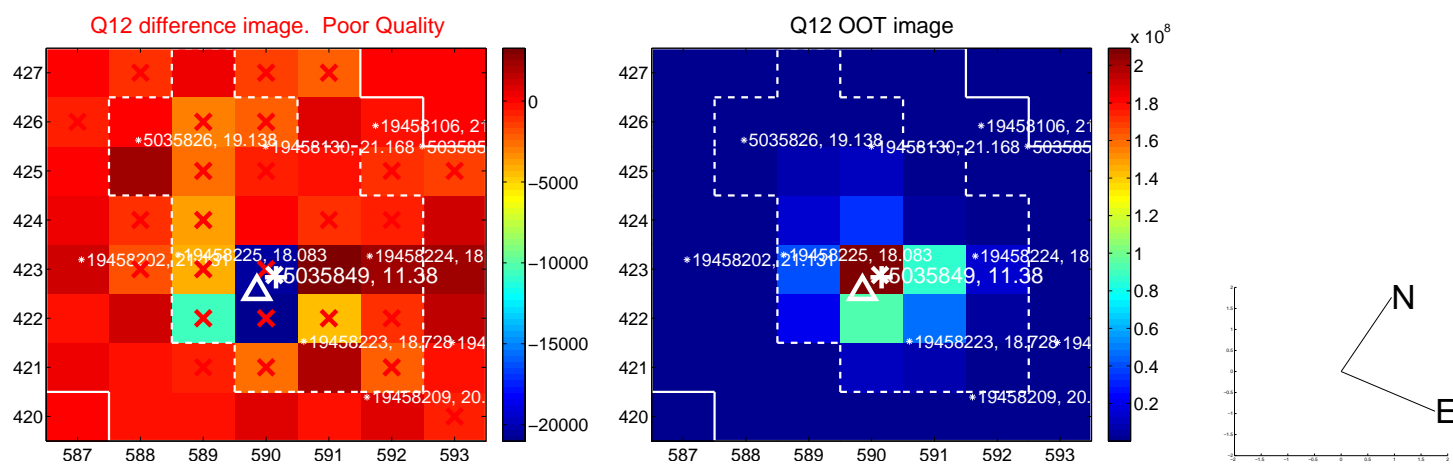
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



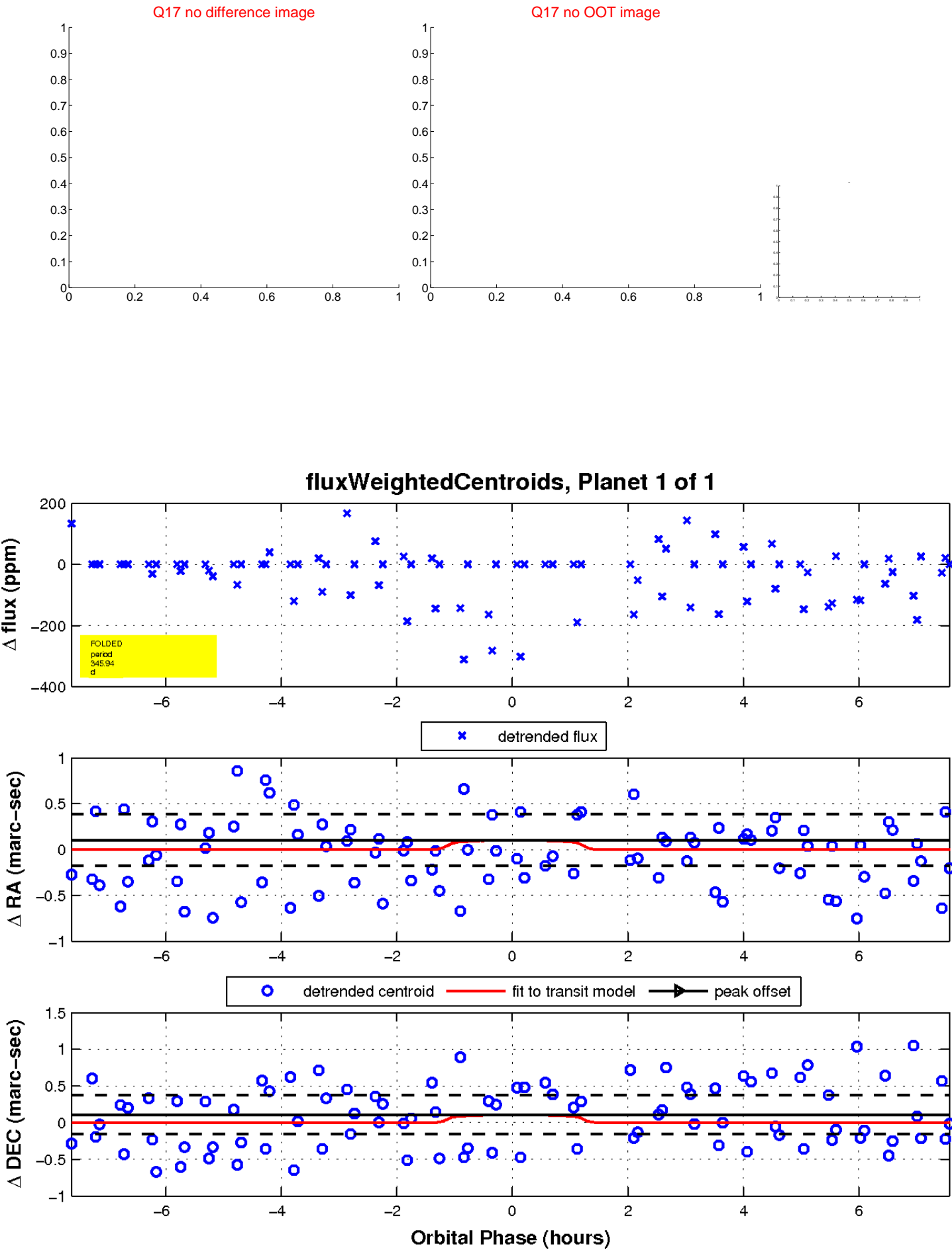
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

