

KIC 011356602

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})
011356602-01	OBS	7439.01	323.260056	191.362282	298.6	17.353	13.1	17.2	1.20	5866	2.26	1.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011356602-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

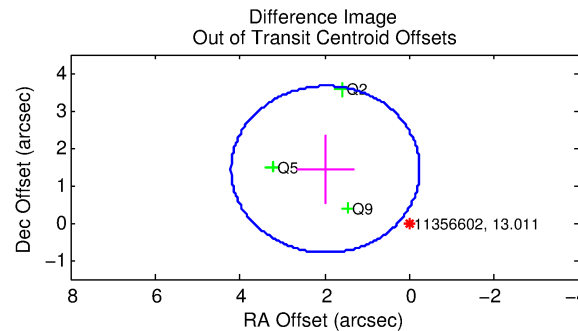
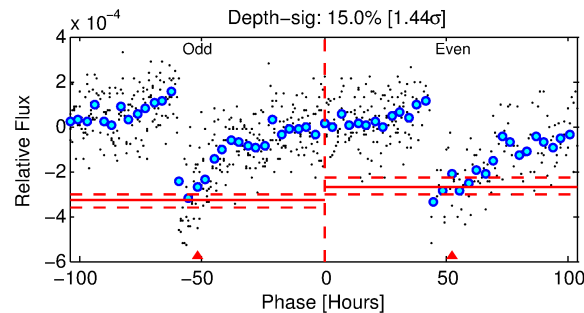
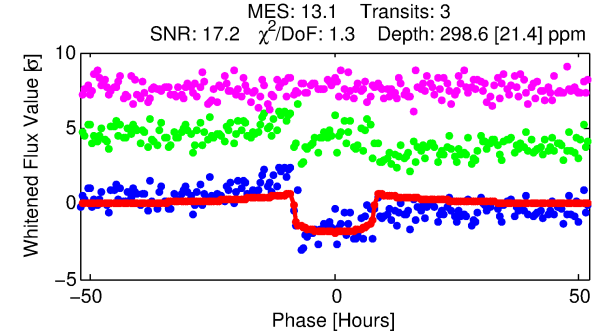
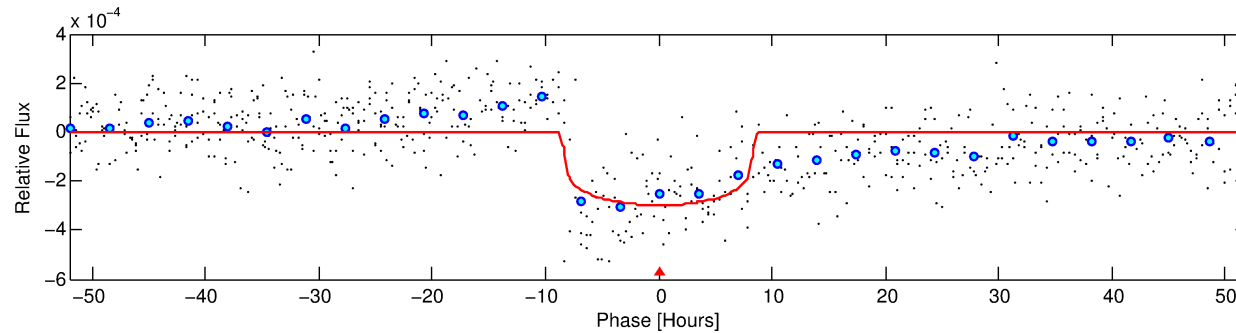
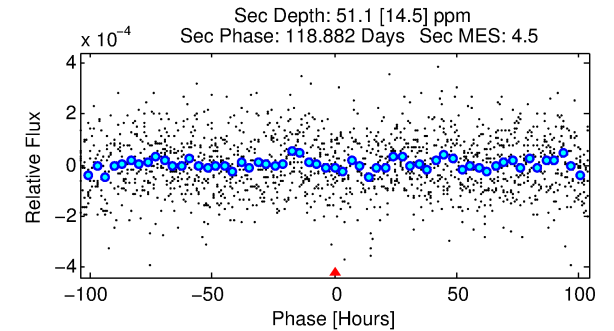
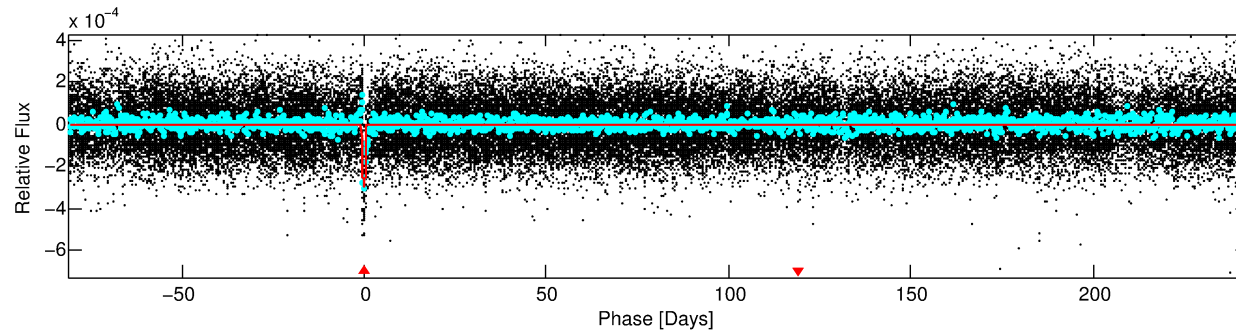
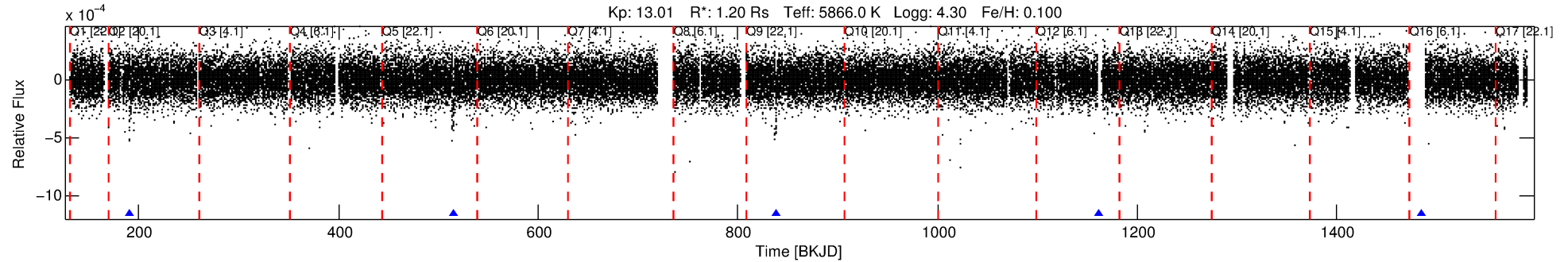
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011356602-01

No Significant Match Found

DV One-Page Summary

KIC: 11356602 Candidate: 1 of 1 Period: 323.260 d
KOI: K07439.01 Corr: 0.831



DV Fit Results:

Period = 323.26006 [0.00933] d
Epoch = 191.3623 [0.0124] BKJD
Rp/R* = 0.0173 [0.0041]
a/R* = 95.98 [100.55]
b = 0.76 [0.58]
Seff = 1.74 [0.41]
Teq = 293 [17] K
Rp = 2.26 [0.64] Re
a = 0.9362 [0.1352] AU
Ag = 4834.75 [2874.22] [1.68σ]
Teffp = 3774 [521] K [6.68σ]

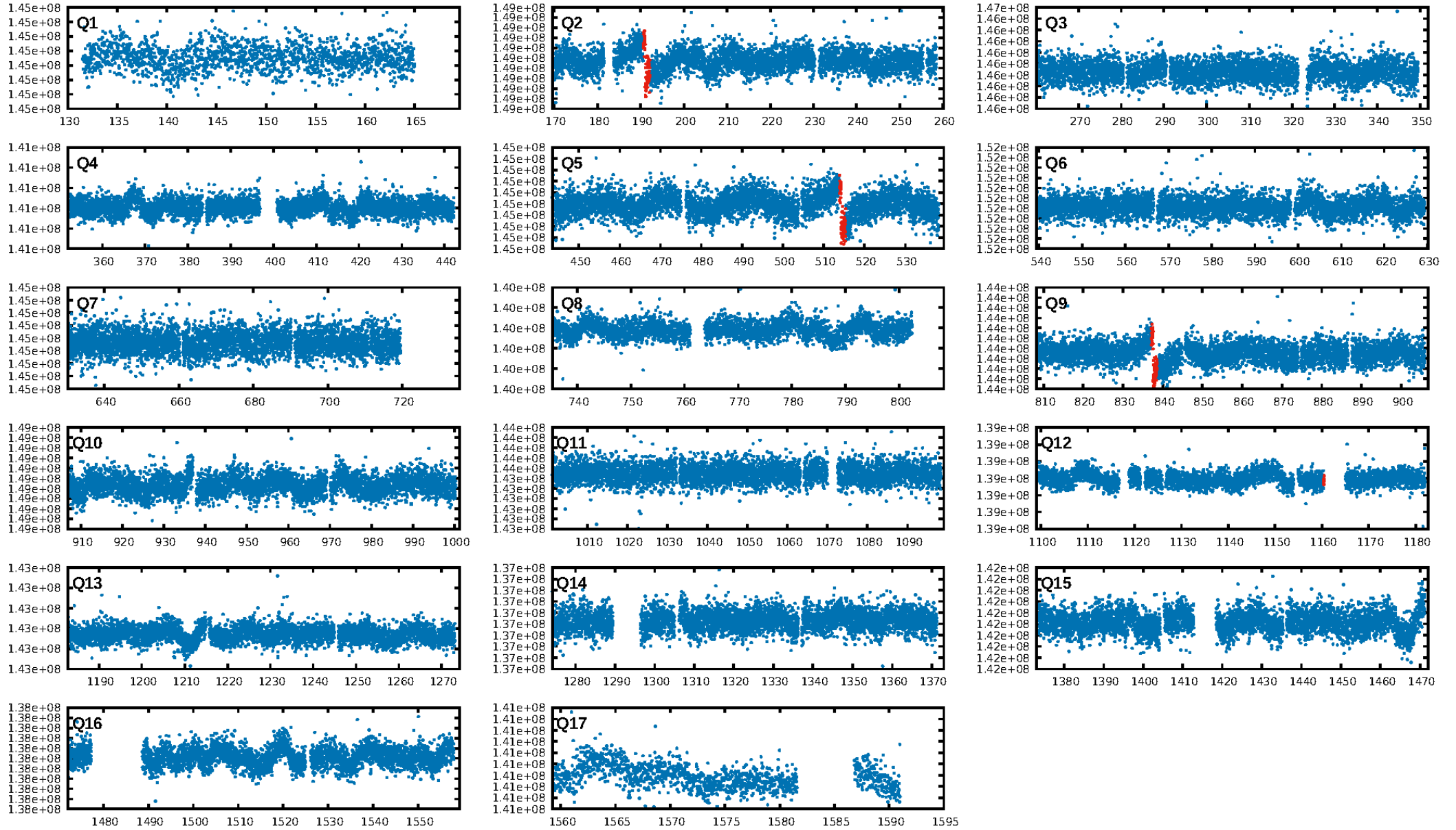
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 47.8%
ModelChiSquareGof-sig: 40.2%
Bootstrap-pfa: 7.17e-37
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.778
Centroid-sig: 5.6%
Centroid-so: 1.271 arcsec [1.73σ]
OotOffset-rm: 2.442 arcsec [3.29σ]
KicOffset-rm: 2.232 arcsec [2.99σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

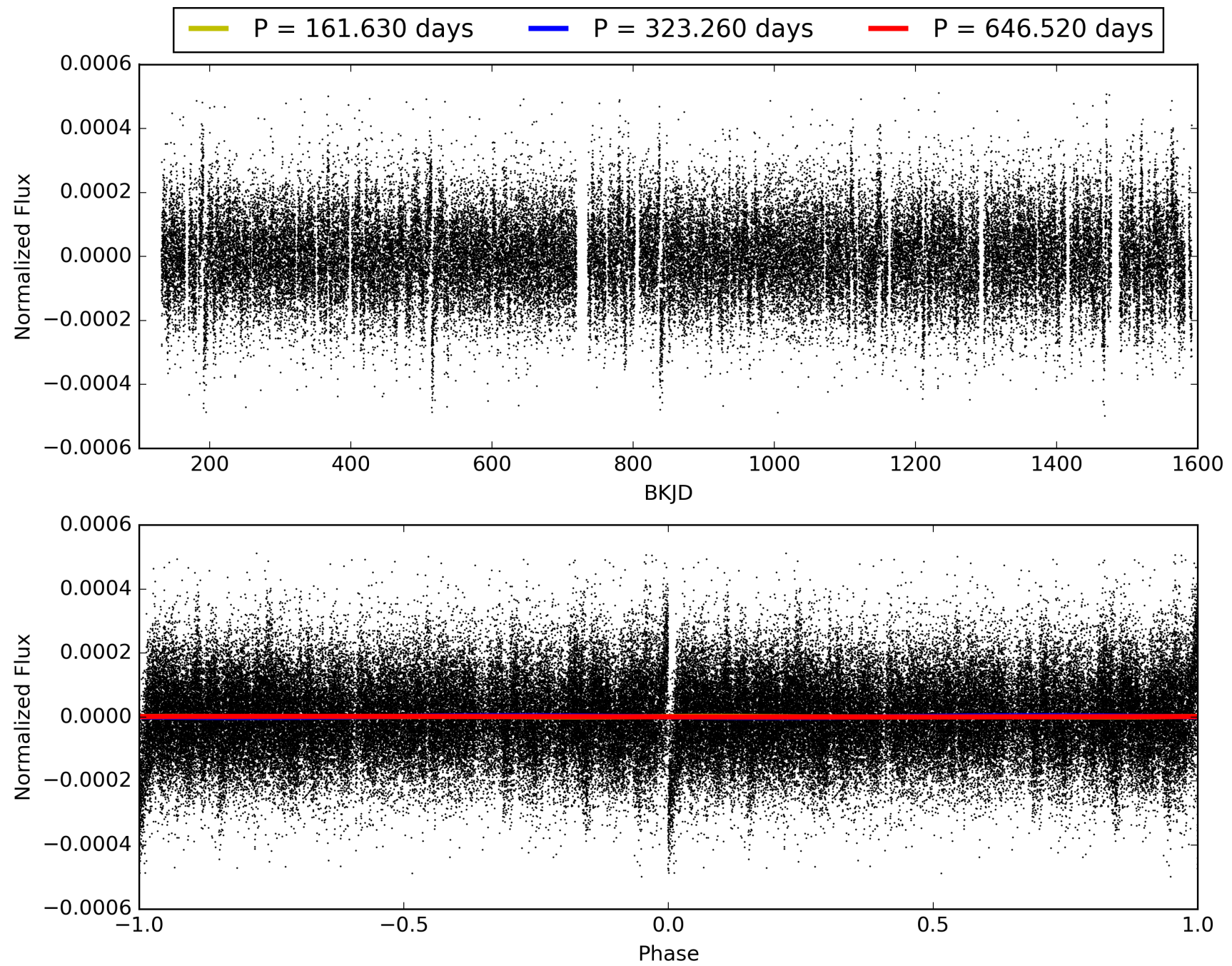
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:20:54 Z

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

TCE 011356602-01, PDC Light Curves

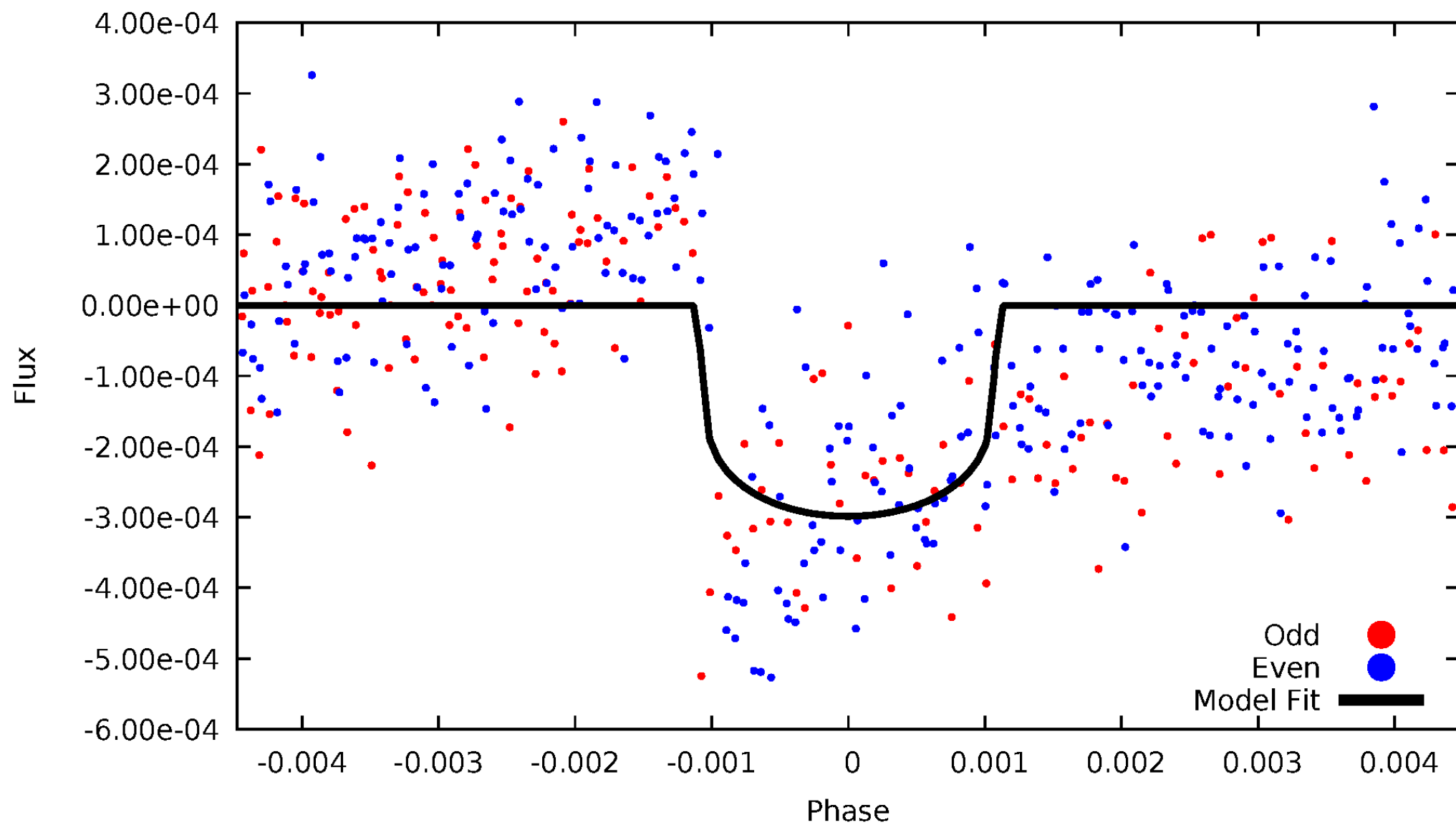


TCE 011356602-01



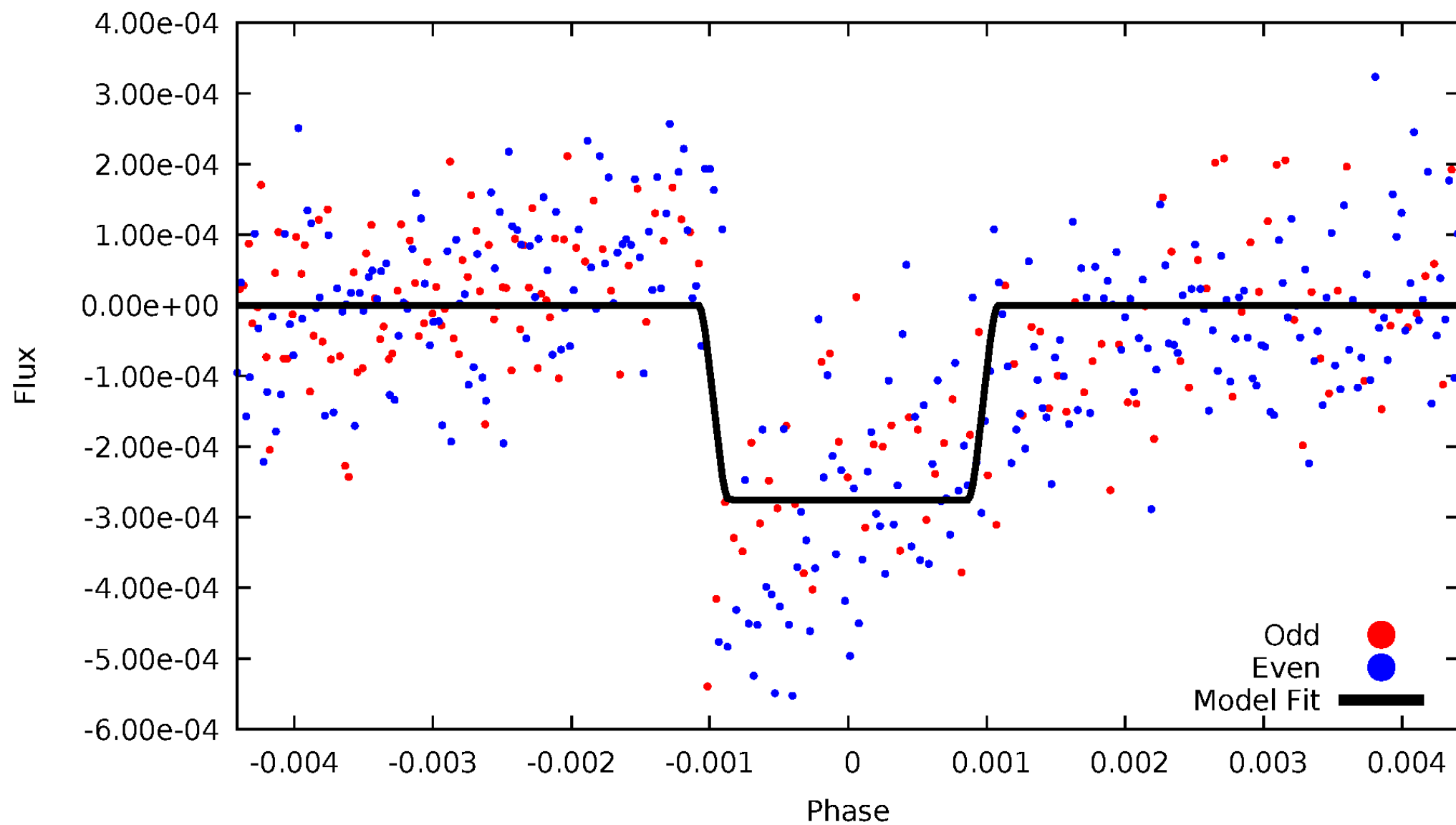
DV Odd/Even

TCE 011356602-01

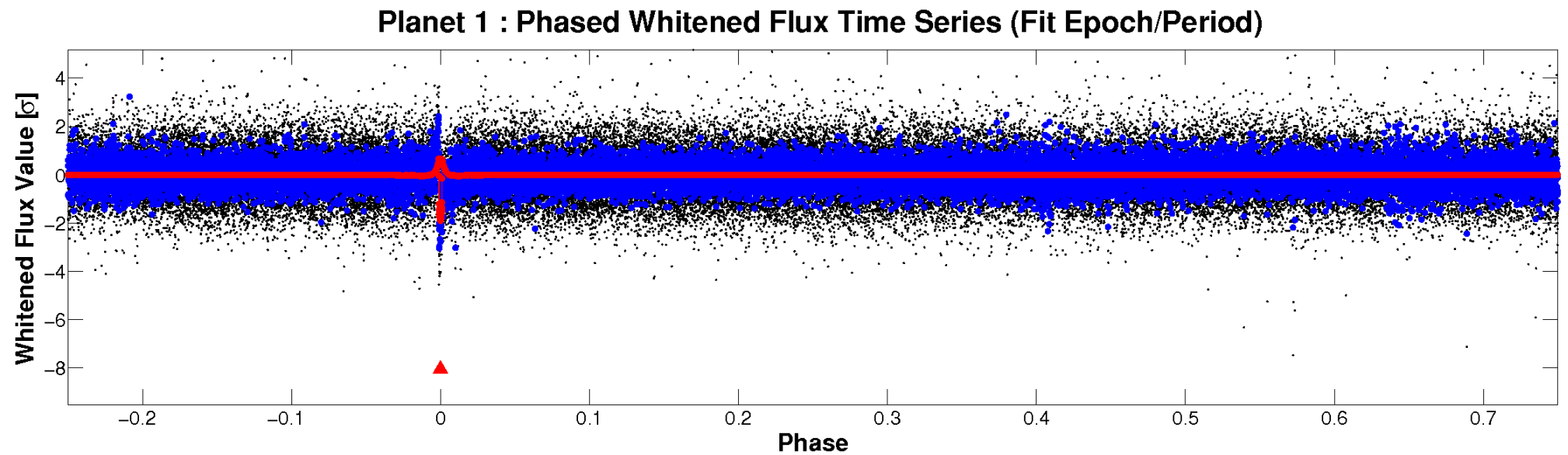
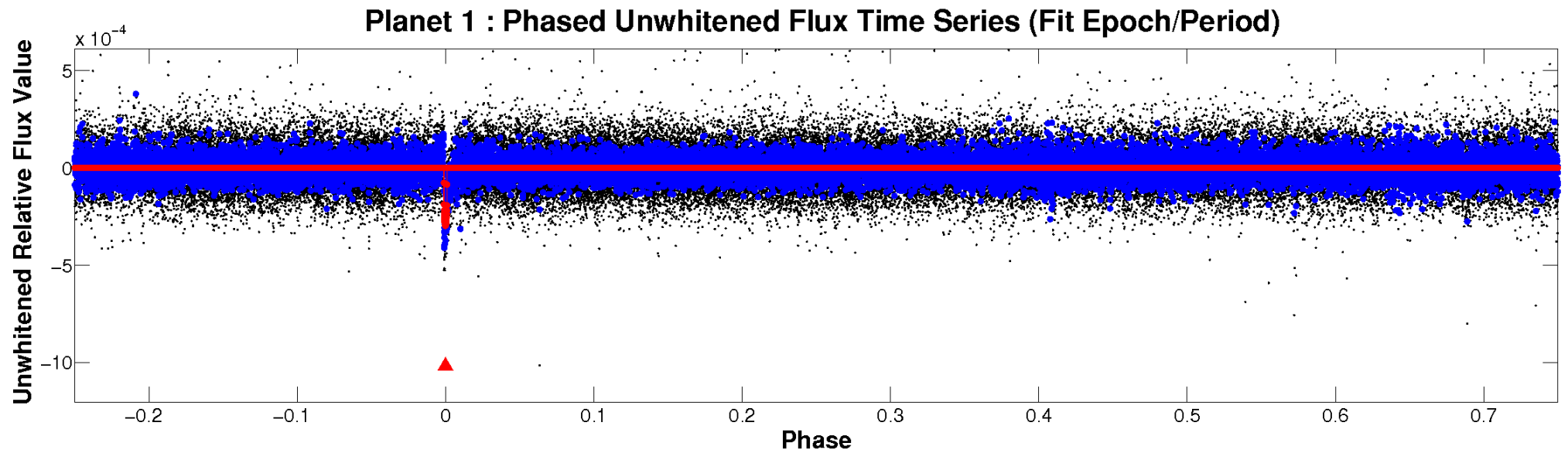


ALT Odd/Even

TCE 011356602-01



Non-Whitened Vs. Whitened Light Curve



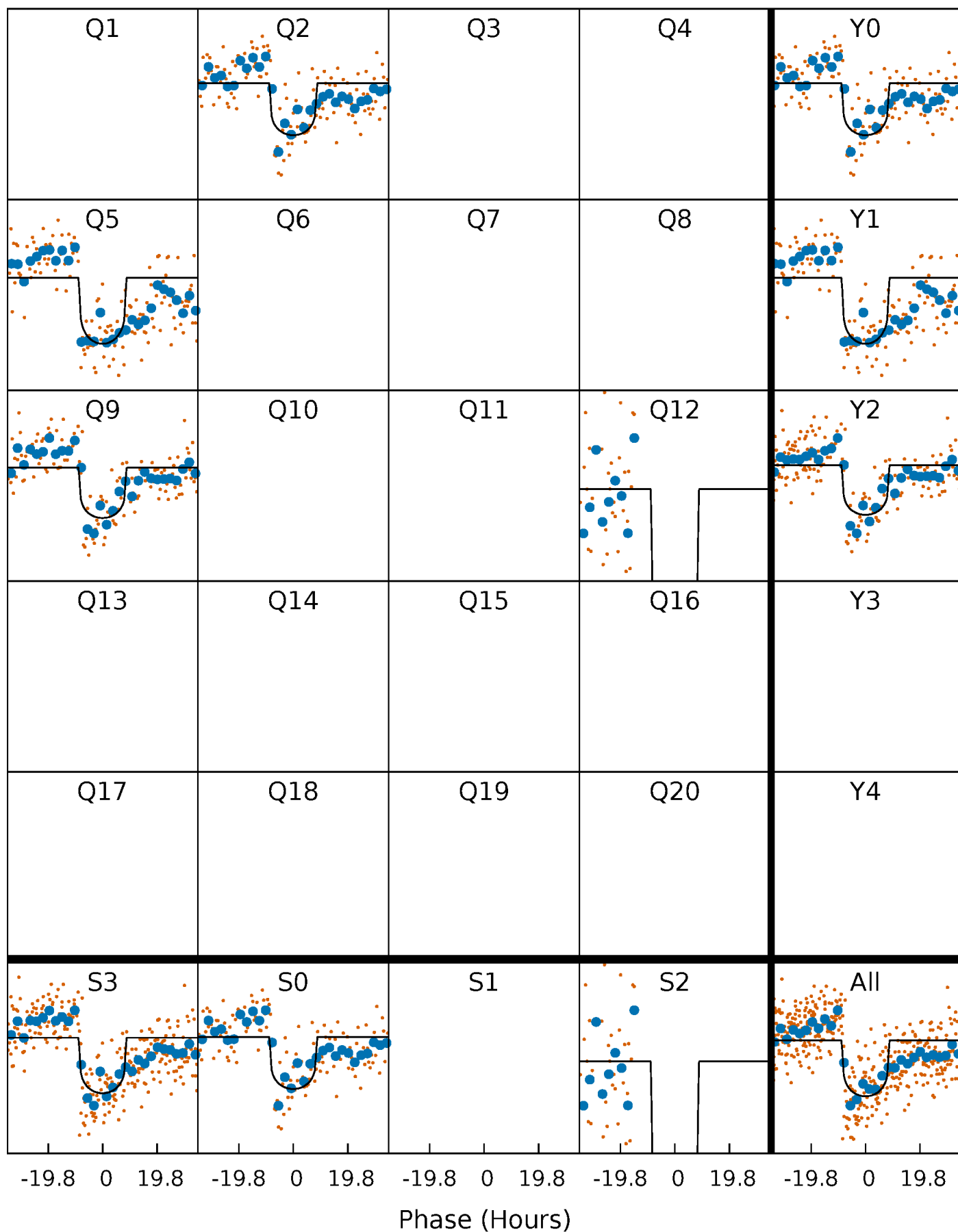
PDC Quarter-Phased Transit Curves

TCE 011356602-01 P=323.260056 Days $T_0=191.362282$ (BKJD)



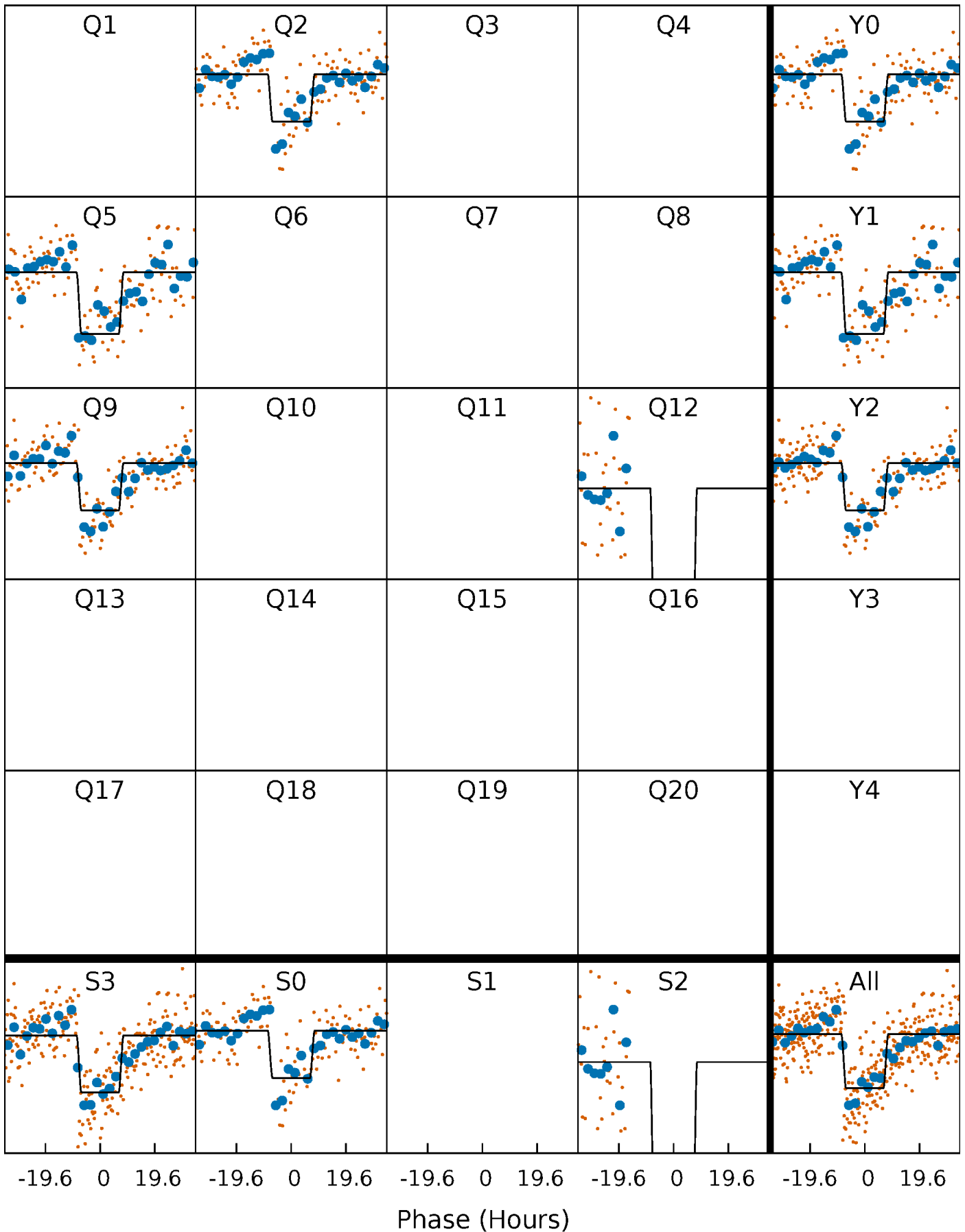
DV Quarter-Phased Transit Curves

TCE 011356602-01 P=323.260056 Days $T_0=191.362282$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

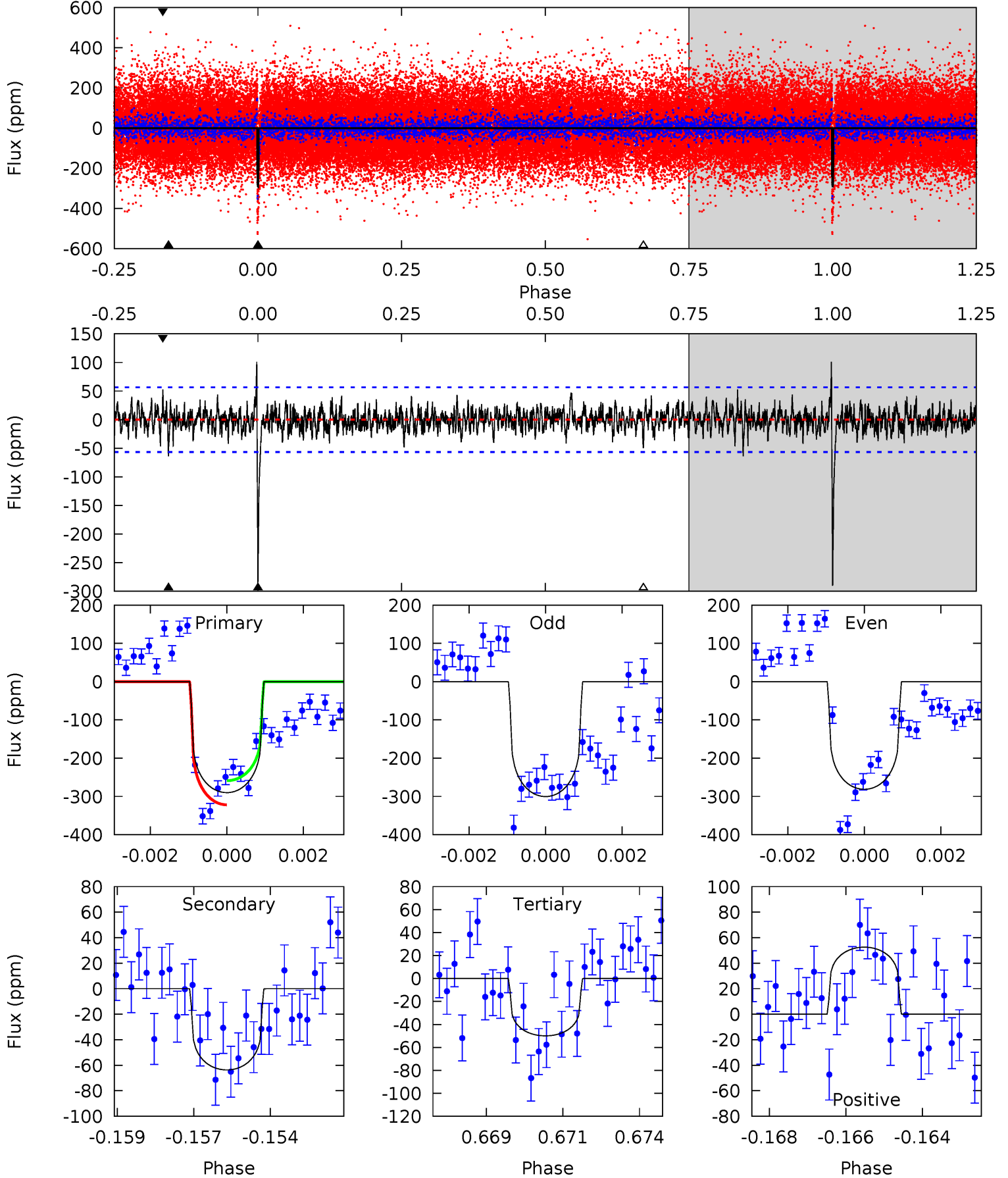
TCE 011356602-01 P=323.292975 Days $T_0=191.310107$ (BKJD)



DV Model-Shift Uniqueness Test

011356602-01, P = 323.260056 Days, E = 191.362282 Days

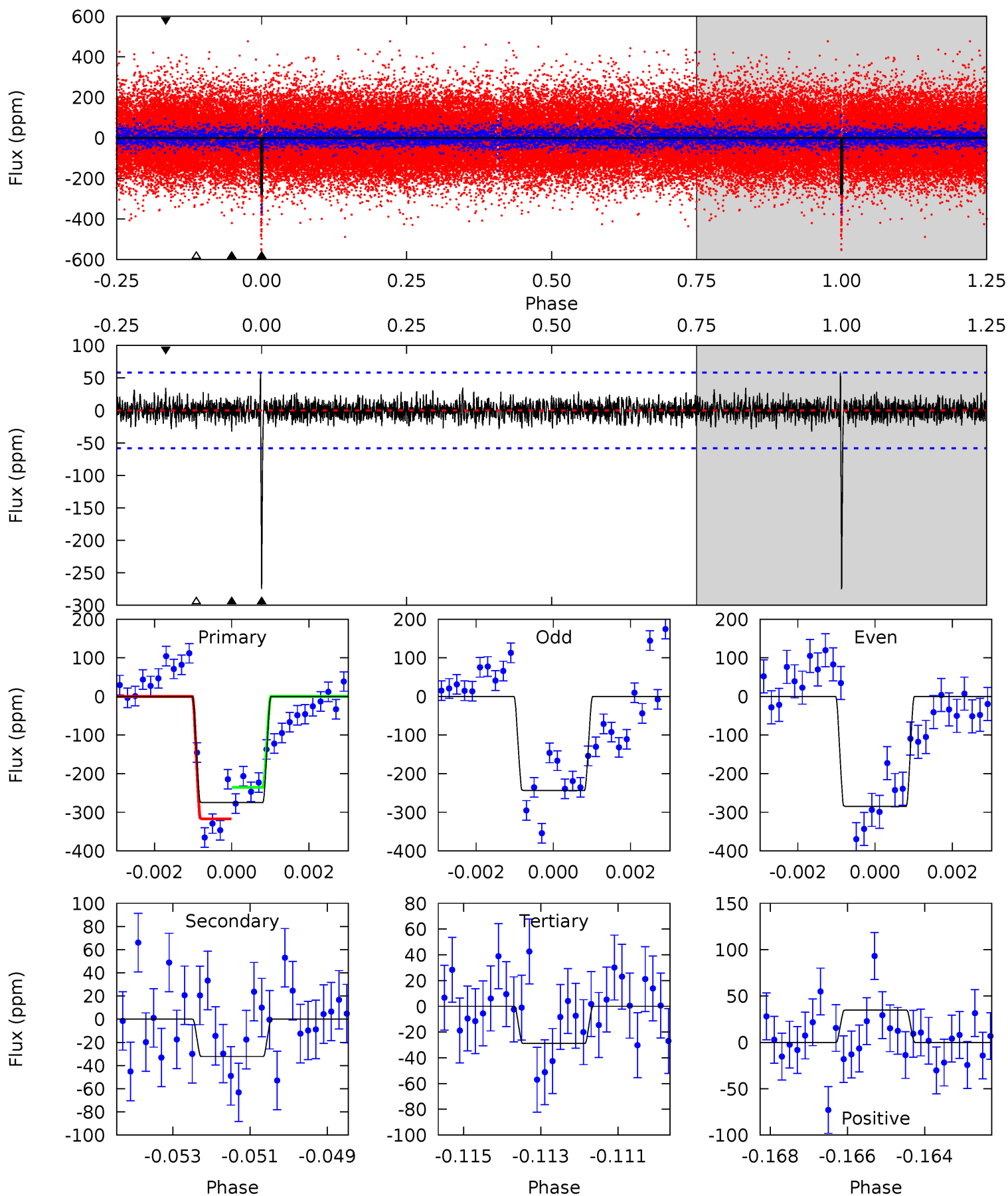
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.2	5.97	4.68	4.93	5.30	3.04	1.41	22.5	22.3	1.29	1.04	0.85	0.97	0.26	2.95



Alt Model-Shift Uniqueness Test

011356602-01, P = 323.292975 Days, E = 191.310107 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.1	2.94	2.63	3.18	5.32	3.07	0.86	22.5	21.9	0.30	-0.24	1.79	1.04	0.18	3.71



Stellar Parameters For KIC 011356602

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5866^{+79}_{-79}	$4.301^{+0.132}_{-0.108}$	$0.100^{+0.150}_{-0.150}$	$1.198^{+0.185}_{-0.168}$	$1.045^{+0.080}_{-0.067}$	$0.857^{+0.445}_{-0.294}$
	+1%/-1%	+3%/-3%	+150%/-150%	+15%/-14%	+8%/-6%	+52%/-34%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 011356602-01 / KOI 7439.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-64 ± 11	$2.27^{+0.52}_{-0.57}$	408^{+18}_{-17}	4228^{+485}_{-339}	5964^{+5015}_{-2316}
Alt.	-32 ± 11	$2.18^{+0.59}_{-0.53}$	409^{+18}_{-16}	3760^{+461}_{-335}	3080^{+2922}_{-1405}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

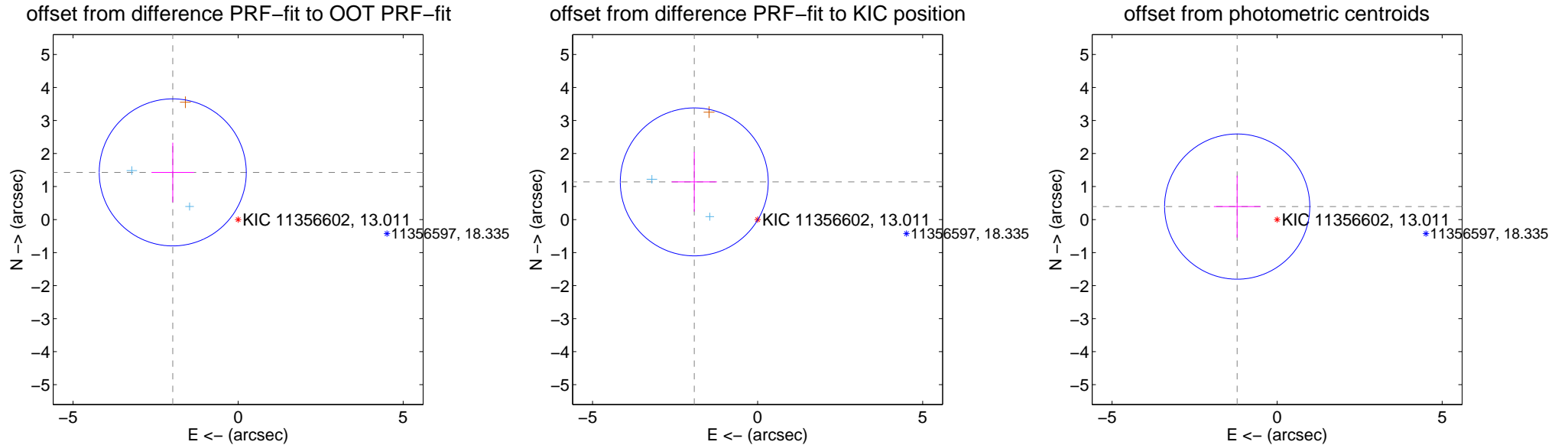
DV Centroid Data

Supplemental centroid analysis for 011356602-01. Kepler magnitude: 13.01. Transit SNR 17.22

There are 2 quarters with good PRF difference image offsets

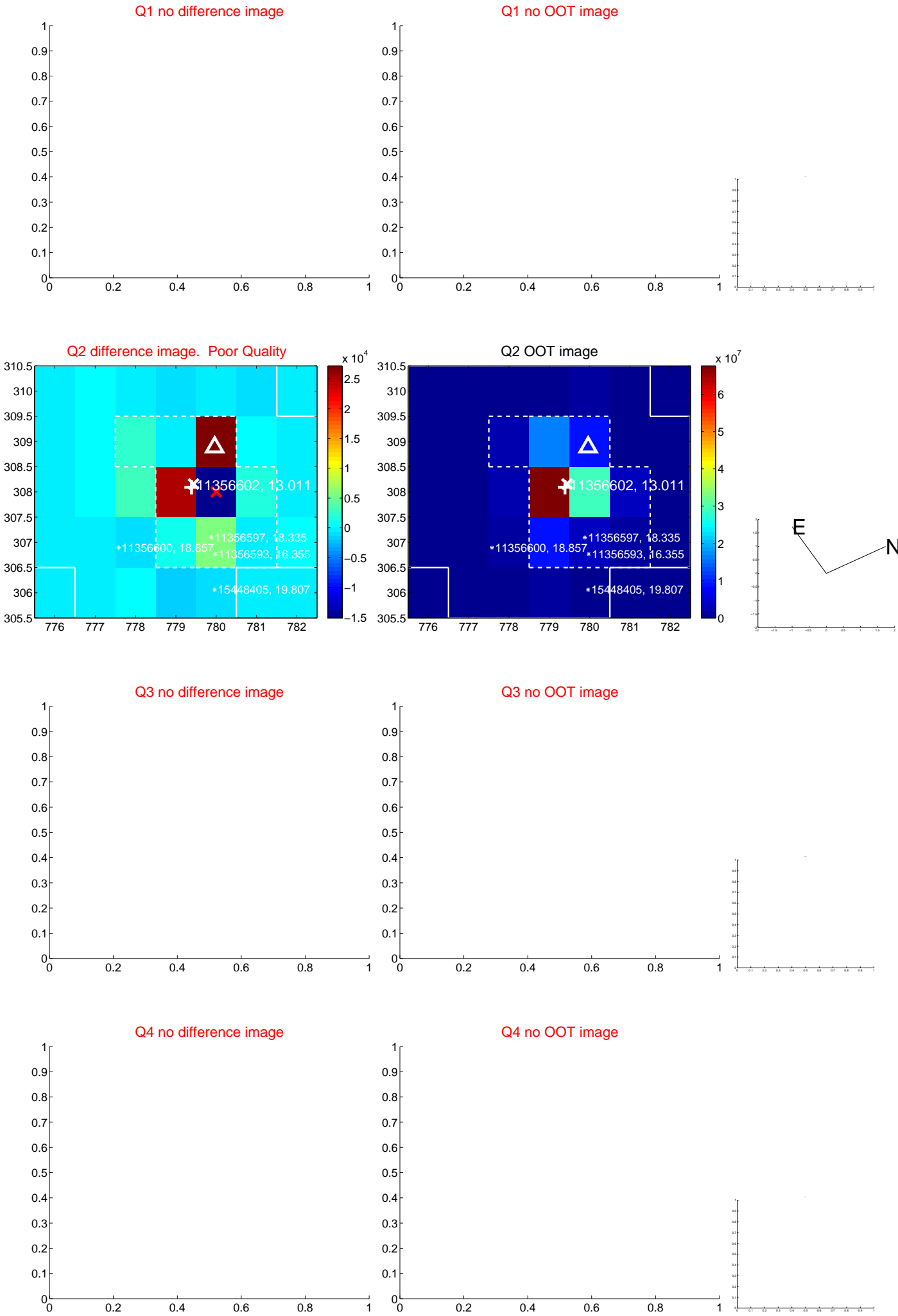
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.442 \pm 0.742	3.29	1.980 \pm 0.644	1.429 \pm 0.901
PRF-fit source offset from KIC position	2.232 \pm 0.747	2.99	1.918 \pm 0.683	1.141 \pm 0.902
photometric centroid source offset	1.27 \pm 0.73	1.73	1.21 \pm 0.71	0.39 \pm 0.94

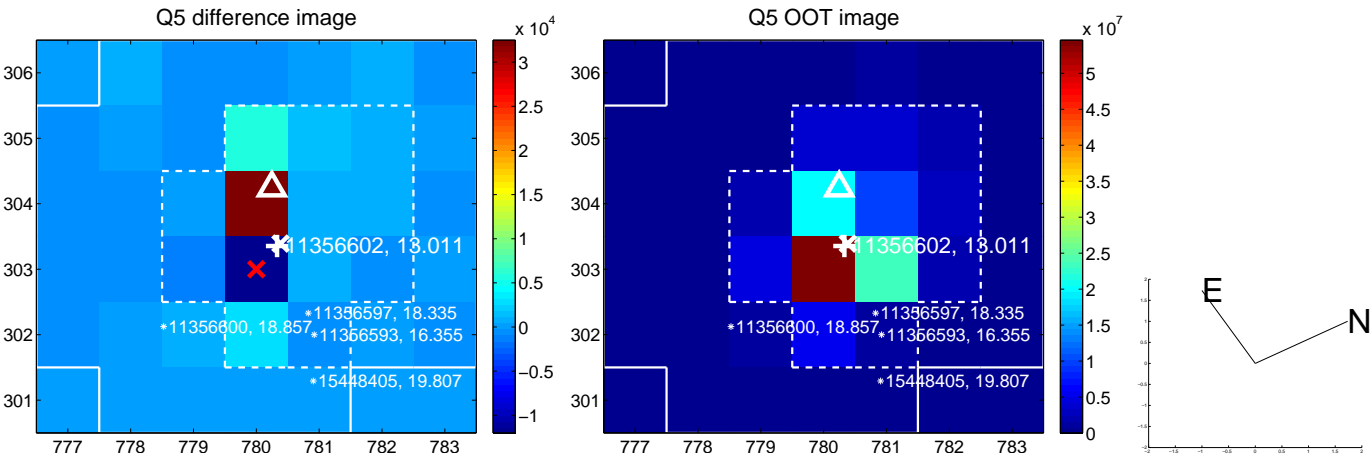


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

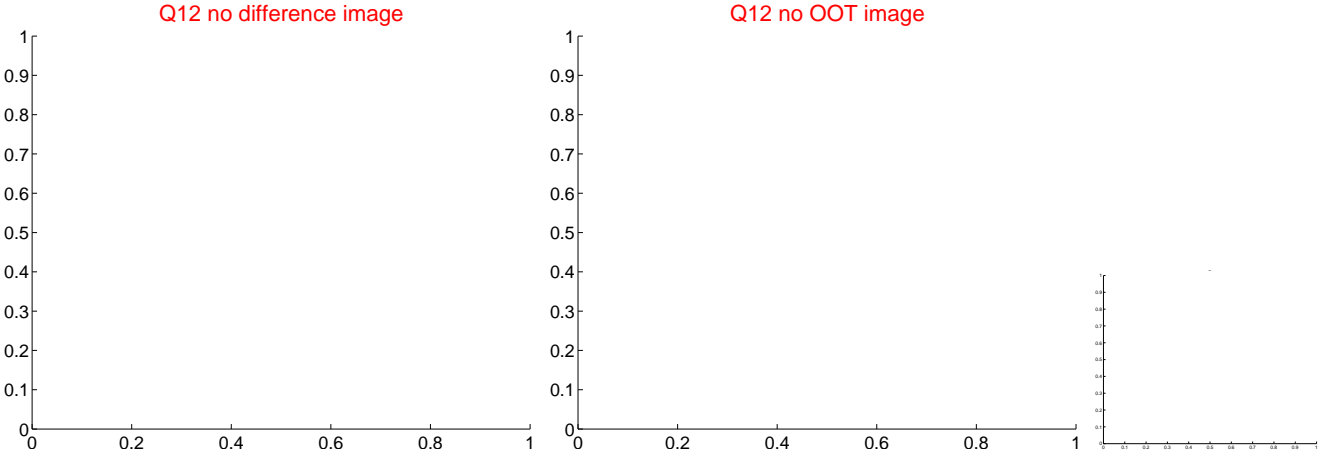
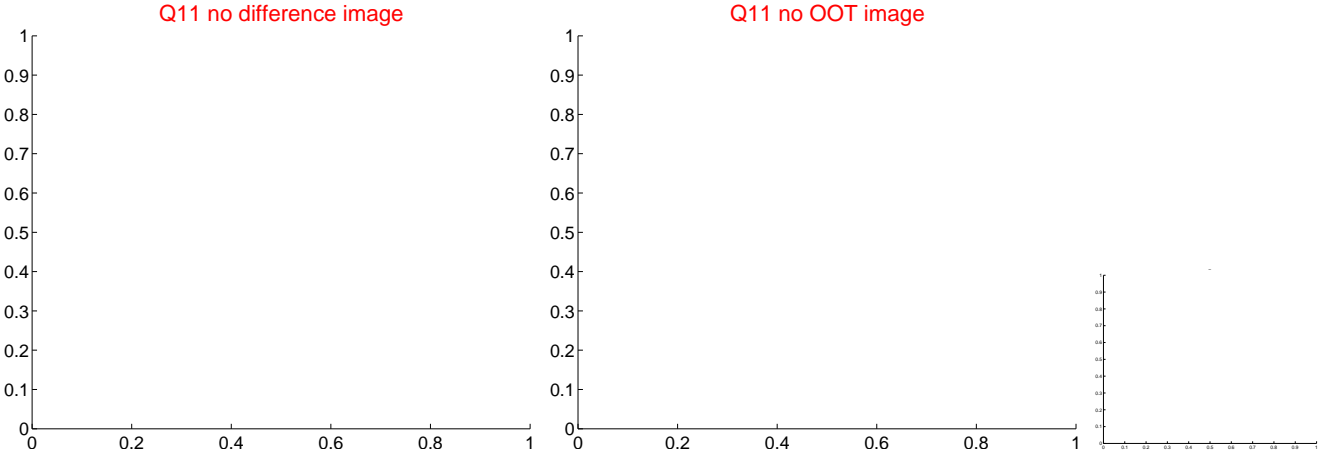
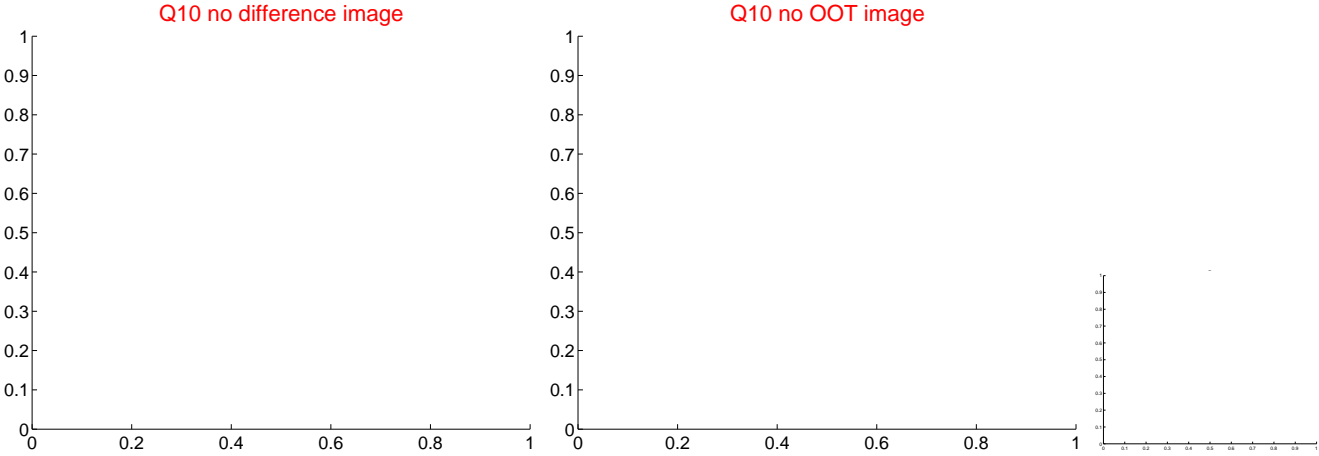
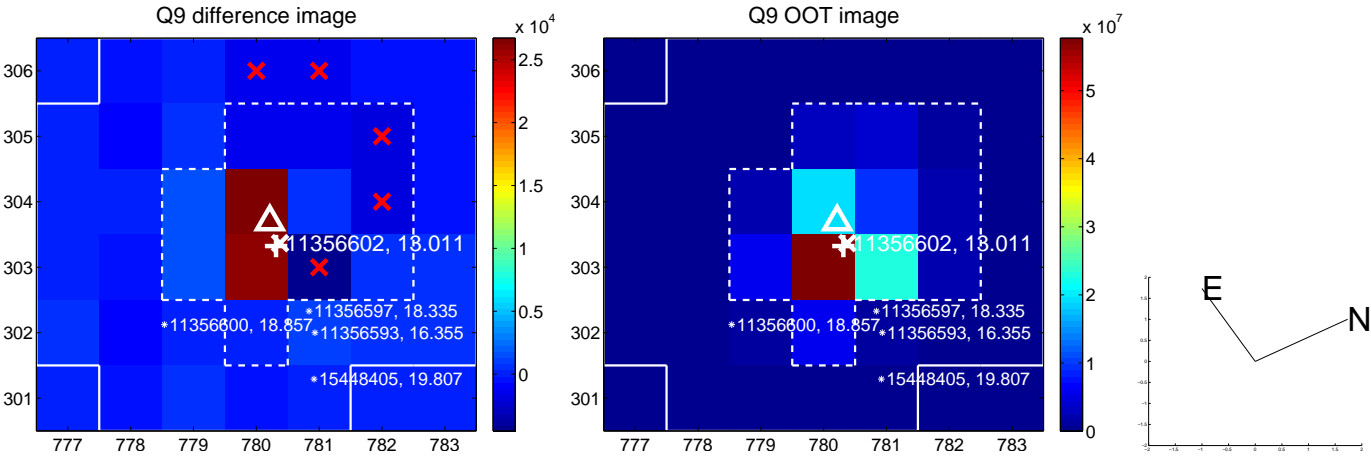
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



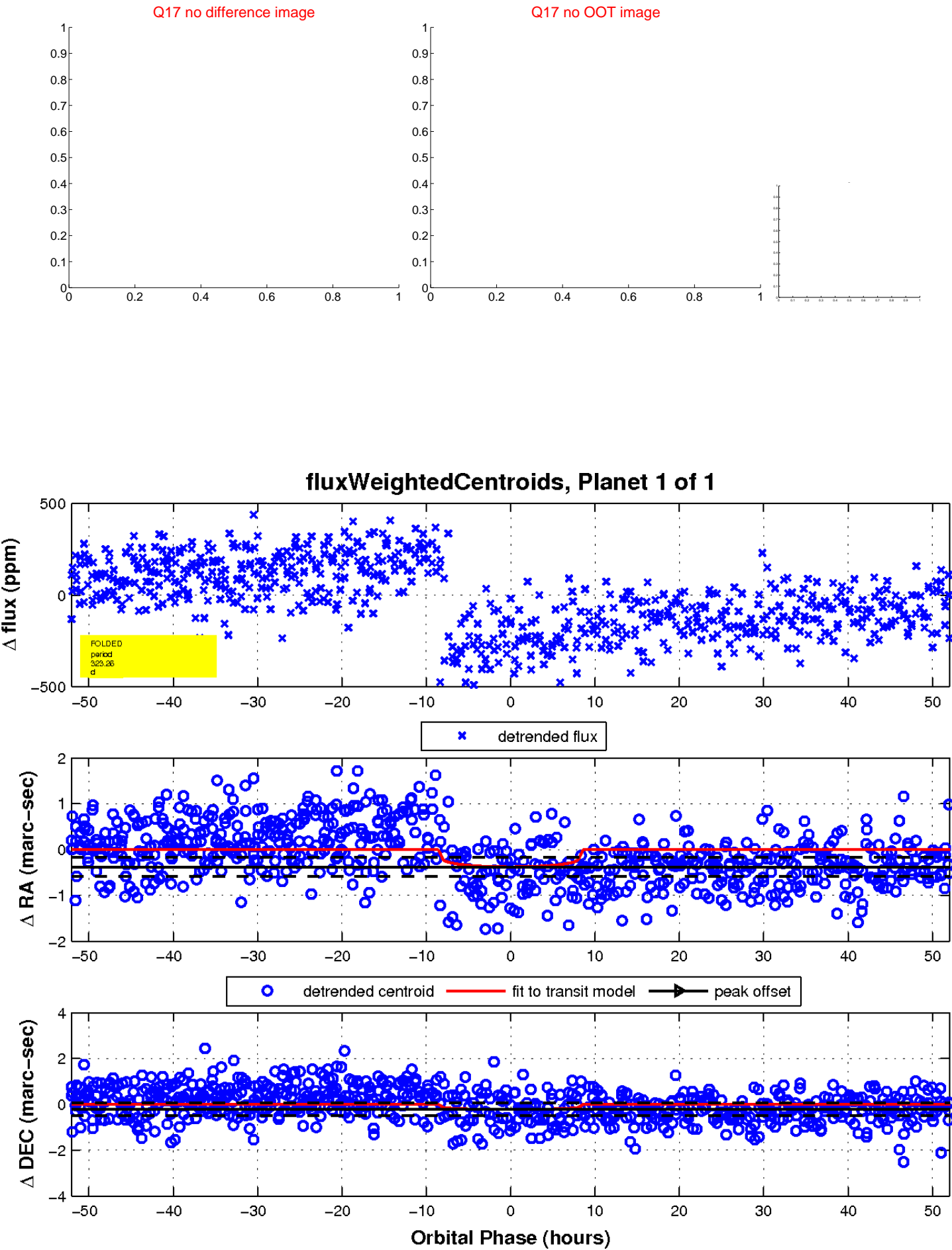
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

