

KIC 010351947

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})
010351947-01	OBS	8205.01	260.452538	235.443260	635.8	9.039	7.8	7.5	7.80	4845	20.09	32.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010351947-01	OBS	PC	0.33	0	0	0	0	NO_COMMENT

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

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

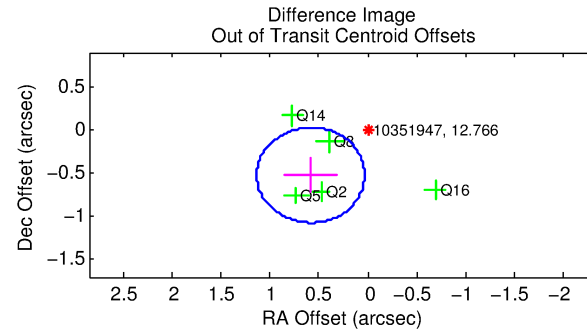
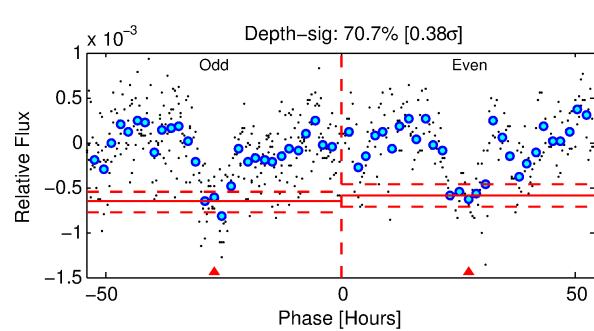
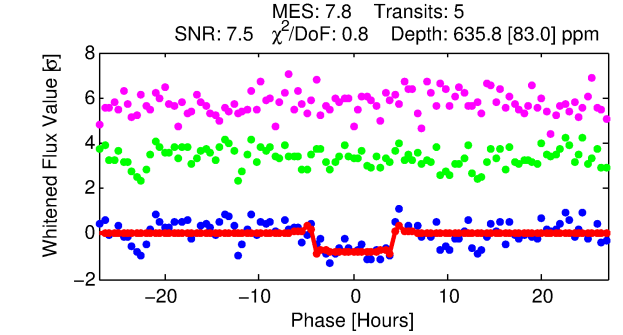
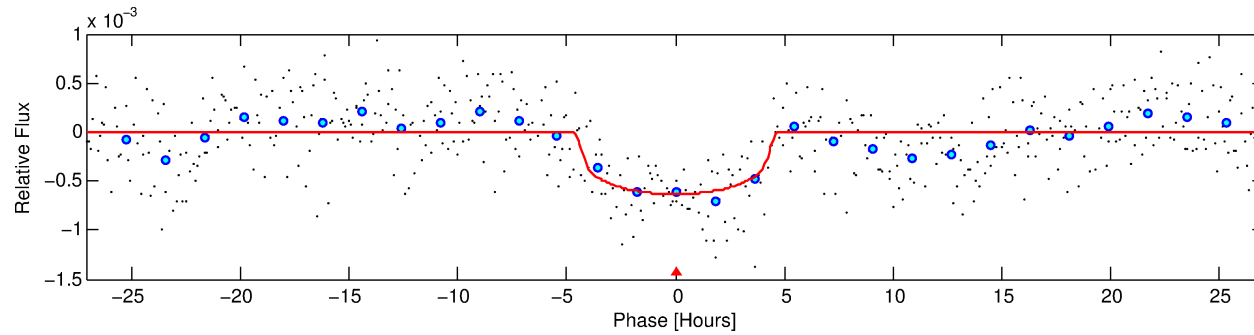
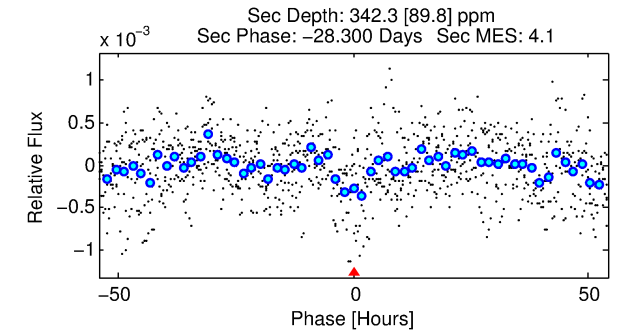
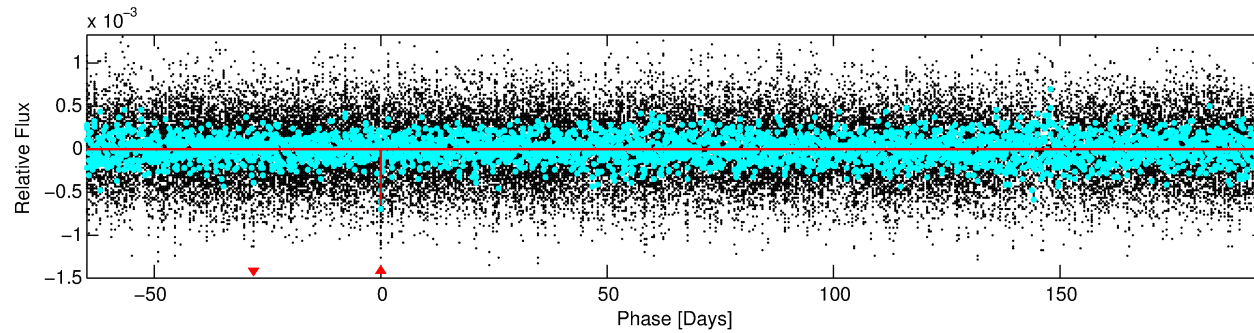
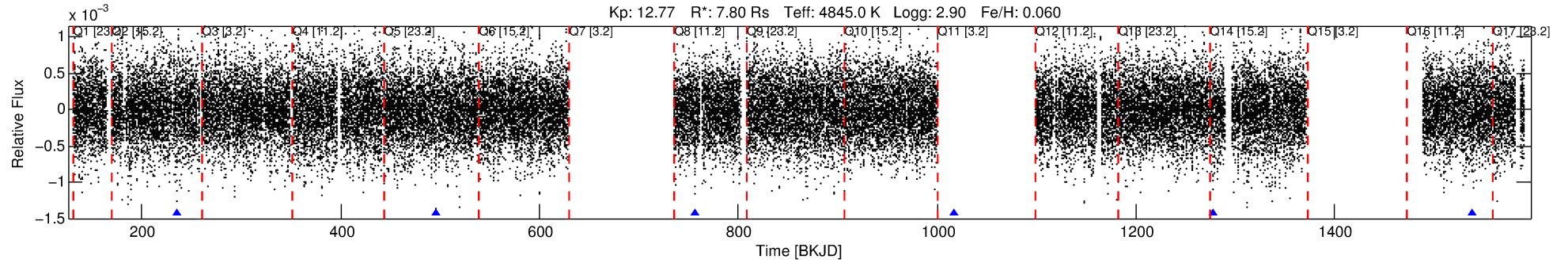
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010351947-01

No Significant Match Found

DV One-Page Summary

KIC: 10351947 Candidate: 1 of 1 Period: 260.453 d



DV Fit Results:

Period = 260.45254 [0.00199] d
Epoch = 235.4433 [0.0068] BKJD
Rp/R* = 0.0236 [0.0106]
a/R* = 187.05 [277.58]
b = 0.57 [1.77]
Seff = 32.43 [5.06]
Teff = 609 [24] K
Rp = 20.09 [9.83] Re
a = 0.9618 [0.1237] AU
Ag = 431.40 [409.36] [1.05 σ]
Teffp = 4288 [1010] K [3.64 σ]

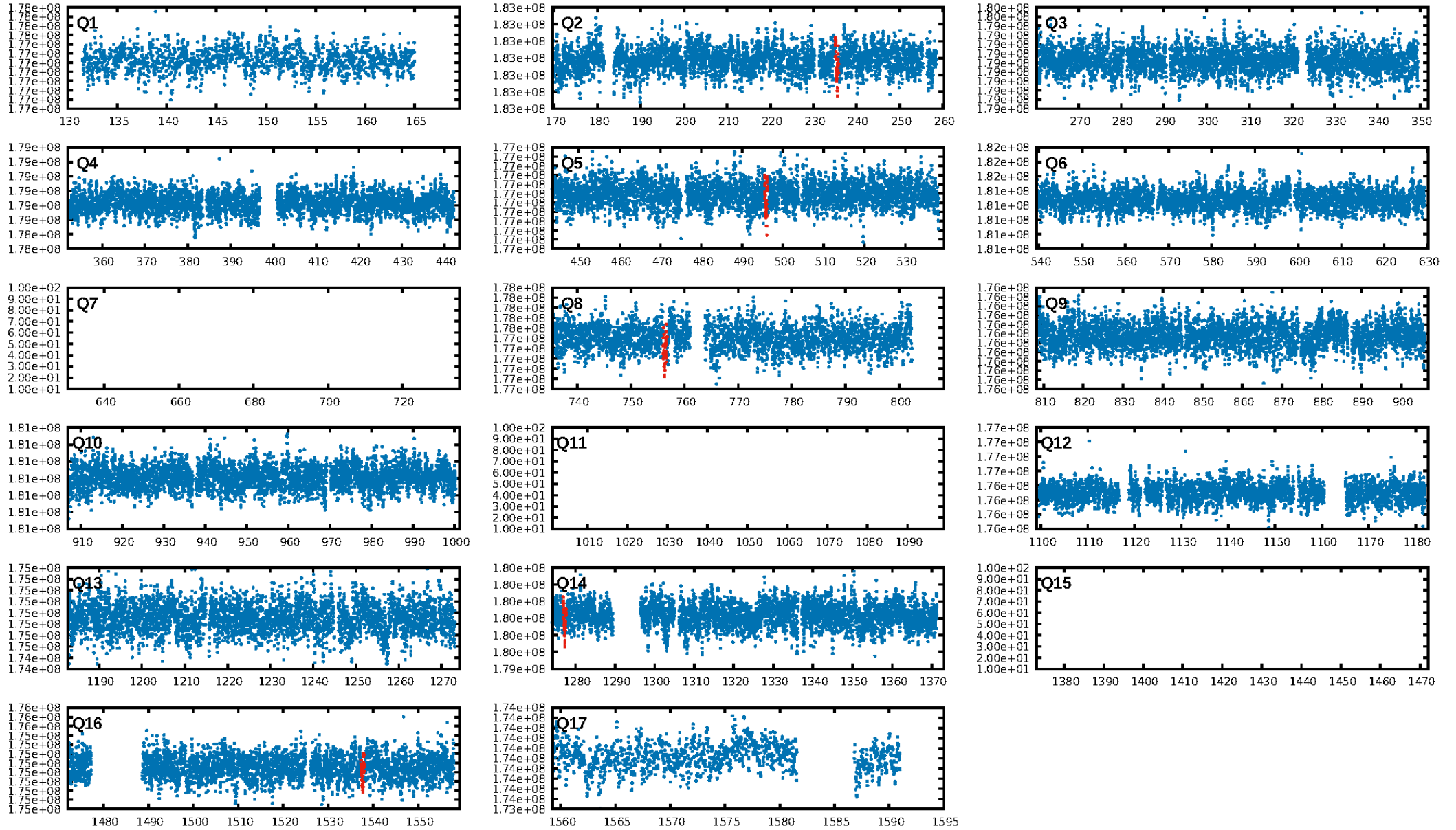
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.85e-11
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 1.564
Centroid-sig: 1.6%
Centroid-so: 0.523 arcsec [1.75 σ]
OotOffset-rm: 0.784 arcsec [4.27 σ]
KicOffset-rm: 0.705 arcsec [2.71 σ]
OotOffset-st: 2/0/2/1 [5]
KicOffset-st: 2/0/2/1 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [5/5]

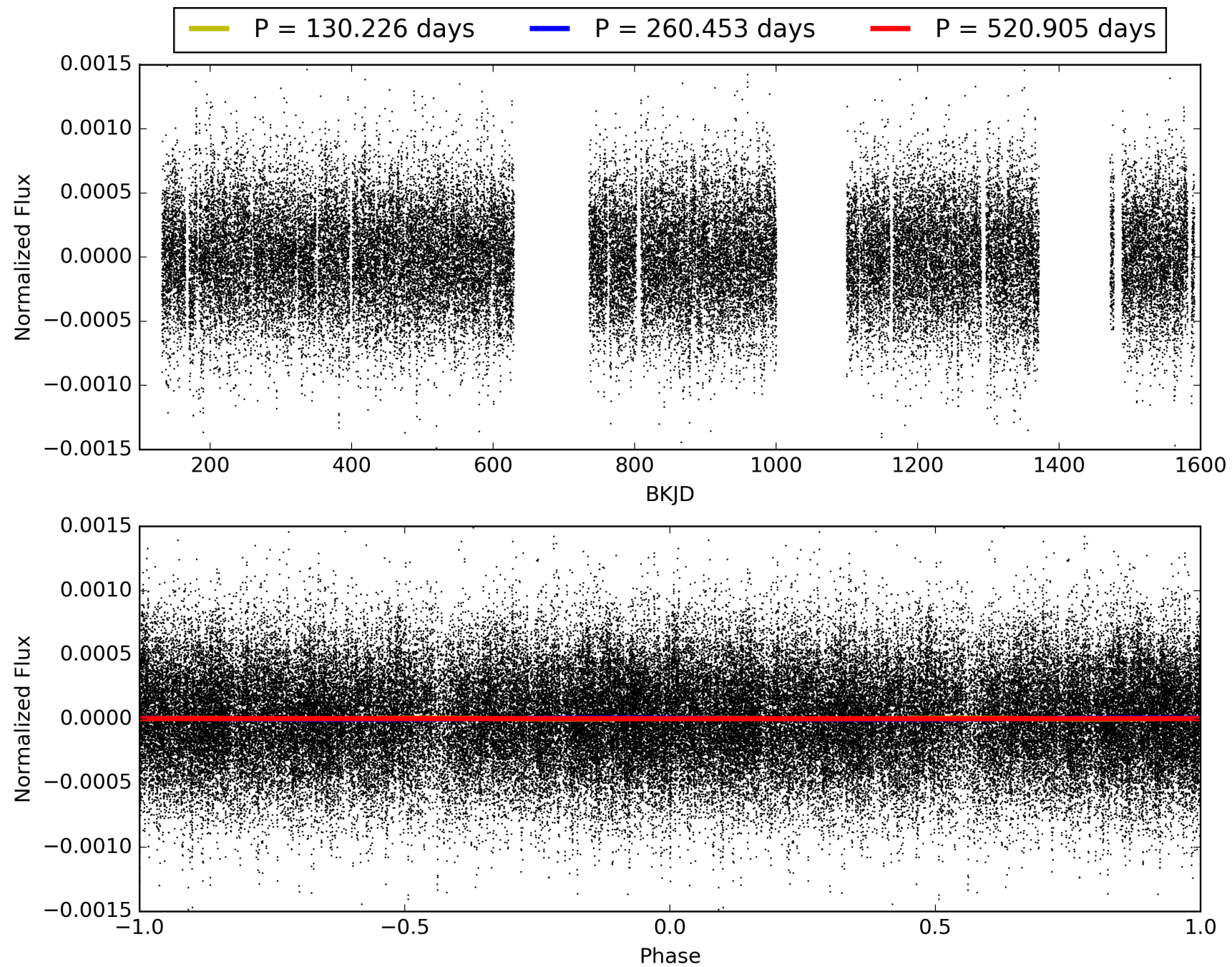
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:59:50 Z

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

TCE 010351947-01, PDC Light Curves

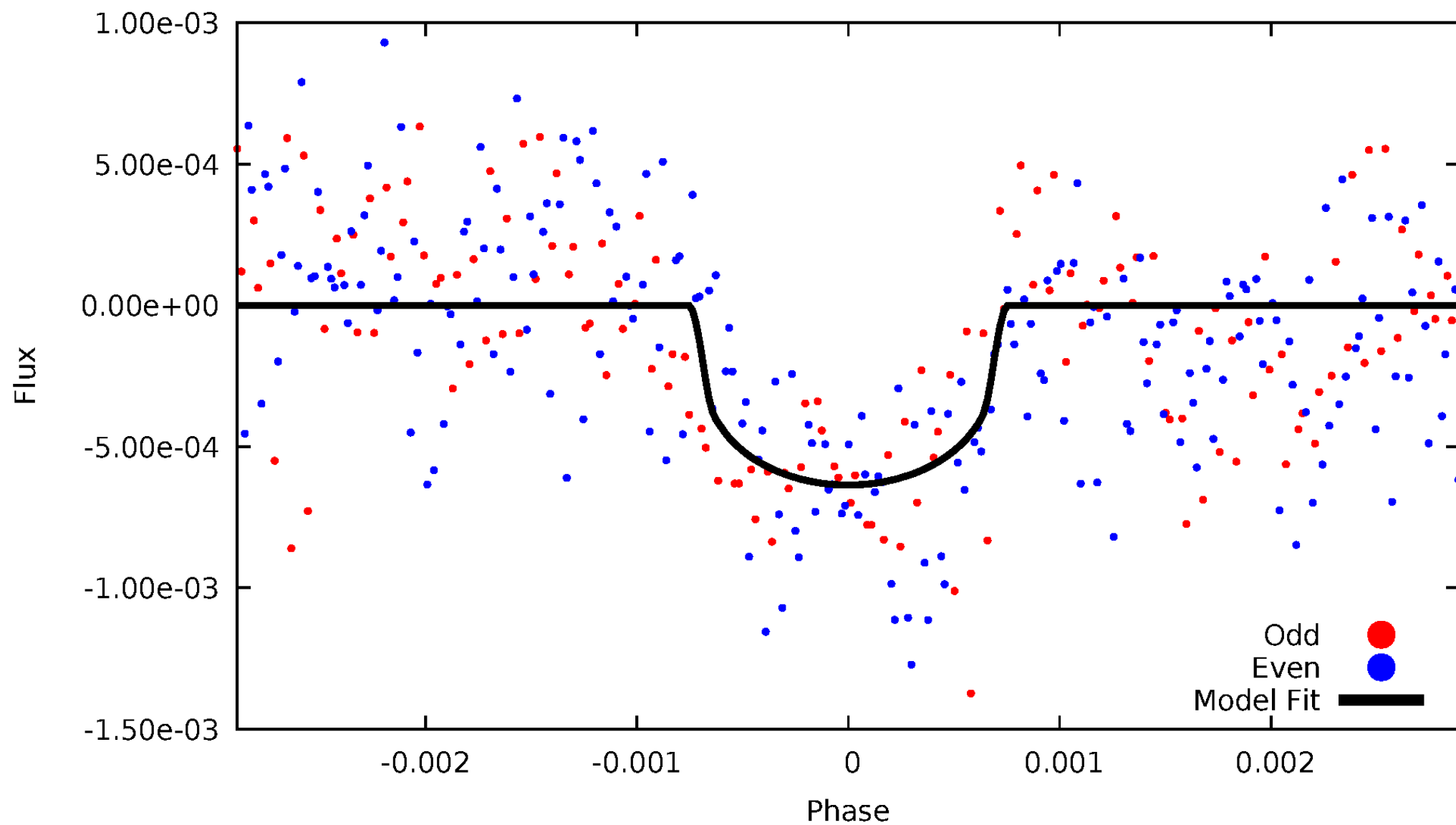


TCE 010351947-01



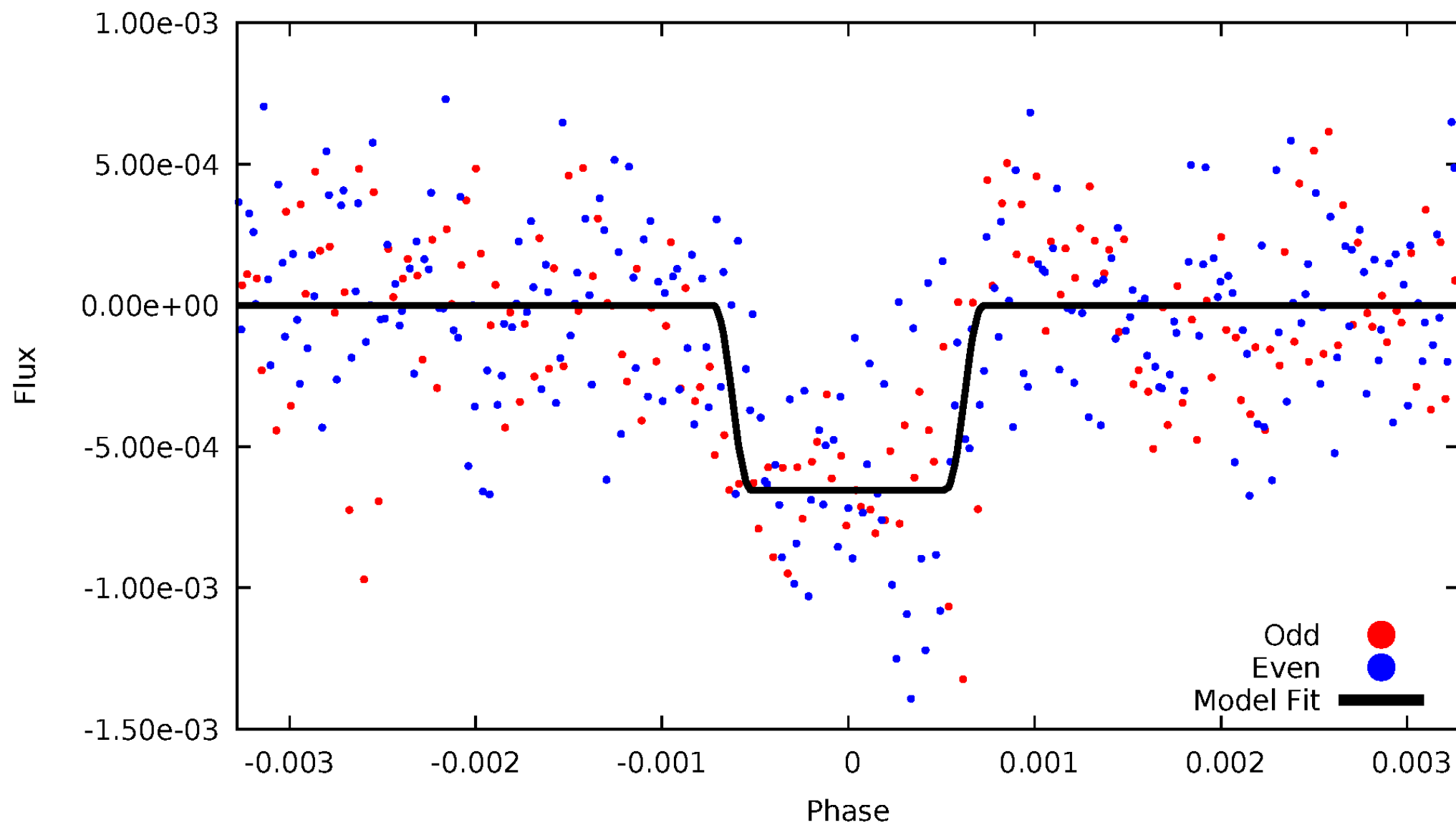
DV Odd/Even

TCE 010351947-01



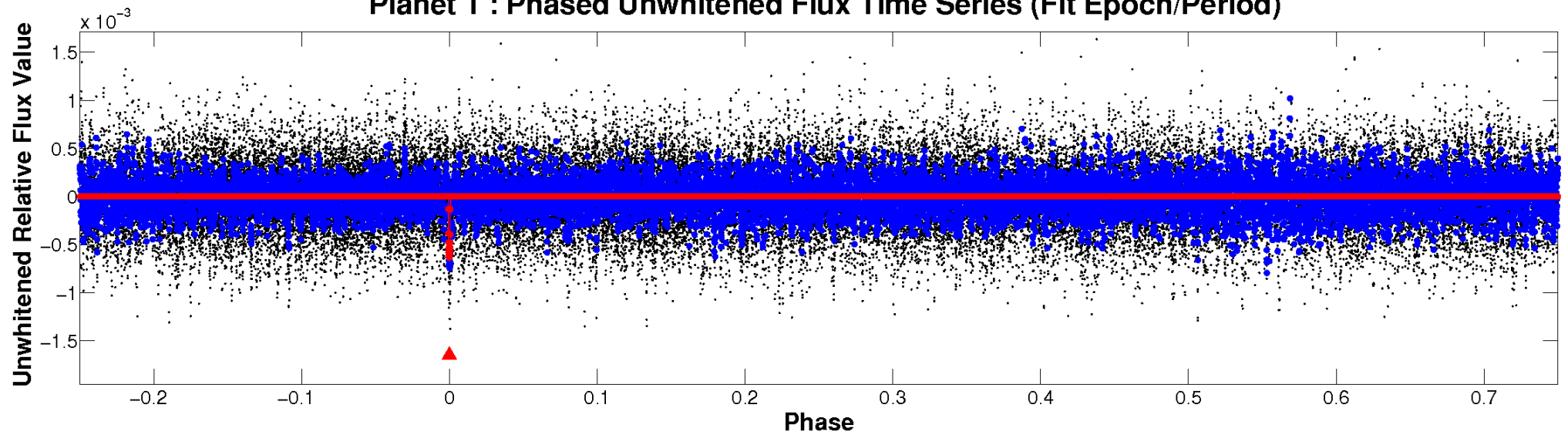
ALT Odd/Even

TCE 010351947-01

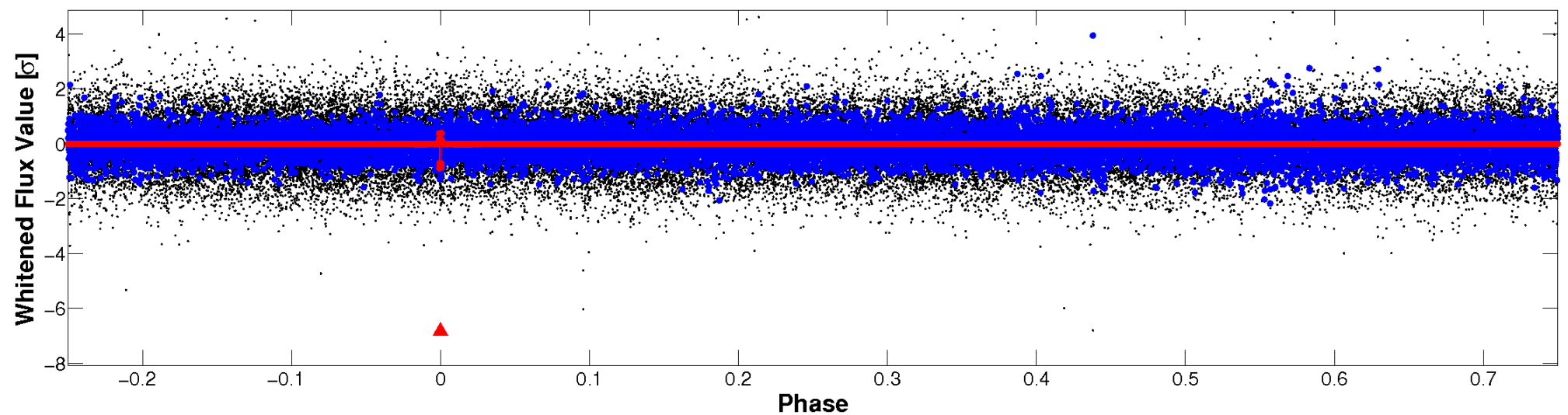


Non-Whitened Vs. Whitened Light Curve

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

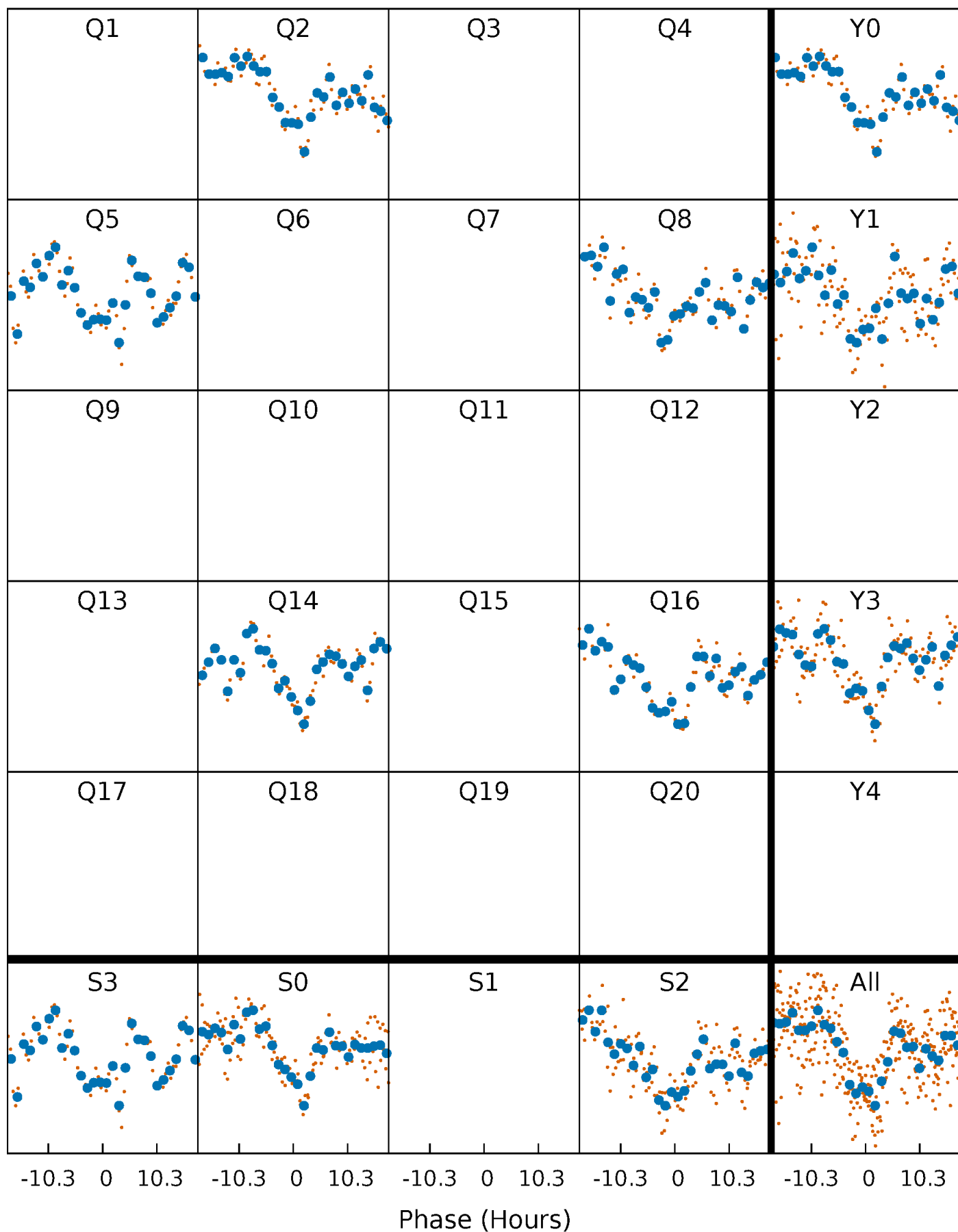


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 010351947-01 $P=260.452538$ Days $T_0=235.443260$ (BKJD)



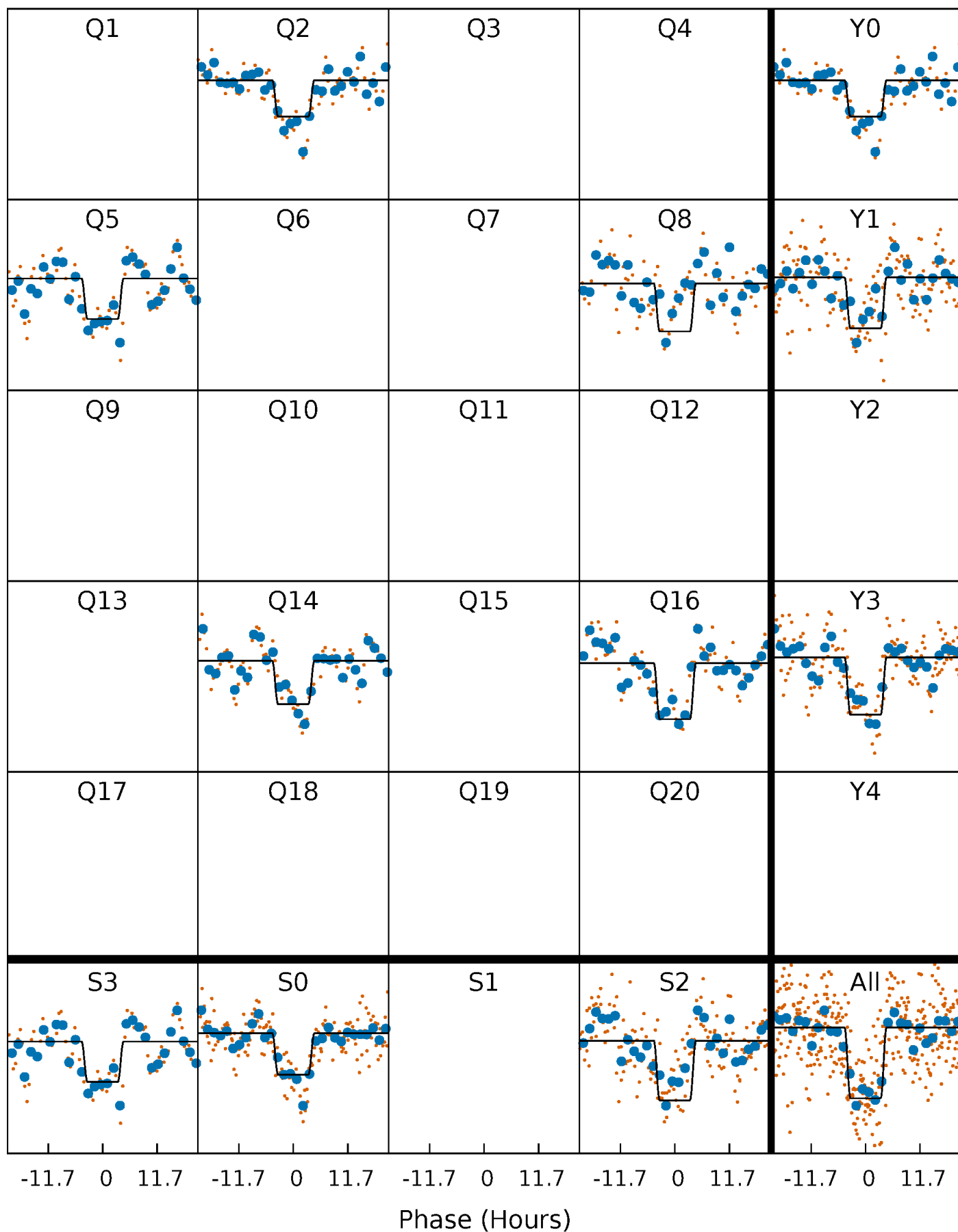
DV Quarter-Phased Transit Curves

TCE 010351947-01 $P=260.452538$ Days $T_0=235.443260$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

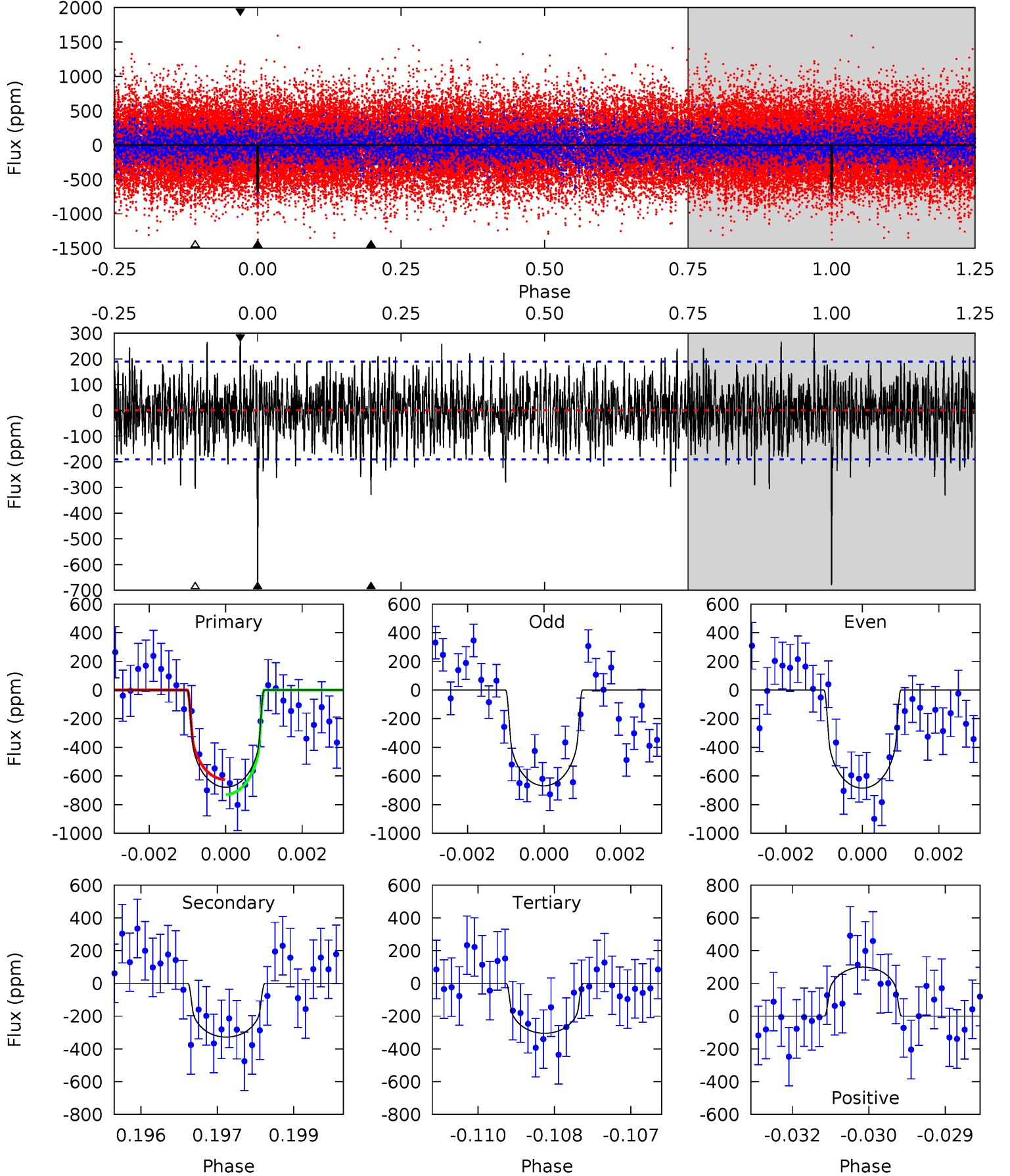
TCE 010351947-01 $P=260.452967$ Days $T_0=235.433477$ (BKJD)



DV Model-Shift Uniqueness Test

010351947-01, P = 260.452538 Days, E = 235.443260 Days

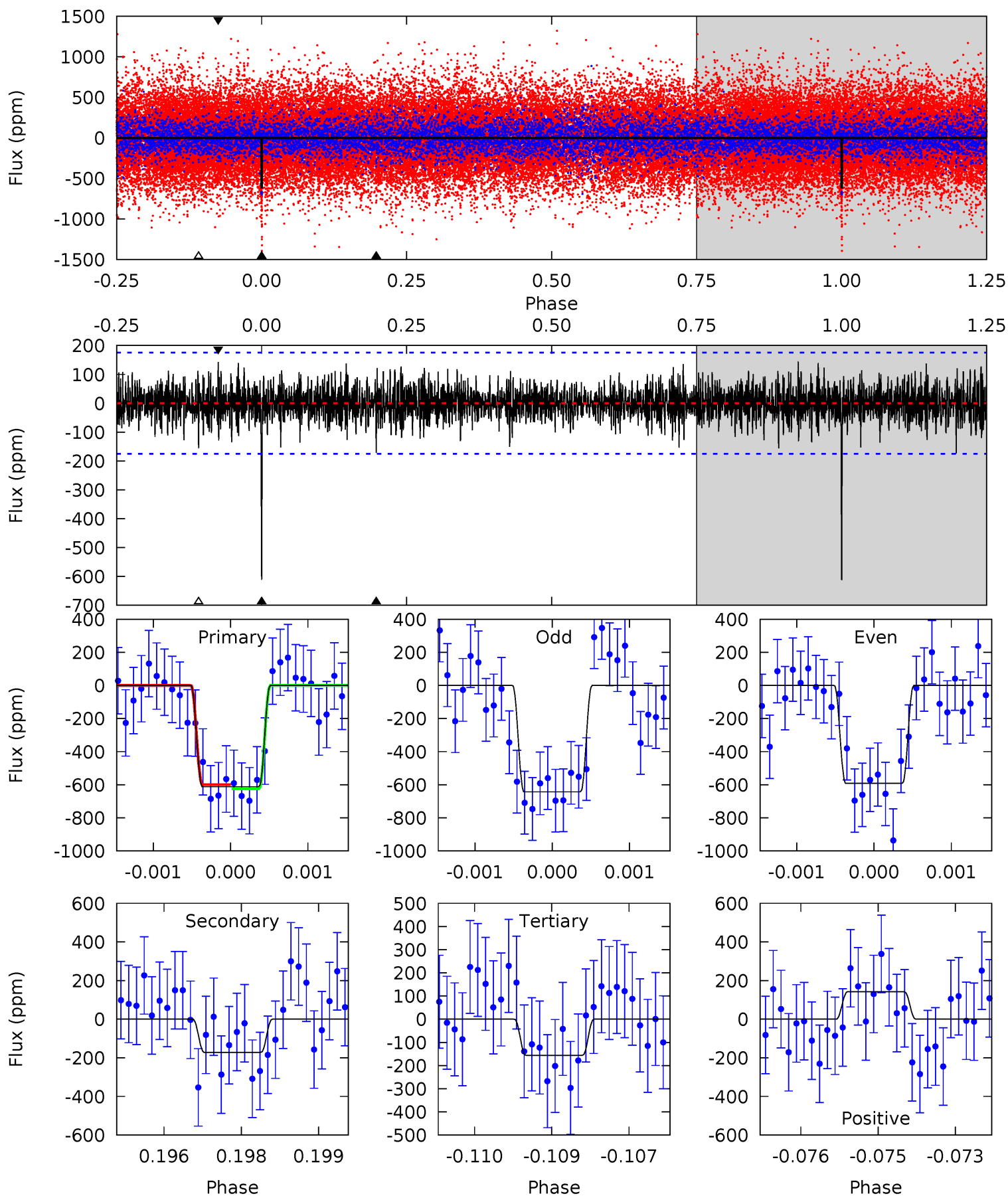
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	9.28	8.62	8.46	5.38	3.17	2.46	10.6	10.7	0.66	0.81	0.23	1.02	0.31	1.47



Alt Model-Shift Uniqueness Test

010351947-01, $P = 260.452967$ Days, $E = 235.433477$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.8	5.28	4.78	4.37	5.39	3.19	1.36	14.0	14.4	0.49	0.91	0.77	0.99	0.19	0.38



Stellar Parameters For KIC 010351947

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4845^{+43}_{-93}	$2.897^{+0.030}_{-0.033}$	$0.060^{+0.100}_{-0.150}$	$7.796^{+0.492}_{-1.475}$	$1.748^{+0.193}_{-0.580}$	$0.005^{+0.001}_{-0.000}$
	+1%/-2%	+1%/-1%	+167%/-250%	+6%/-19%	+11%/-33%	+25%/-9%
Source	SPE74	AST9	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 010351947-01 / KOI 8205.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-328 ± 35	$20.30^{+9.44}_{-9.10}$	850^{+15}_{-20}	4350^{+1186}_{-560}	406^{+913}_{-214}
Alt.	-172 ± 33	$21.62^{+9.33}_{-8.56}$	849^{+15}_{-23}	3760^{+765}_{-437}	182^{+337}_{-97}

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

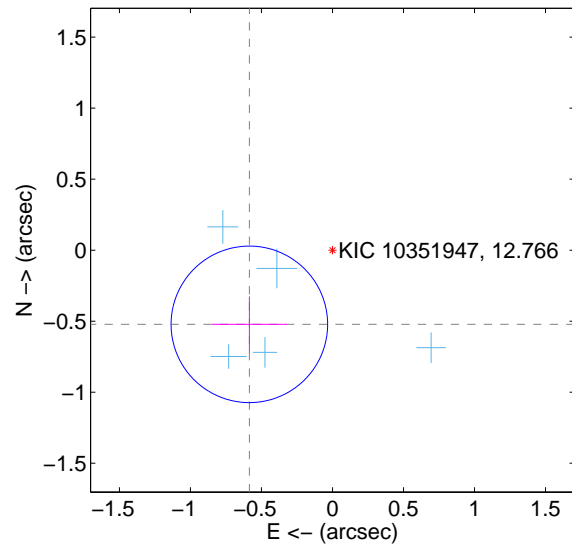
Supplemental centroid analysis for 010351947-01. Kepler magnitude: 12.77. Transit SNR 7.46

There are 5 quarters with good PRF difference image offsets

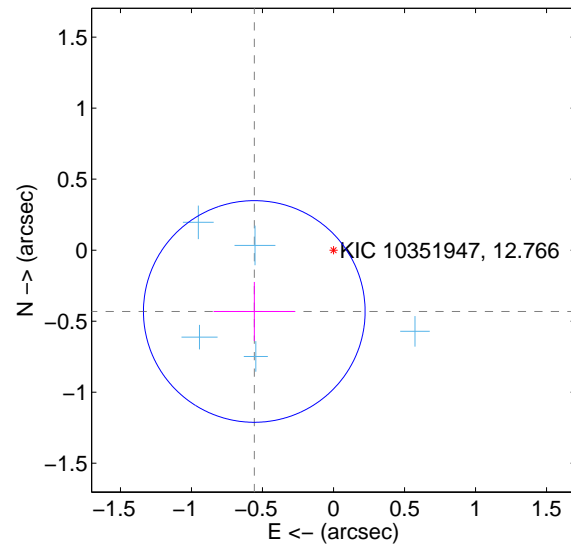
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.784 \pm 0.184	4.27	0.585 \pm 0.264	-0.522 \pm 0.197
PRF-fit source offset from KIC position	0.705 \pm 0.260	2.71	0.558 \pm 0.287	-0.432 \pm 0.208
photometric centroid source offset	0.52 \pm 0.30	1.75	0.19 \pm 0.32	0.49 \pm 0.30

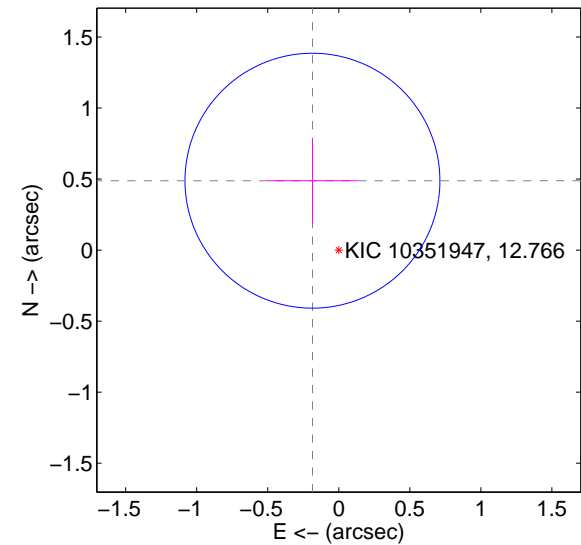
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



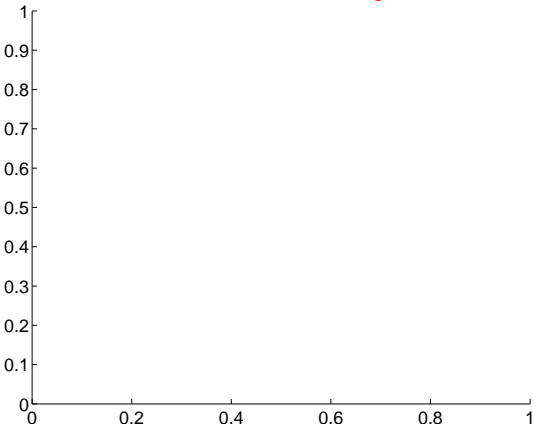
offset from photometric centroids



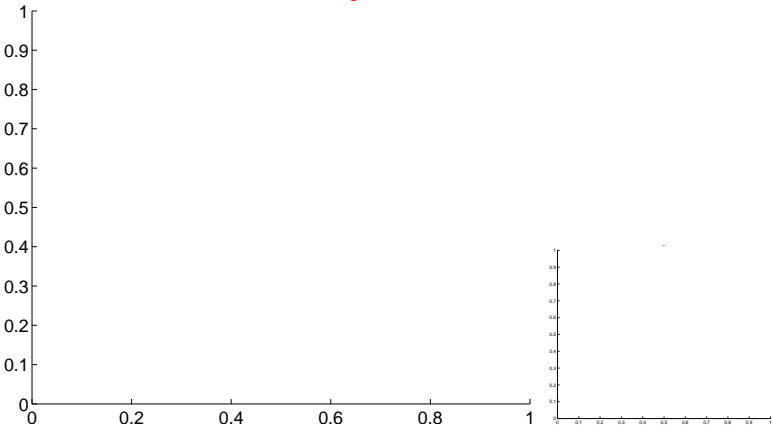
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

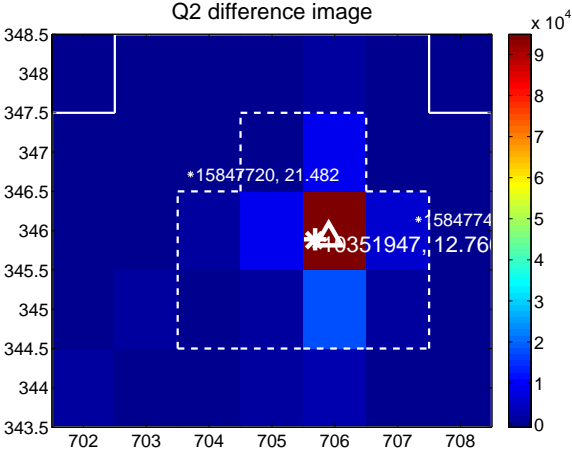
Q1 no difference image



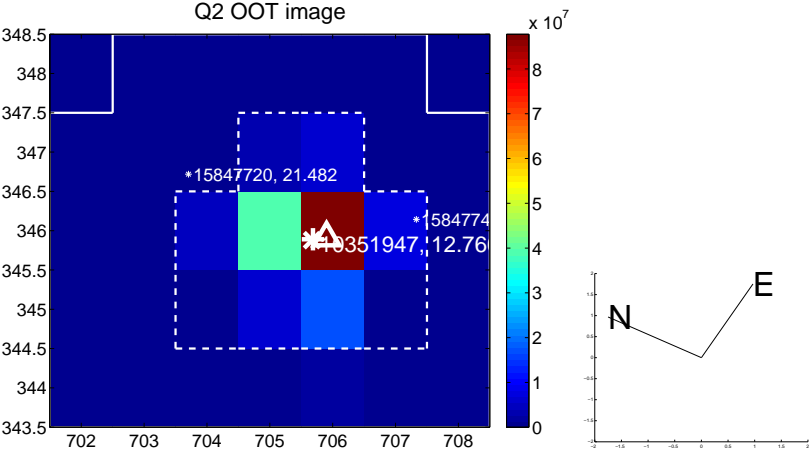
Q1 no OOT image



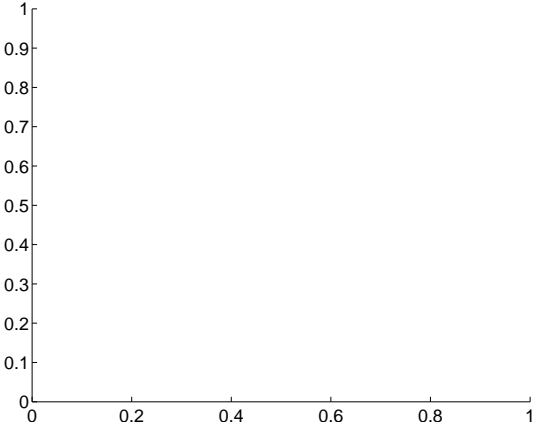
Q2 difference image



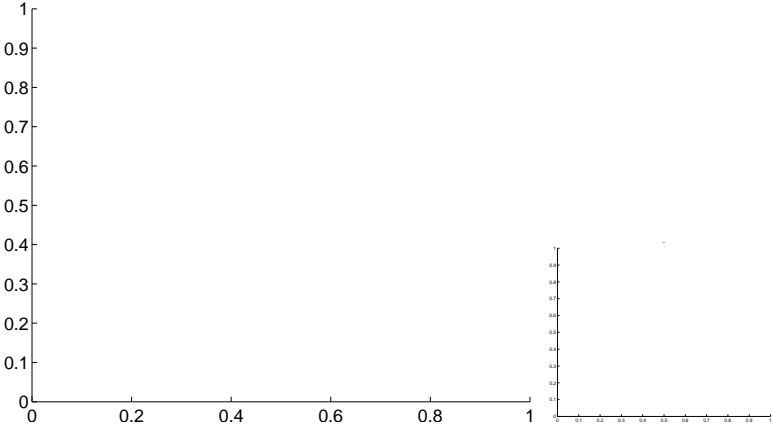
Q2 OOT image



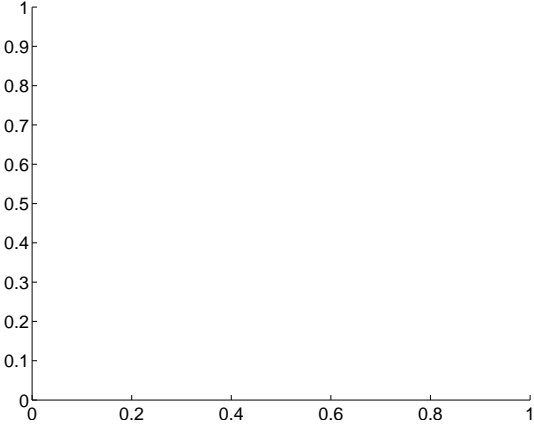
Q3 no difference image



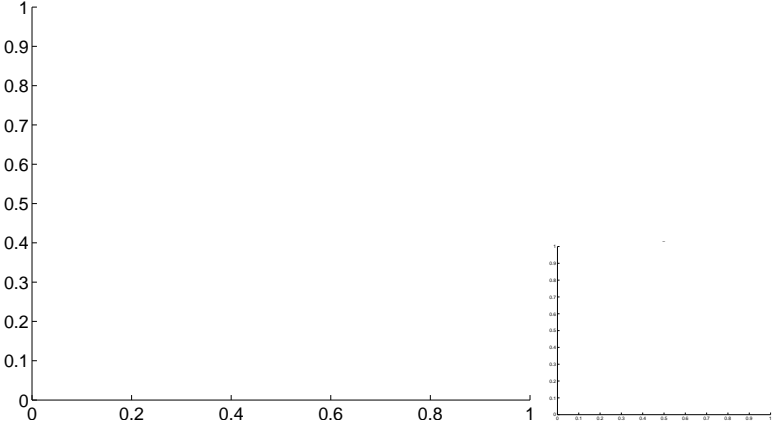
Q3 no OOT image



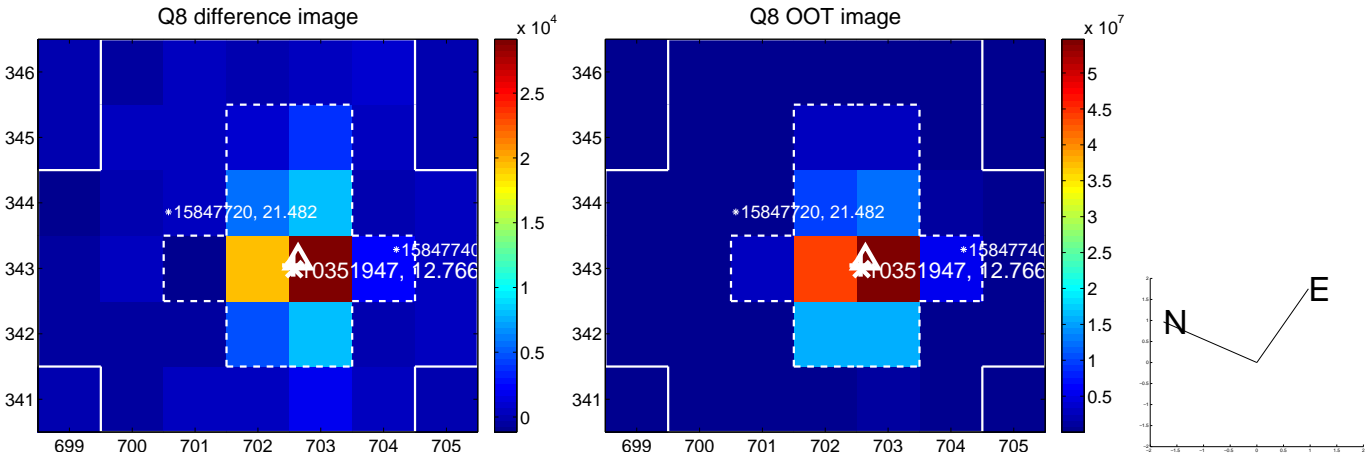
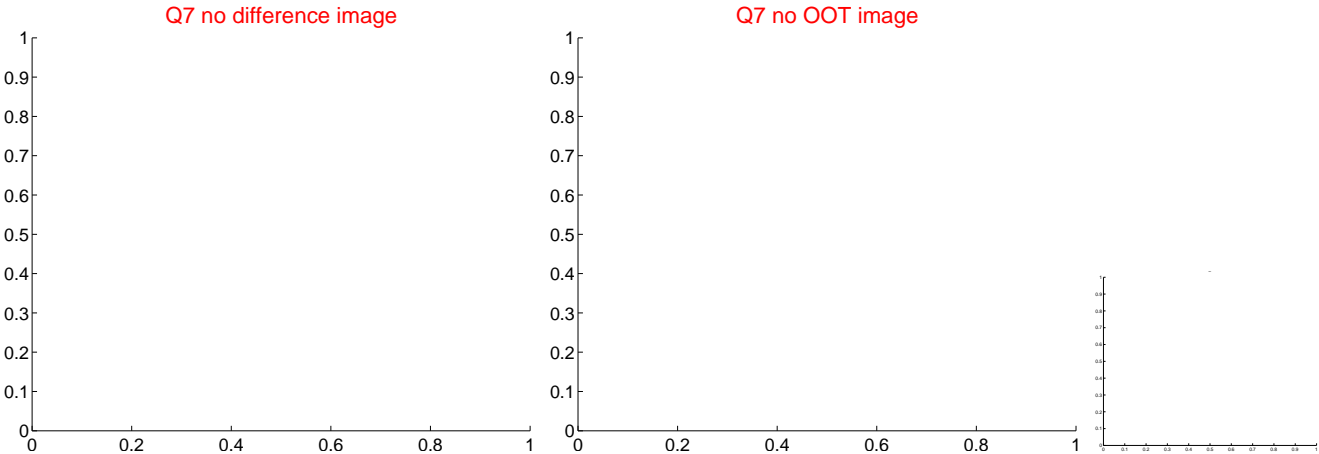
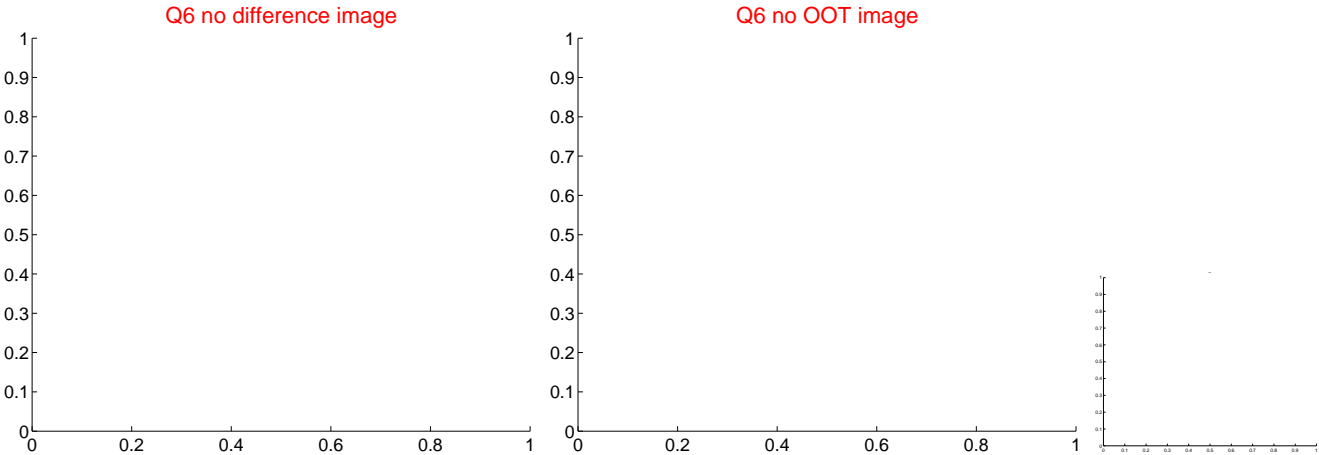
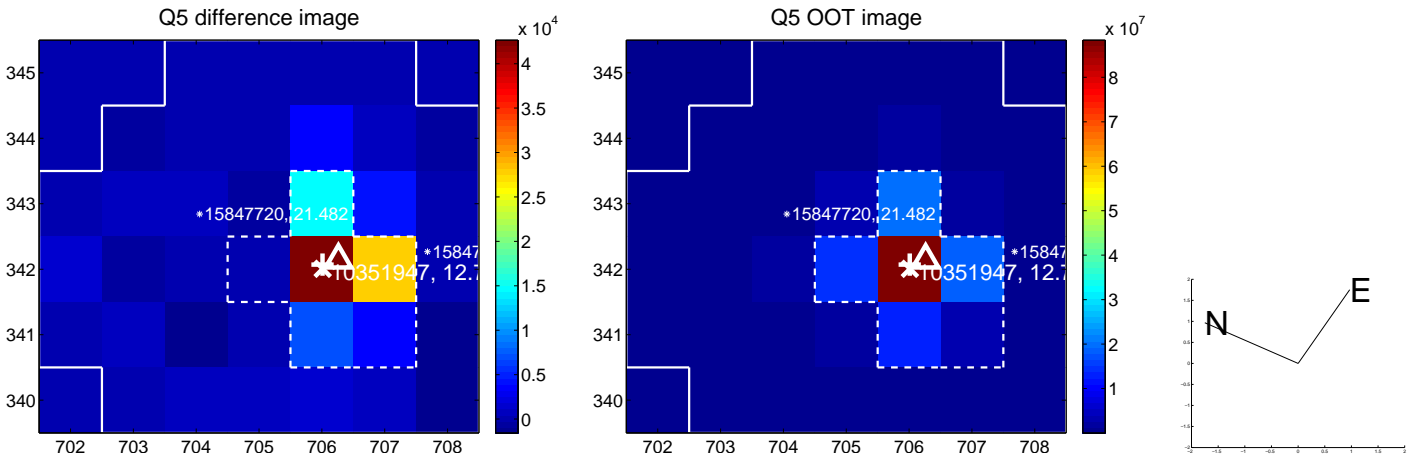
Q4 no difference image



Q4 no OOT image



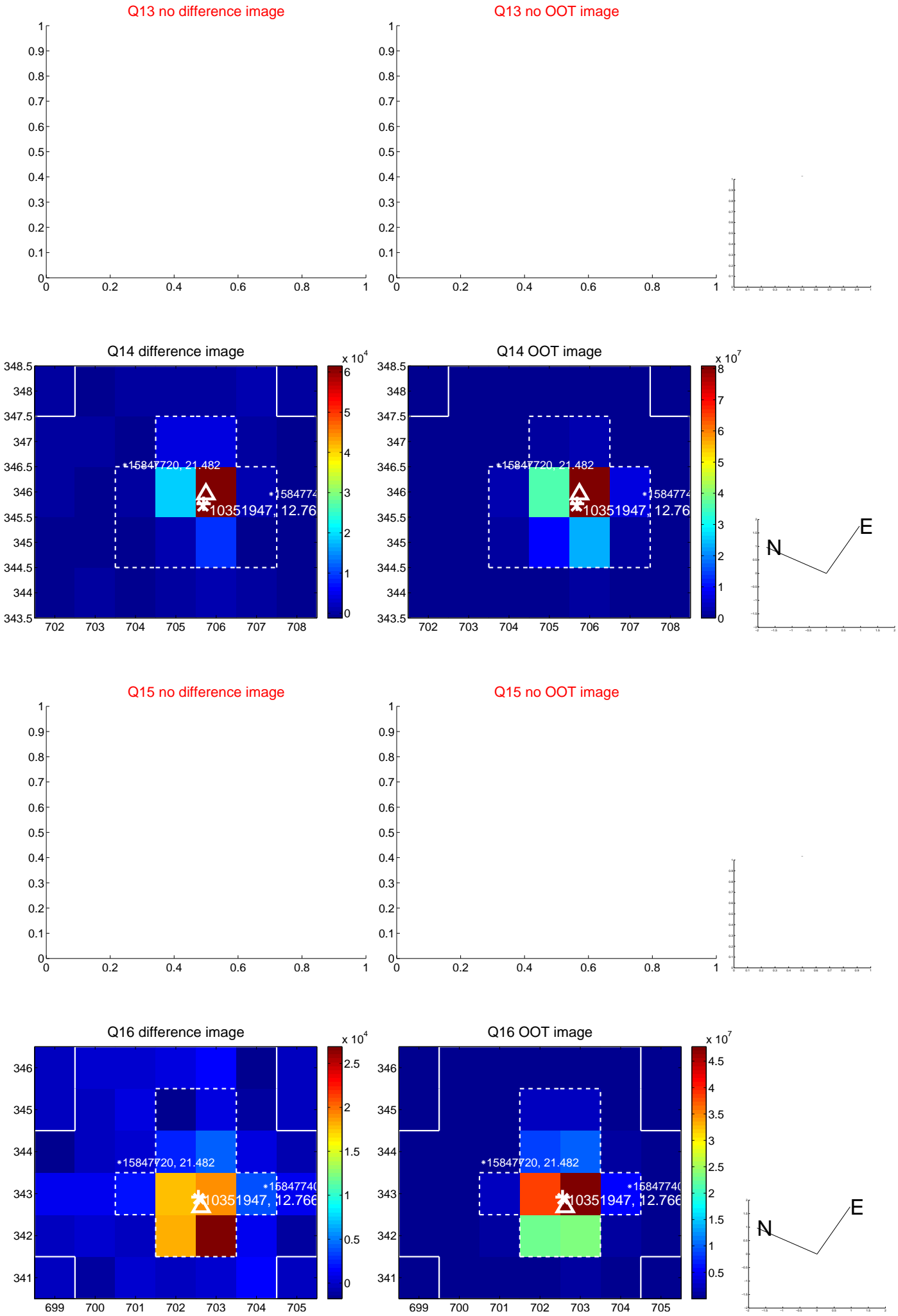
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



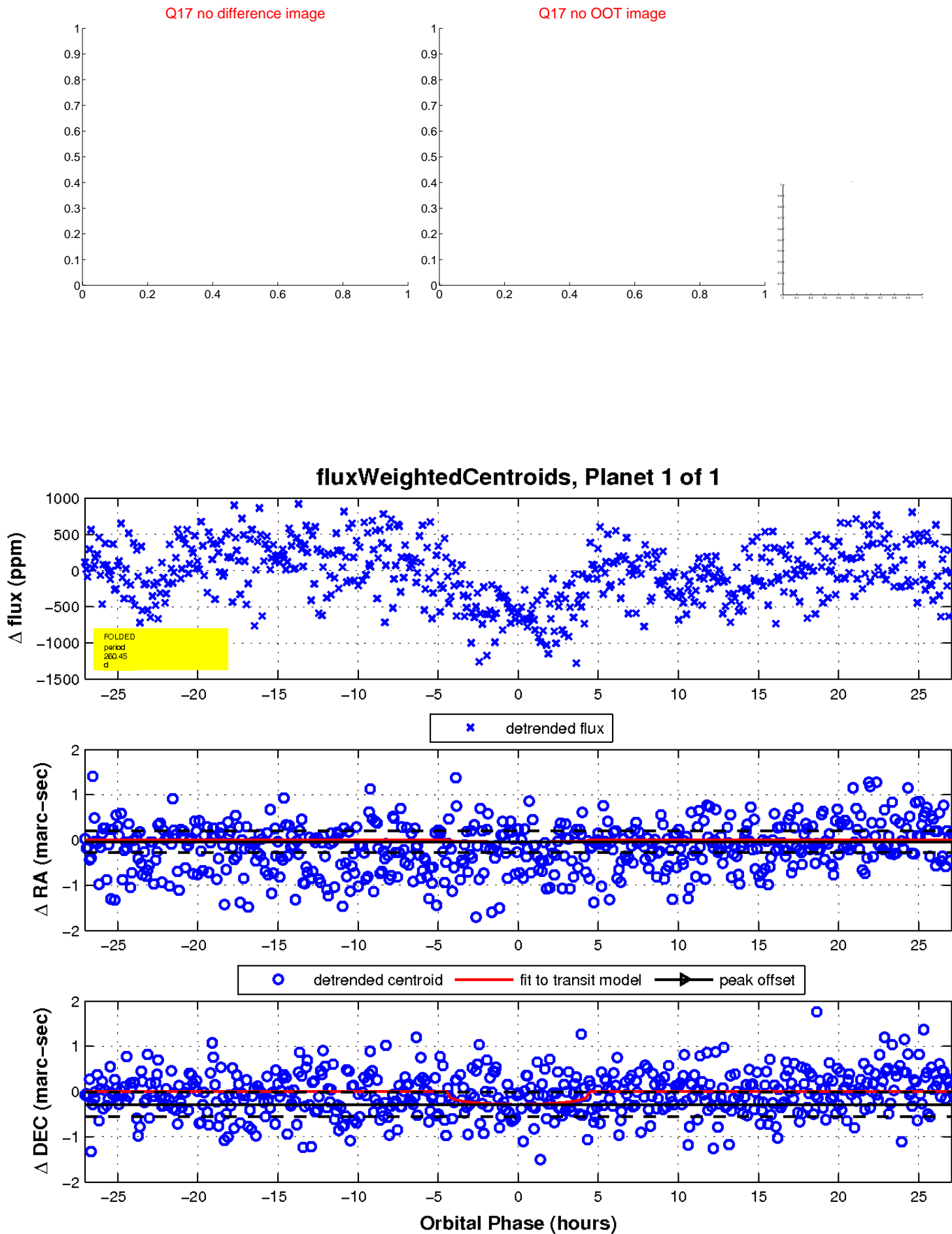
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

