

KIC 006141300

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})
006141300-01	OBS	No	593.294763	264.993778	2099.6	13.107	9.6	6.6	0.64	4463	2.83	0.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006141300-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—HALO_GHOST

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

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

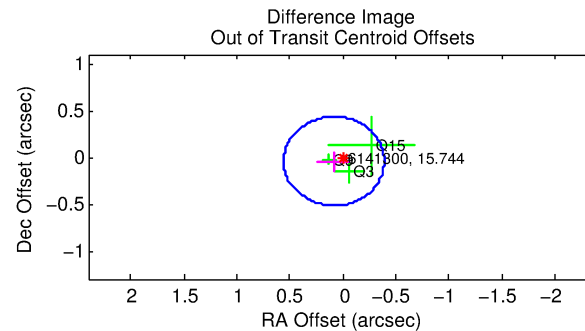
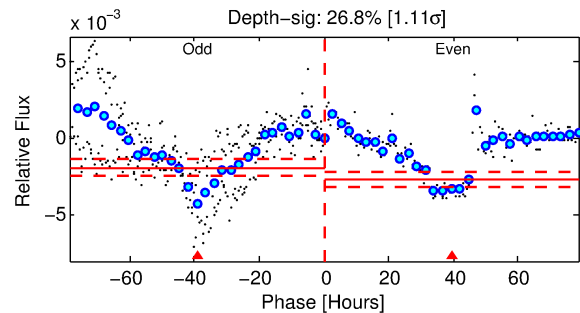
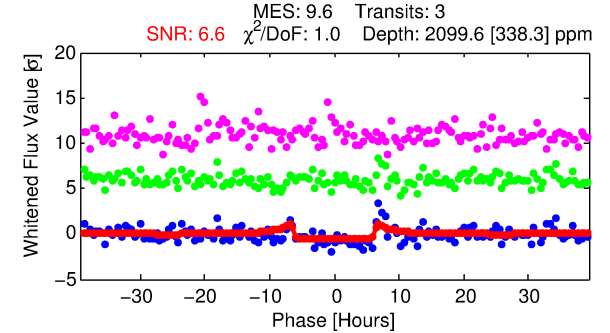
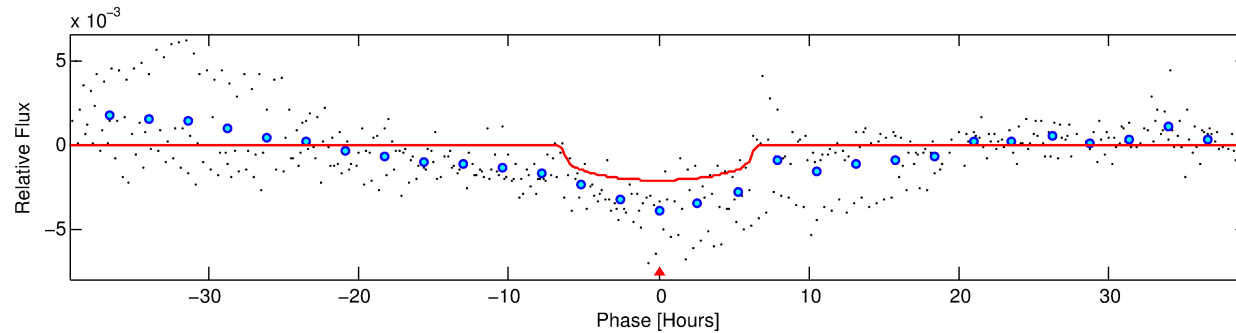
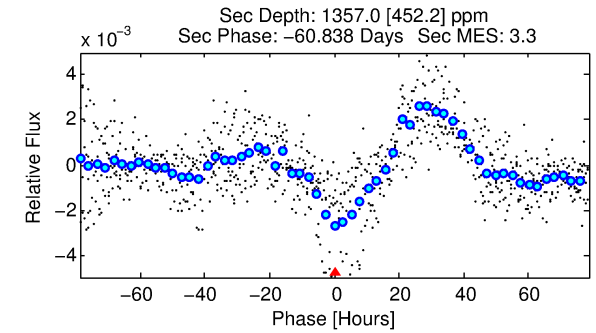
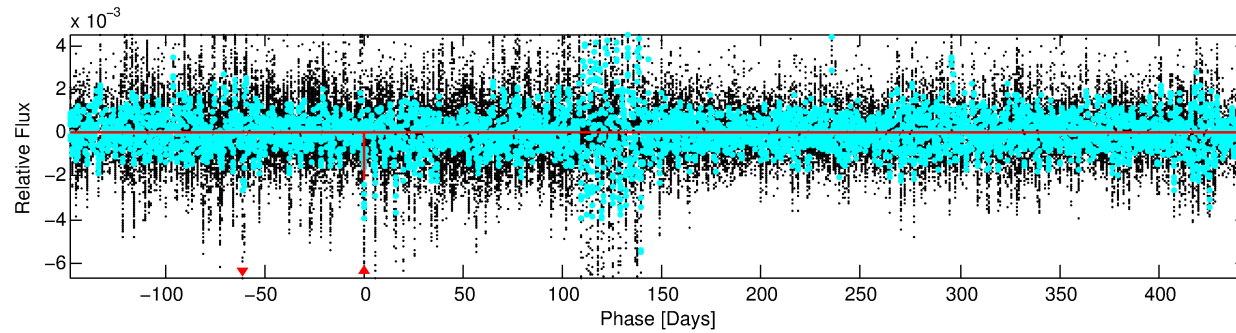
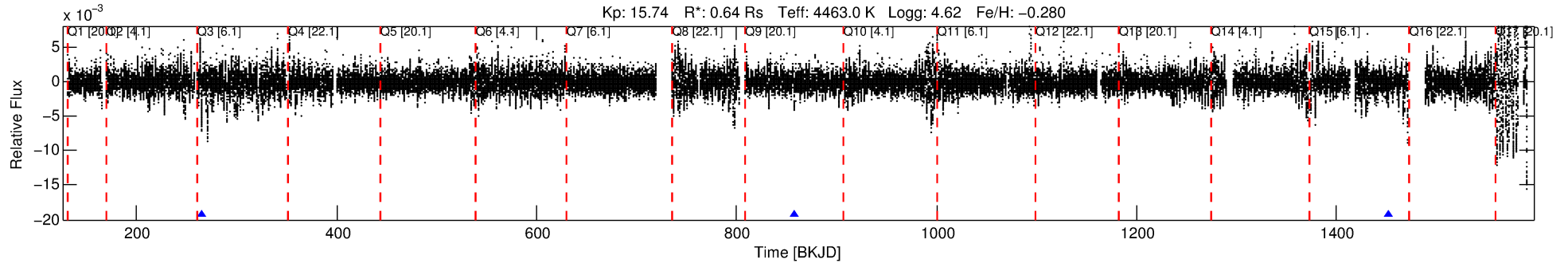
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006141300-01

No Significant Match Found

DV One-Page Summary

KIC: 6141300 Candidate: 1 of 1 Period: 593.295 d



DV Fit Results:

Period = 593.29476 [0.00960] d
Epoch = 264.9938 [0.0121] BKJD
Rp/R* = 0.0406 [0.0171]
a/R* = 351.48 [447.19]
b = 0.22 [5.49]
Seff = 0.10 [0.02]
Teff = 145 [6] K
Rp = 2.83 [1.22] Re
a = 1.1806 [0.0836] AU
Ag = 130155.70 [118691.77] [1.10σ]
Teffp = 4251 [972] K [4.23σ]

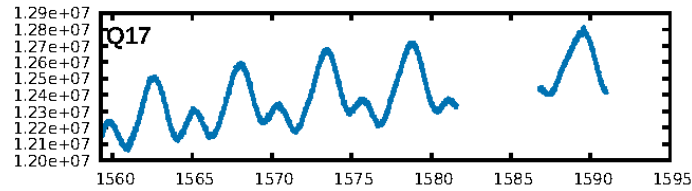
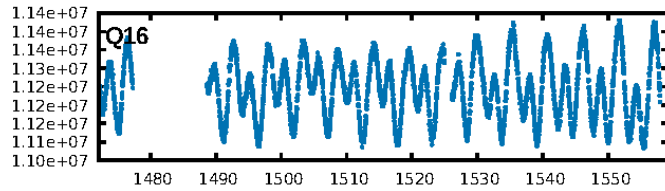
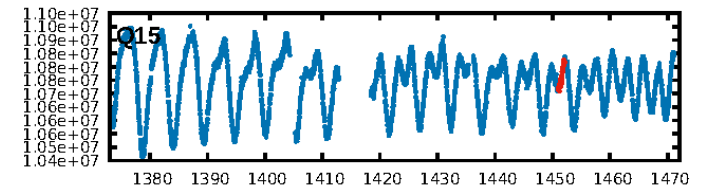
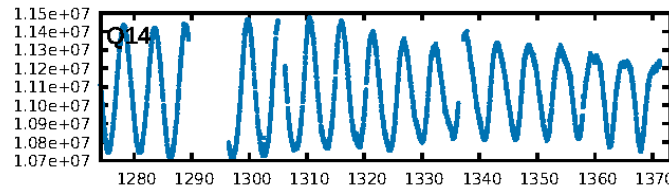
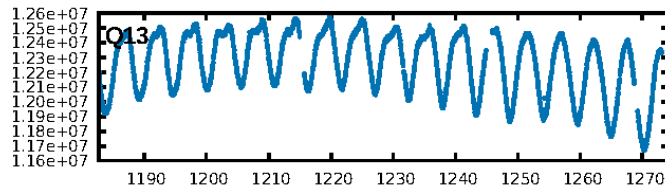
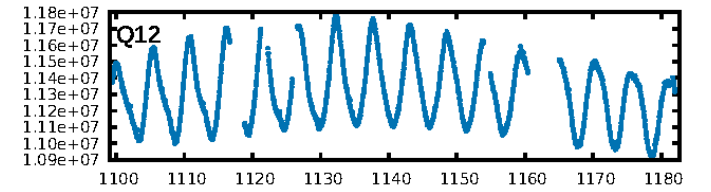
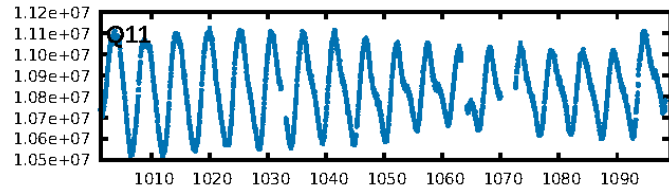
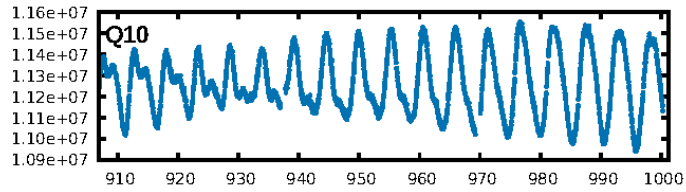
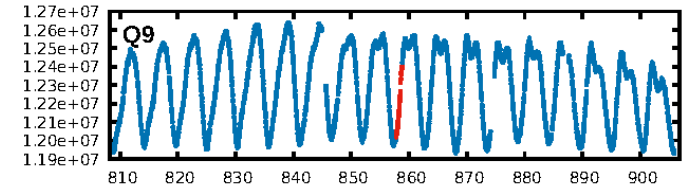
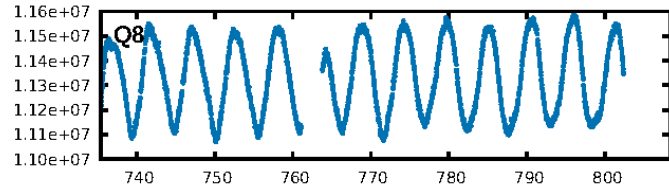
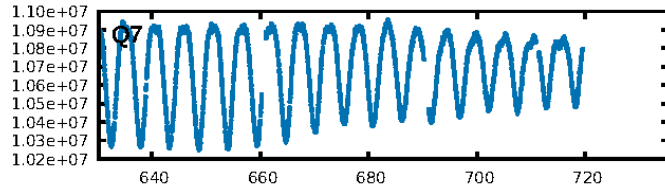
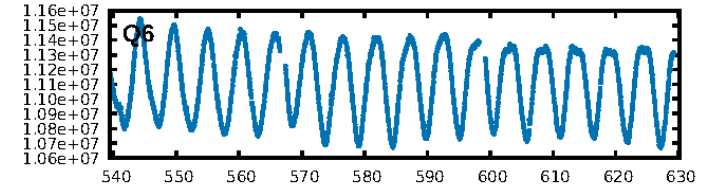
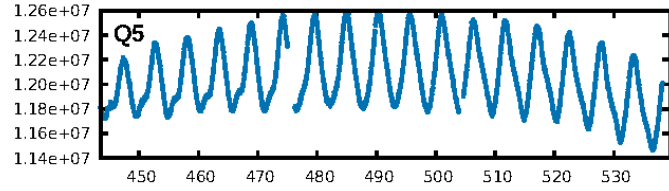
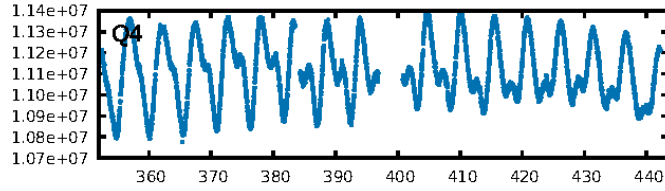
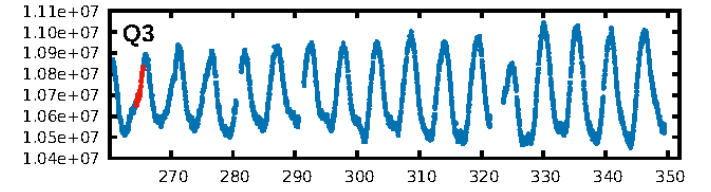
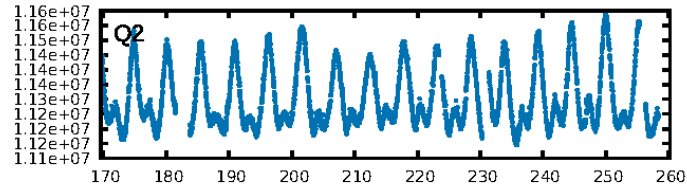
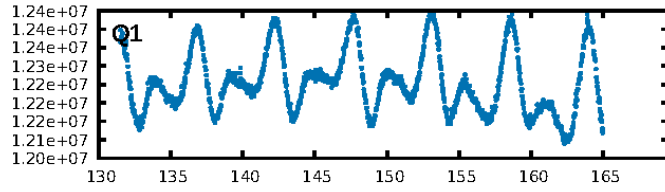
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 78.6%
ModelChiSquareGof-sig: 97.0%
Bootstrap-pfa: 3.64e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.2206
Centroid-sig: 89.7%
Centroid-so: 0.406 arcsec [0.57σ]
OotOffset-rm: 0.092 arcsec [0.58σ]
KicOffset-rm: 0.189 arcsec [1.38σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

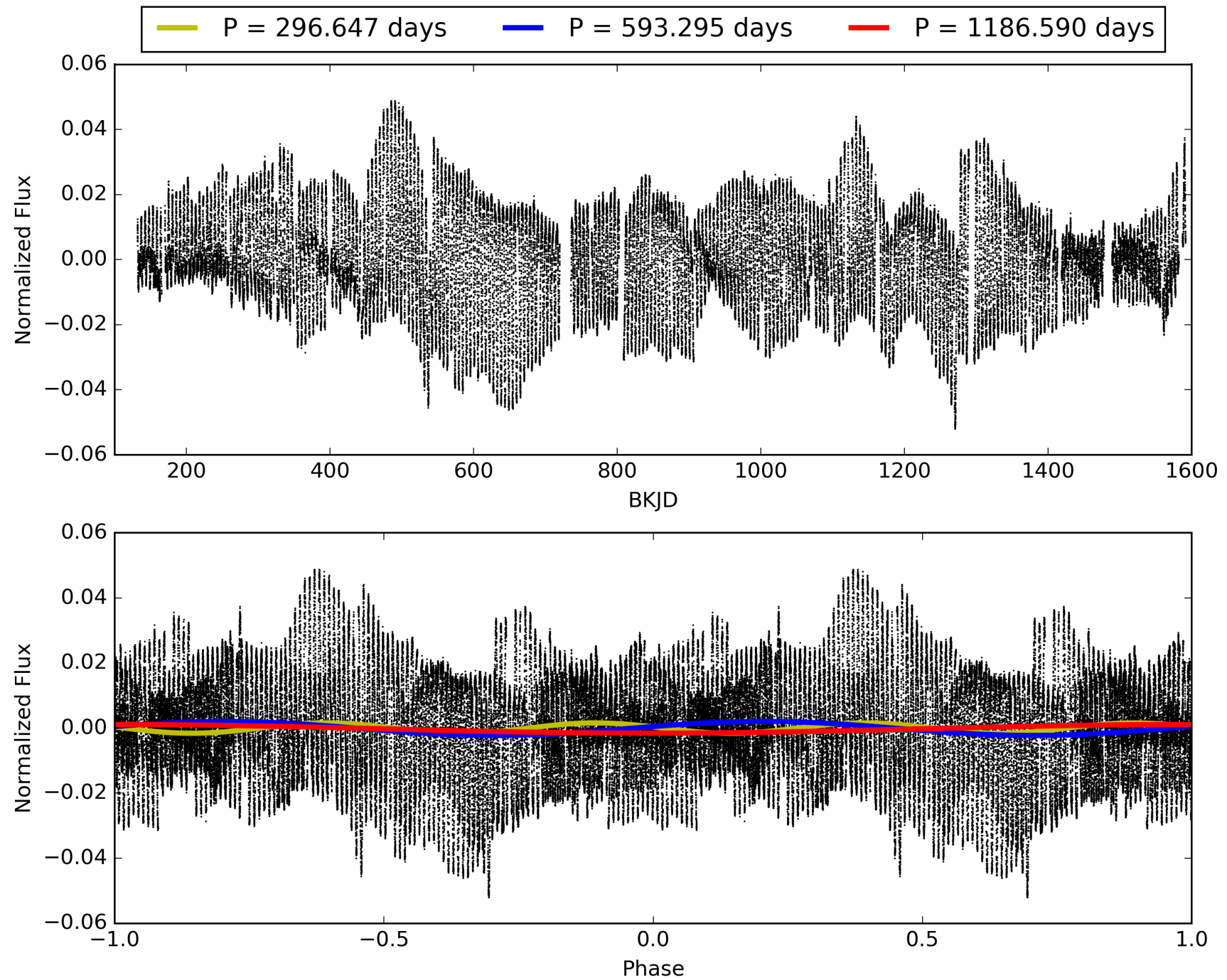
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:23:21 Z

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

TCE 006141300-01, PDC Light Curves

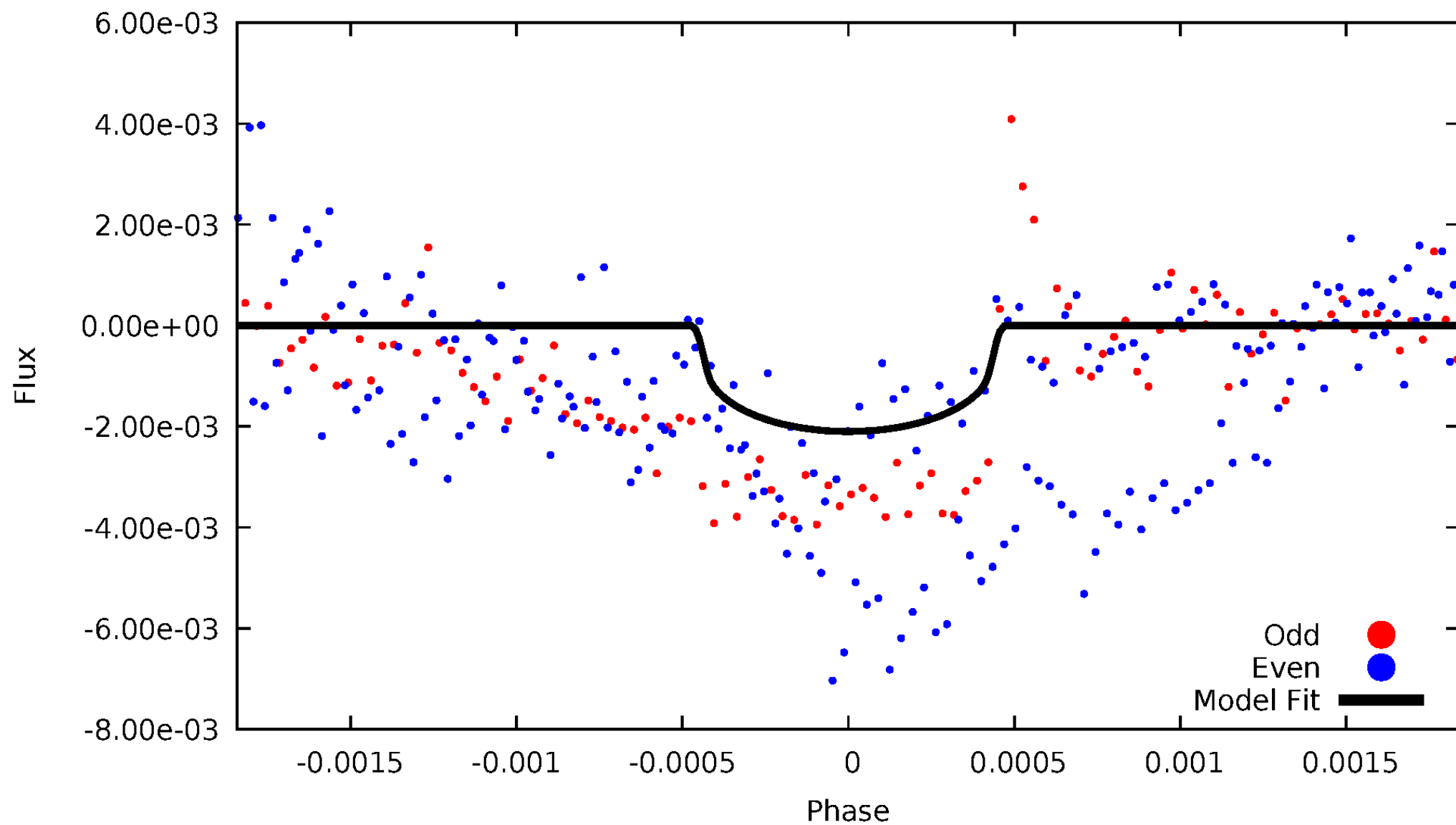


TCE 006141300-01



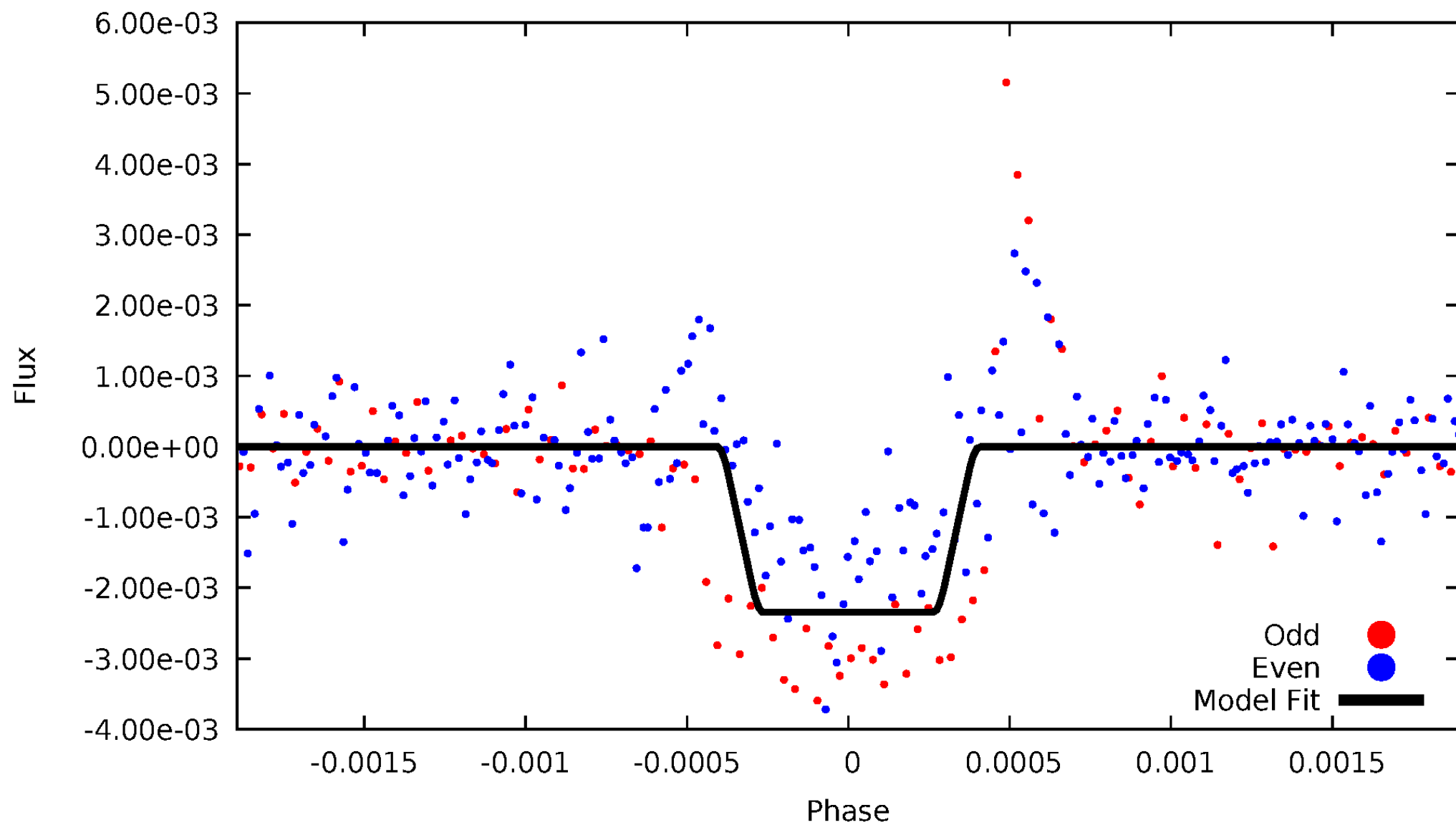
DV Odd/Even

TCE 006141300-01

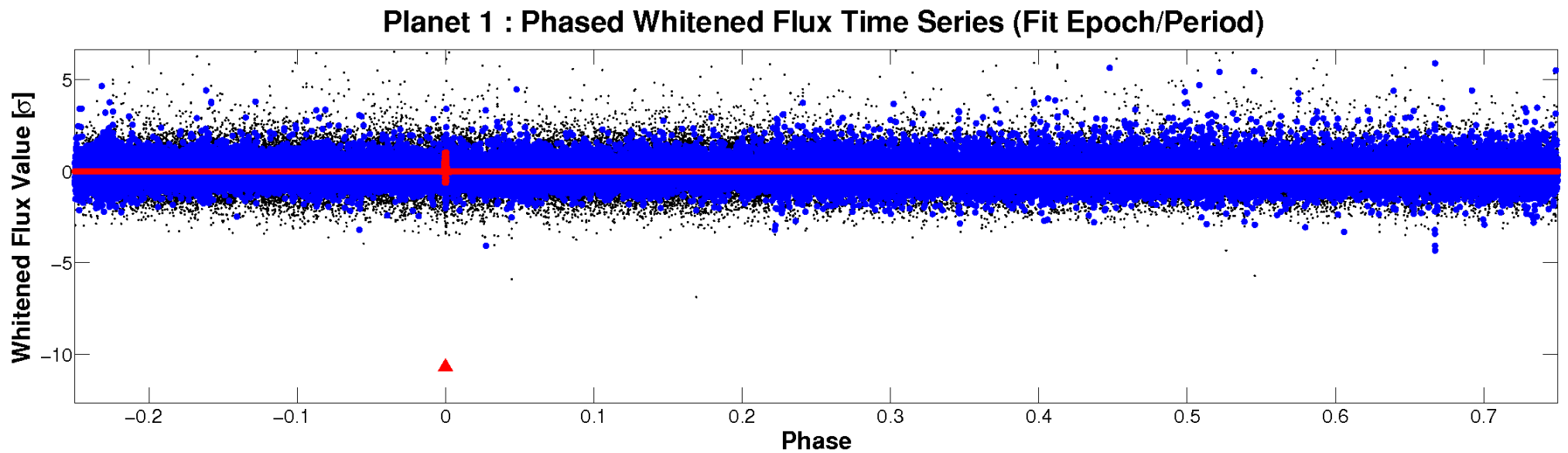
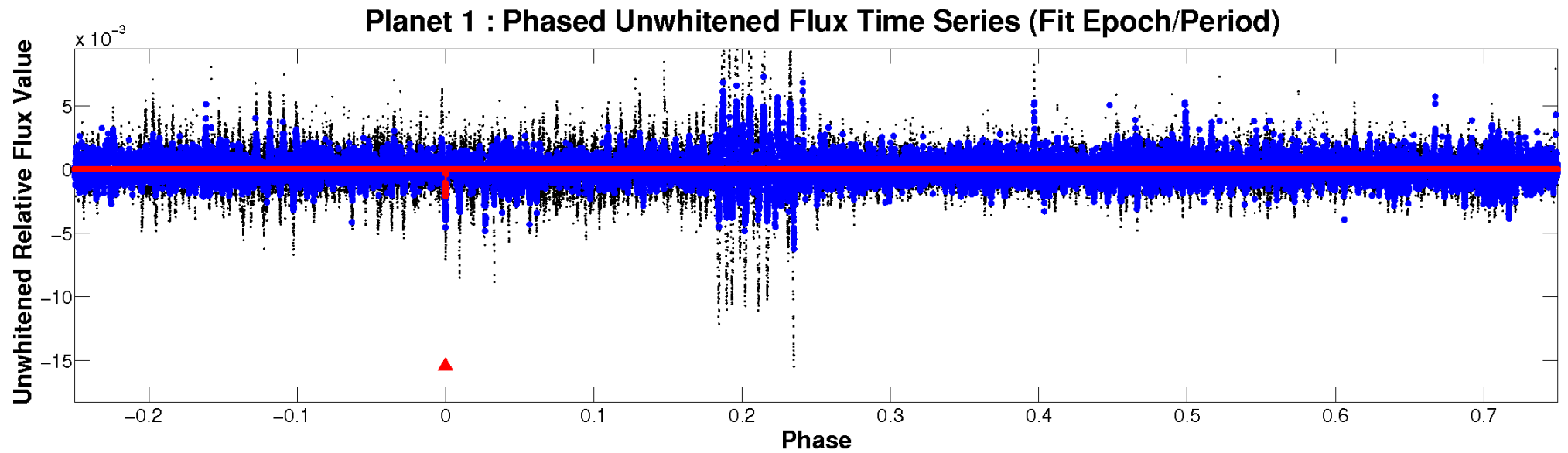


ALT Odd/Even

TCE 006141300-01

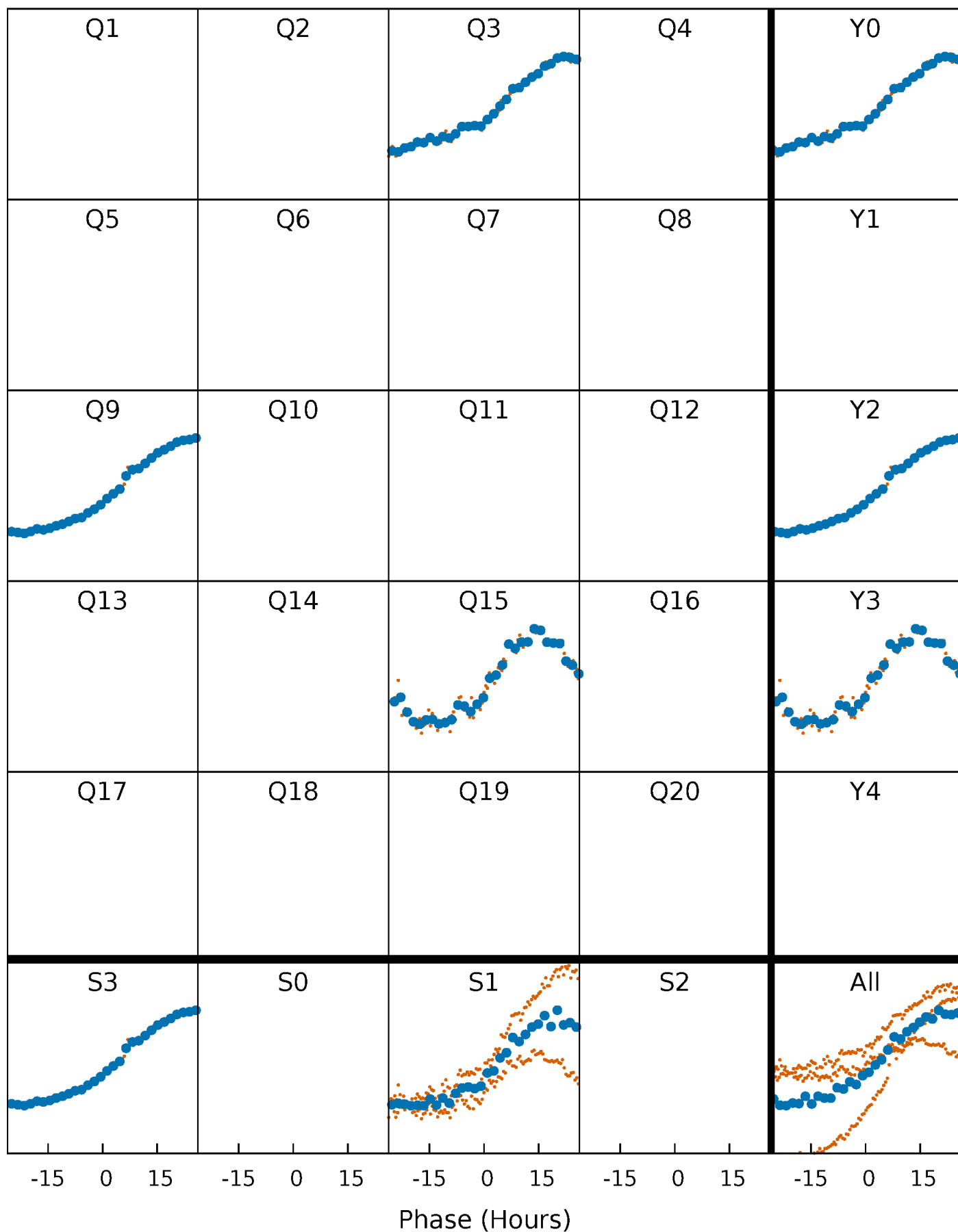


Non-Whitened Vs. Whitened Light Curve



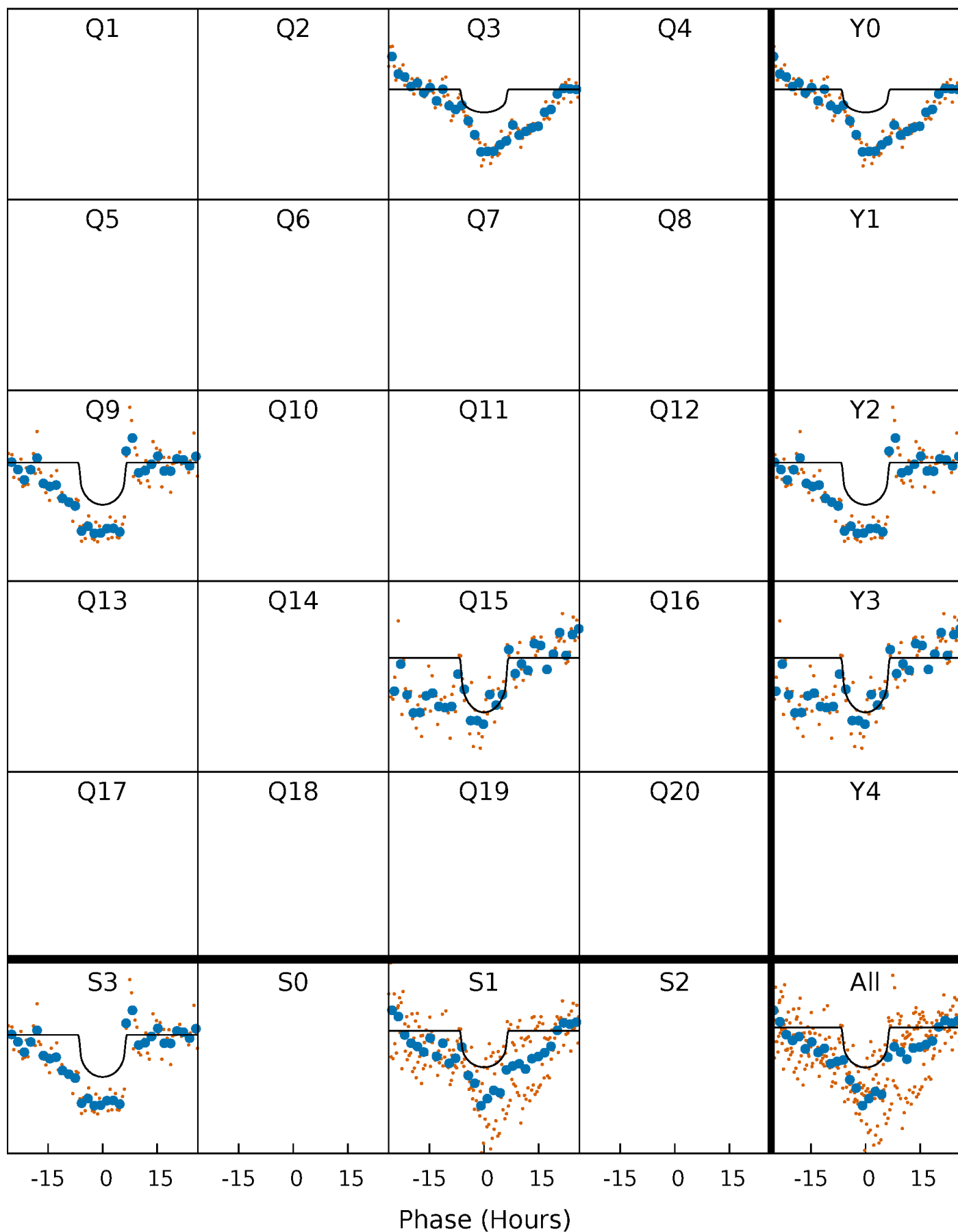
PDC Quarter-Phased Transit Curves

TCE 006141300-01 P=593.294763 Days $T_0=264.993778$ (BKJD)



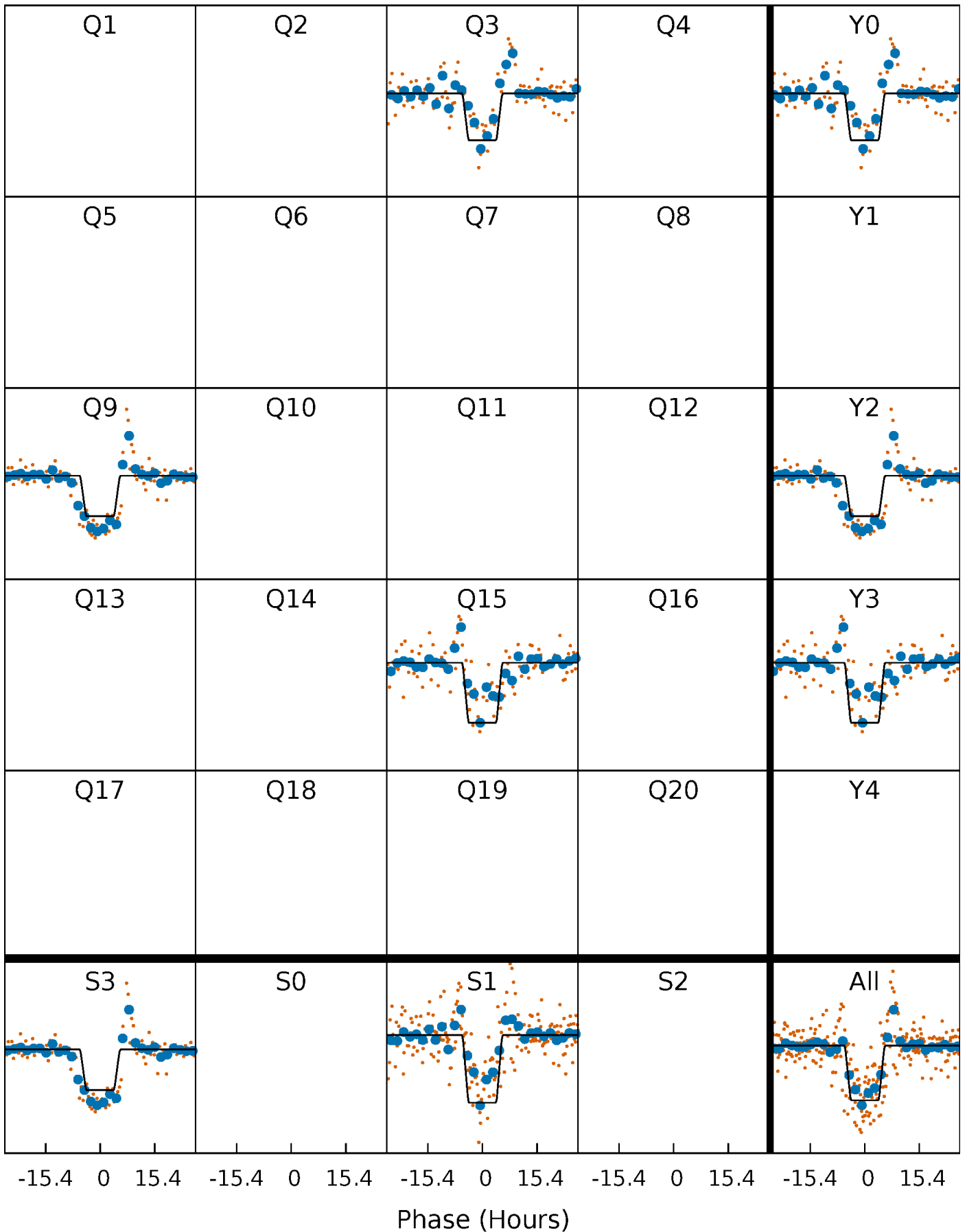
DV Quarter-Phased Transit Curves

TCE 006141300-01 $P=593.294763$ Days $T_0=264.993778$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

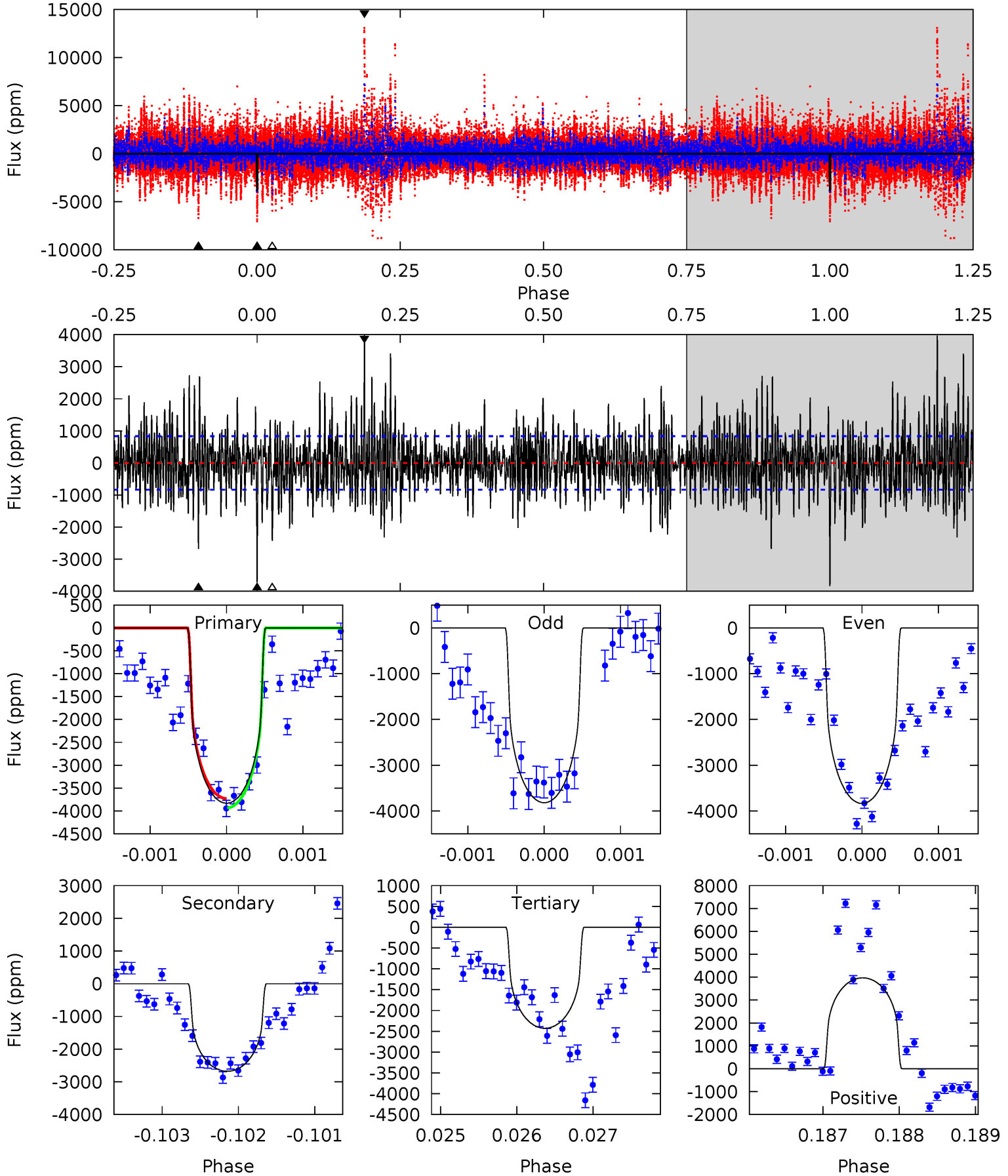
TCE 006141300-01 P=593.281603 Days $T_0=265.007549$ (BKJD)



DV Model-Shift Uniqueness Test

006141300-01, P = 593.294763 Days, E = 264.993778 Days

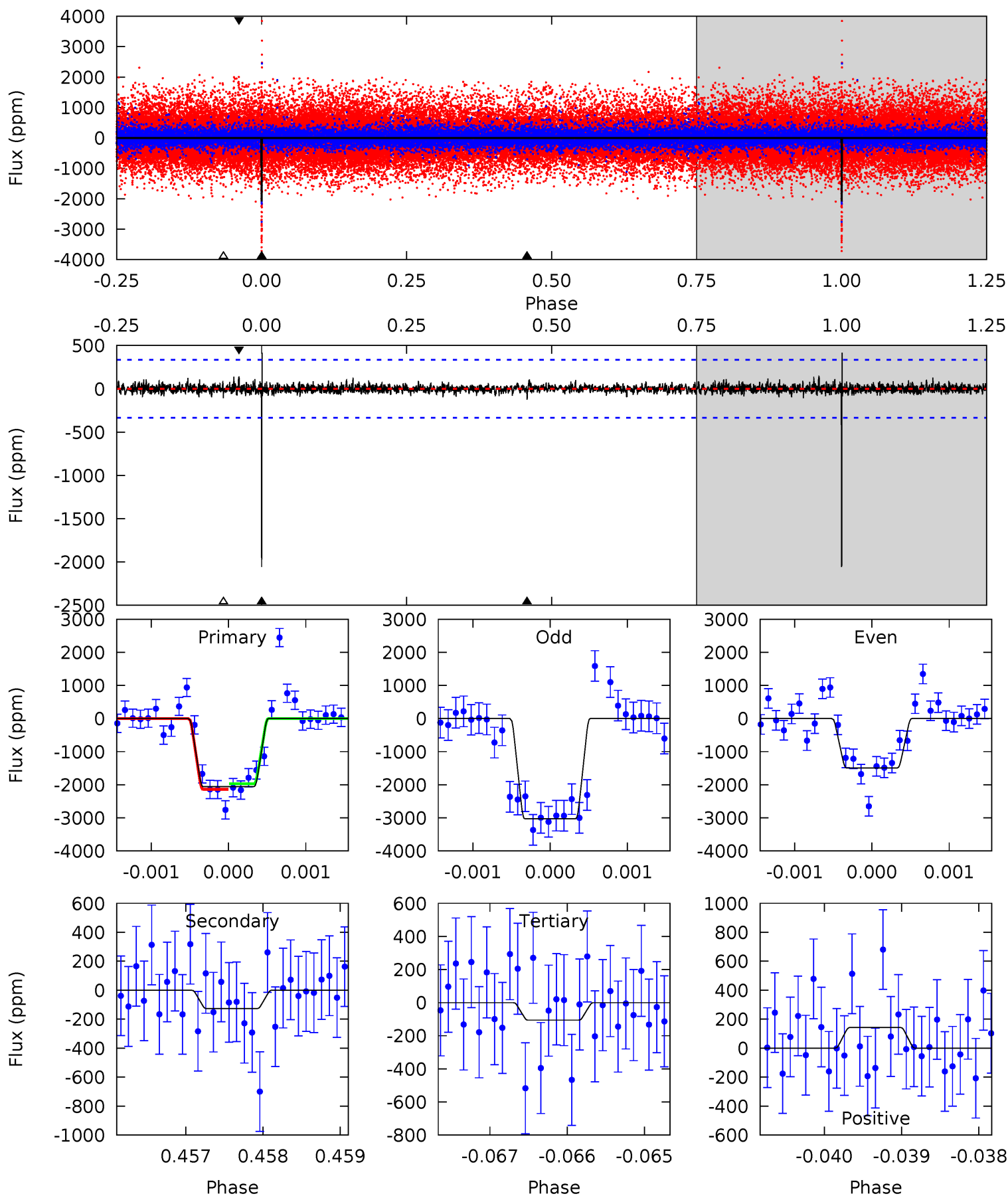
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.1	17.5	15.9	26.0	5.46	3.31	5.05	9.19	-0.91	1.64	-8.46	0.05	1.00	0.51	0.68



Alt Model-Shift Uniqueness Test

006141300-01, P = 593.281603 Days, E = 265.007549 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.8	2.08	1.74	2.34	5.49	3.36	0.46	32.1	31.5	0.34	-0.26	12.5	1.27	0.17	1.37



Stellar Parameters For KIC 006141300

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4463^{+134}_{-134}	$4.623^{+0.052}_{-0.024}$	$-0.280^{+0.300}_{-0.300}$	$0.638^{+0.051}_{-0.056}$	$0.624^{+0.074}_{-0.046}$	$3.389^{+0.775}_{-0.383}$
	+3%/-3%	+1%/-1%	+107%/-107%	+8%/-9%	+12%/-7%	+23%/-11%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 006141300-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2678 ± 153	$2.89^{+1.25}_{-1.25}$	201^{+7}_{-7}	4876^{+1416}_{-671}	$249902^{+520210}_{-127002}$
Alt.	-127 ± 61	$3.30^{+1.26}_{-1.13}$	201^{+7}_{-7}	2797^{+413}_{-316}	8668^{+14214}_{-5059}

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 $A_{\text{obs}} \gg 1.0$

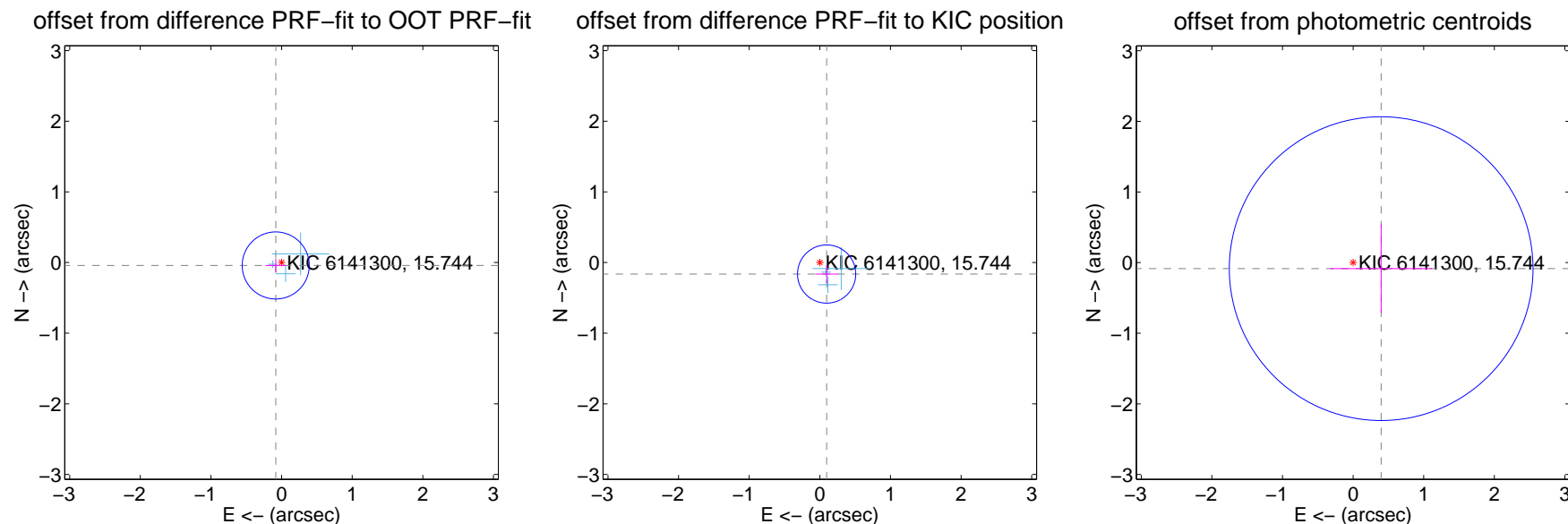
DV Centroid Data

Supplemental centroid analysis for 006141300-01. Kepler magnitude: 15.74. Transit SNR 6.57

There are 3 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	0.092 ± 0.158	0.58	0.083 ± 0.148	-0.041 ± 0.100
PRF-fit source offset from KIC position	0.189 ± 0.137	1.38	-0.096 ± 0.160	-0.163 ± 0.129
photometric centroid source offset	0.41 ± 0.72	0.57	-0.40 ± 0.72	-0.09 ± 0.63



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



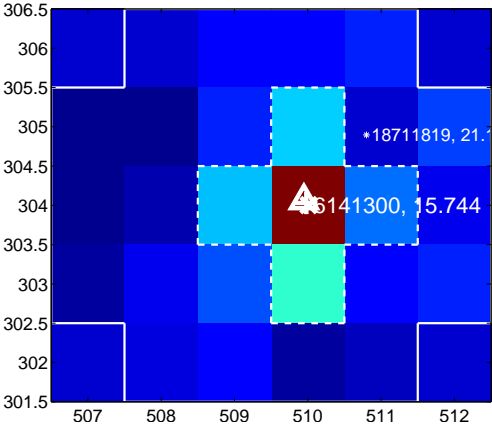
Q2 no difference image



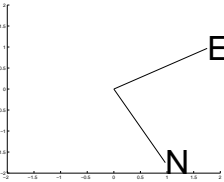
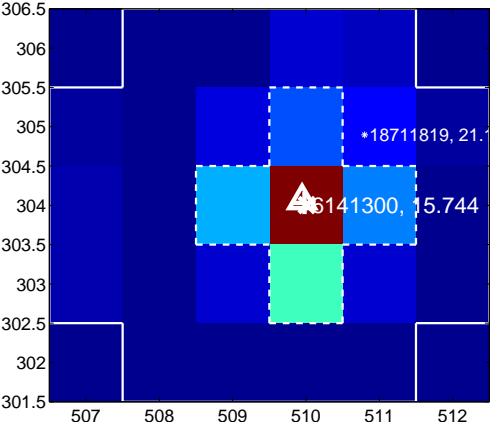
Q2 no OOT image



Q3 difference image



Q3 OOT image



Q4 no difference image



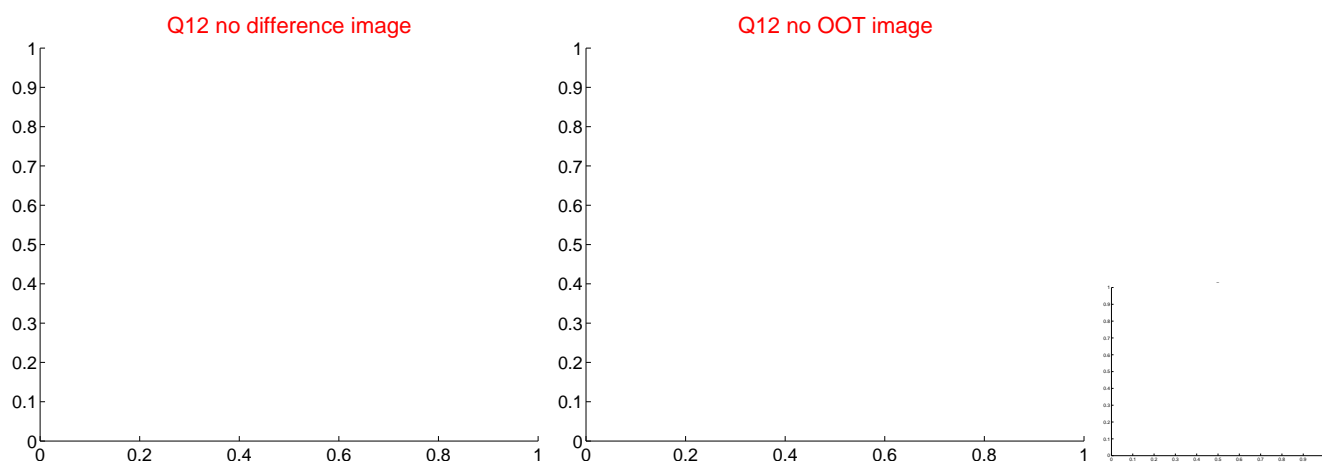
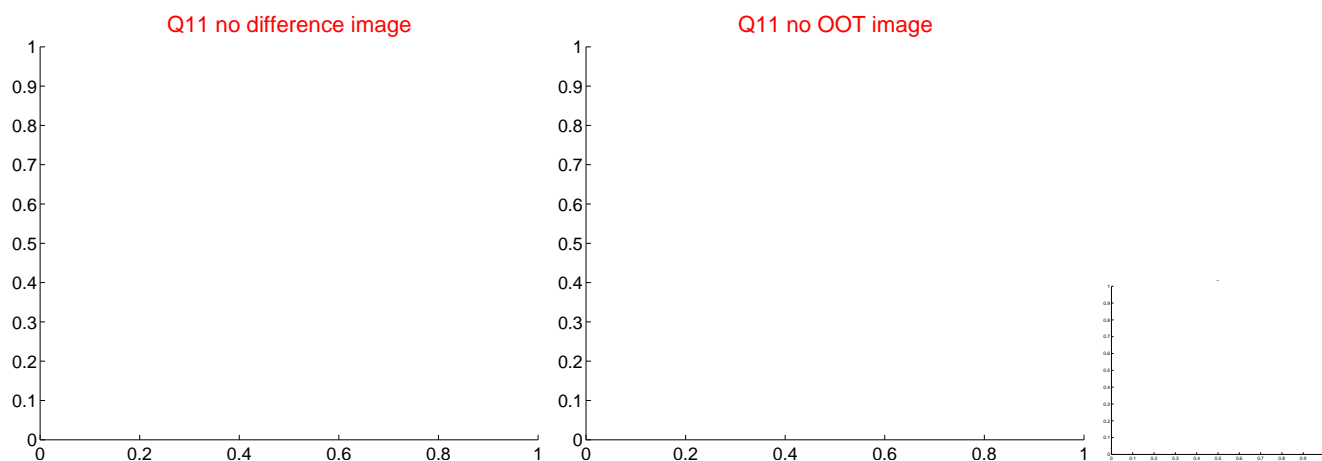
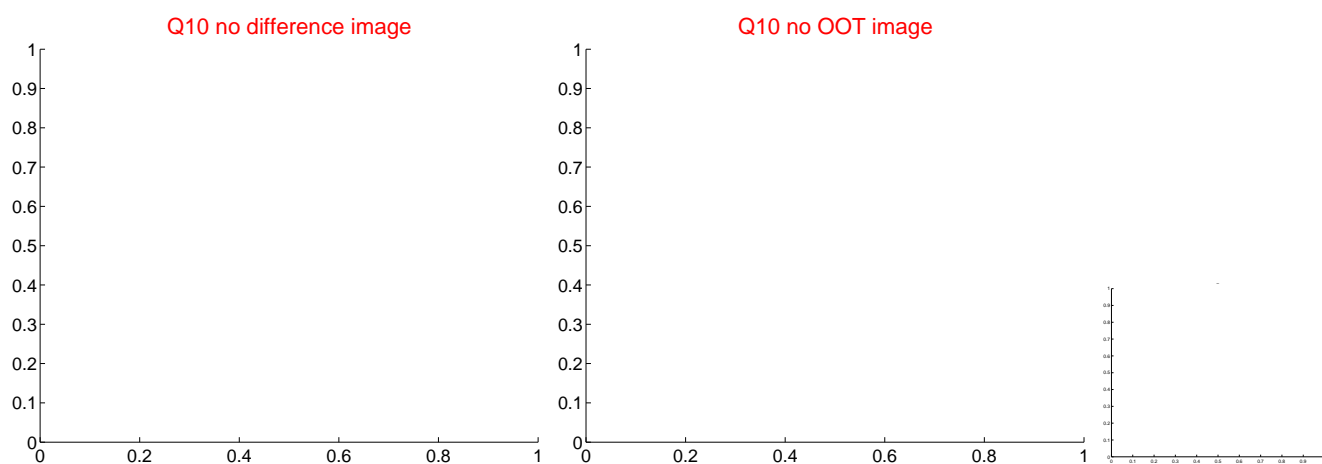
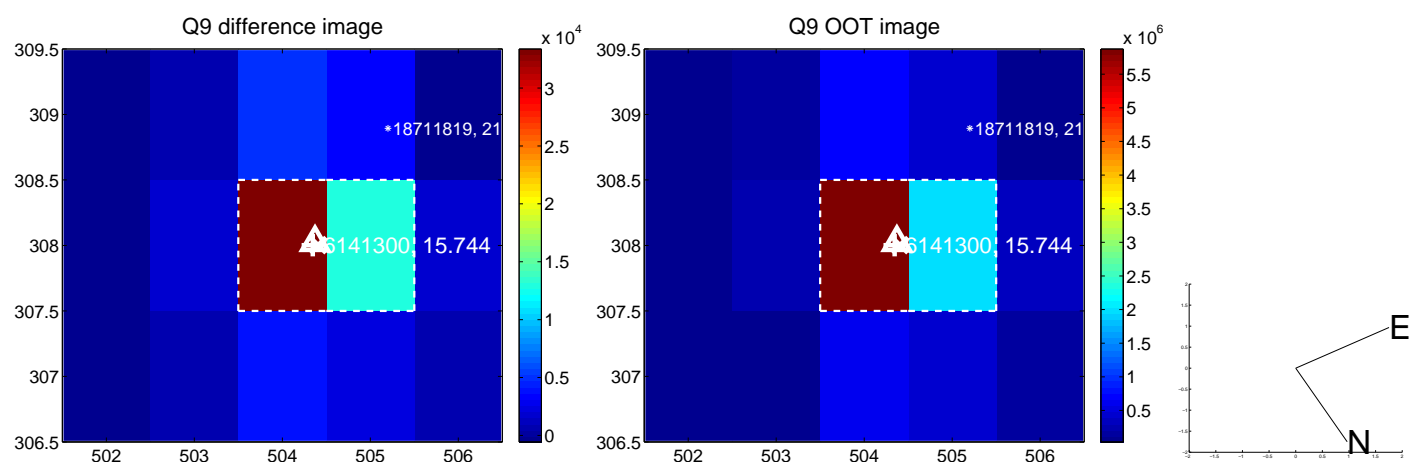
Q4 no OOT image



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



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

Q13 no difference image



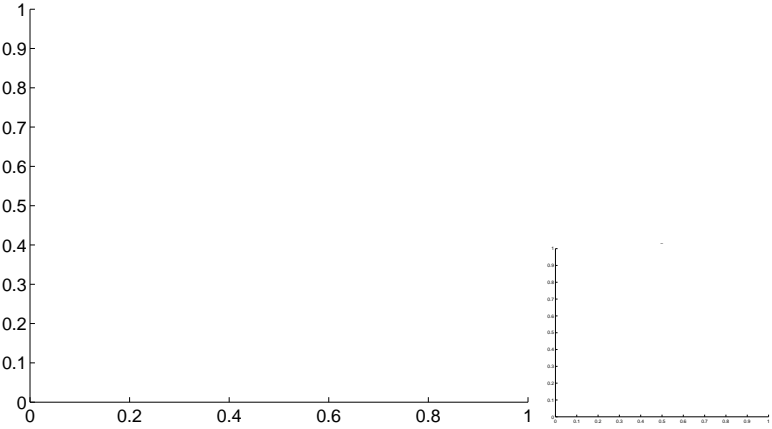
Q13 no OOT image



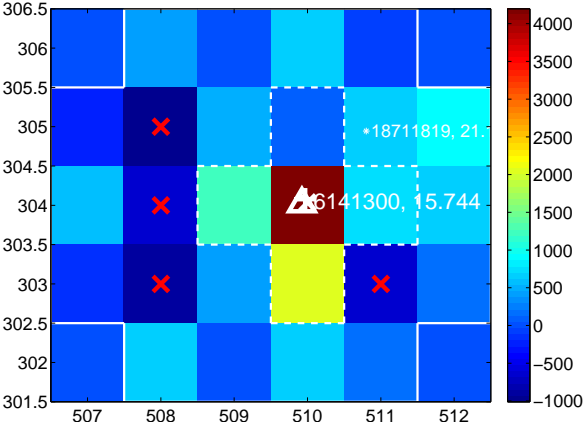
Q14 no difference image



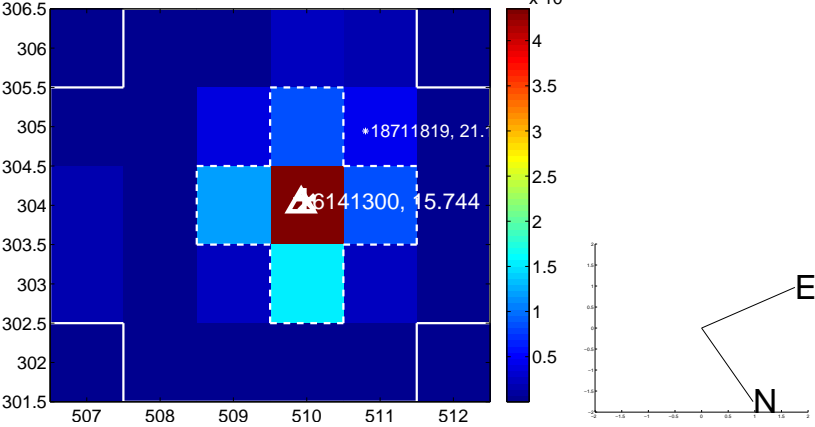
Q14 no OOT image



Q15 difference image



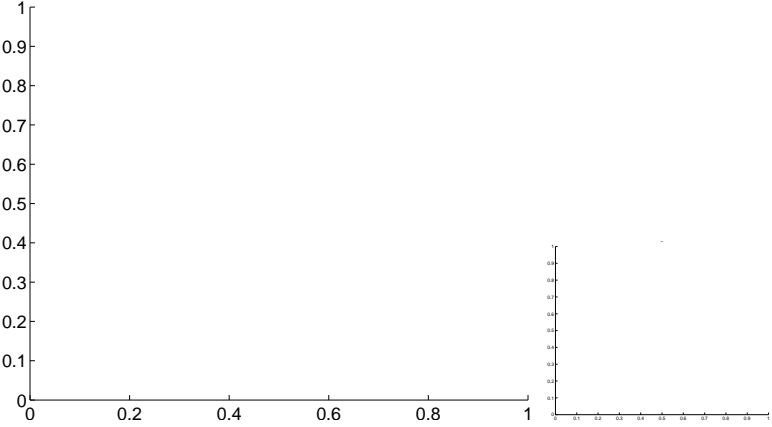
Q15 OOT image



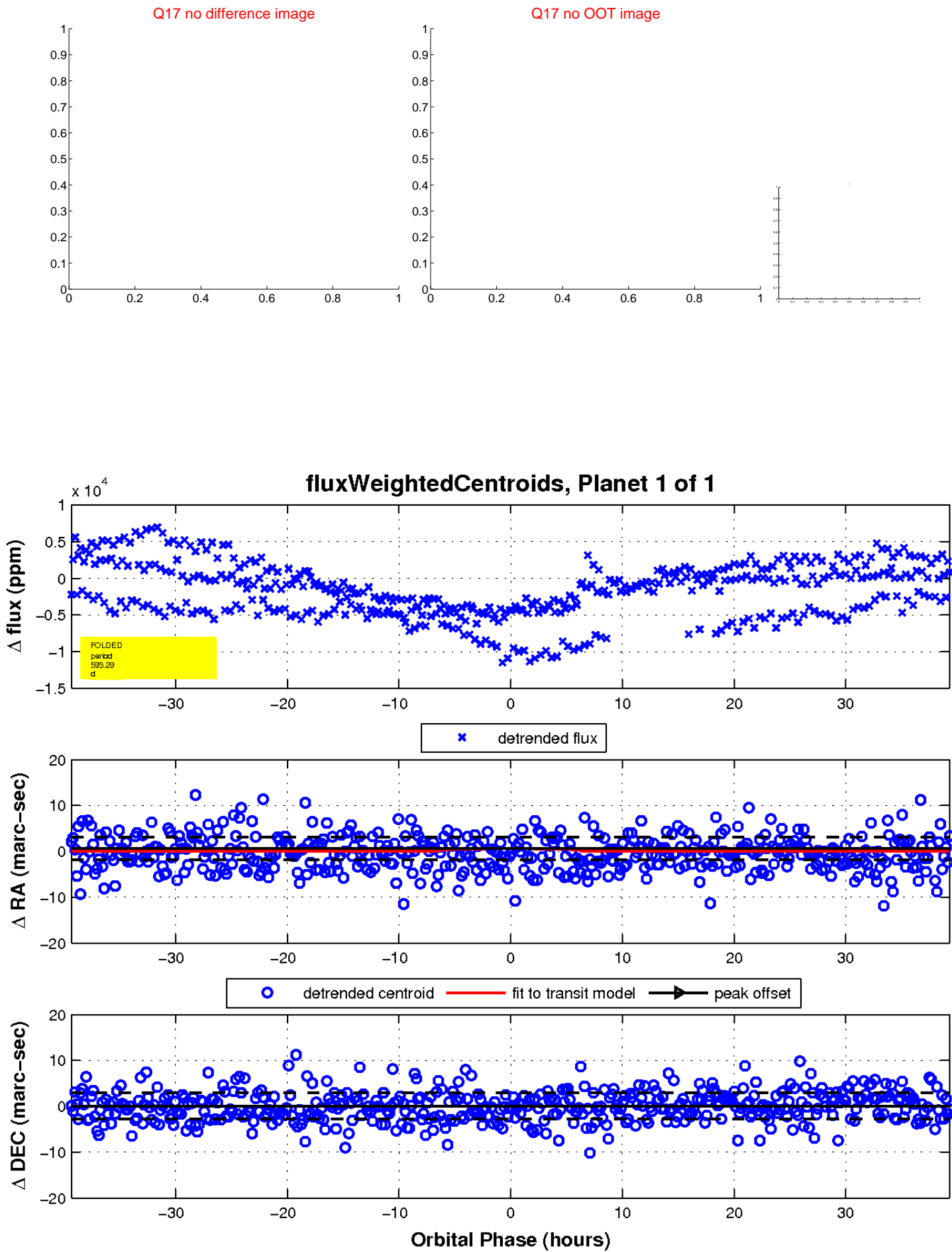
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

