

KIC 005283542

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})
005283542-01	OBS	0827.01	5.975809	132.946176	951.1	3.032	42.5	48.3	1.00	6108	3.80	284.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005283542-01	OBS	FP	0.04	0	0	1	0	CENT_UNRESOLVED_OFFSET

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.

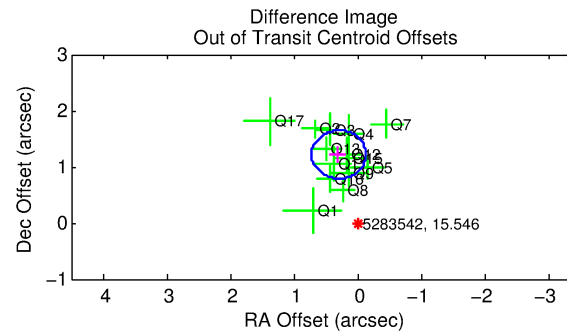
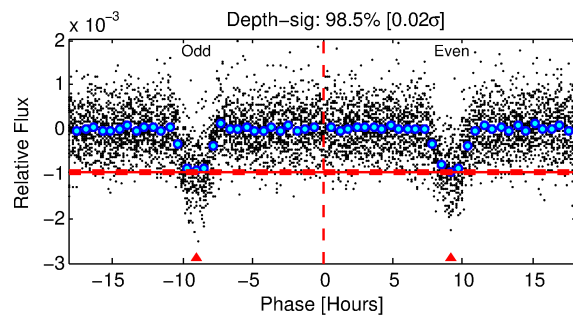
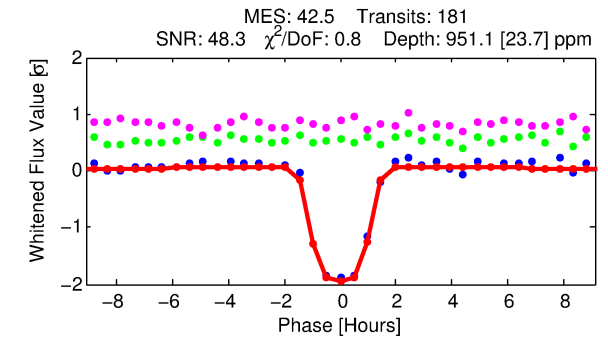
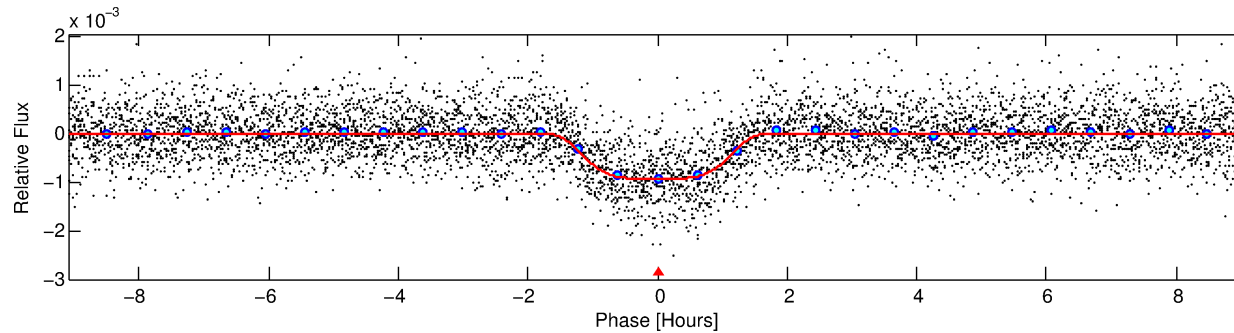
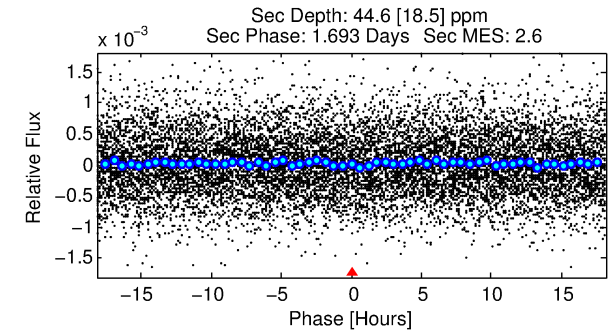
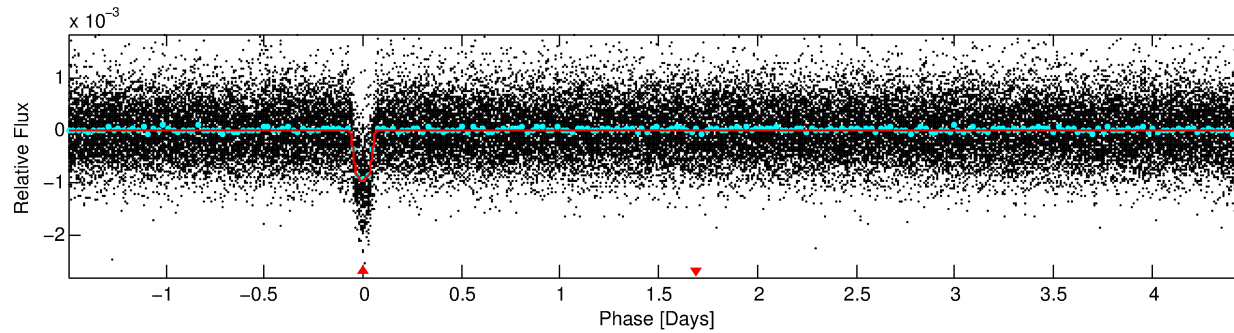
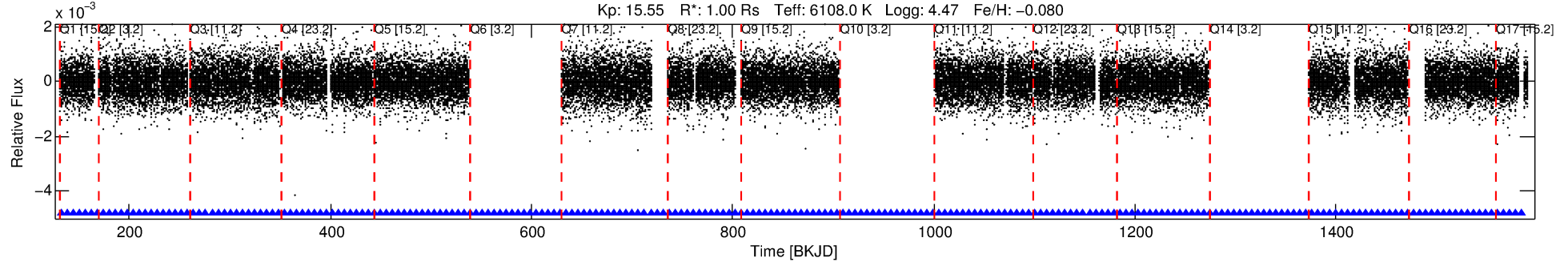
Ephemeris Match Information For 005283542-01

No Significant Match Found

DV One-Page Summary

KIC: 5283542 Candidate: 1 of 1 Period: 5.976 d
KOI: K00827.01 Corr: 0.955

Kp: 15.55 R*: 1.00 Rs Teff: 6108.0 K Logg: 4.47 Fe/H: -0.080



DV Fit Results:

Period = 5.97581 [0.00001] d
Epoch = 132.9462 [0.0013] BKJD
Rp/R* = 0.0349 [0.0009]
a/R* = 6.60 [0.60]
b = 0.94 [0.01]
Seff = 284.72 [121.32]
Teq = 1047 [112] K
Rp = 3.80 [1.30] Re
a = 0.0660 [0.0186] AU
Ag = 7.41 [4.29] [1.49σ]
Teffp = 2672 [294] K [5.17σ]

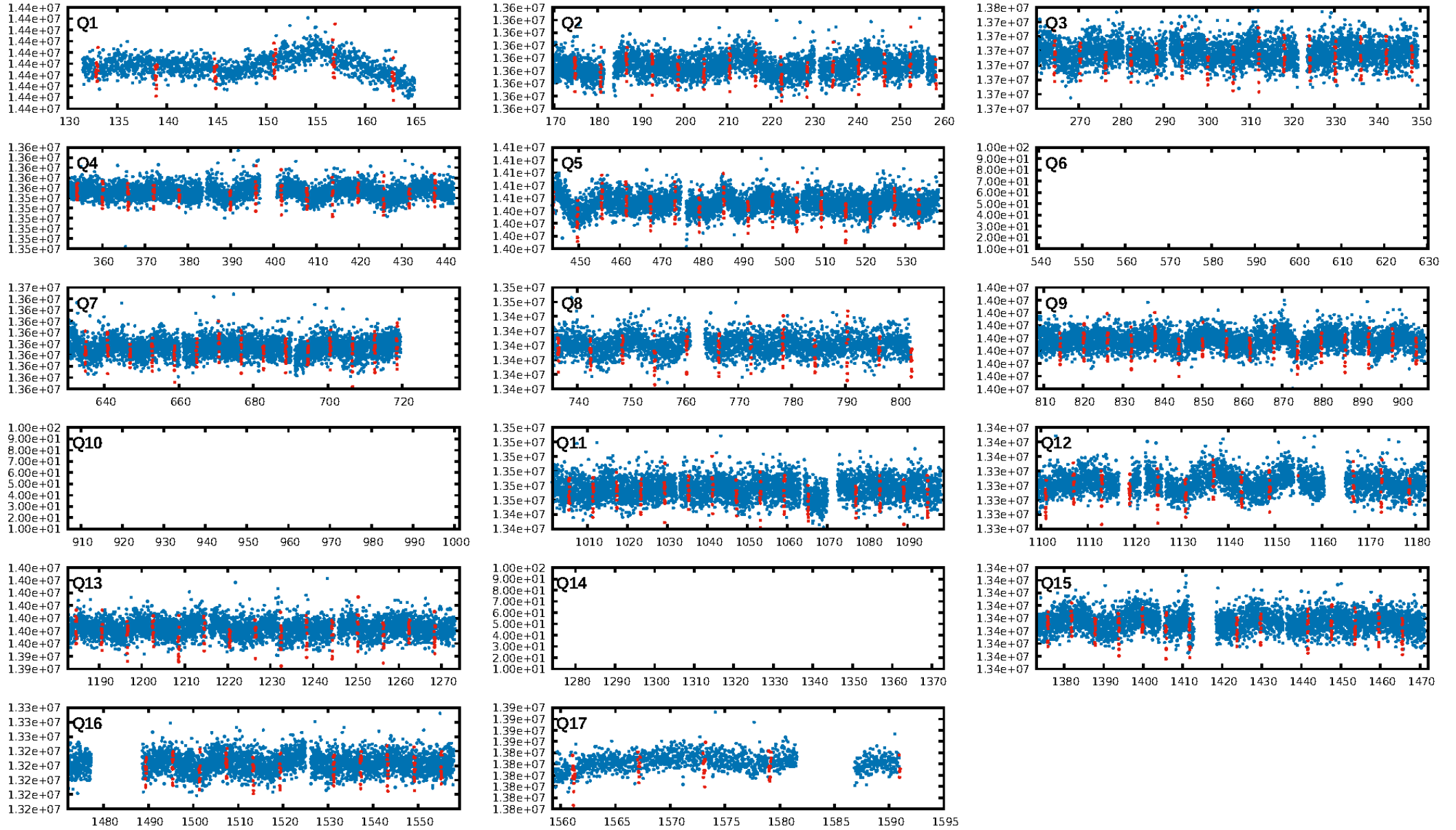
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 97.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [170/170]
GhostDiagnostic-chr: 6.245
Centroid-sig: 0.0%
Centroid-so: 1.327 arcsec [4.49σ]
OotOffset-rm: 1.252 arcsec [8.81σ]
KicOffset-rm: 1.263 arcsec [8.57σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

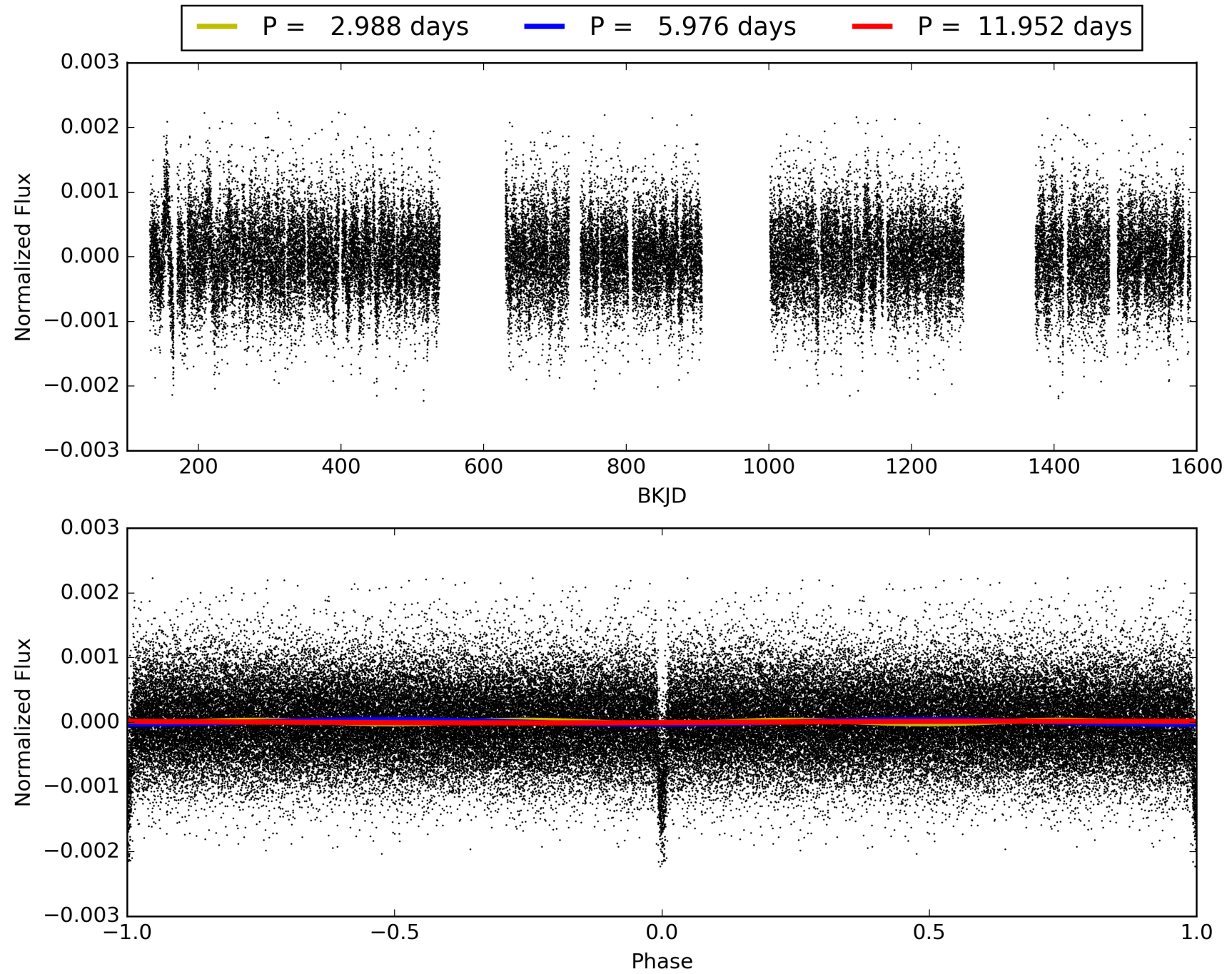
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:32:25 Z

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

TCE 005283542-01, PDC Light Curves

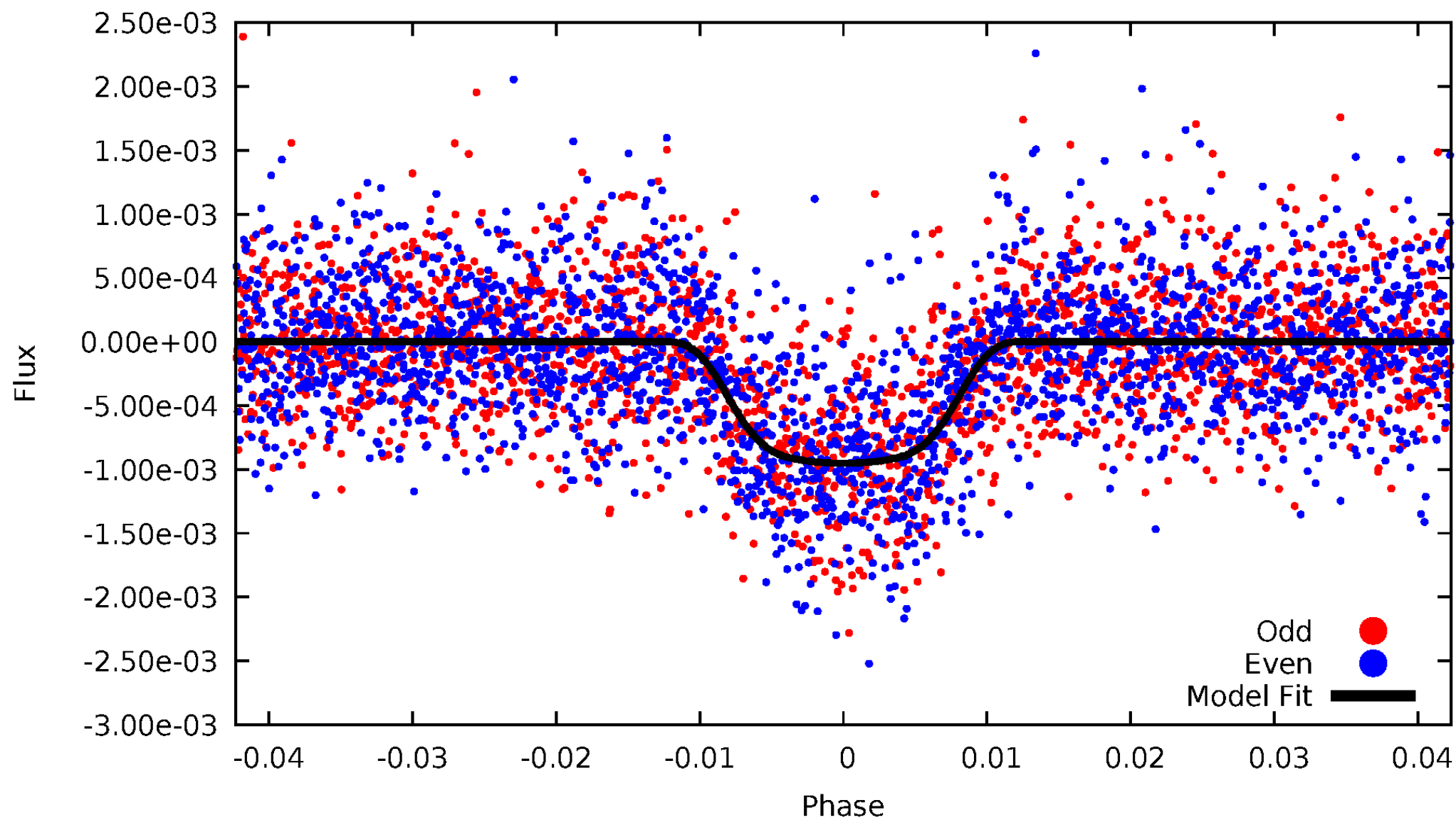


TCE 005283542-01



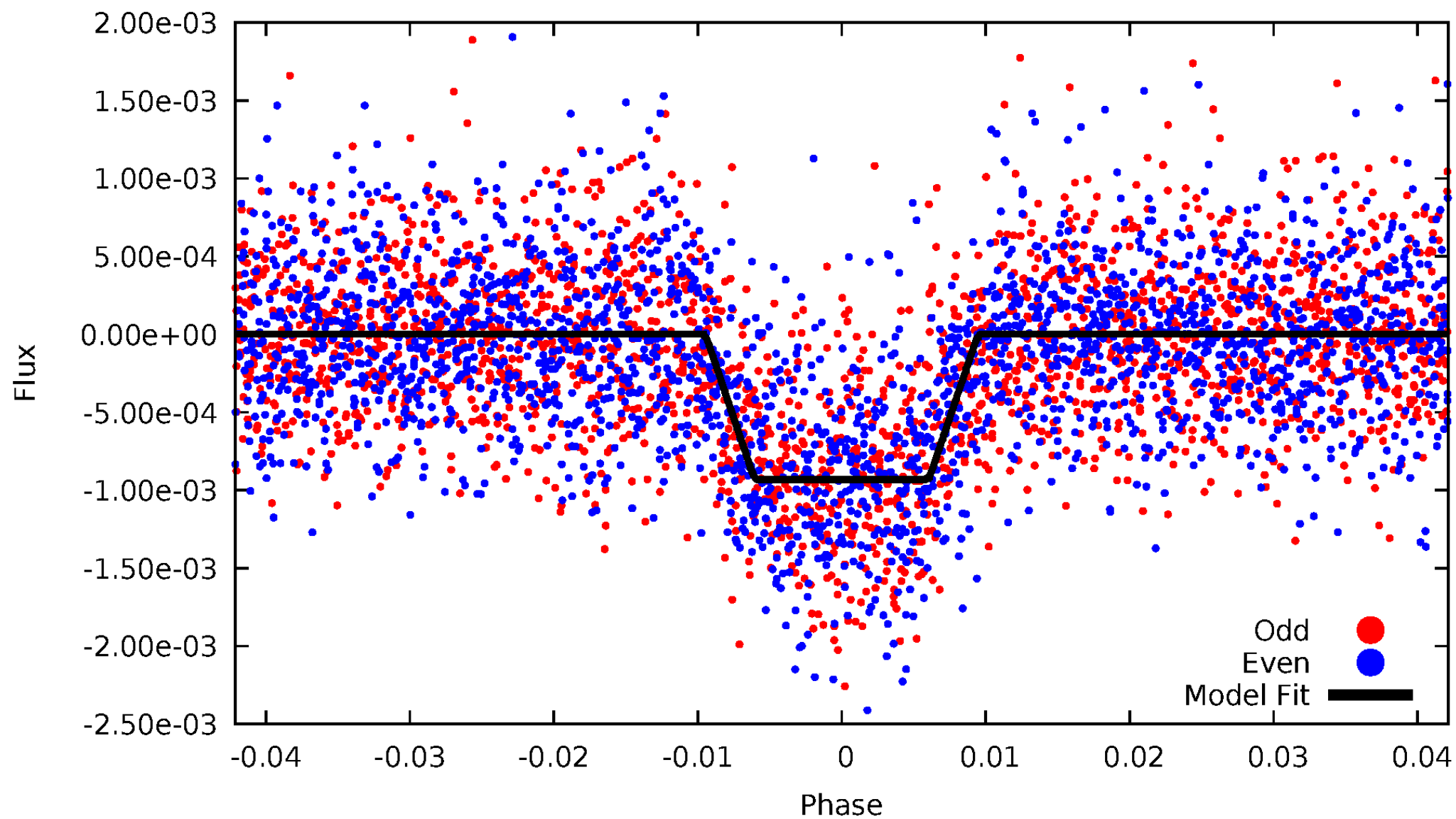
DV Odd/Even

TCE 005283542-01

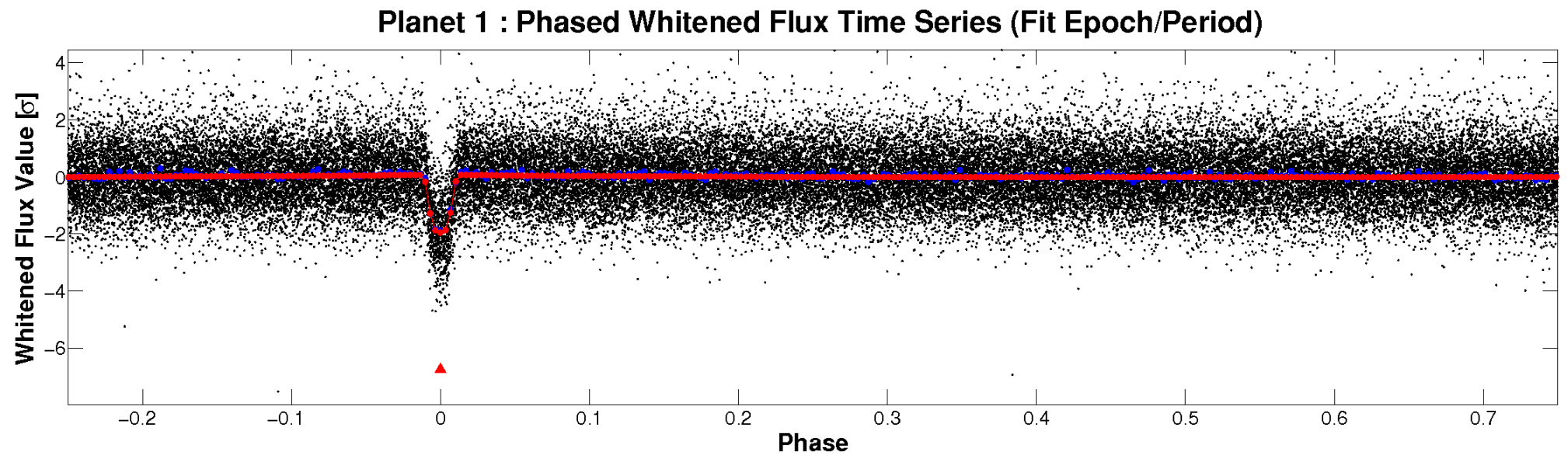
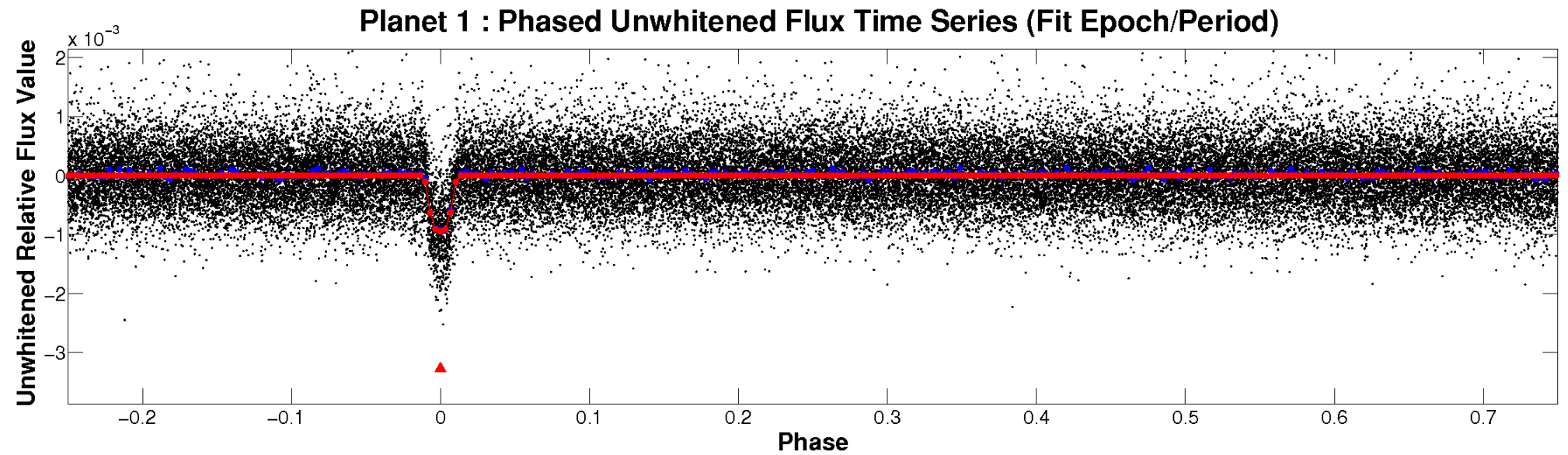


ALT Odd/Even

TCE 005283542-01

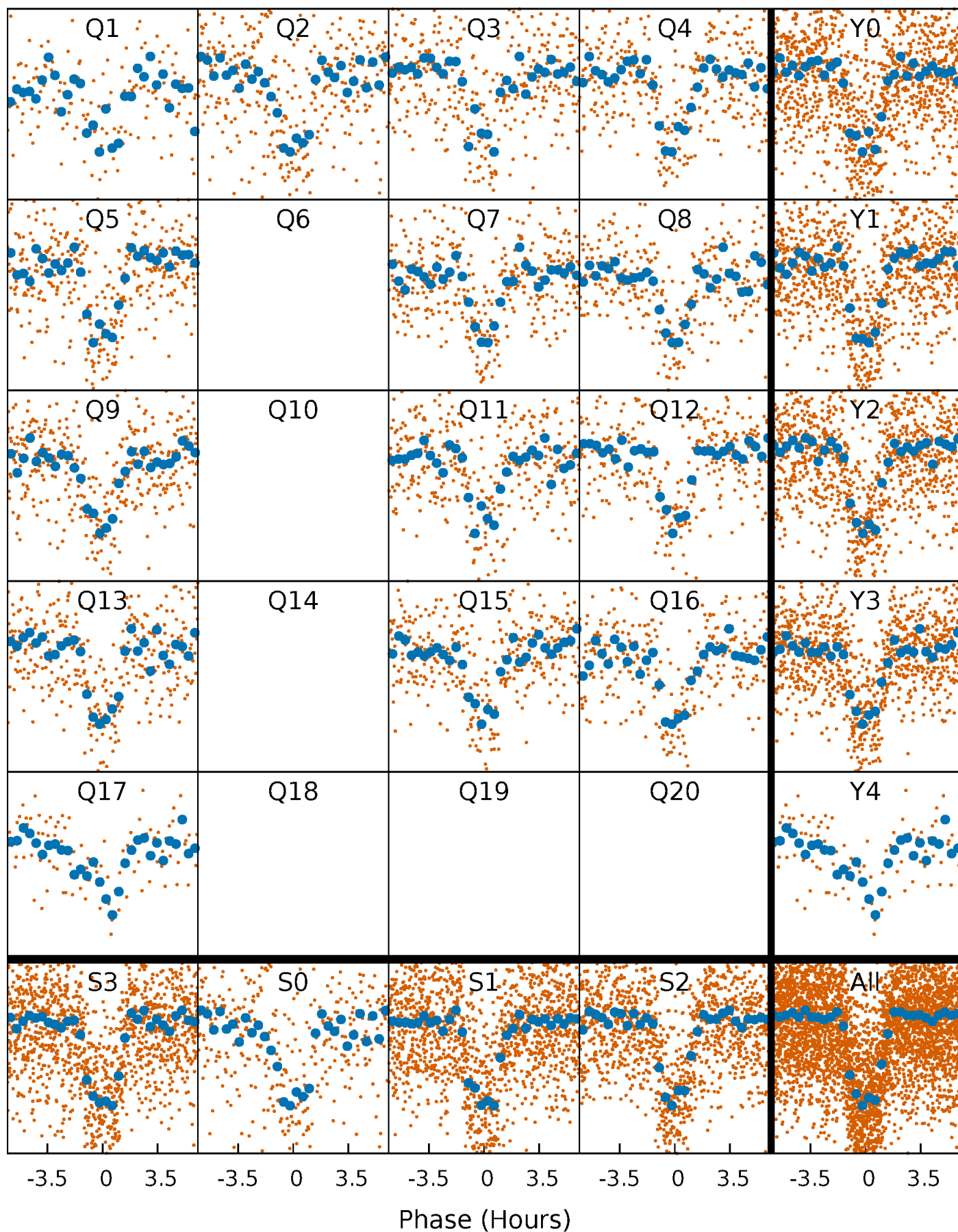


Non-Whitened Vs. Whitened Light Curve



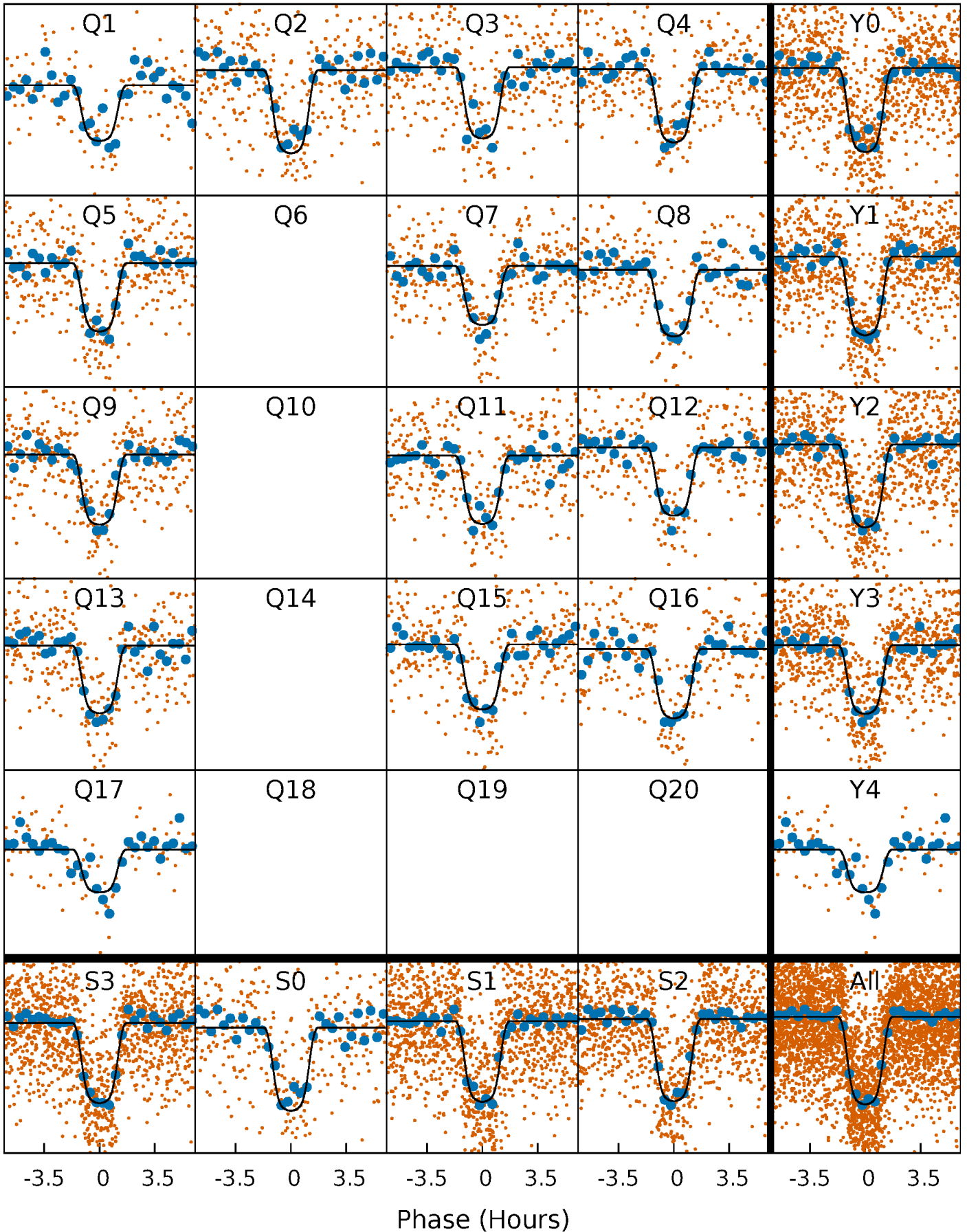
PDC Quarter-Phased Transit Curves

TCE 005283542-01 P= 5.975809 Days $T_0=132.946176$ (BKJD)



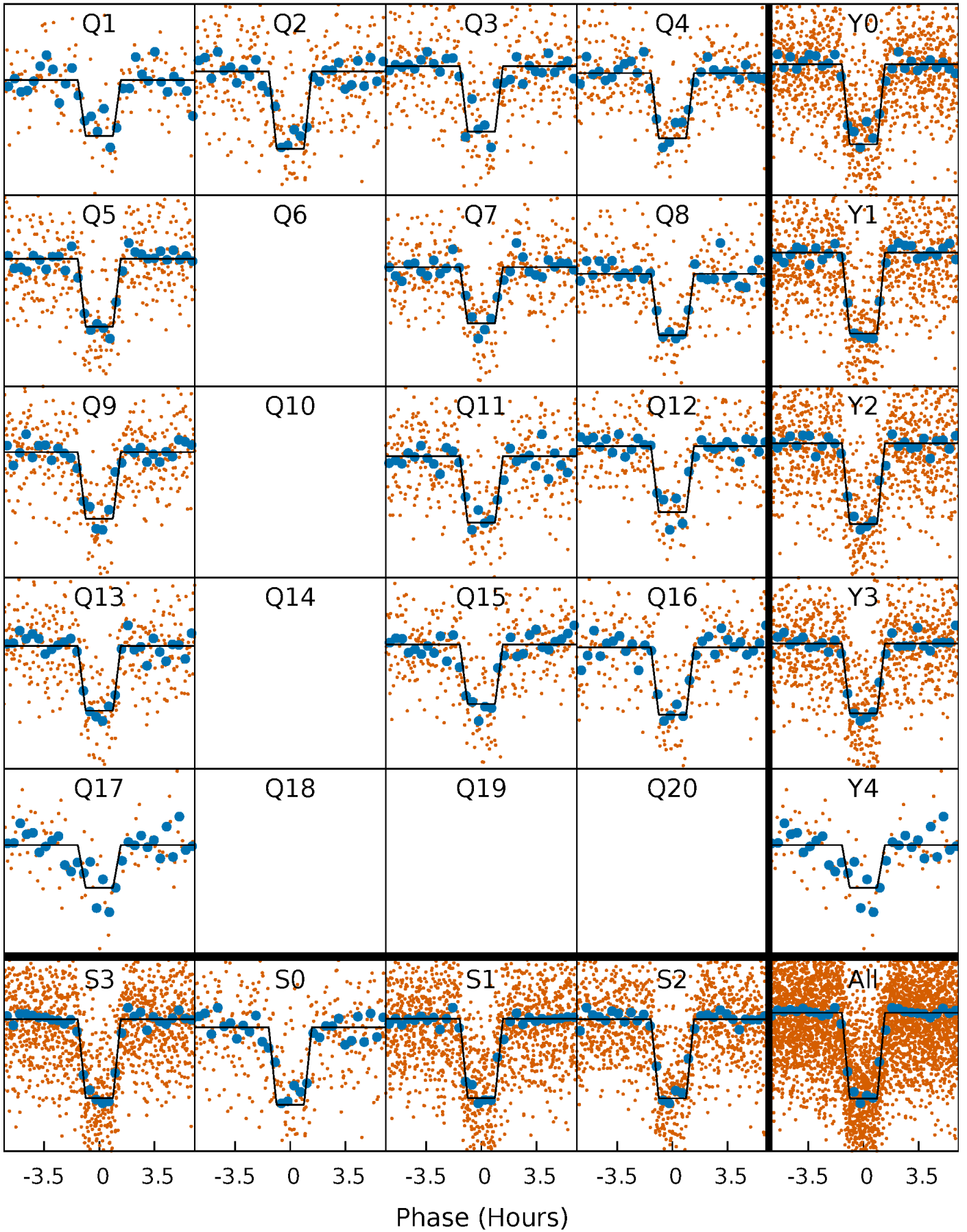
DV Quarter-Phased Transit Curves

TCE 005283542-01 P= 5.975809 Days $T_0=132.946176$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

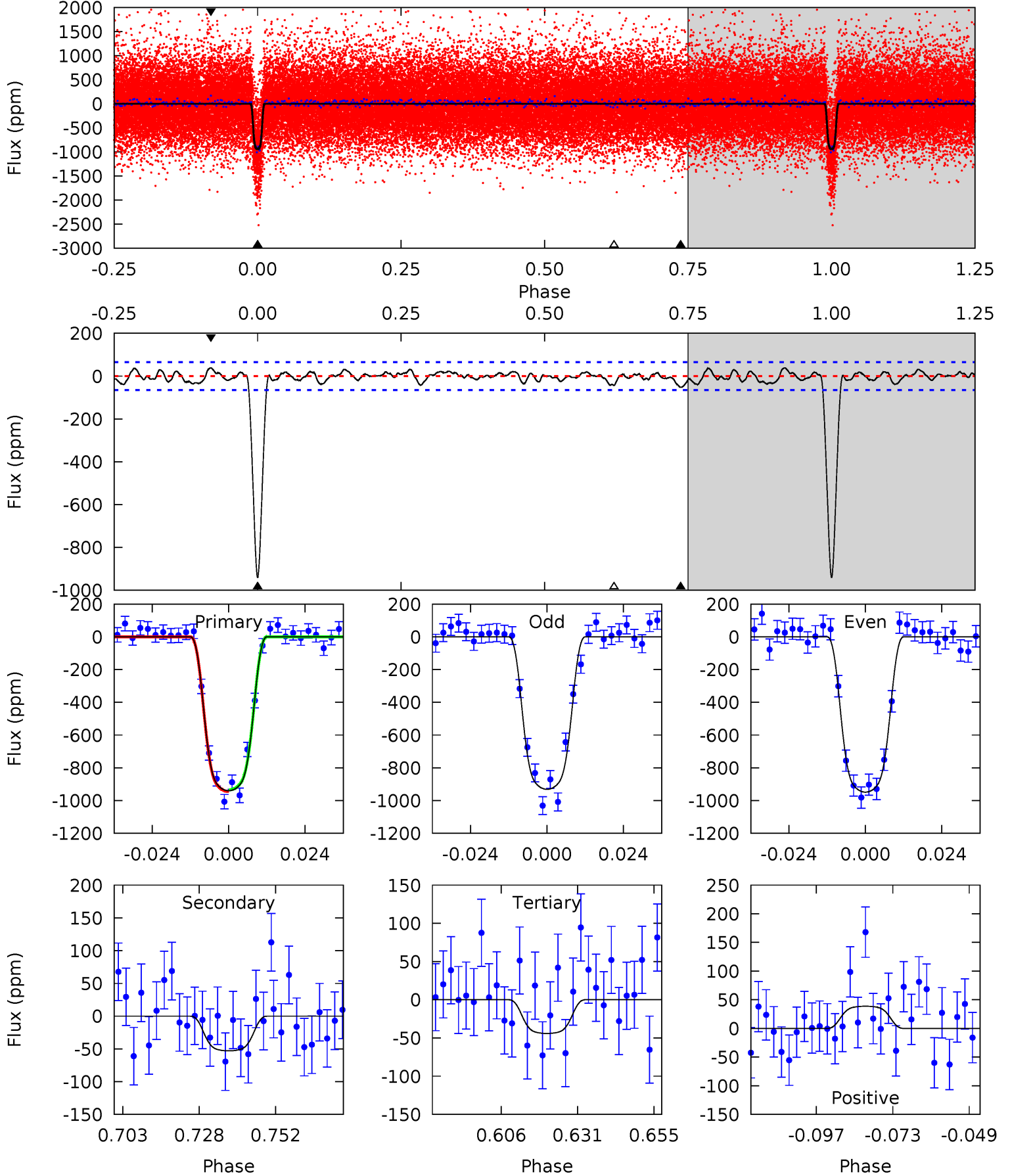
TCE 005283542-01 P= 5.975816 Days $T_0=132.945568$ (BKJD)



DV Model-Shift Uniqueness Test

005283542-01, P = 5.975809 Days, E = 126.970367 Days

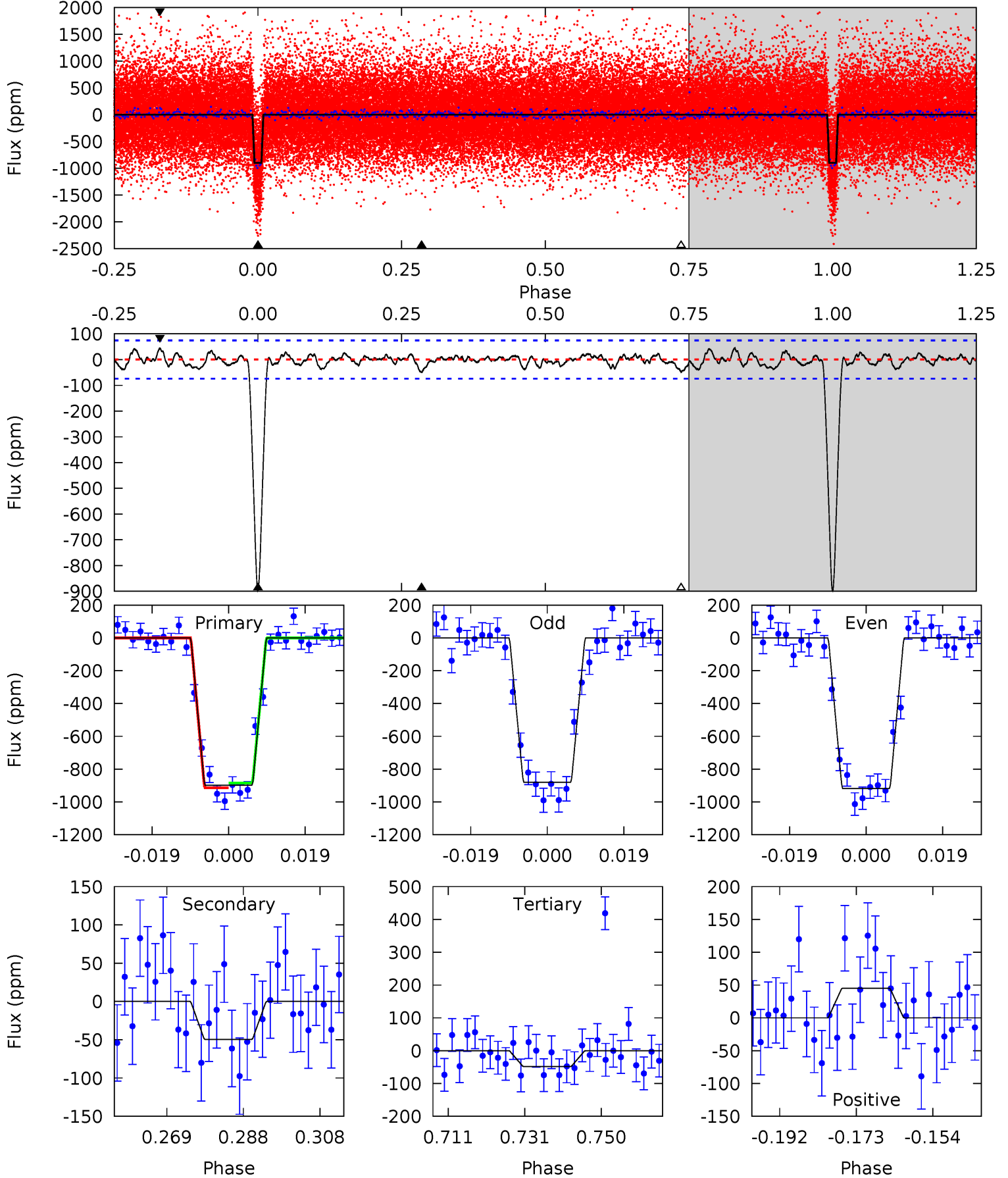
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
69.6	3.92	3.27	2.86	4.85	2.25	1.25	66.3	66.7	0.65	1.06	0.65	1.02	0.04	0.35



Alt Model-Shift Uniqueness Test

005283542-01, P = 5.975816 Days, E = 126.969752 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
59.3	3.27	3.19	2.98	4.90	2.34	1.08	56.1	56.3	0.08	0.29	1.25	1.03	0.05	0.96



Stellar Parameters For KIC 005283542

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6108^{+193}_{-214}	$4.471^{+0.054}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$0.997^{+0.341}_{-0.114}$	$1.072^{+0.153}_{-0.153}$	$1.525^{+0.429}_{-0.792}$
	+3%/-4%	+1%/-5%	+312%/-375%	+34%/-11%	+14%/-14%	+28%/-52%
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 005283542-01 / KOI 0827.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-53 ± 14	$3.93^{+0.75}_{-0.36}$	1502^{+116}_{-80}	3297^{+151}_{-153}	$7.601^{+2.676}_{-2.546}$
Alt.	-50 ± 15	$3.43^{+0.57}_{-0.32}$	1493^{+122}_{-77}	3418^{+165}_{-216}	$9.518^{+3.895}_{-3.568}$

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

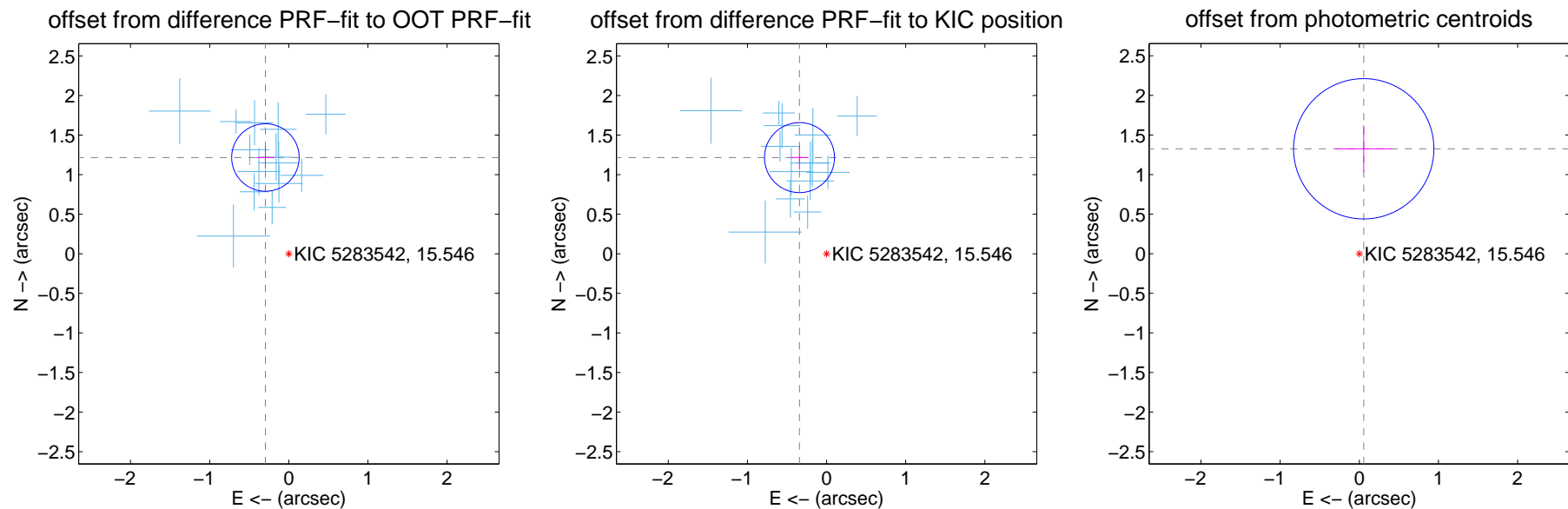
DV Centroid Data

Supplemental centroid analysis for 005283542-01. Kepler magnitude: 15.55. Transit SNR 48.31

There are 14 quarters with good PRF difference image offsets

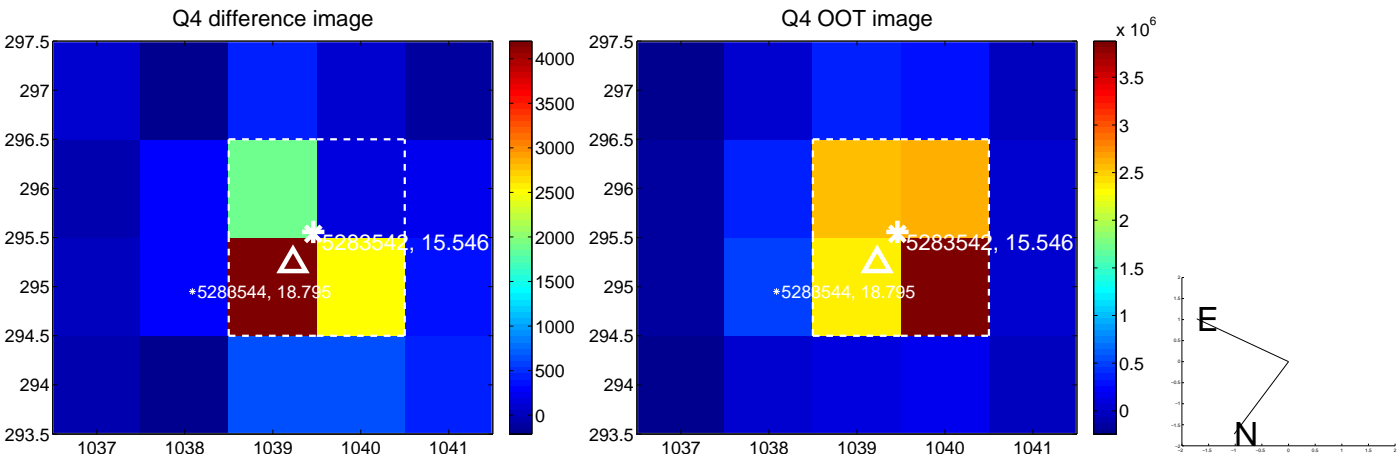
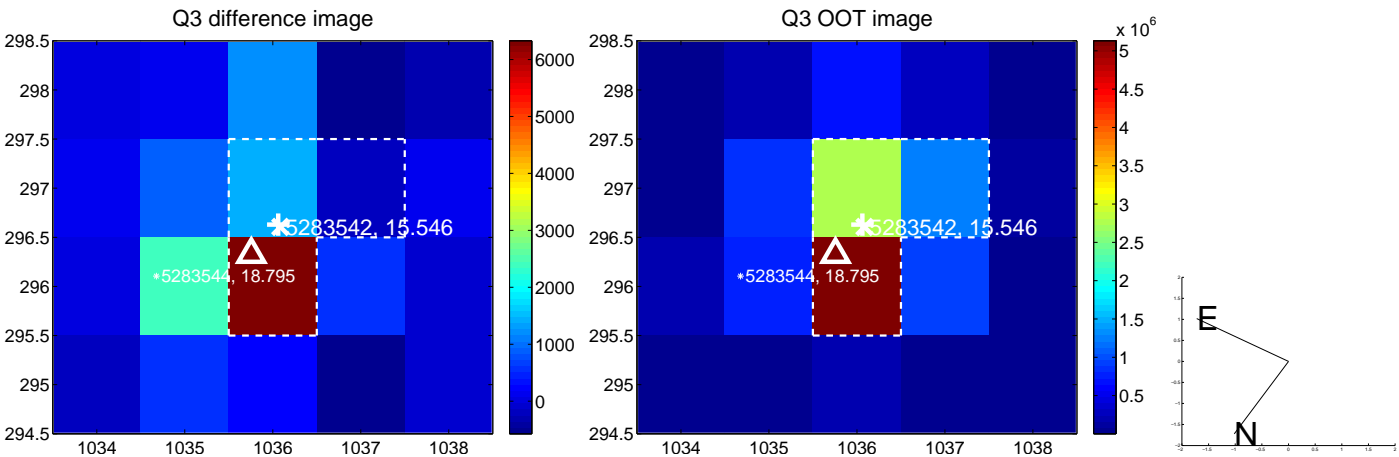
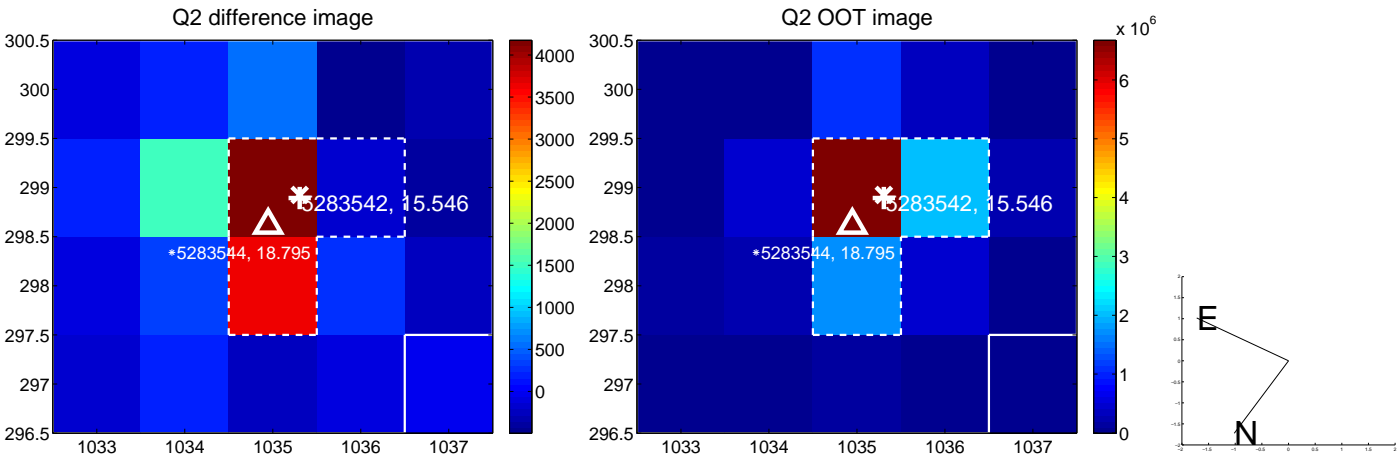
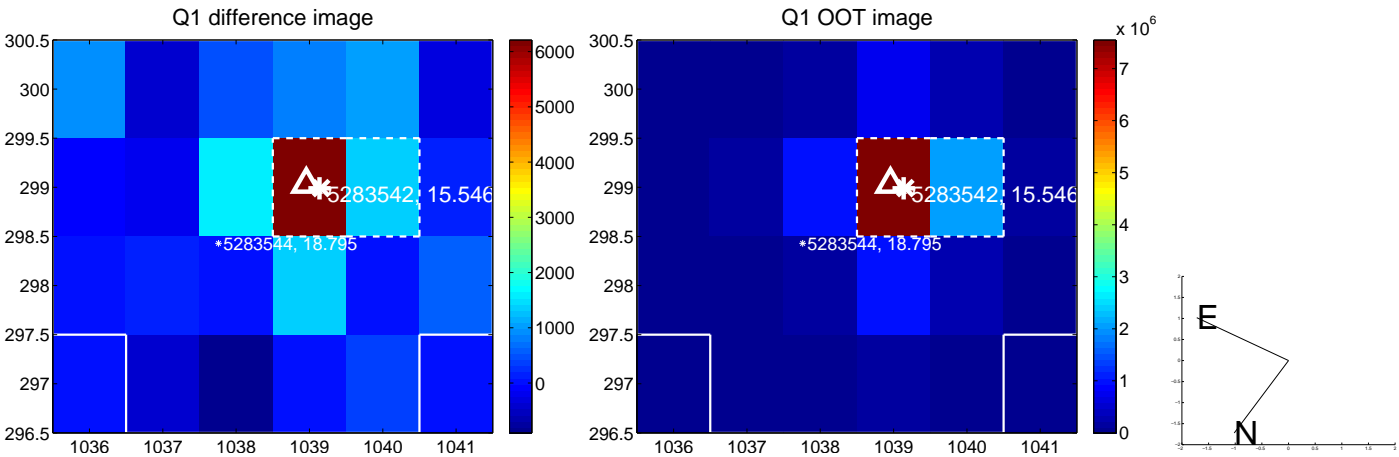
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.252 ± 0.142	8.81	0.296 ± 0.118	1.217 ± 0.143
PRF-fit source offset from KIC position	1.263 ± 0.147	8.57	0.342 ± 0.112	1.215 ± 0.150
photometric centroid source offset	1.33 ± 0.30	4.49	-0.06 ± 0.36	1.33 ± 0.30

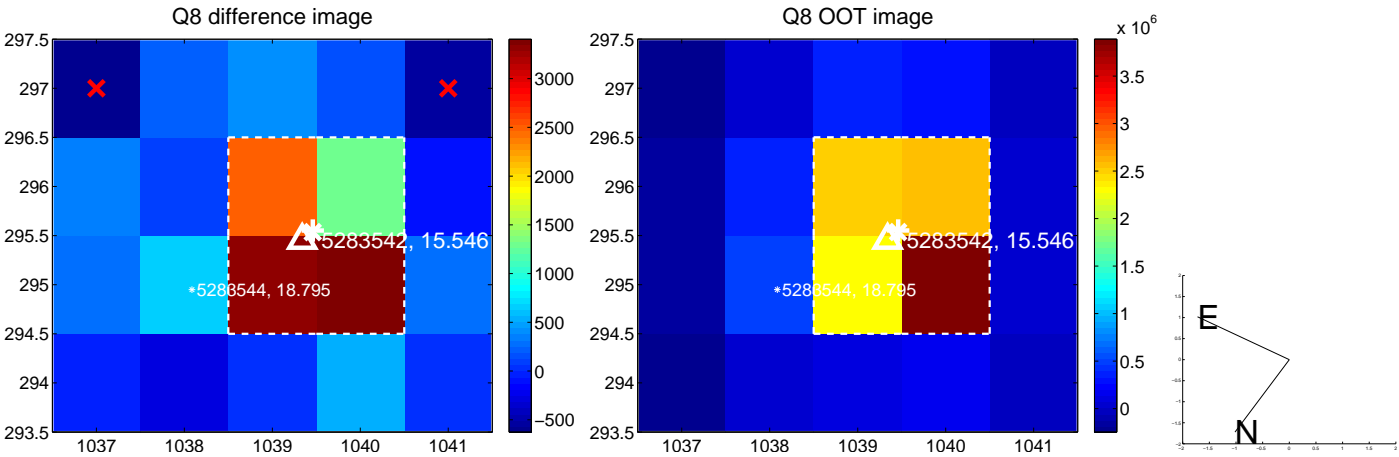
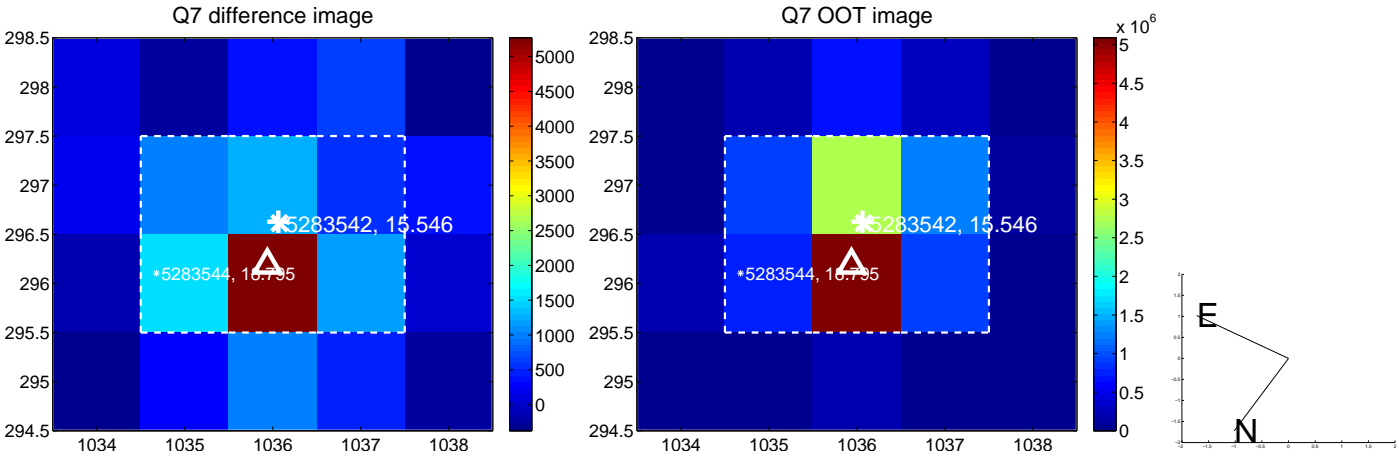
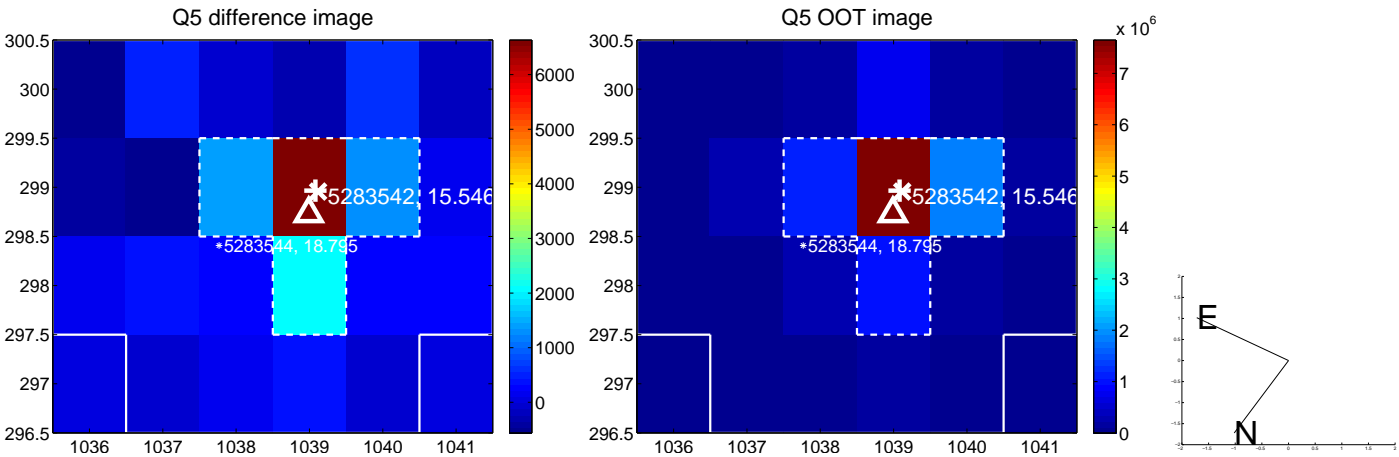


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

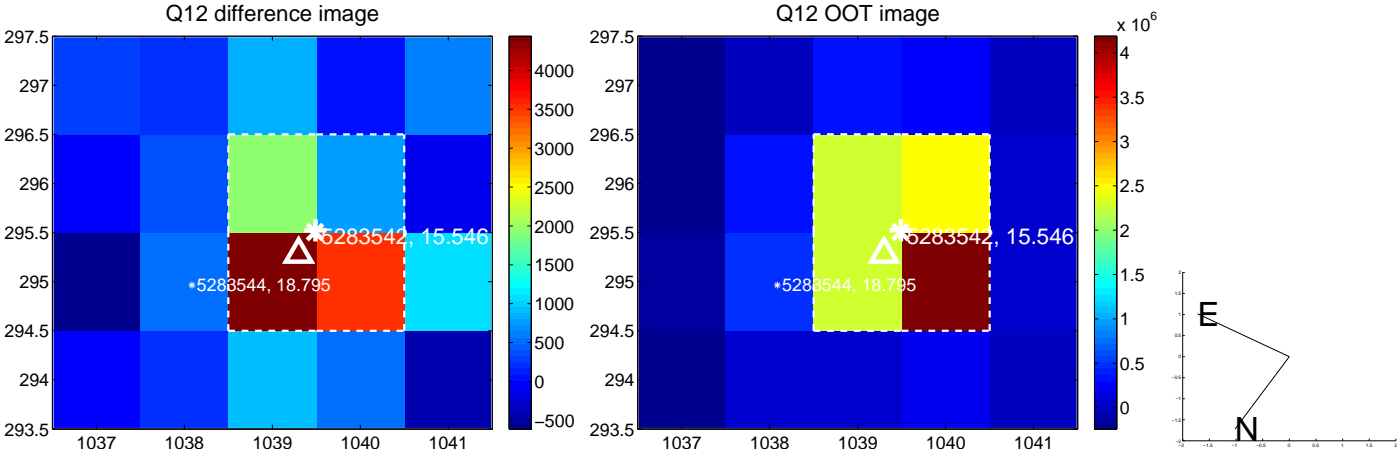
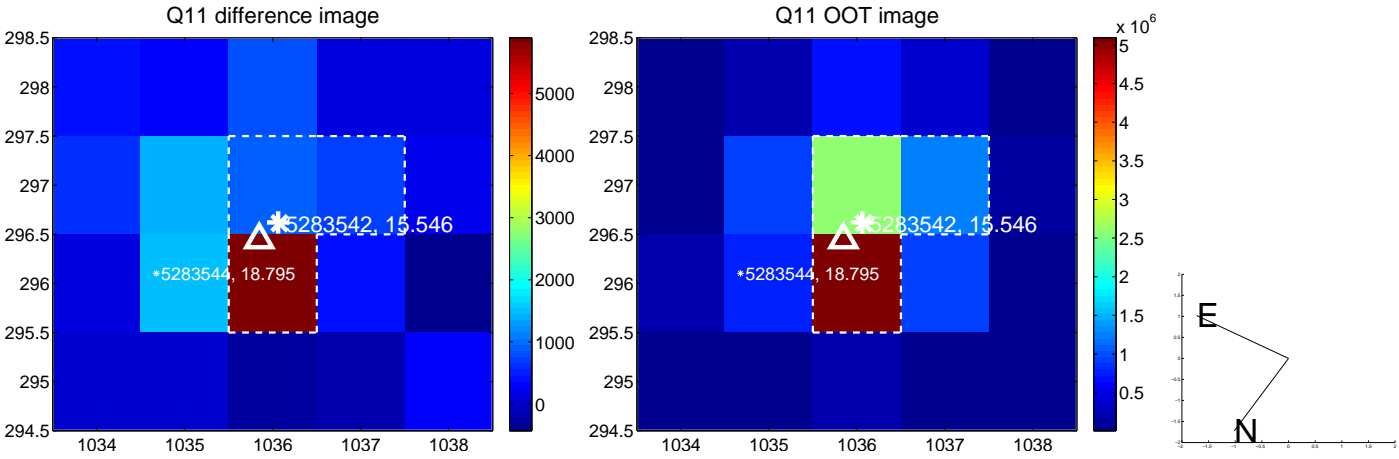
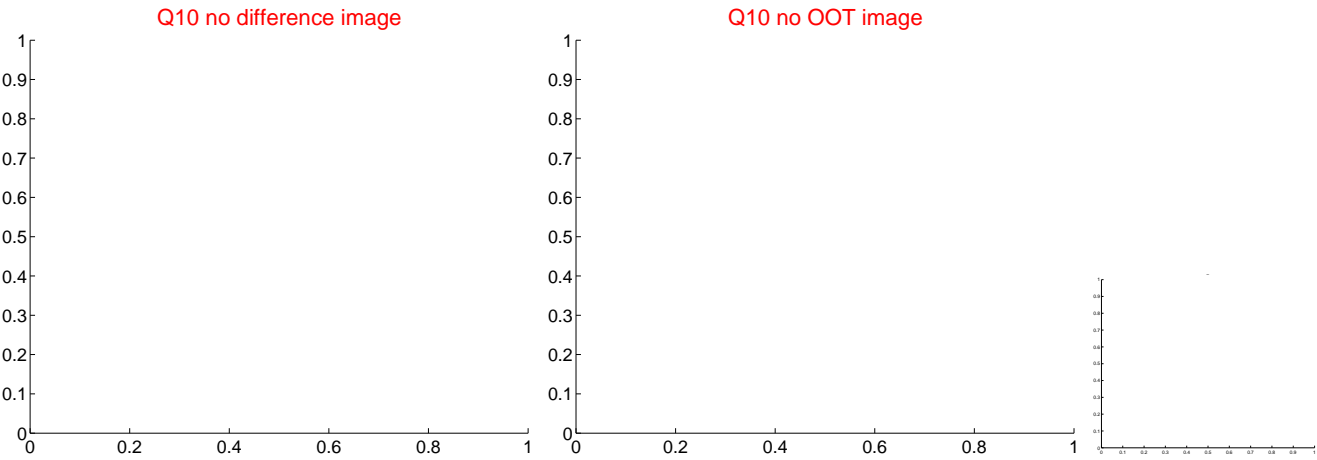
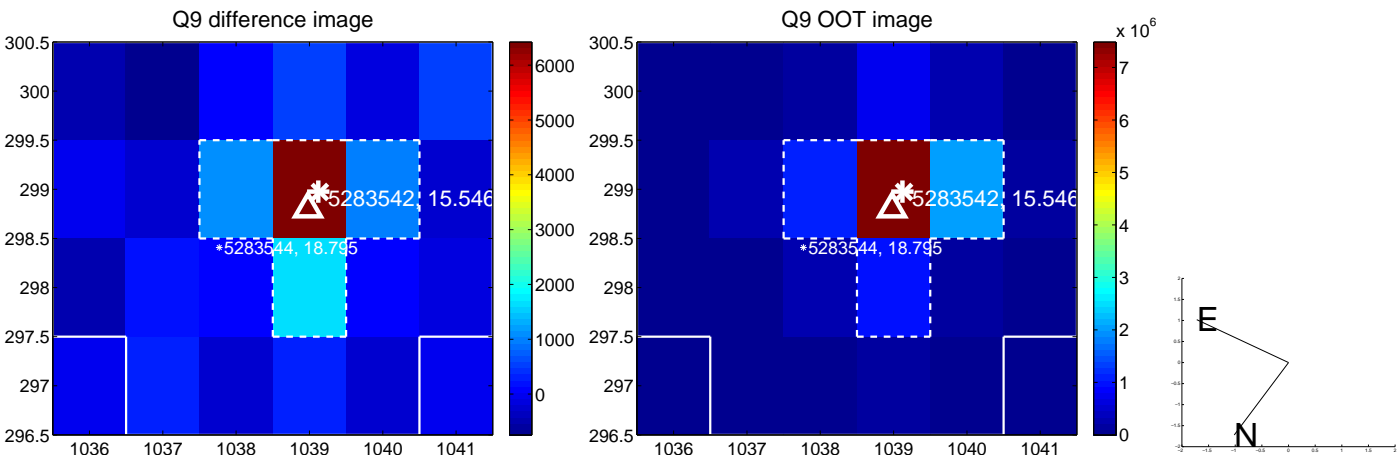
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



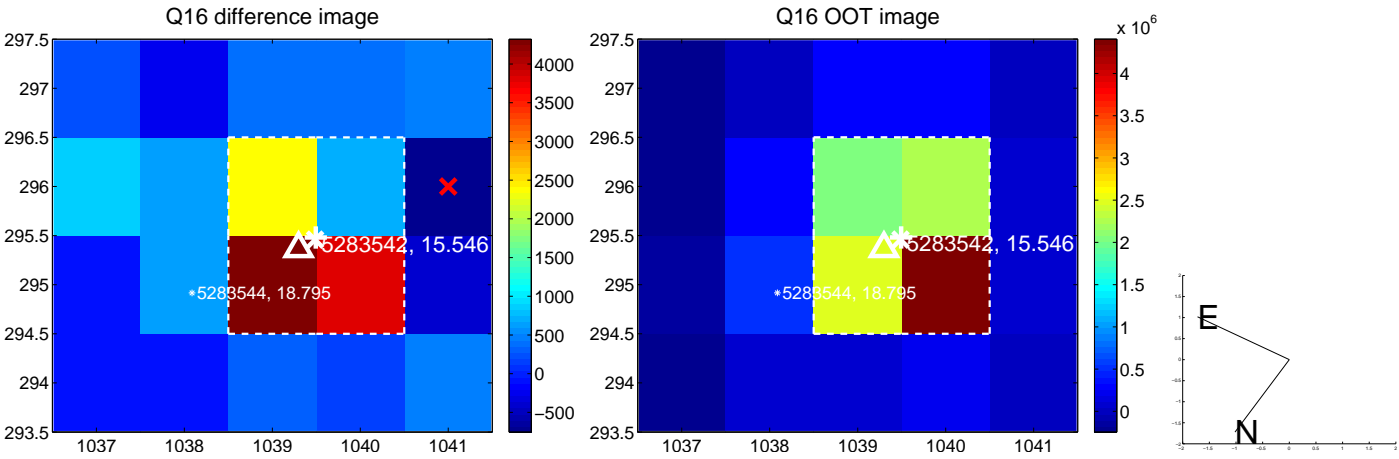
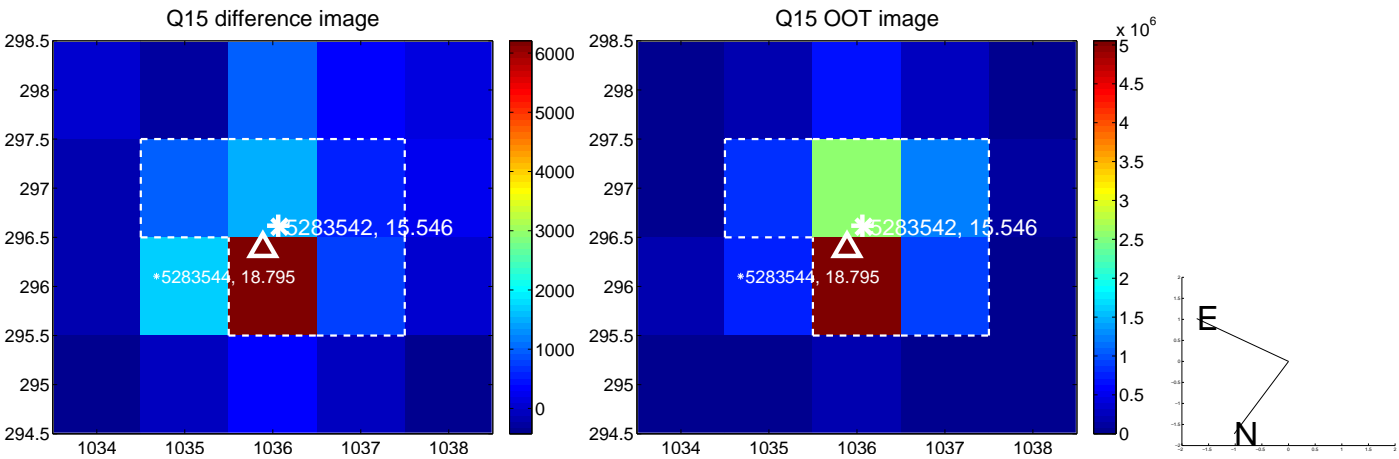
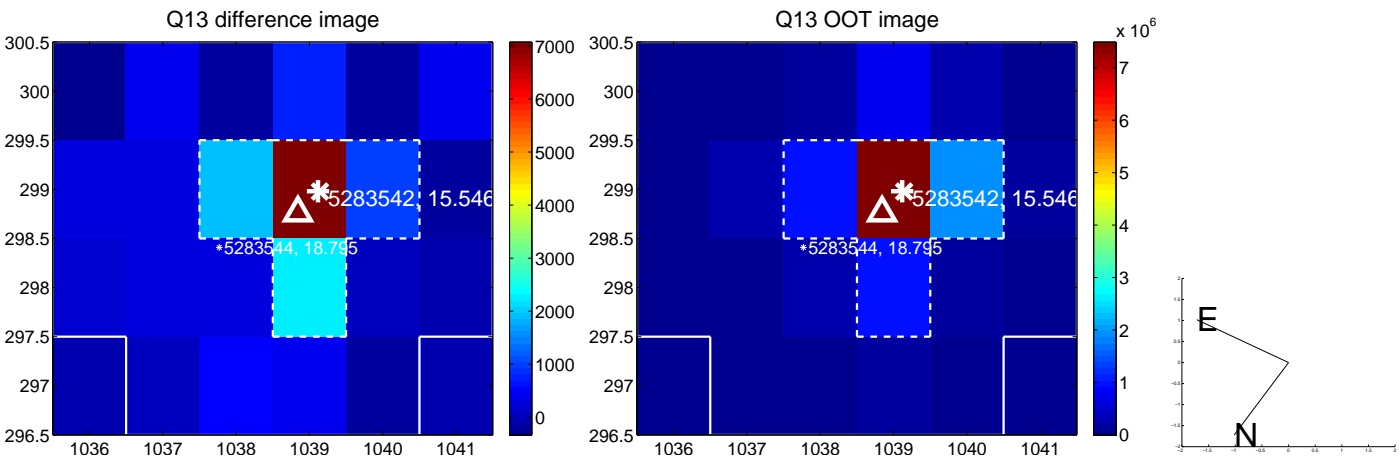
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



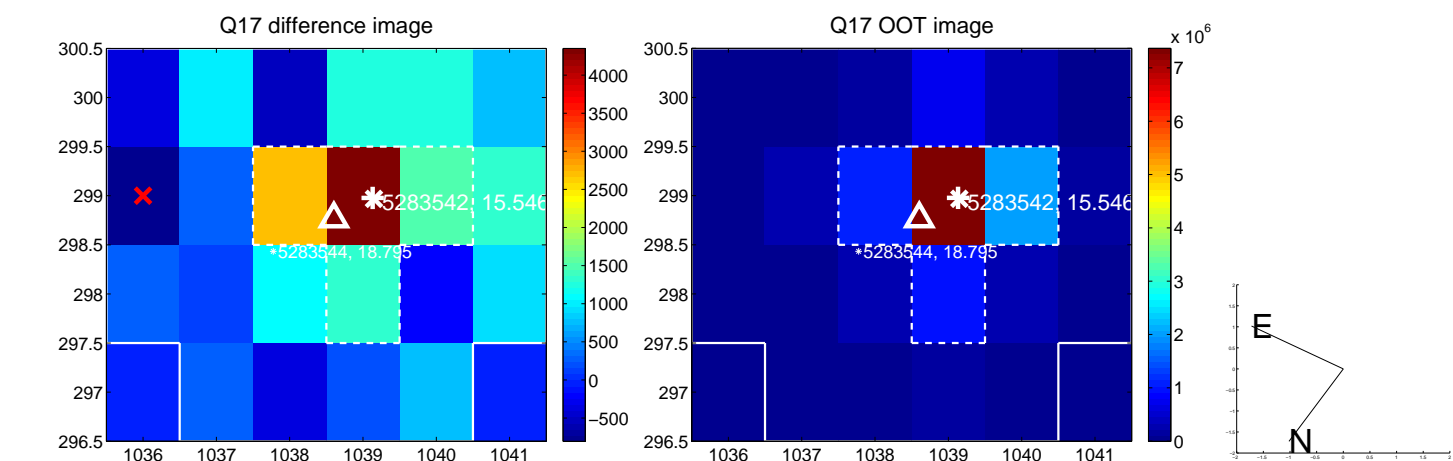
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



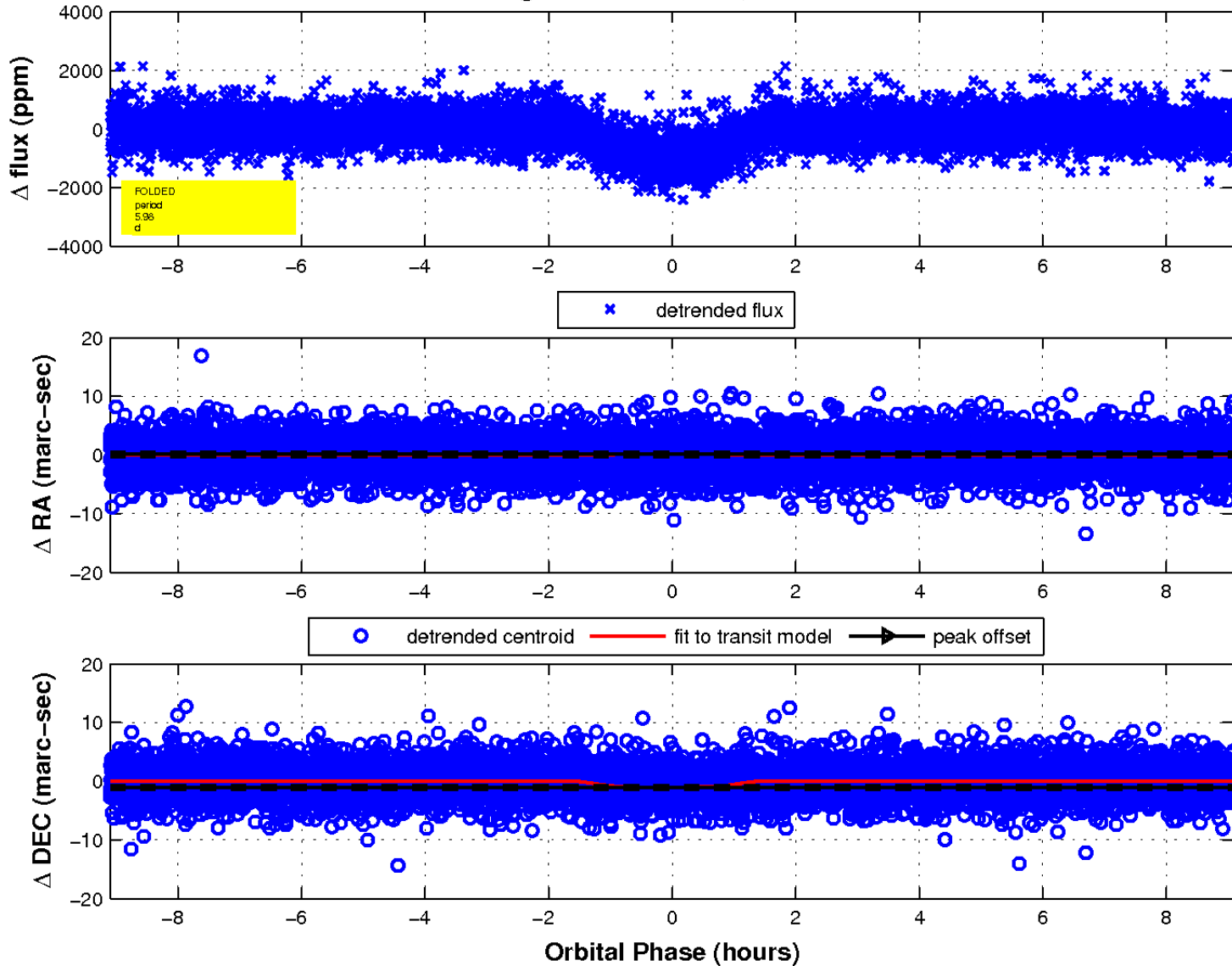
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

