

KIC 005443837

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})
005443837-01	OBS	0554.01	3.658496	133.958828	4285.1	2.540	366.6	363.6	1.82	5857	14.34	1488.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005443837-01	OBS	PC	1.00	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.

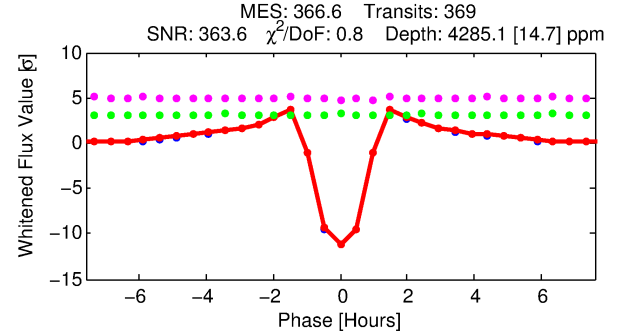
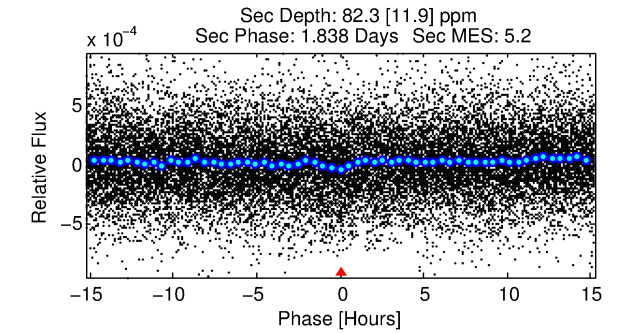
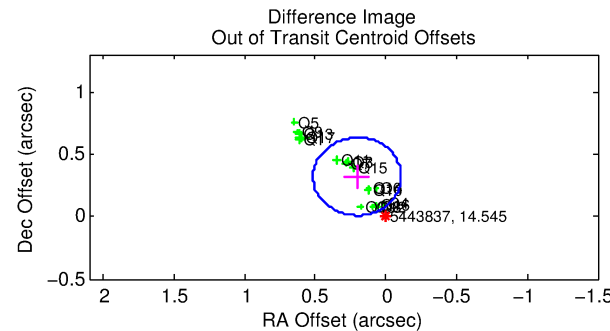
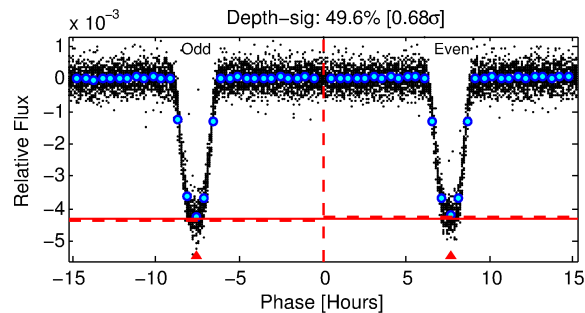
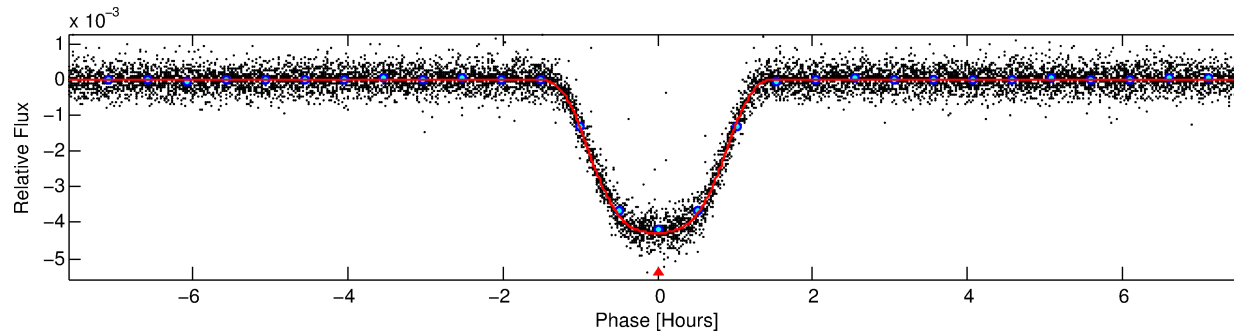
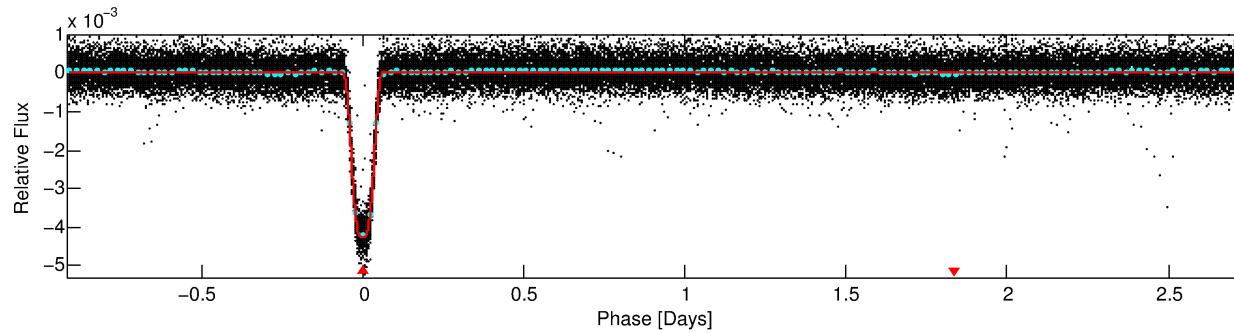
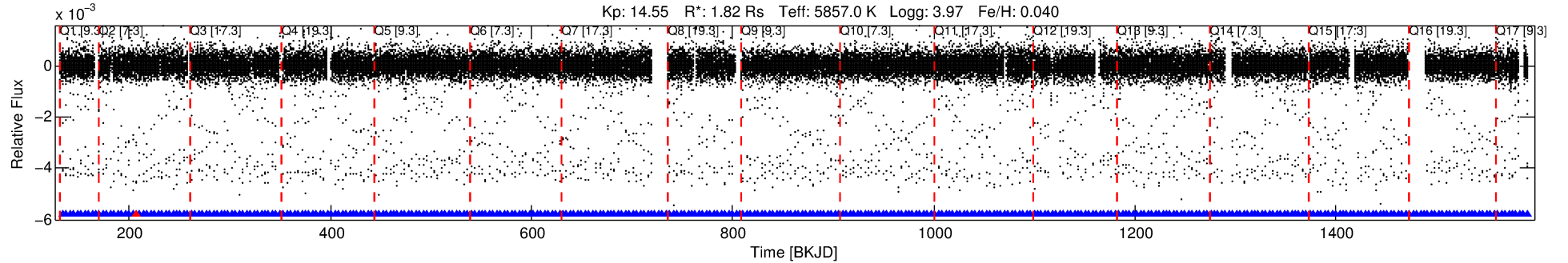
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005443837-01

No Significant Match Found

DV One-Page Summary

KIC: 5443837 Candidate: 1 of 1 Period: 3.658 d
KOI: K00554.01 Corr: 0.996



DV Fit Results:

Period = 3.65850 [0.00000] d
Epoch = 133.9588 [0.0001] BKJD
Rp/R* = 0.0721 [0.0002]
a/R* = 6.39 [0.04]
b = 0.91 [0.00]
Seff = 1488.99 [524.11]
Teq = 1584 [139] K
Rp = 14.34 [3.33] Re
a = 0.0485 [0.0106] AU
Ag = 0.52 [0.20] [-2.47 σ]
Teffp = 2077 [80] K [3.07 σ]

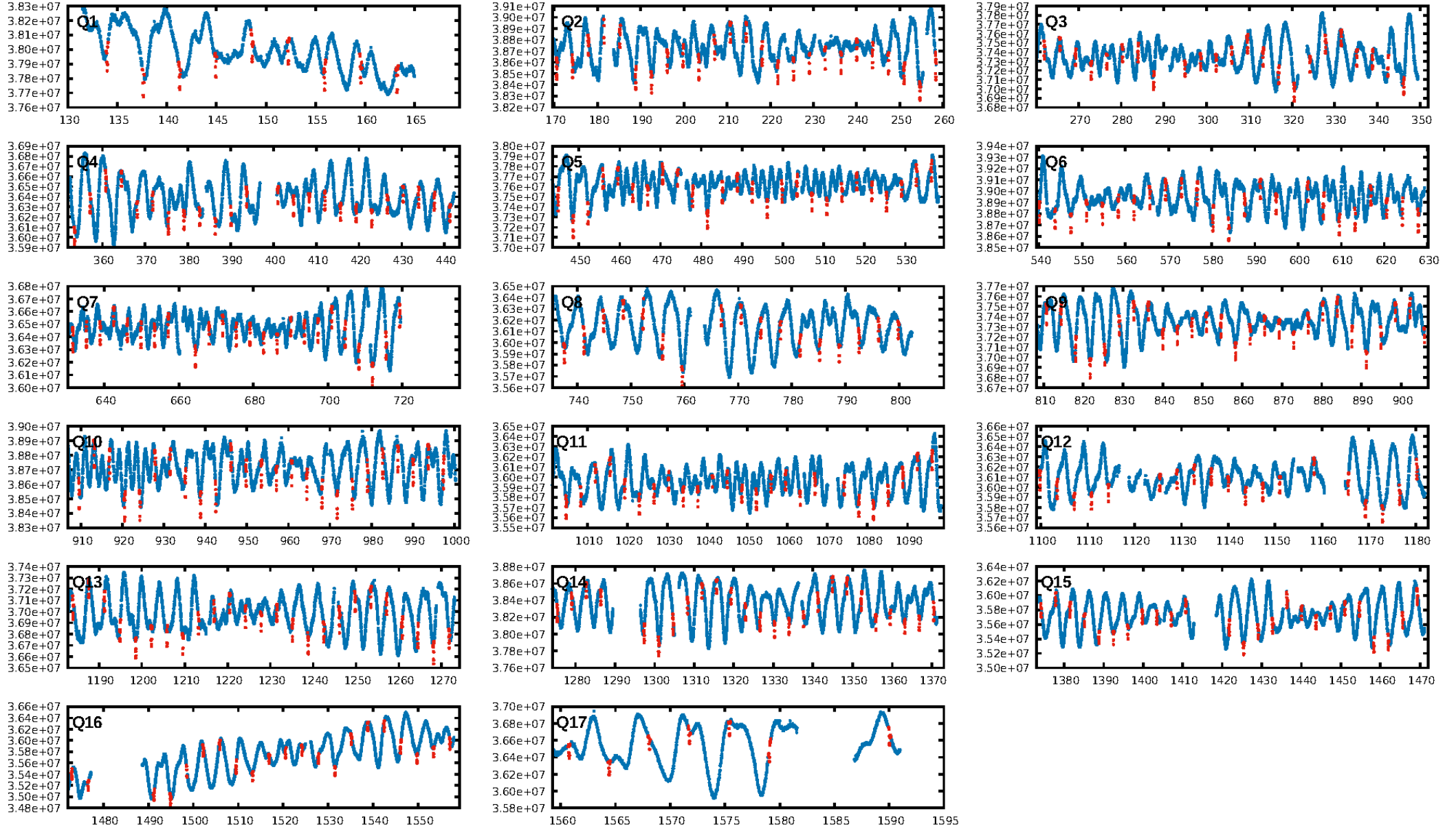
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [352/353]
GhostDiagnostic-chr: 4.567
Centroid-sig: 0.0%
Centroid-so: 0.364 arcsec [15.08 σ]
OotOffset-rm: 0.380 arcsec [3.65 σ]
KicOffset-rm: 0.141 arcsec [2.07 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

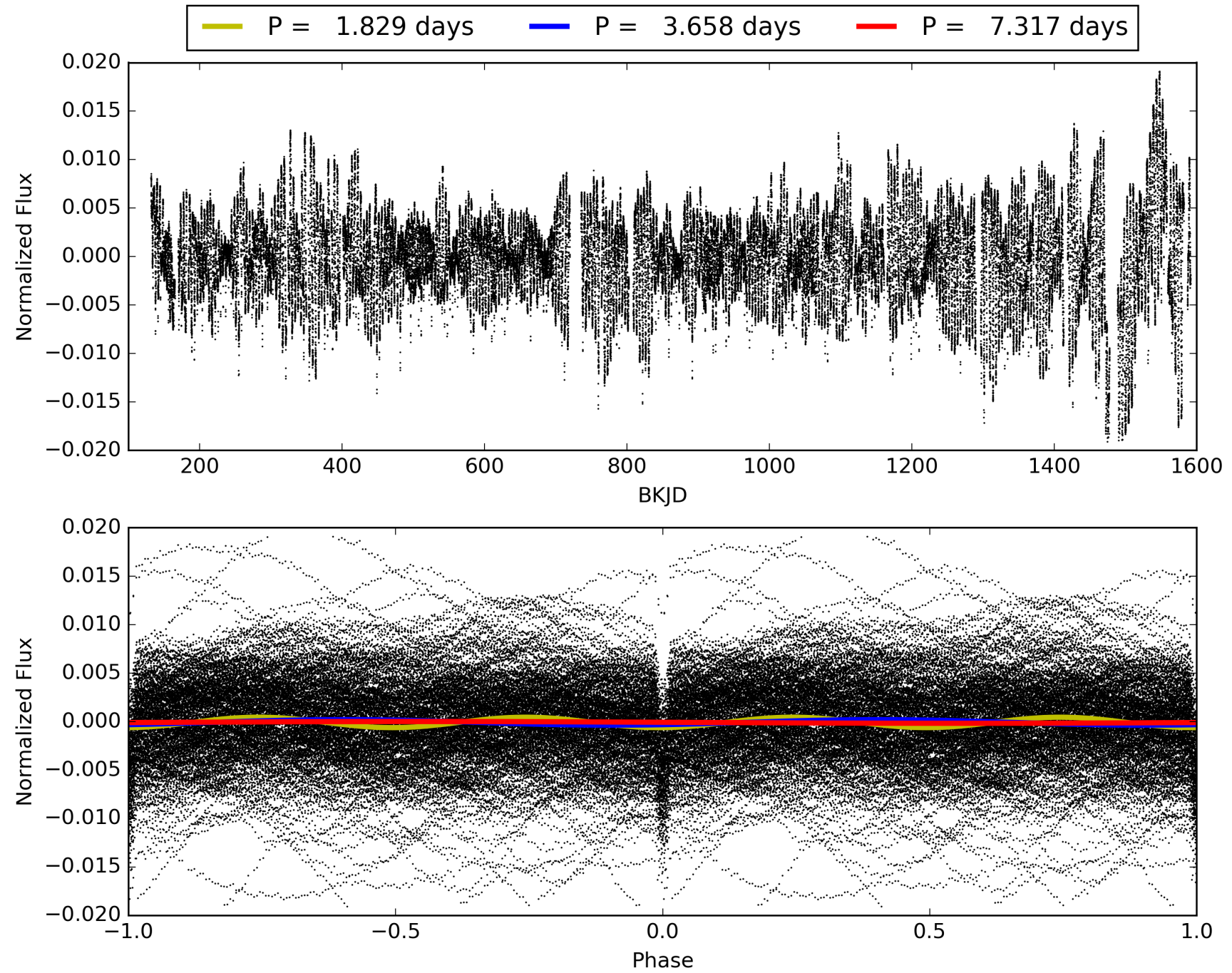
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 10:10:47 Z

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

TCE 005443837-01, PDC Light Curves

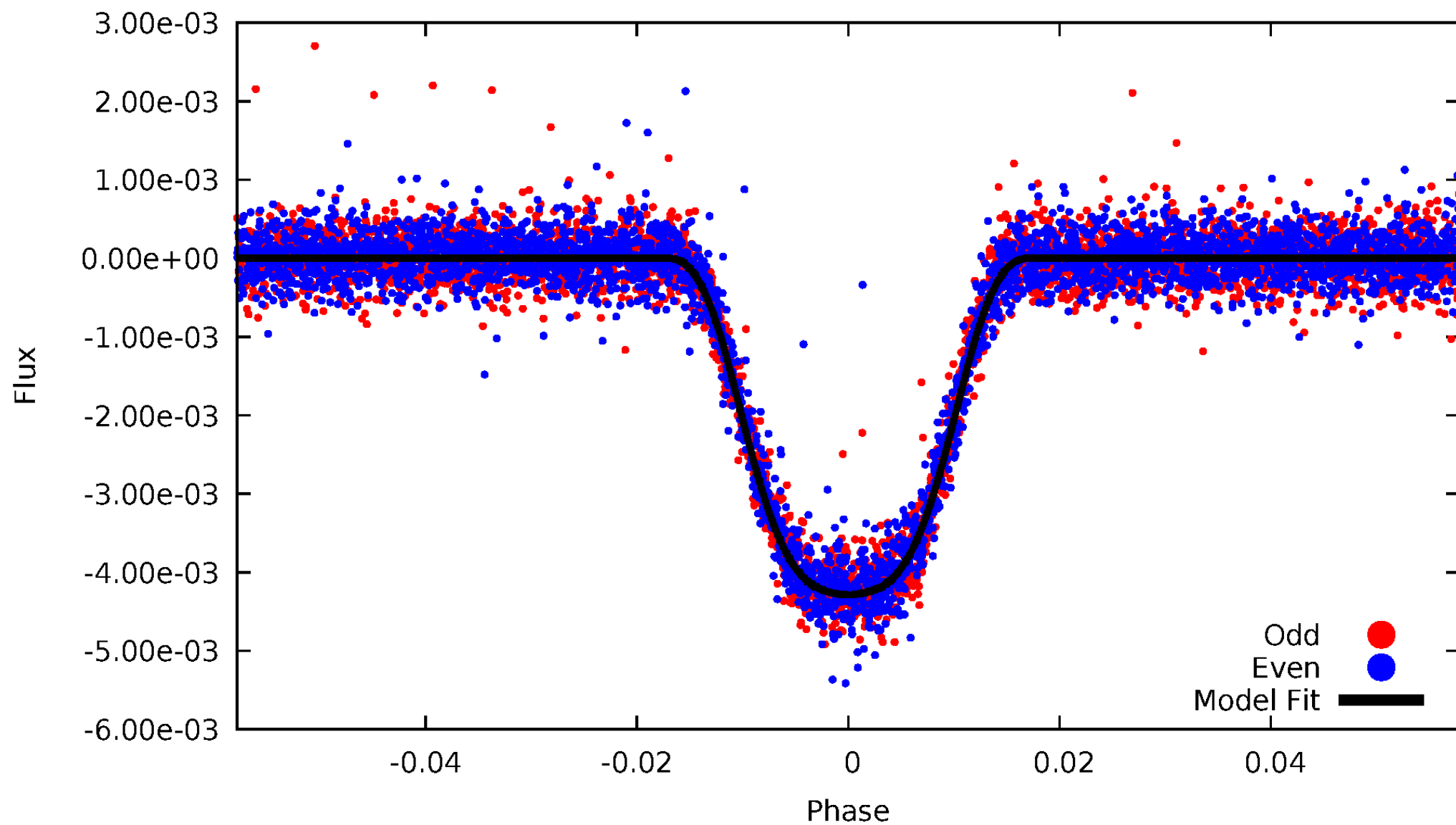


TCE 005443837-01



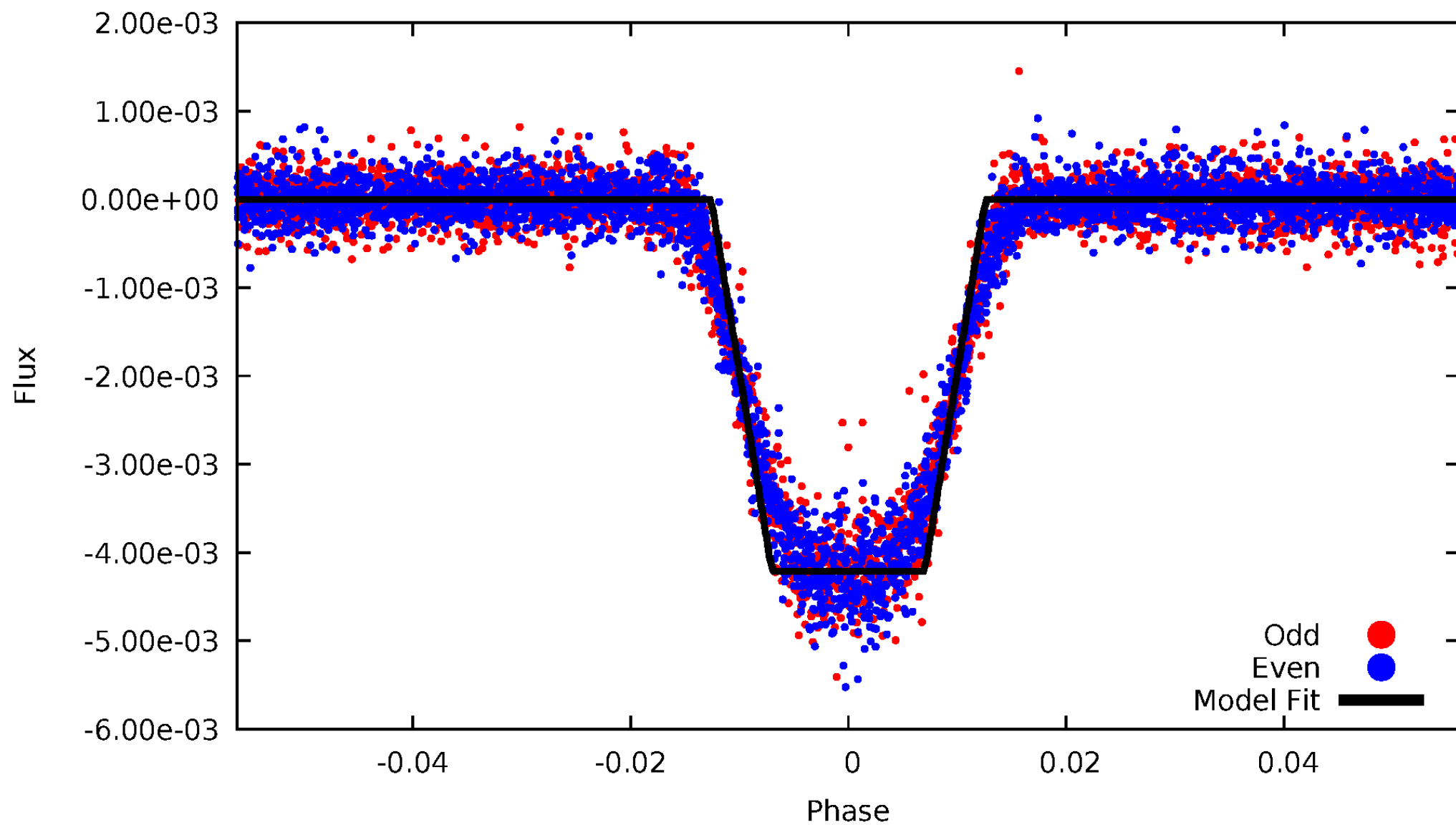
DV Odd/Even

TCE 005443837-01



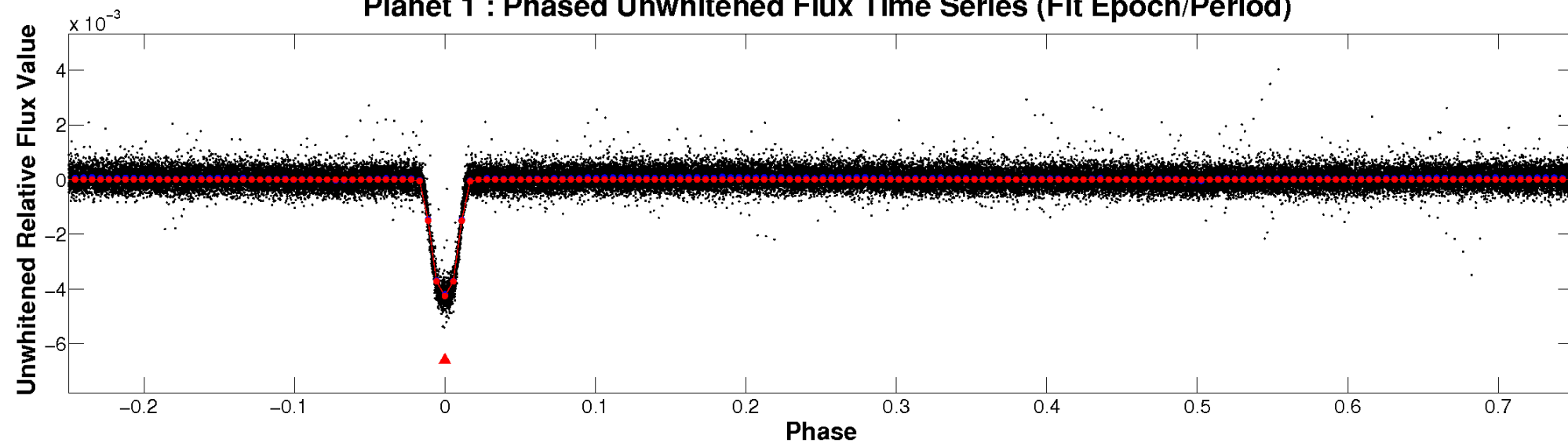
ALT Odd/Even

TCE 005443837-01

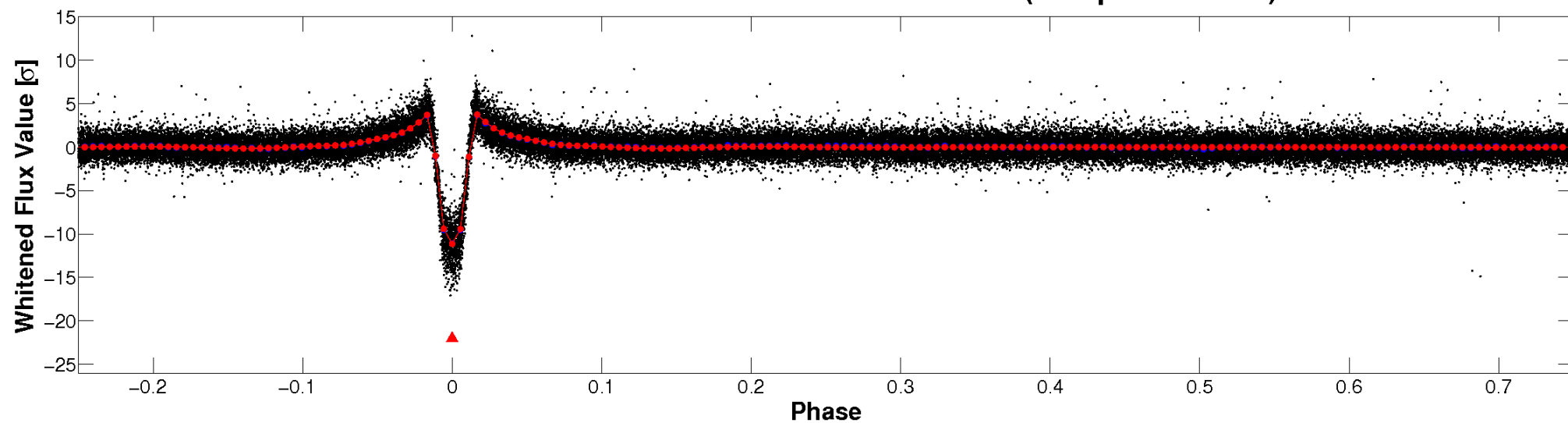


Non-Whitened Vs. Whitened Light Curve

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

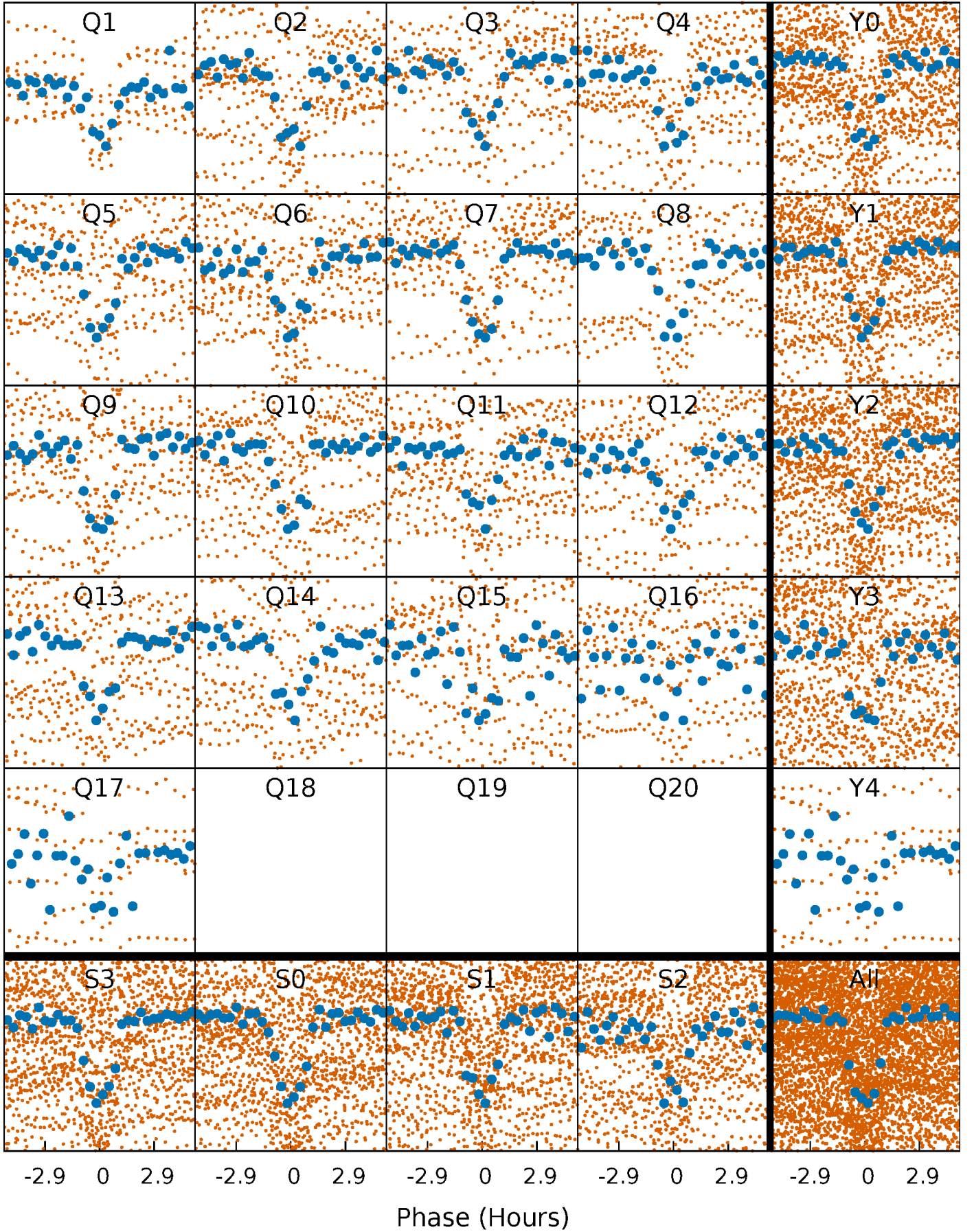


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



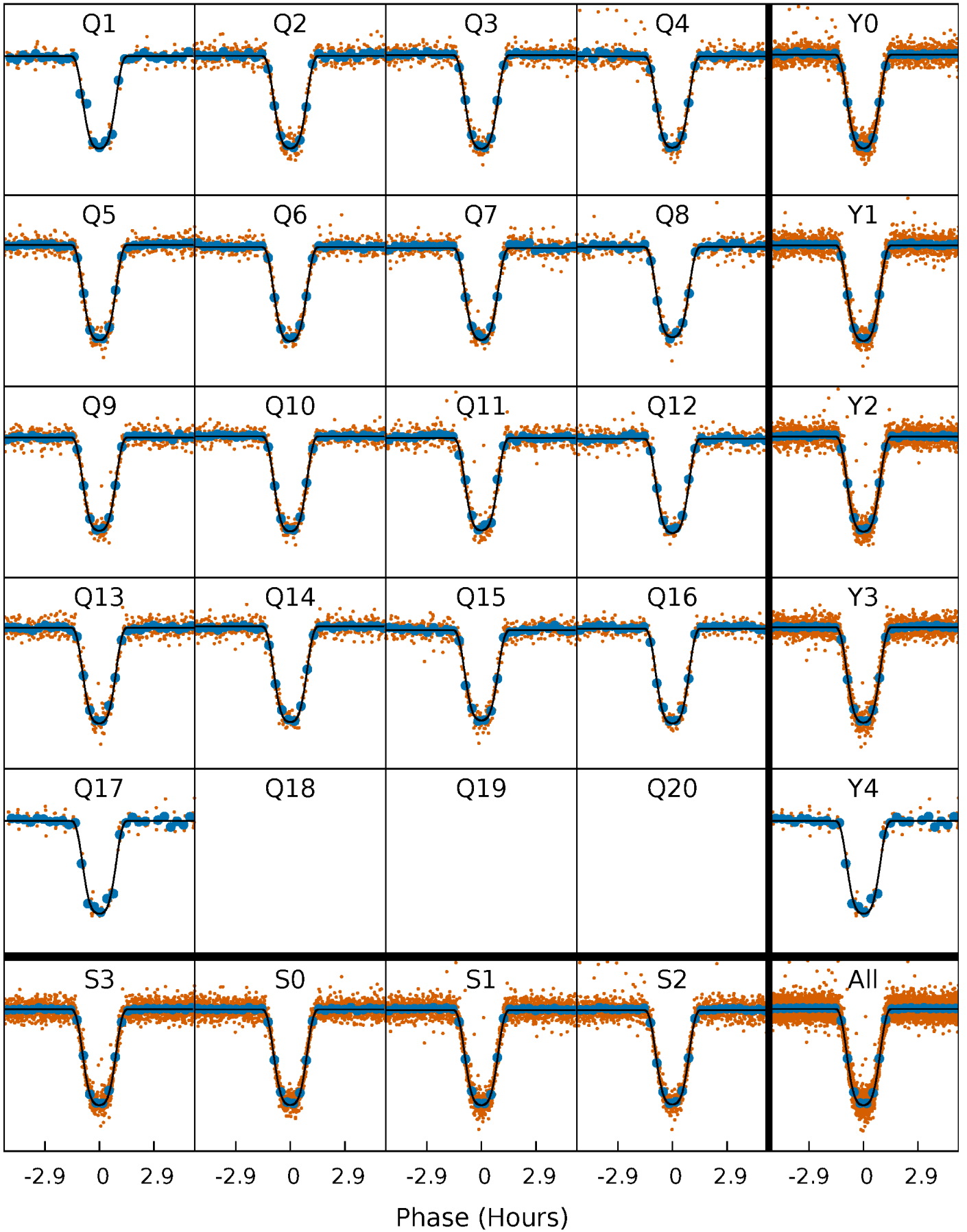
PDC Quarter-Phased Transit Curves

TCE 005443837-01 P= 3.658496 Days $T_0=133.958828$ (BKJD)



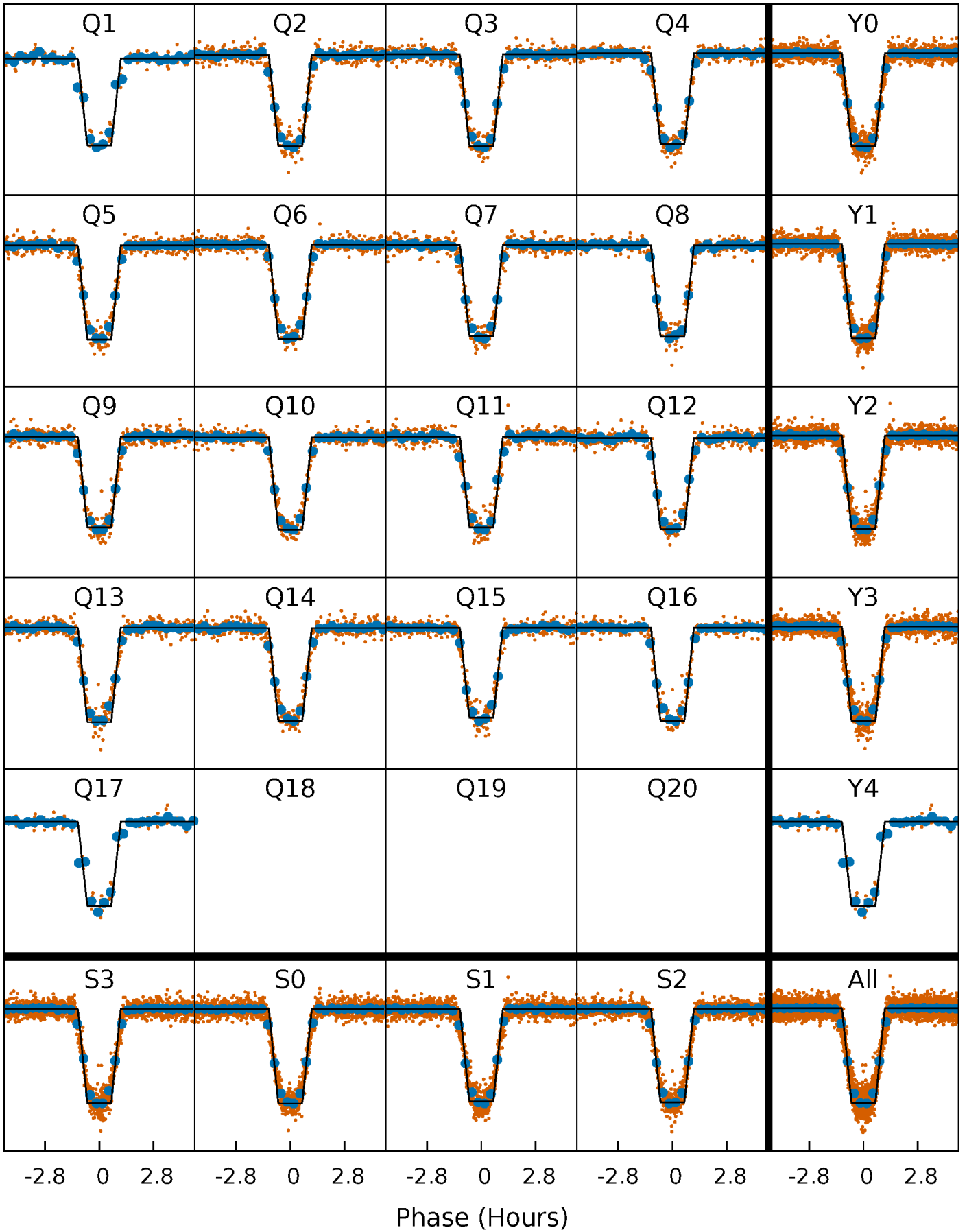
DV Quarter-Phased Transit Curves

TCE 005443837-01 P= 3.658496 Days $T_0=133.958828$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

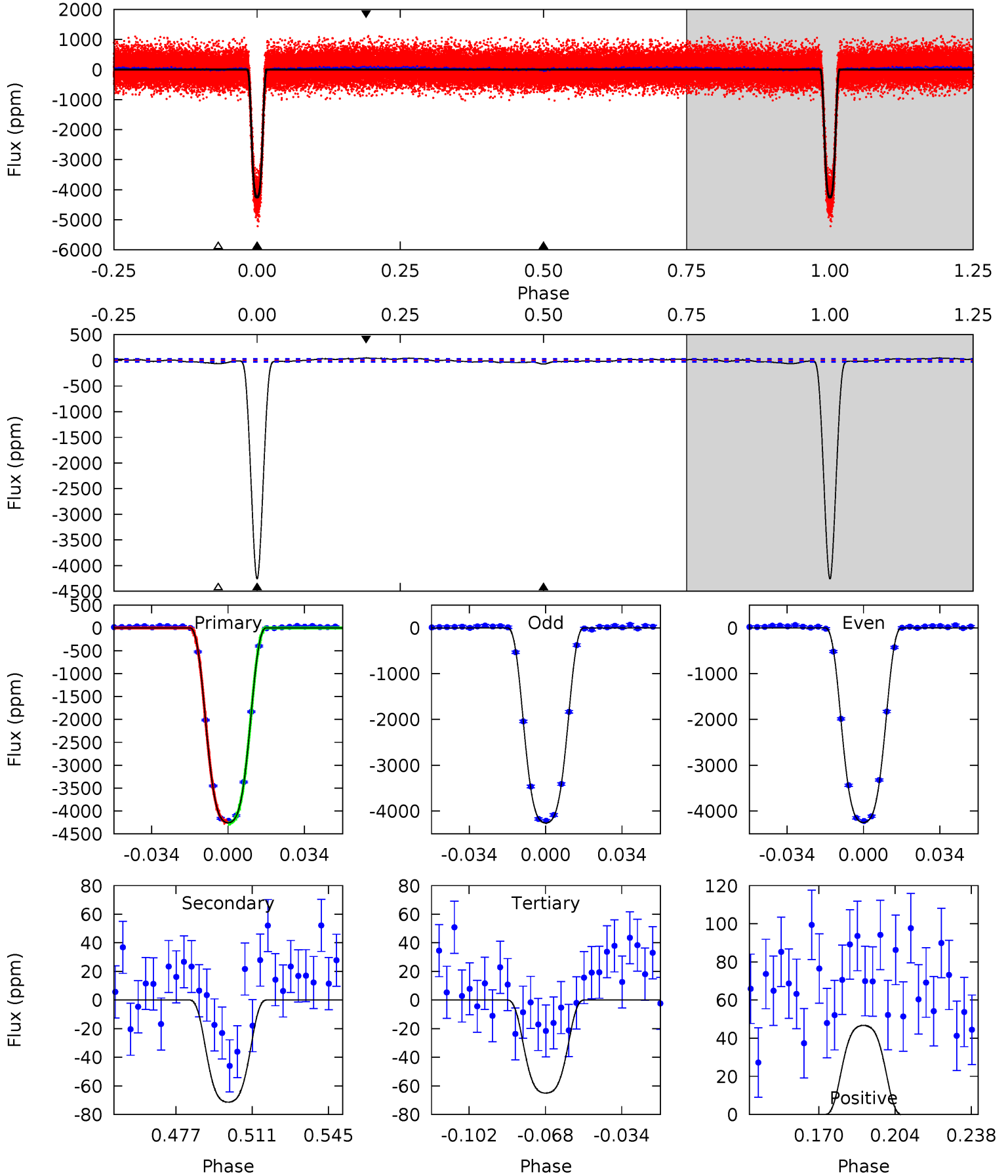
TCE 005443837-01 P= 3.658497 Days $T_0=133.958711$ (BKJD)



DV Model-Shift Uniqueness Test

005443837-01, P = 3.658496 Days, E = 130.300332 Days

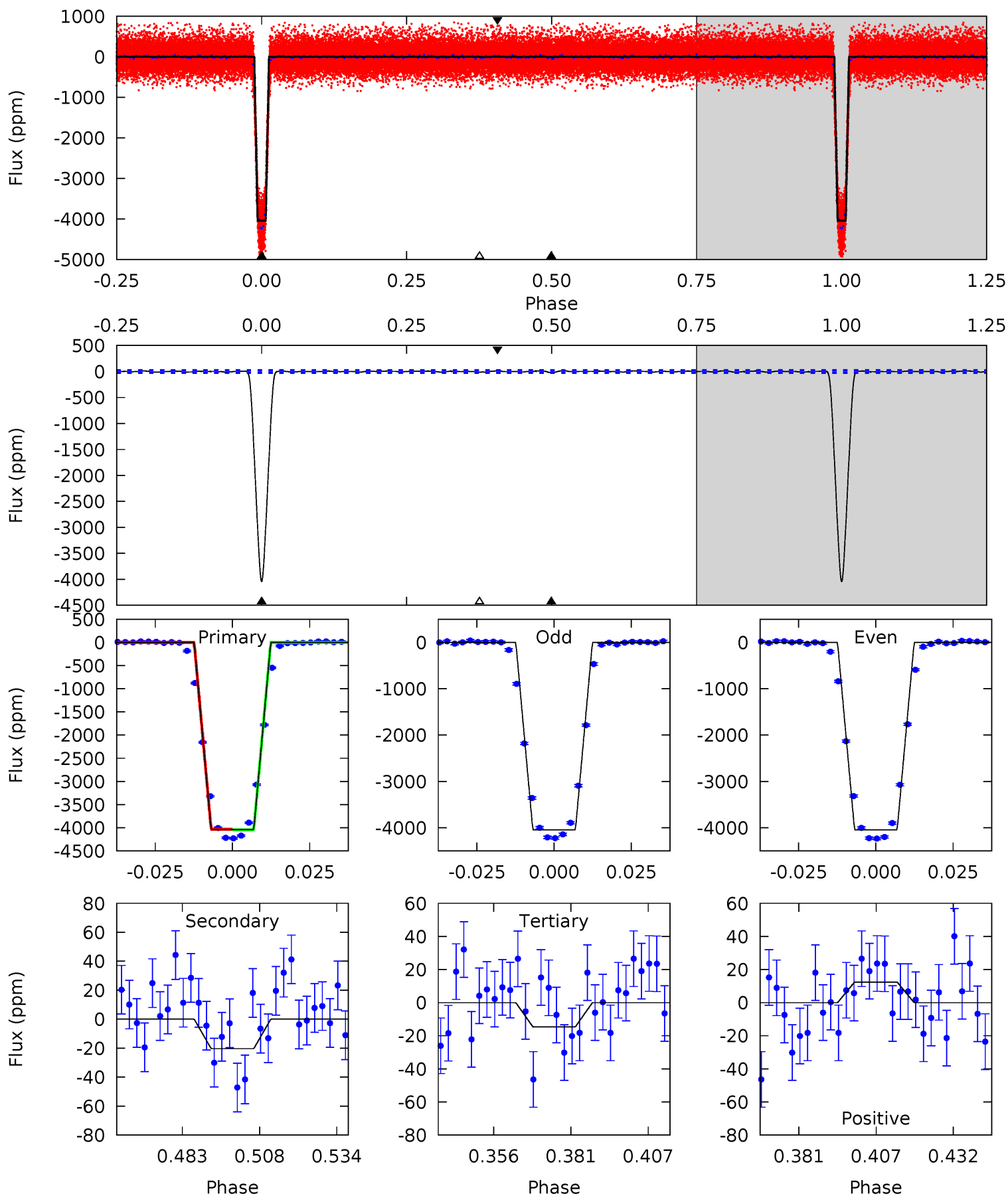
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
721.1	12.1	11.0	7.91	4.79	2.12	4.40	710.1	713.2	1.07	4.18	0.97	1.00	0.01	1.82



Alt Model-Shift Uniqueness Test

005443837-01, P = 3.658497 Days, E = 130.300214 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
753.8	3.79	2.72	2.31	4.84	2.24	1.02	751.0	751.4	1.07	1.48	0.11	1.00	0.00	0



Stellar Parameters For KIC 005443837

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5857^{+78}_{-78}	$3.972^{+0.203}_{-0.087}$	$0.040^{+0.150}_{-0.150}$	$1.822^{+0.282}_{-0.423}$	$1.135^{+0.137}_{-0.112}$	$0.264^{+0.289}_{-0.072}$
	+1%/-1%	+5%/-2%	+375%/-375%	+15%/-23%	+12%/-10%	+109%/-27%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 005443837-01 / KOI 0554.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-71 ± 6	$14.26^{+1.27}_{-1.81}$	2199^{+95}_{-136}	2429^{+106}_{-153}	$0.463^{+0.134}_{-0.082}$
Alt.	-20 ± 5	$12.77^{+1.11}_{-1.52}$	2194^{+88}_{-123}	-2365^{+179}_{-134}	$0.167^{+0.056}_{-0.053}$

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

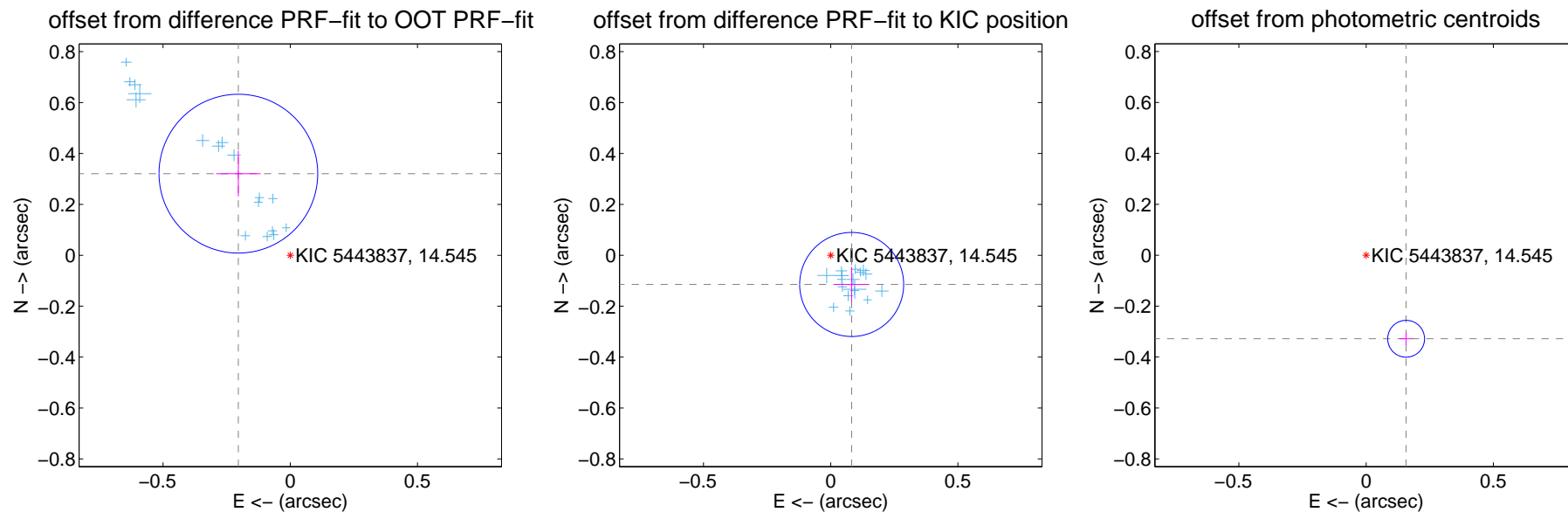
DV Centroid Data

Supplemental centroid analysis for 005443837-01. Kepler magnitude: 14.54. Transit SNR 363.59

There are 17 quarters with good PRF difference image offsets

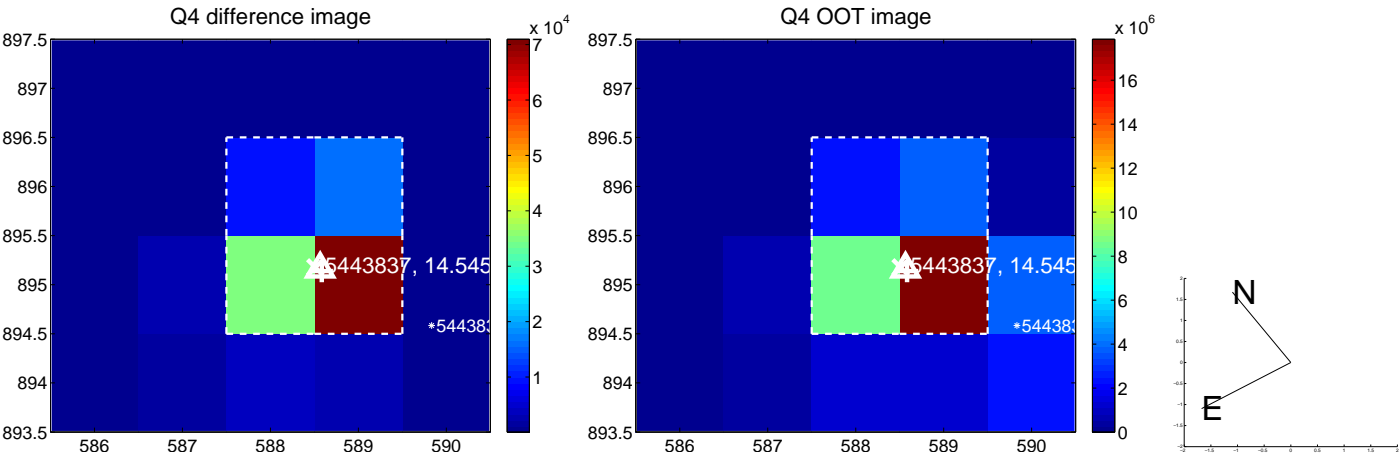
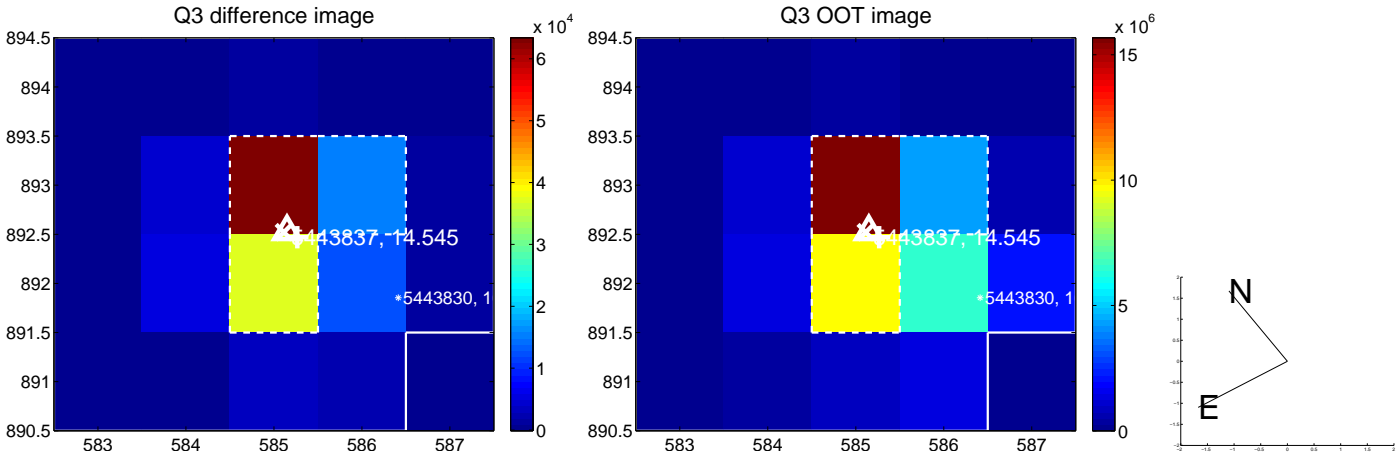
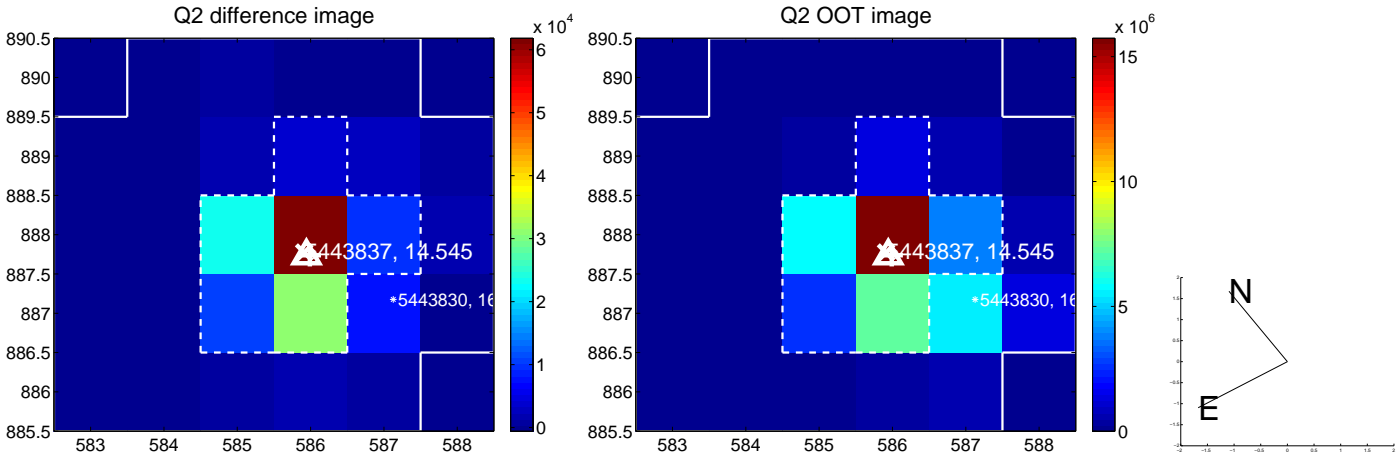
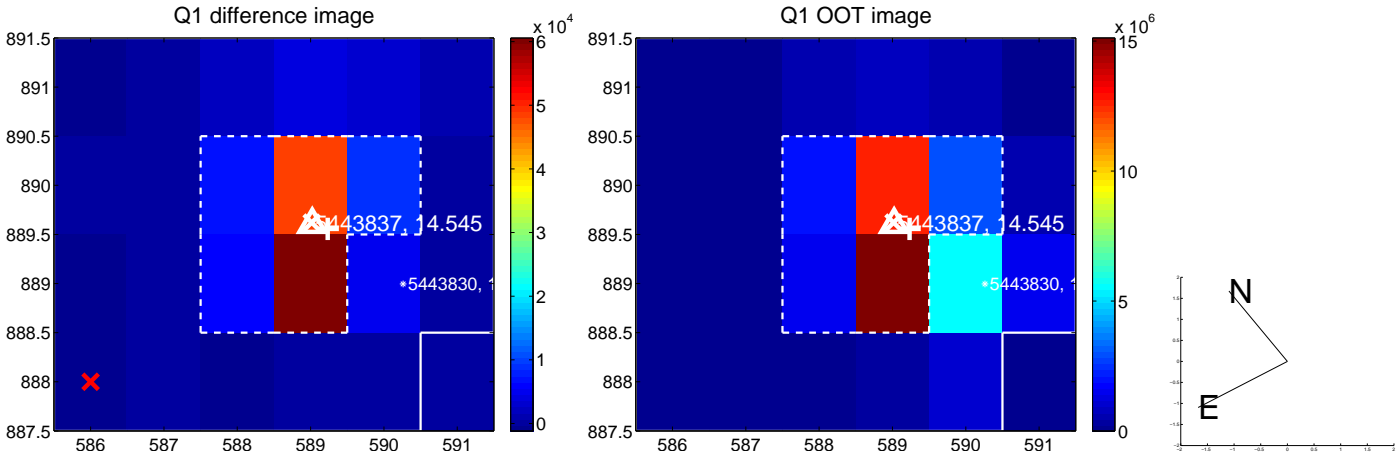
The direct PRF centroid is offset from the target star catalog position by about 1.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.380 ± 0.104	3.65	0.204 ± 0.087	0.321 ± 0.089
PRF-fit source offset from KIC position	0.141 ± 0.068	2.07	-0.082 ± 0.068	-0.115 ± 0.068
photometric centroid source offset	0.36 ± 0.02	15.08	-0.16 ± 0.03	-0.33 ± 0.02

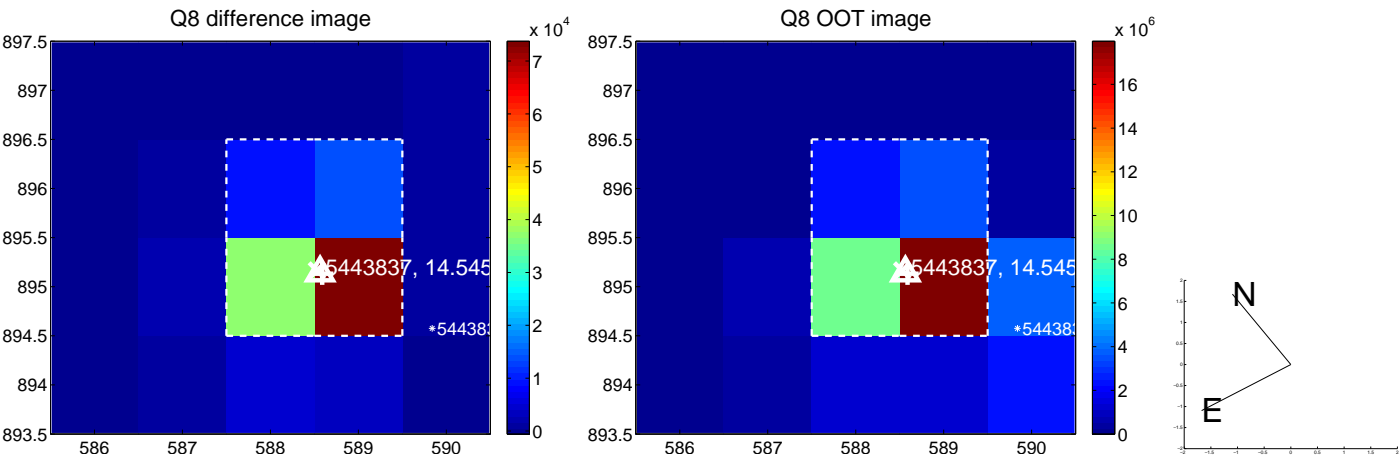
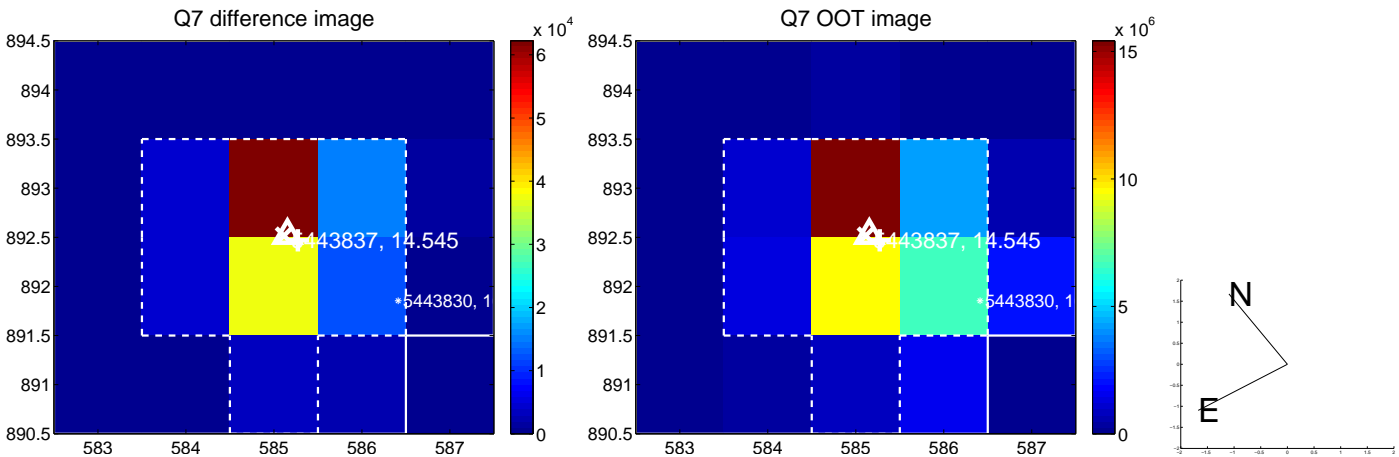
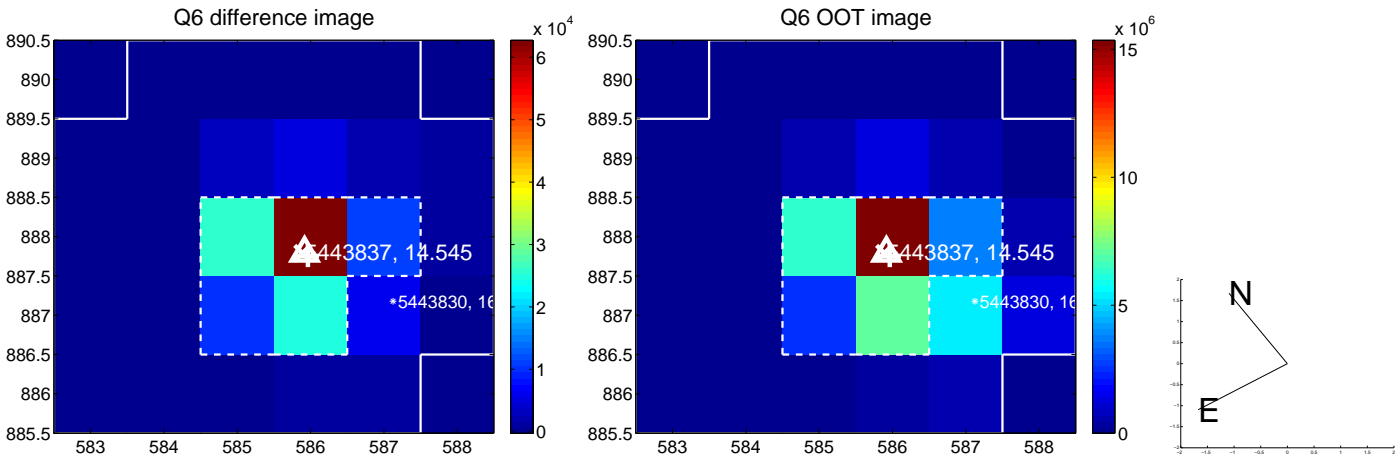
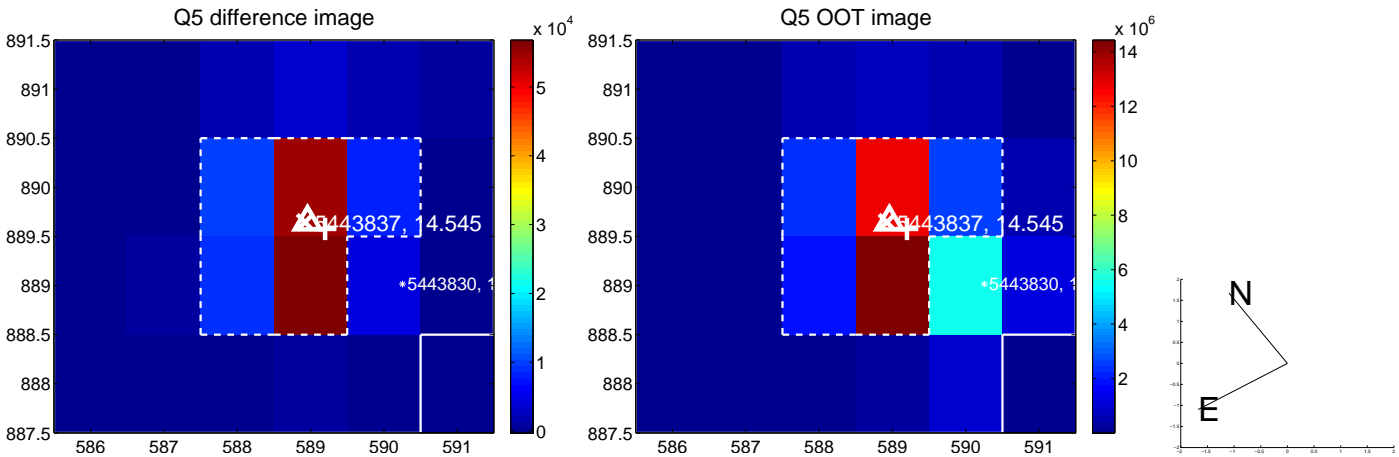


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

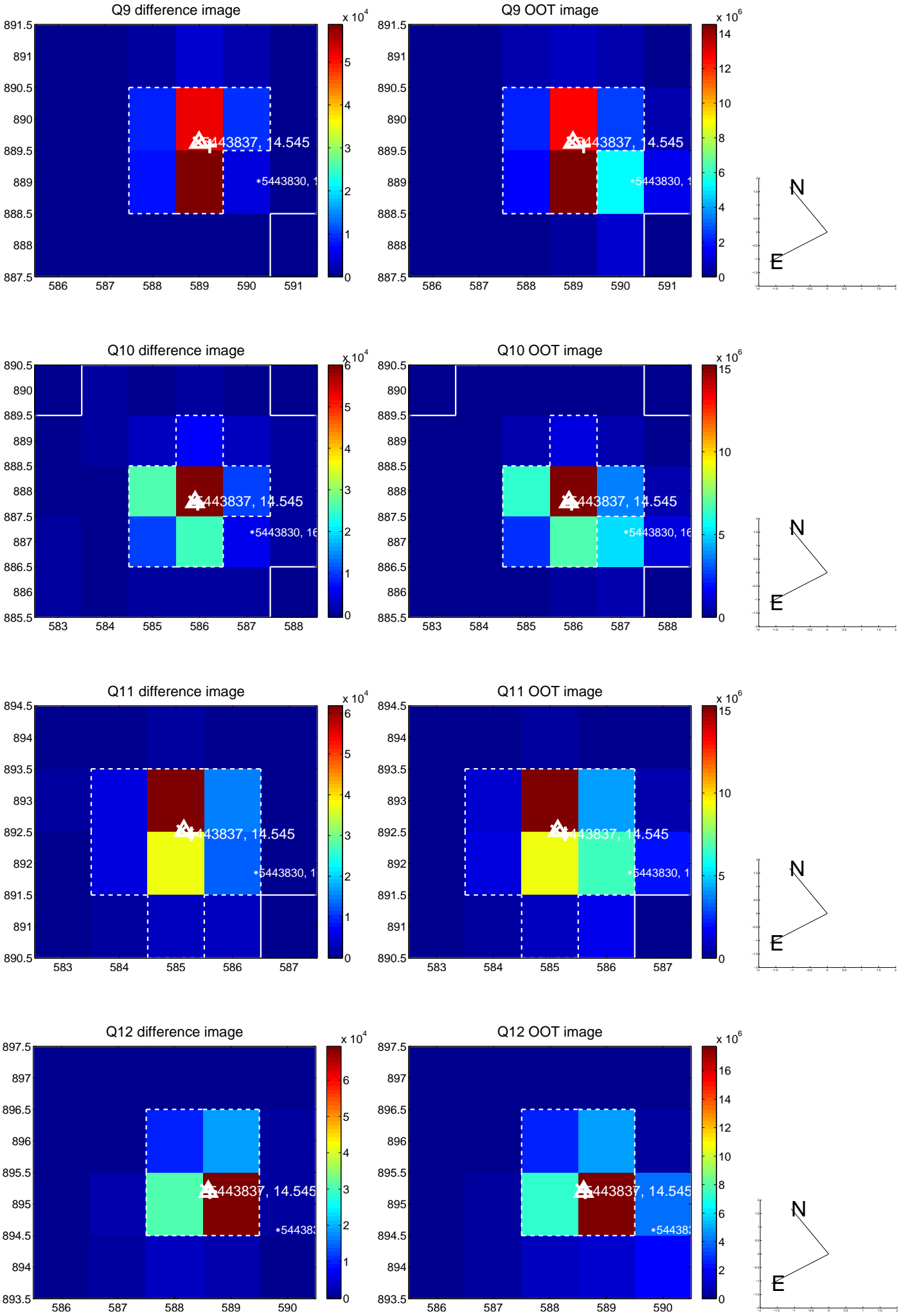
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



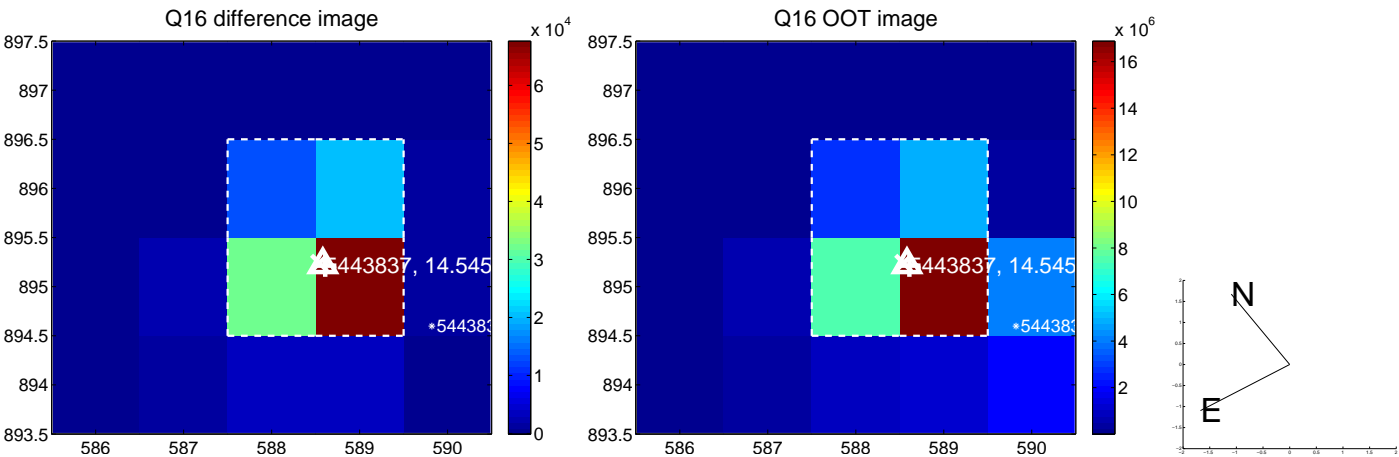
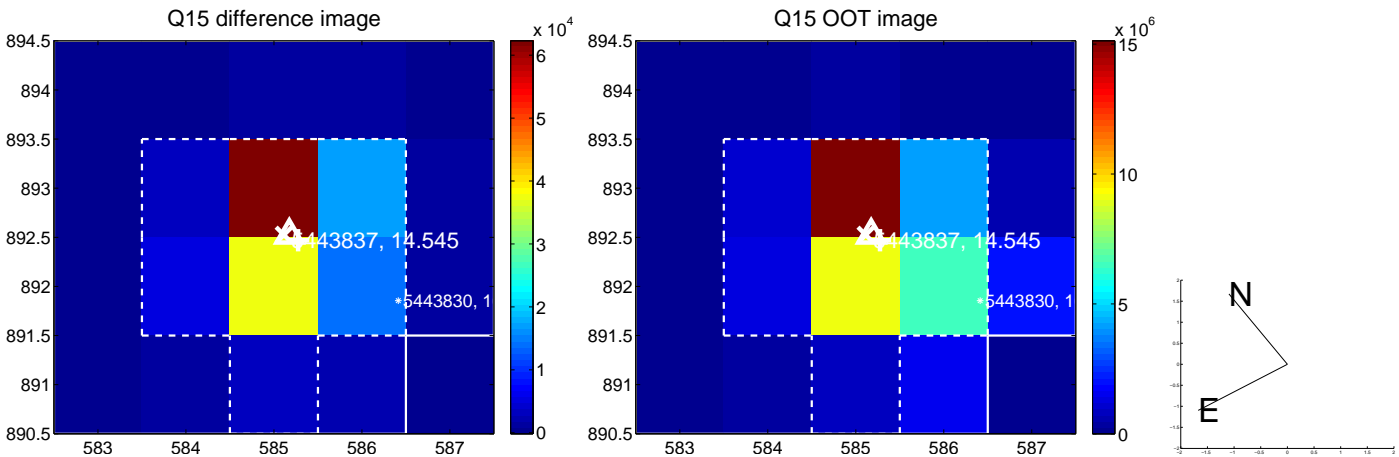
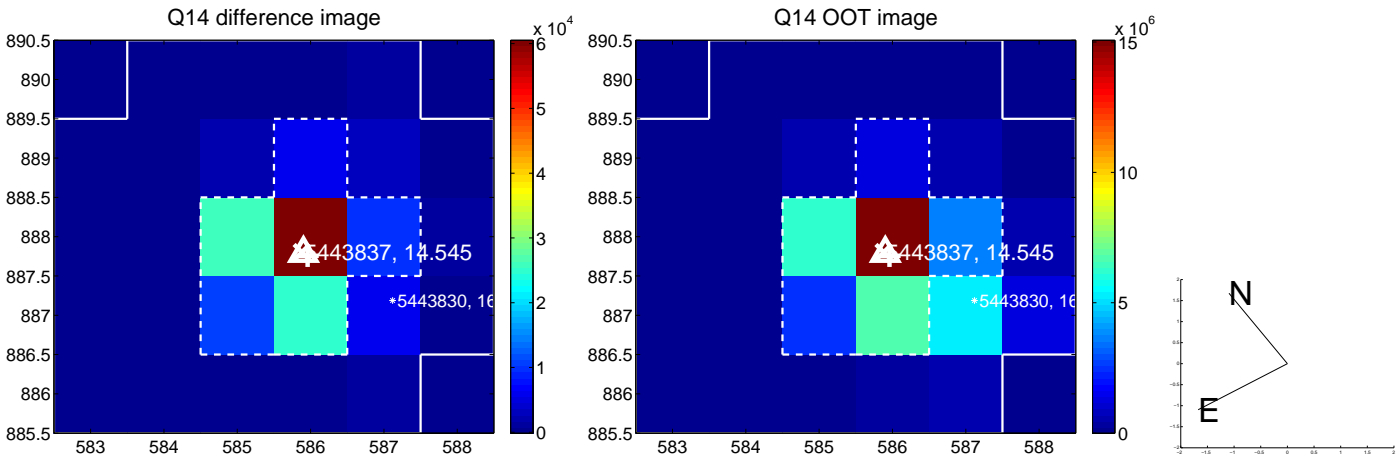
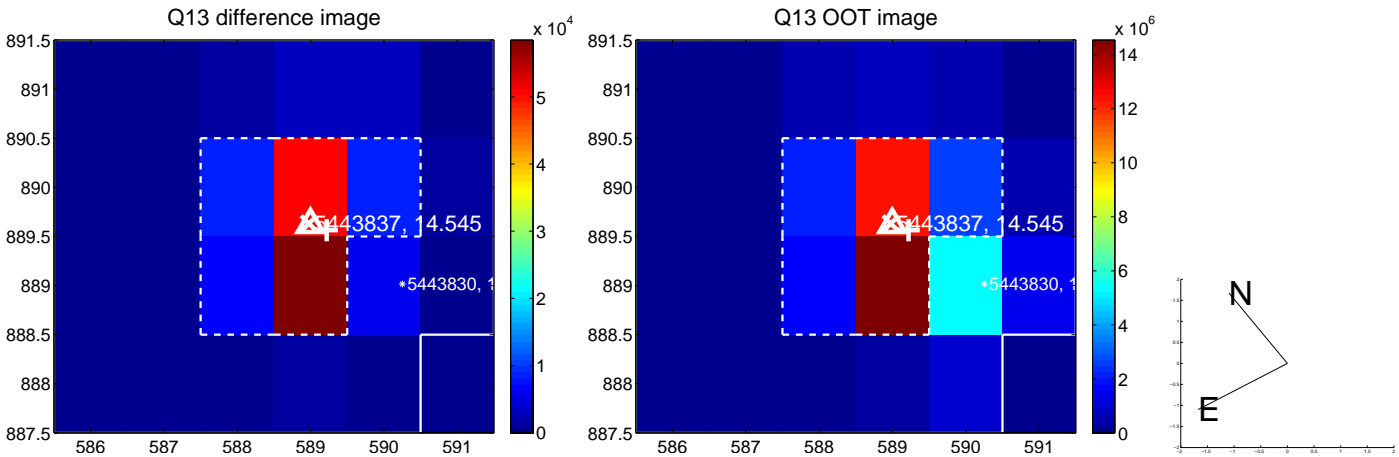
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



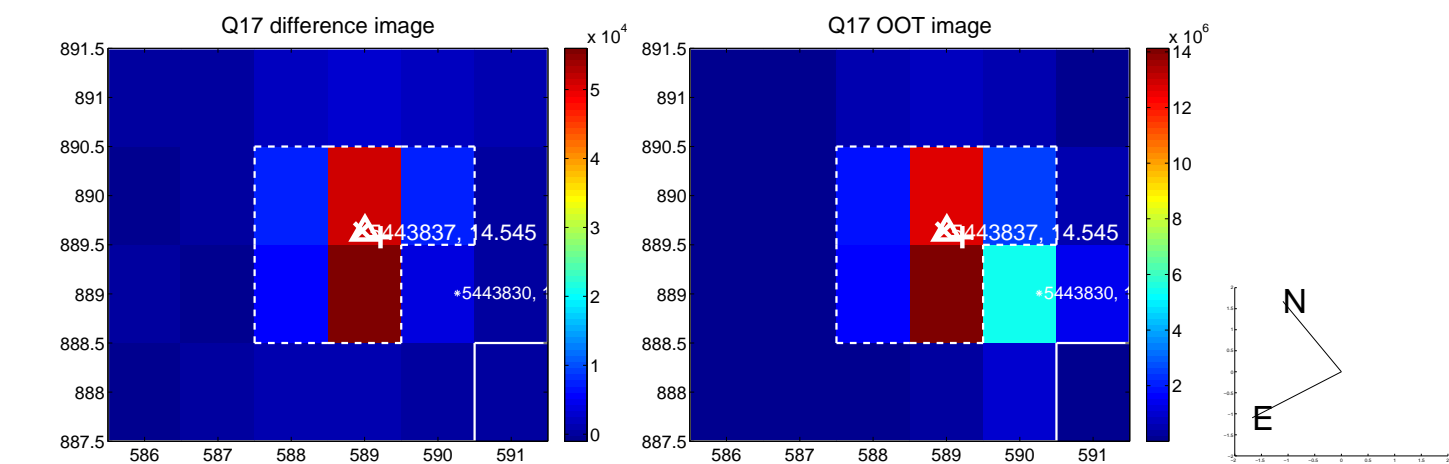
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



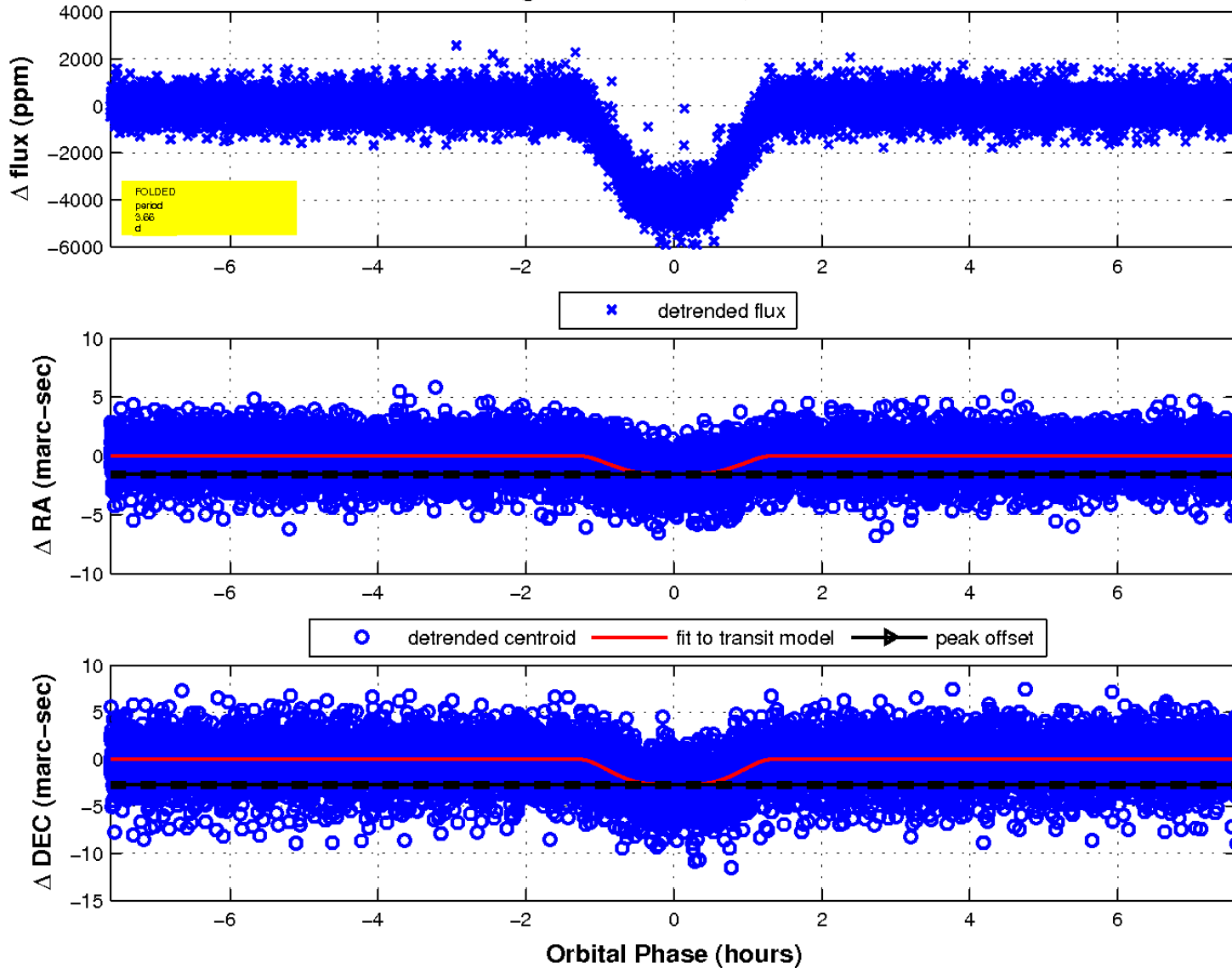
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

