

KIC 008554498

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})
008554498-01	OBS	0005.01	4.780329	132.974007	961.0	2.061	360.2	358.0	1.79	5937	7.14	1021.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008554498-01	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.

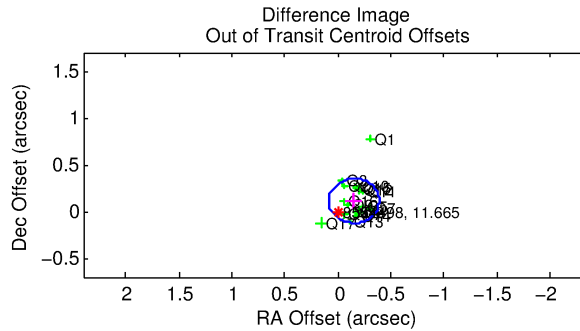
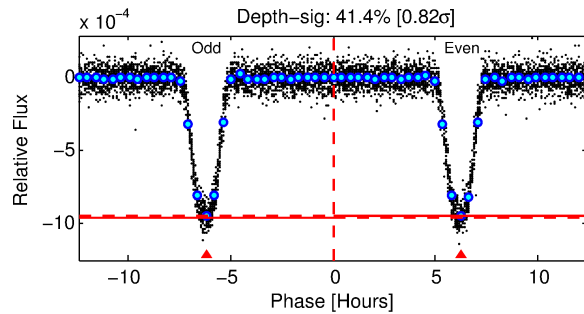
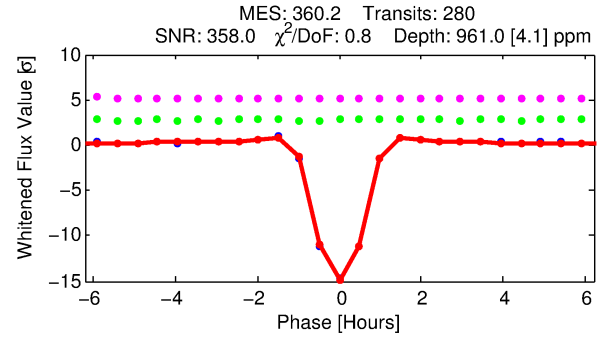
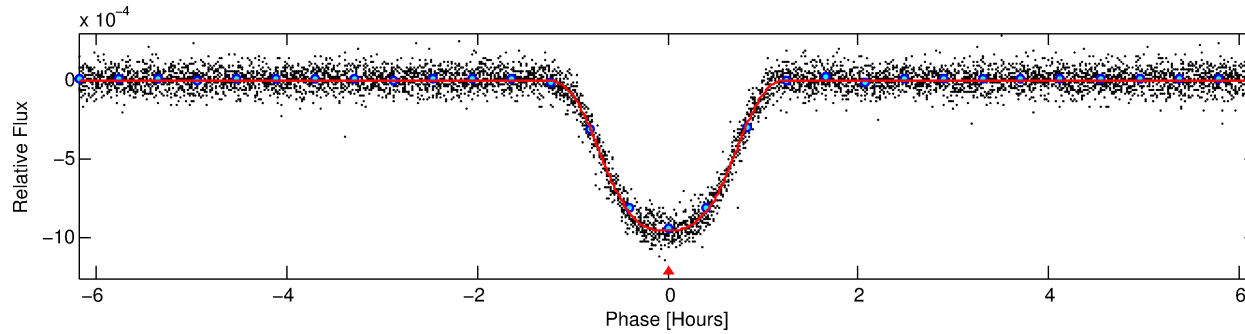
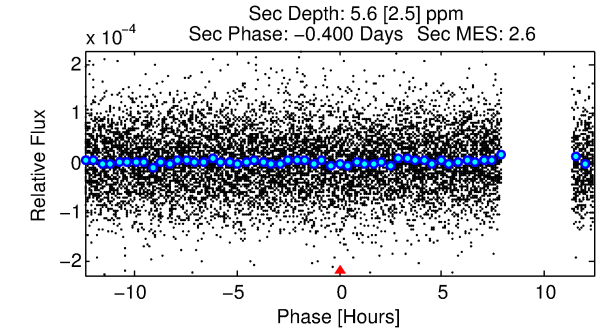
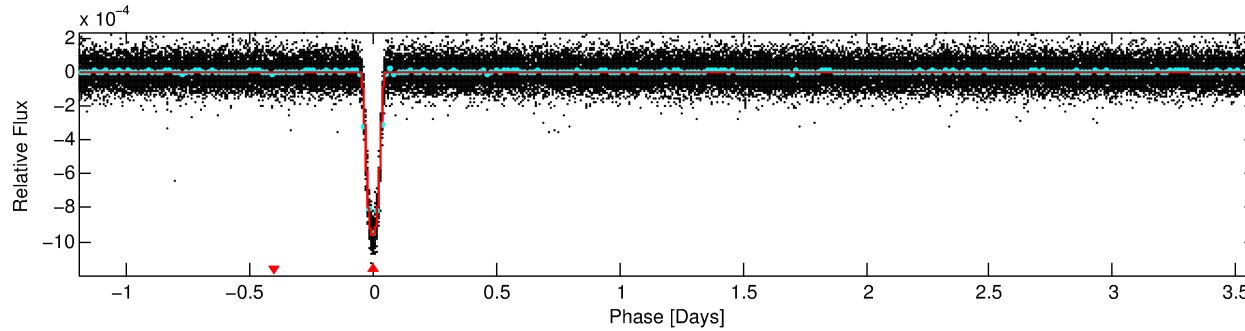
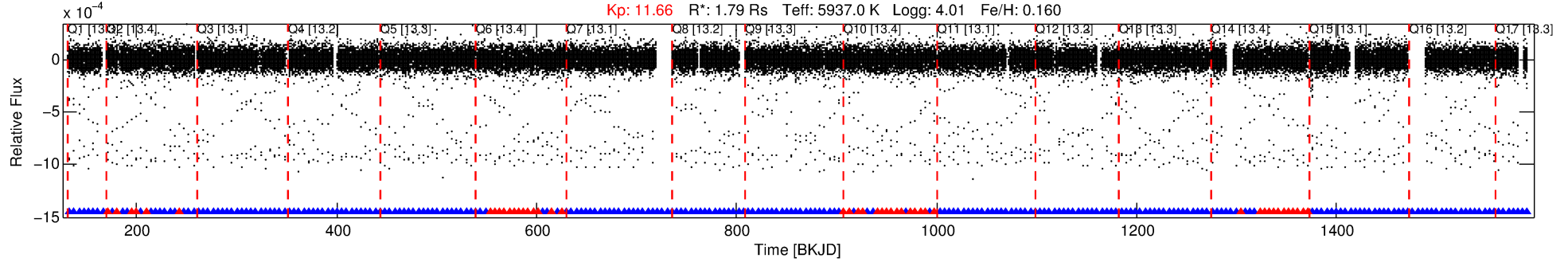
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008554498-01

No Significant Match Found

DV One-Page Summary

KIC: 8554498 Candidate: 1 of 1 Period: 4.780 d
KOI: K00005.01 Corr: 0.994



DV Fit Results:

Period = 4.78033 [0.00000] d
Epoch = 132.9740 [0.0001] BKJD
Rp/R* = 0.0366 [0.0001]
a/R* = 7.18 [0.07]
b = 0.96 [0.00]
Seff = 1021.65 [89.49]
Teq = 1442 [32] K
Rp = 7.14 [0.53] Re
a = 0.0590 [0.0032] AU
Ag = 0.21 [0.10] [-8.18 σ]
Teffp = 1510 [172] K [0.39 σ]

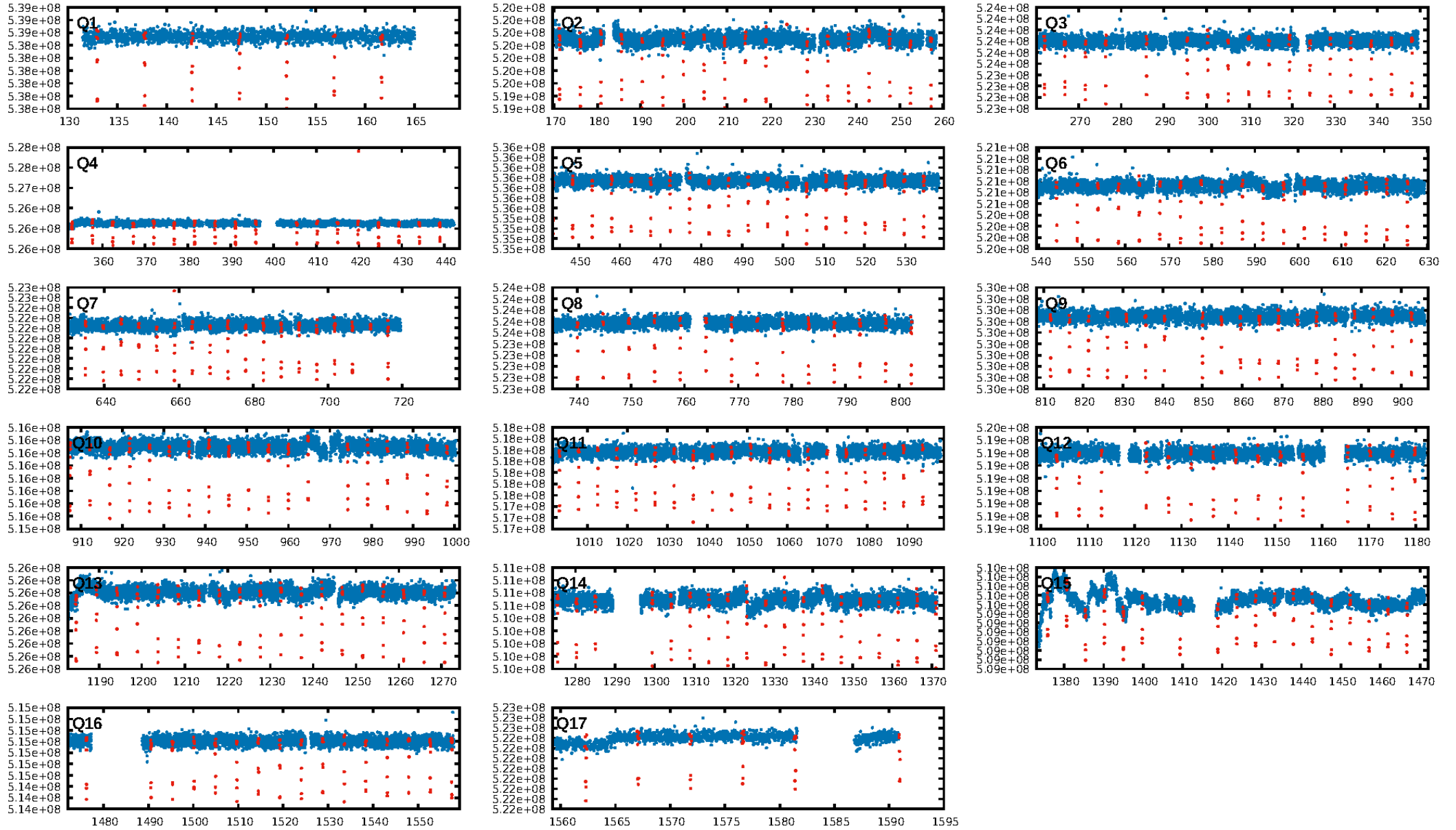
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.83 [221/267]
GhostDiagnostic-chr: 20.44
Centroid-sig: 0.0%
Centroid-so: 0.051 arcsec [1.47 σ]
OotOffset-rm: 0.190 arcsec [2.41 σ]
KicOffset-rm: 0.128 arcsec [1.79 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]

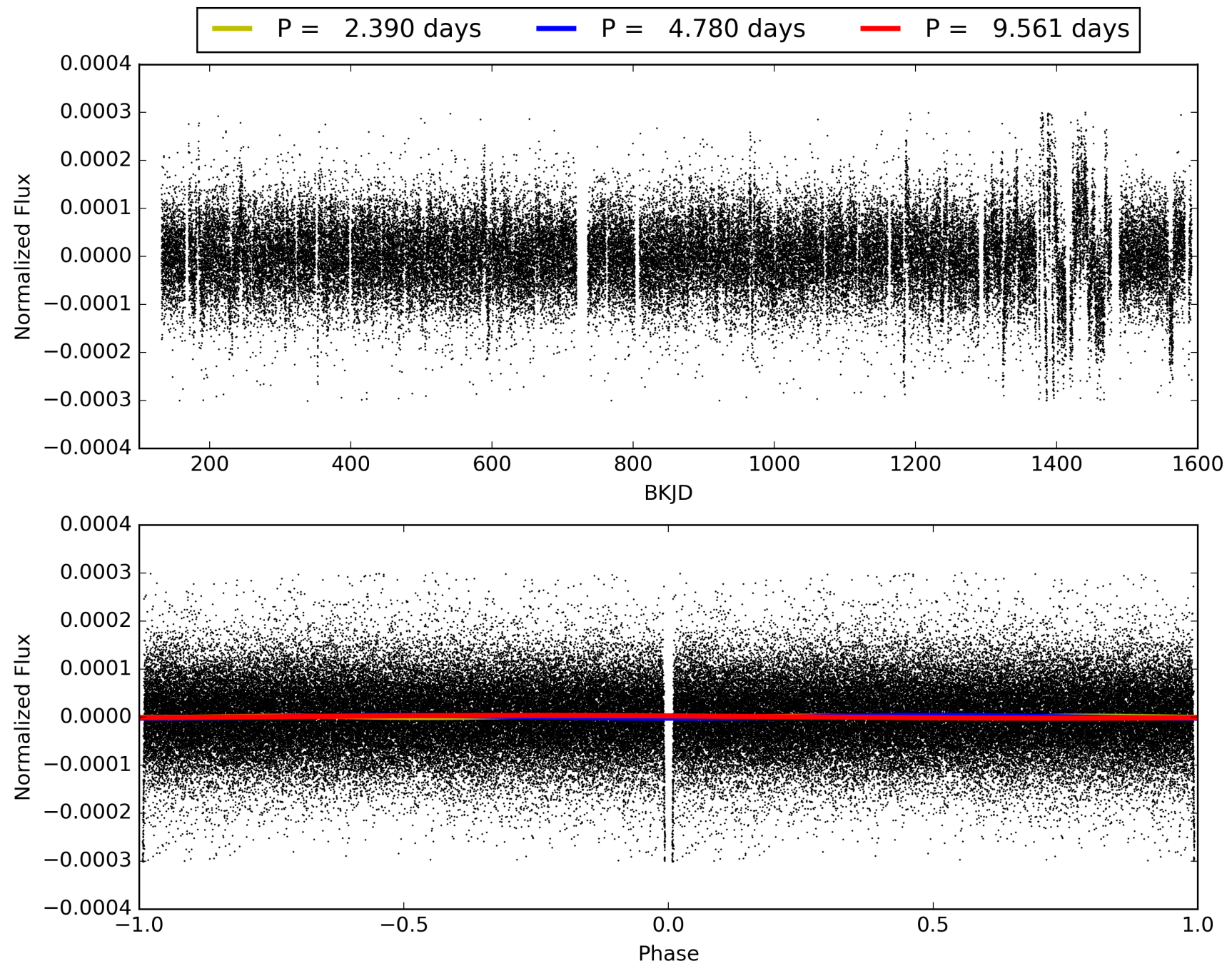
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:57:52 Z

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

TCE 008554498-01, PDC Light Curves

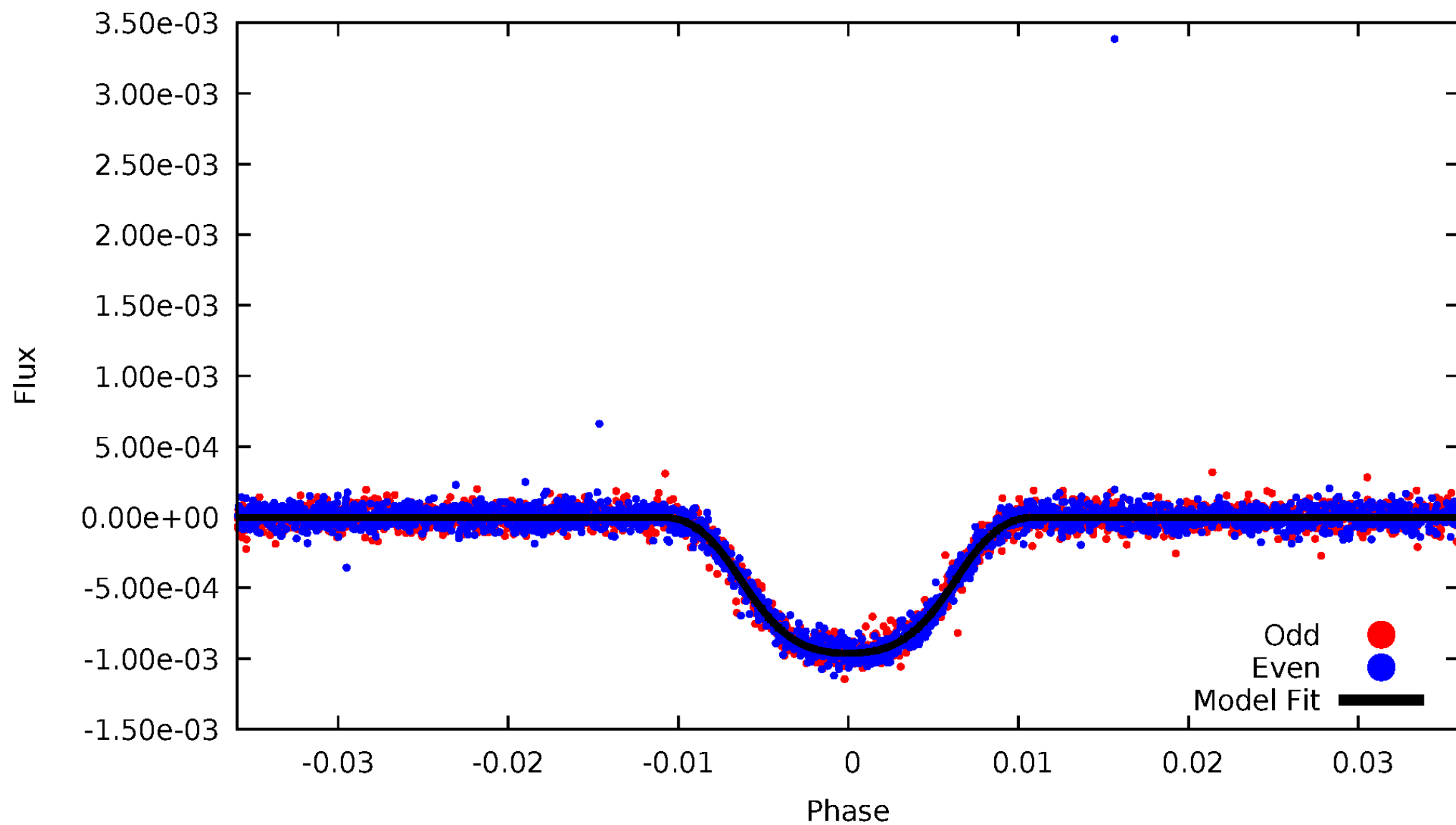


TCE 008554498-01



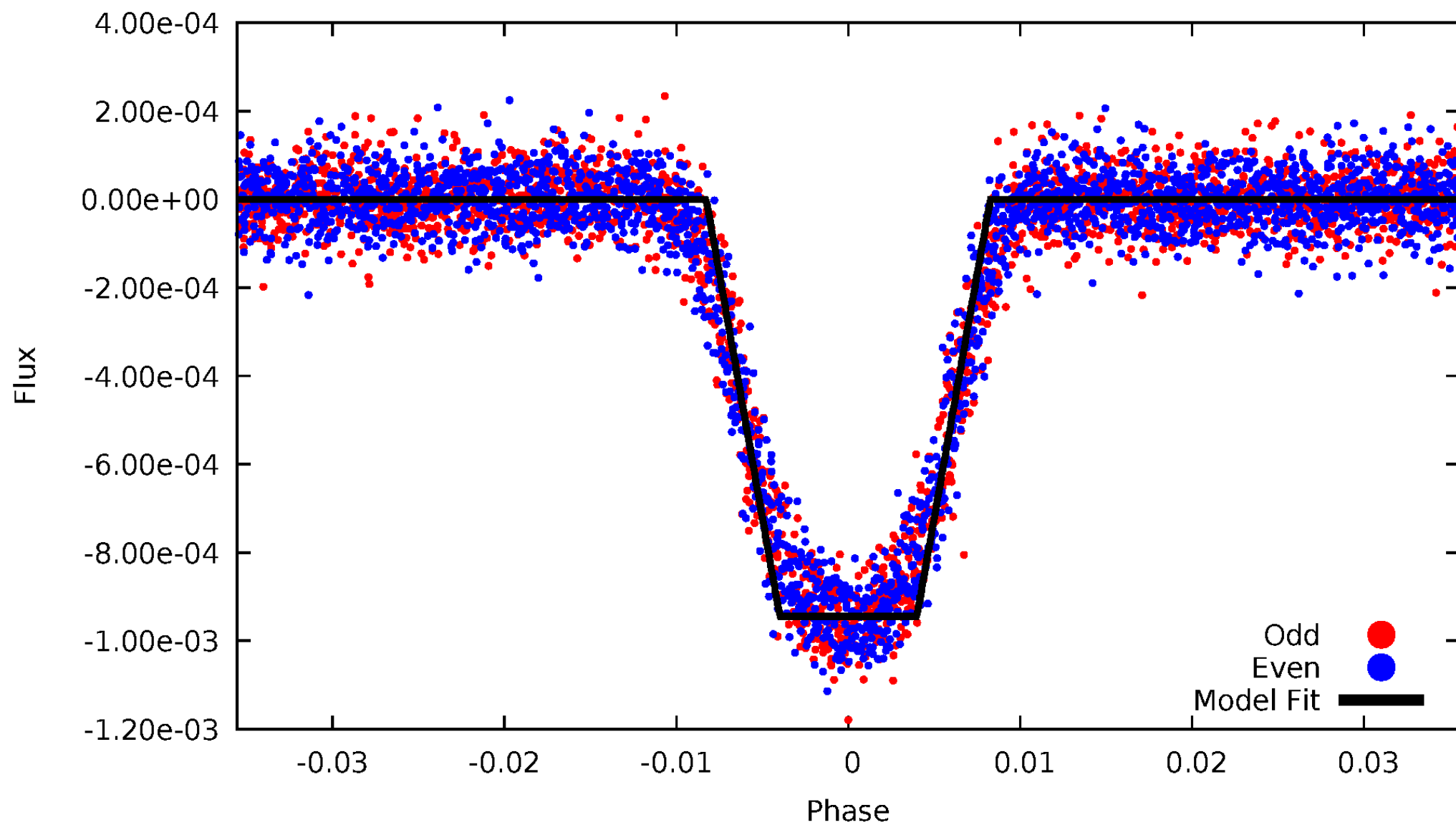
DV Odd/Even

TCE 008554498-01



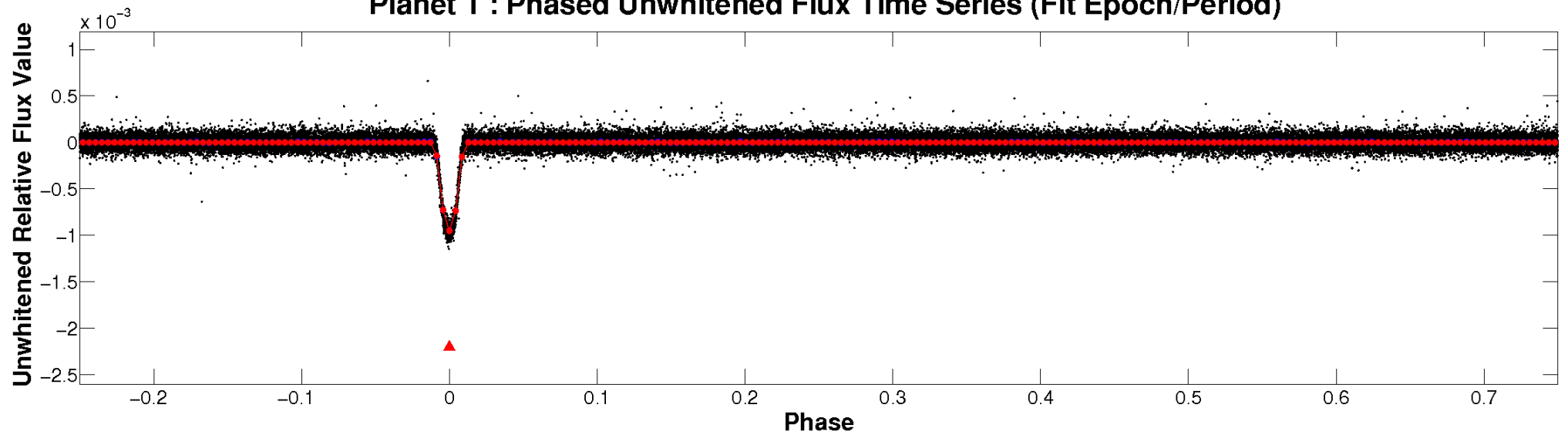
ALT Odd/Even

TCE 008554498-01

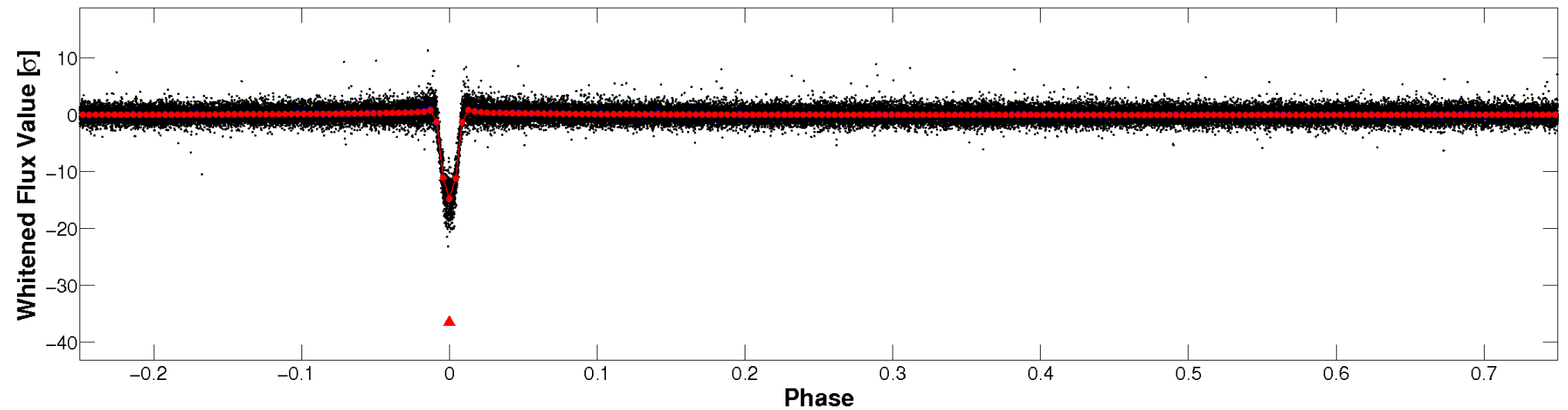


Non-Whitened Vs. Whitened Light Curve

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

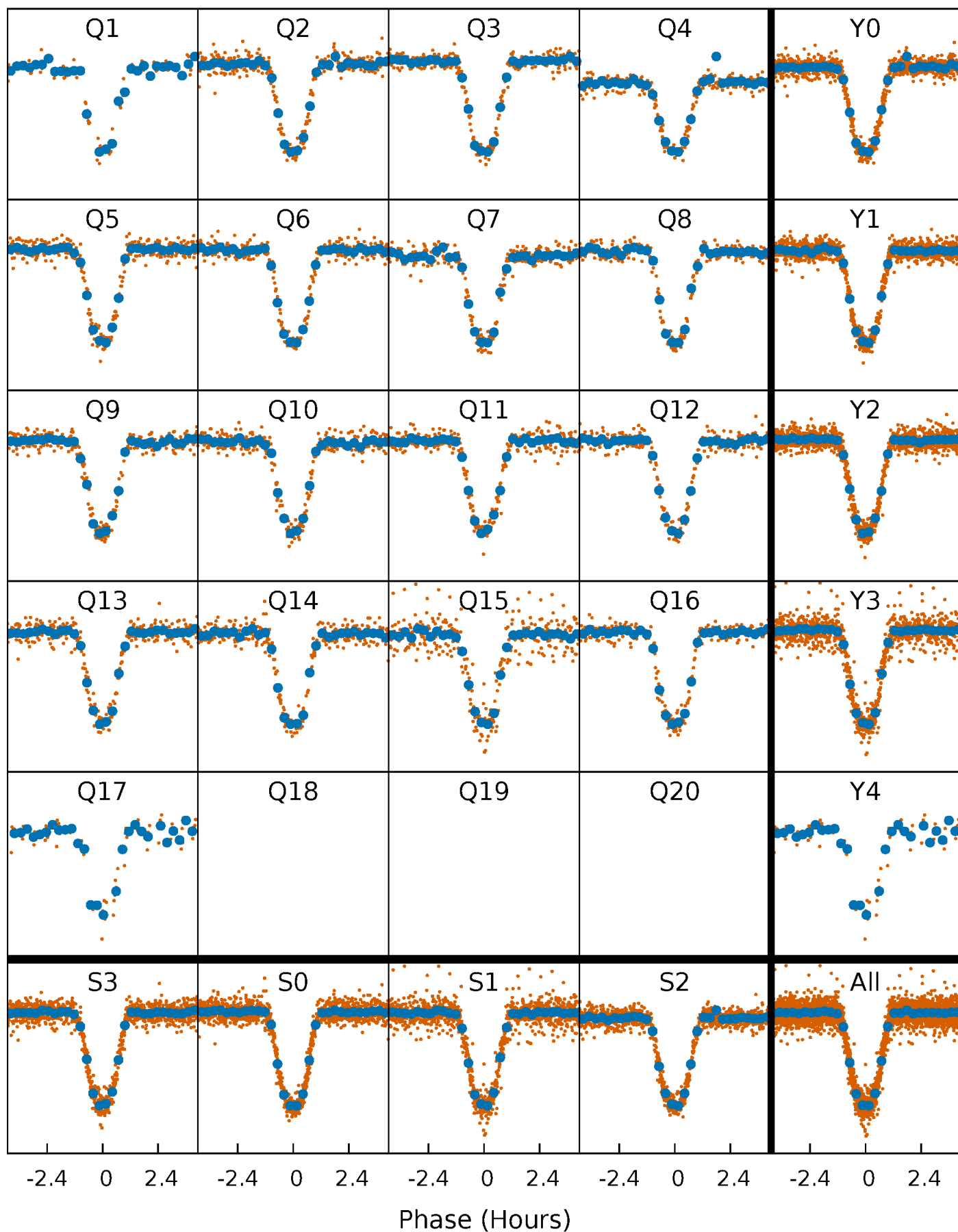


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



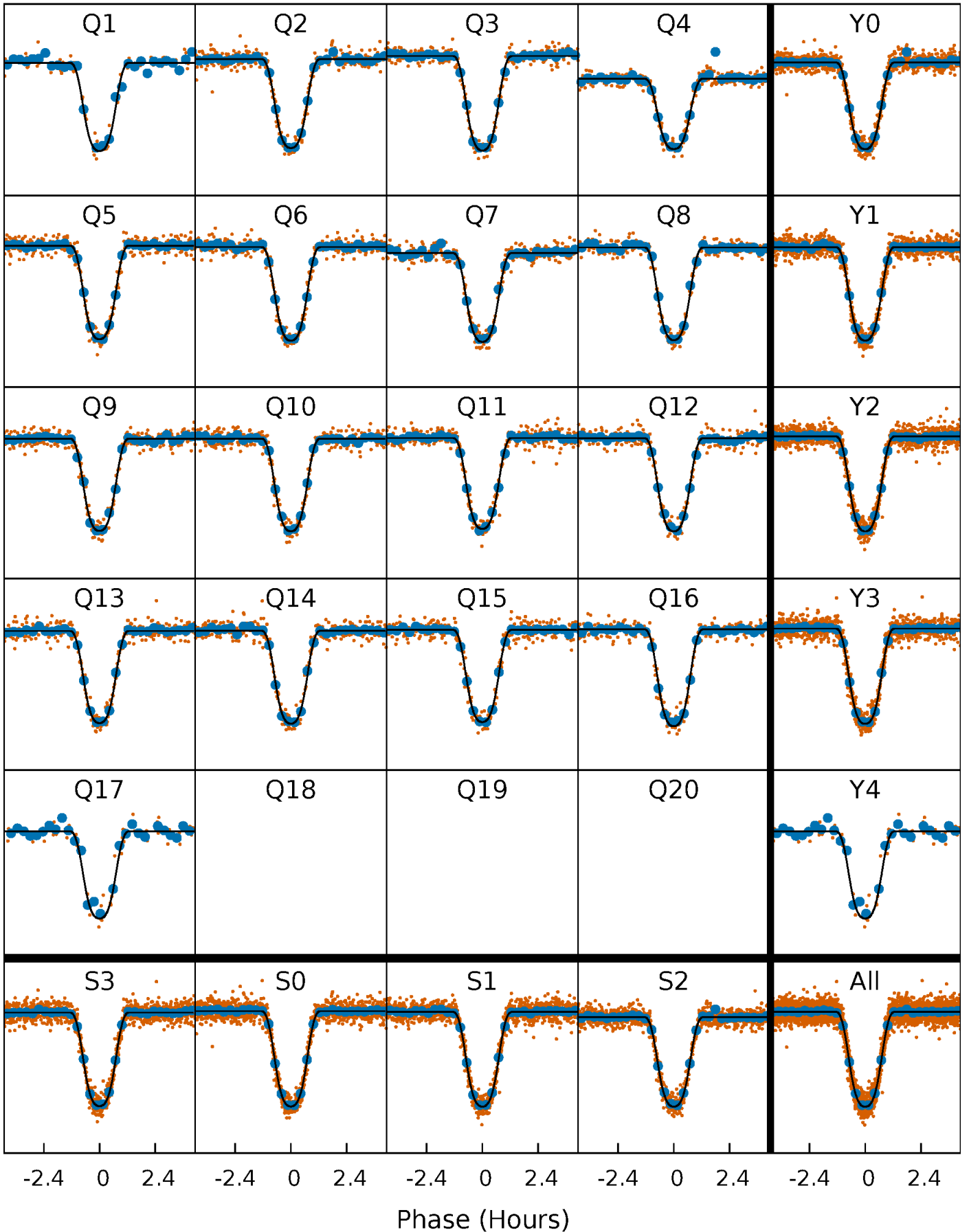
PDC Quarter-Phased Transit Curves

TCE 008554498-01 P= 4.780329 Days $T_0=132.974007$ (BKJD)



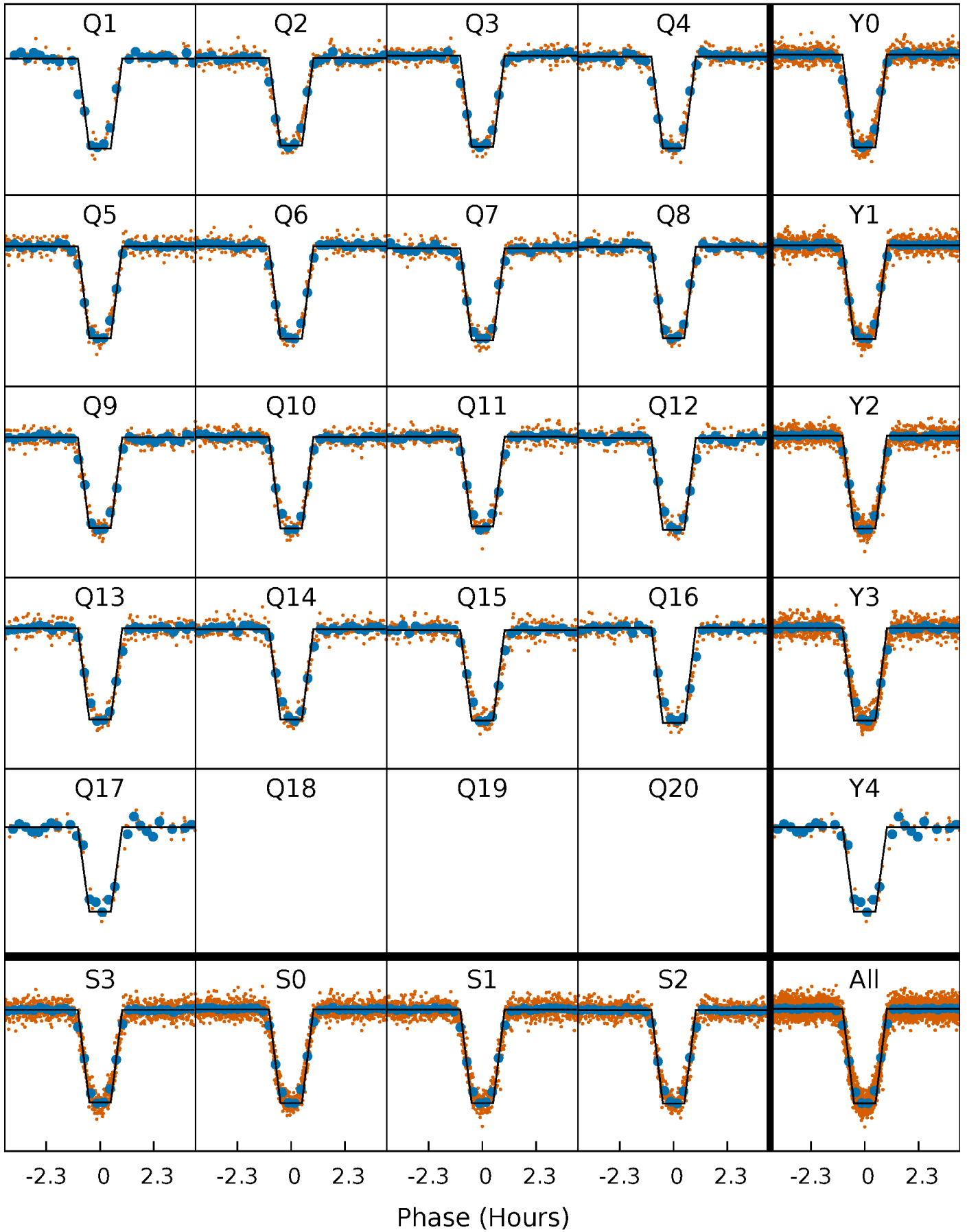
DV Quarter-Phased Transit Curves

TCE 008554498-01 P= 4.780329 Days $T_0=132.974007$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

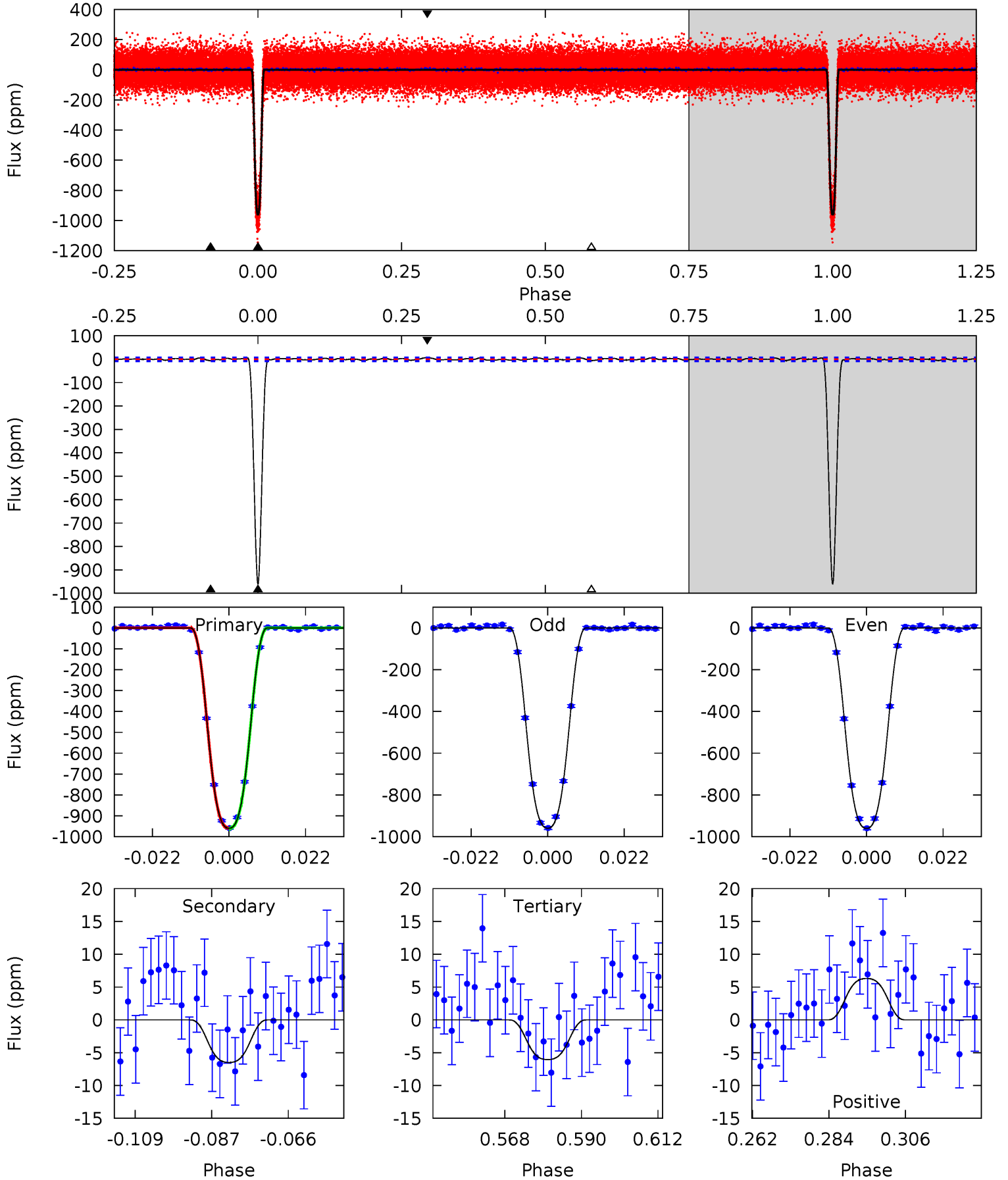
TCE 008554498-01 P= 4.780302 Days $T_0=132.977892$ (BKJD)



DV Model-Shift Uniqueness Test

008554498-01, P = 4.780329 Days, E = 128.193678 Days

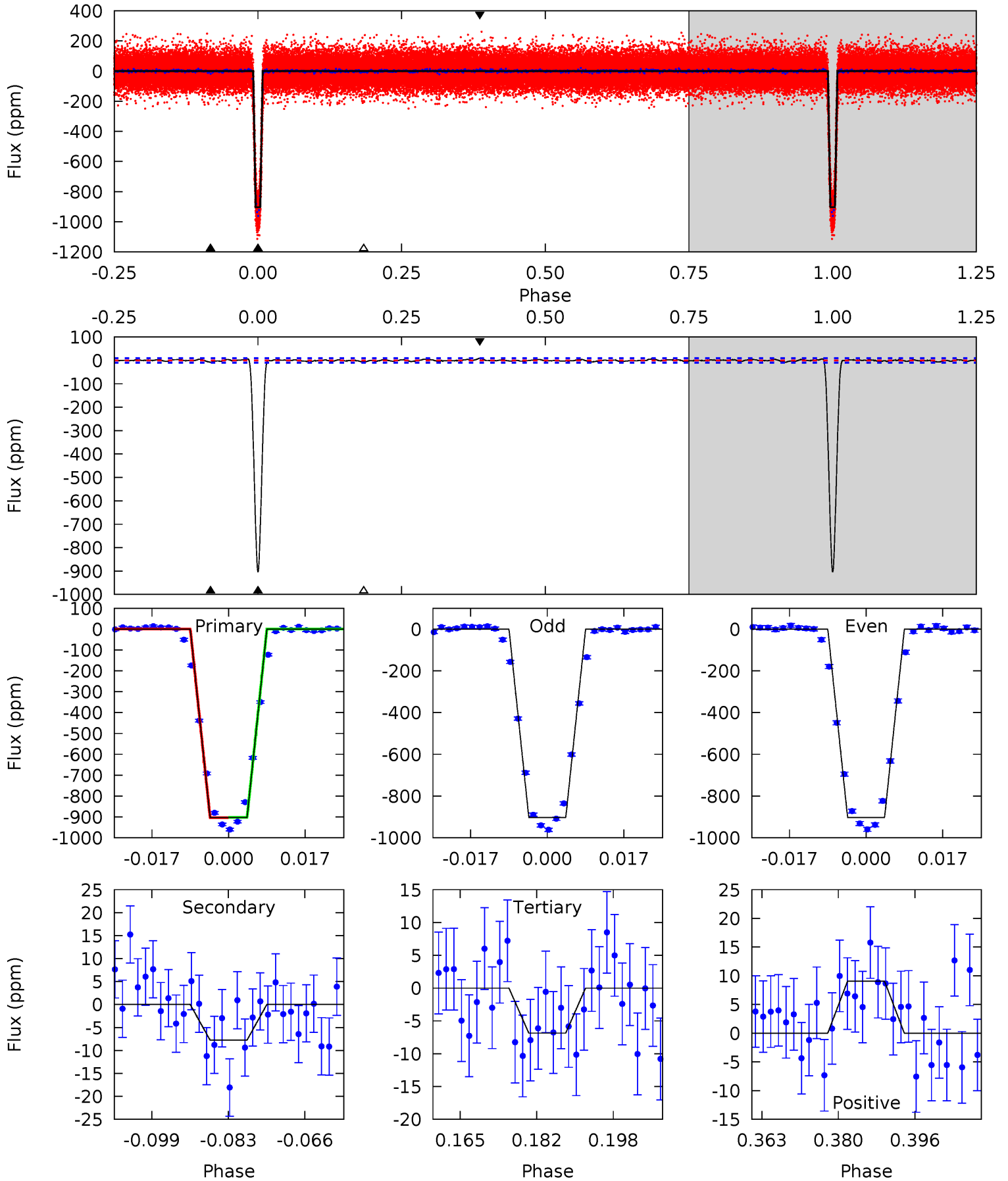
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
590.1	3.99	3.72	3.88	4.87	2.29	1.53	586.4	586.3	0.27	0.12	0.27	1.00	0.01	0.39



Alt Model-Shift Uniqueness Test

008554498-01, P = 4.780302 Days, E = 128.197590 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
473.0	4.06	3.59	4.75	4.93	2.40	1.33	469.4	468.2	0.47	-0.69	0.05	1.01	0.01	0.34



Stellar Parameters For KIC 008554498

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5937^{+83}_{-65}	$4.012^{+0.030}_{-0.030}$	$0.160^{+0.100}_{-0.100}$	$1.787^{+0.132}_{-0.076}$	$1.197^{+0.150}_{-0.053}$	$0.295^{+0.036}_{-0.035}$
	+1%/-1%	+1%/-1%	+62%/-62%	+7%/-4%	+13%/-4%	+12%/-12%
Source	SPE69	AST69	SPE69	DSEP		

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

Secondary Eclipse Parameters for KIC 008554498-01 / KOI 0005.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-6 ± 2	$7.11^{+0.31}_{-0.18}$	2015^{+37}_{-34}	-2086^{+3690}_{-166}	$0.240^{+0.063}_{-0.058}$
Alt.	-8 ± 2	$5.99^{+0.28}_{-0.16}$	2016^{+39}_{-34}	2233^{+178}_{-484}	$0.412^{+0.104}_{-0.101}$

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 $A_{obs} \gg 1.0$

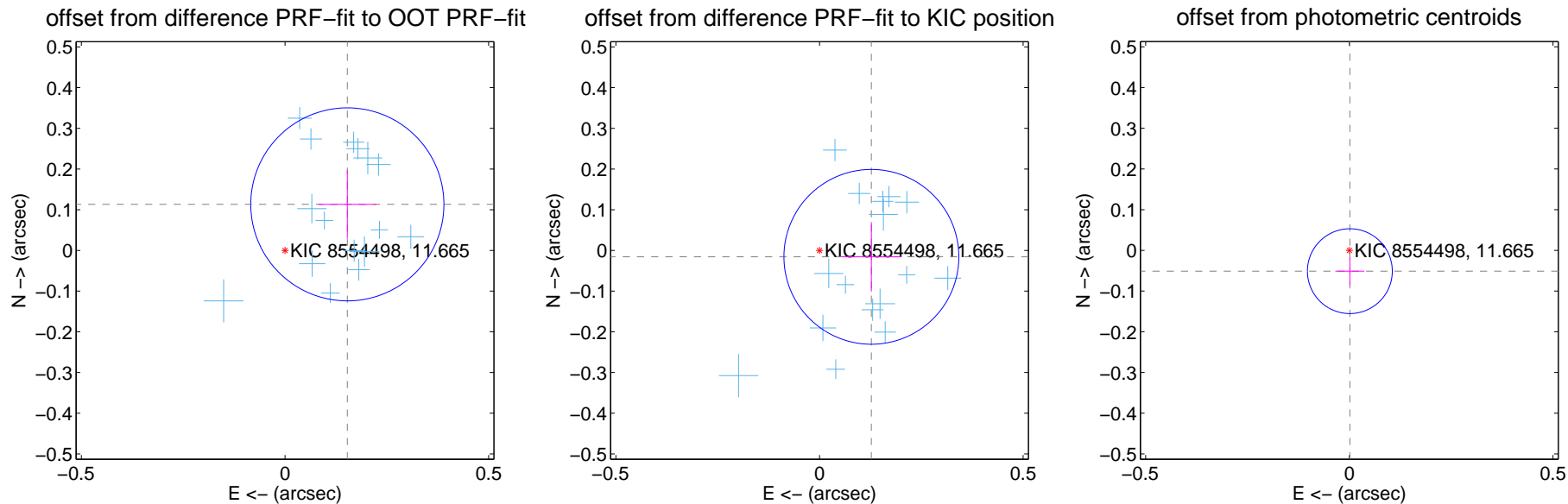
DV Centroid Data

Supplemental centroid analysis for 008554498-01. **Kepler magnitude: 11.66.** Transit SNR 357.98

There are 17 quarters with good PRF difference image offsets

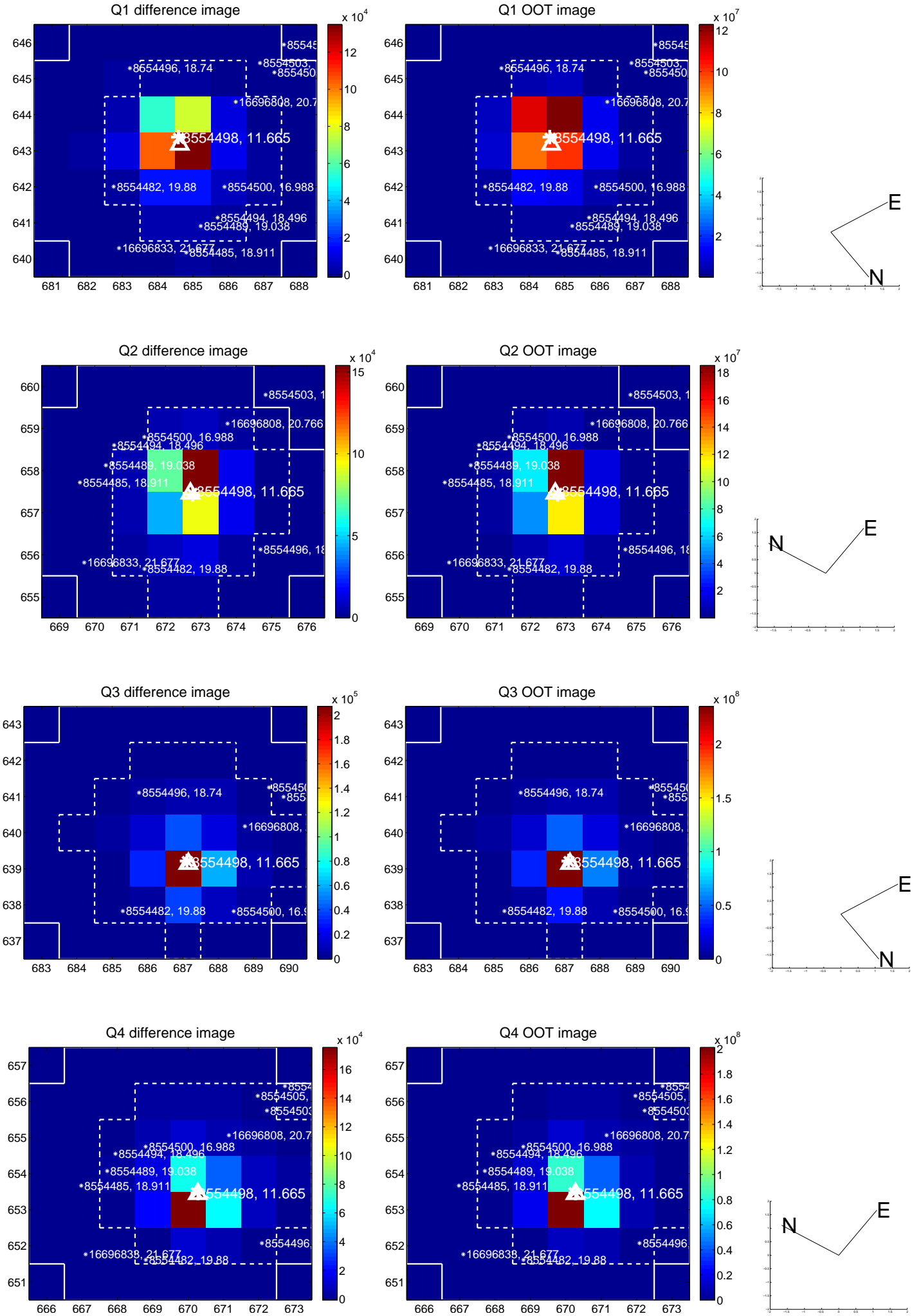
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.190 ± 0.079	2.41	-0.153 ± 0.071	0.113 ± 0.083
PRF-fit source offset from KIC position	0.128 ± 0.072	1.79	-0.127 ± 0.073	-0.016 ± 0.085
photometric centroid source offset	0.05 ± 0.03	1.47	-0.00 ± 0.04	-0.05 ± 0.03

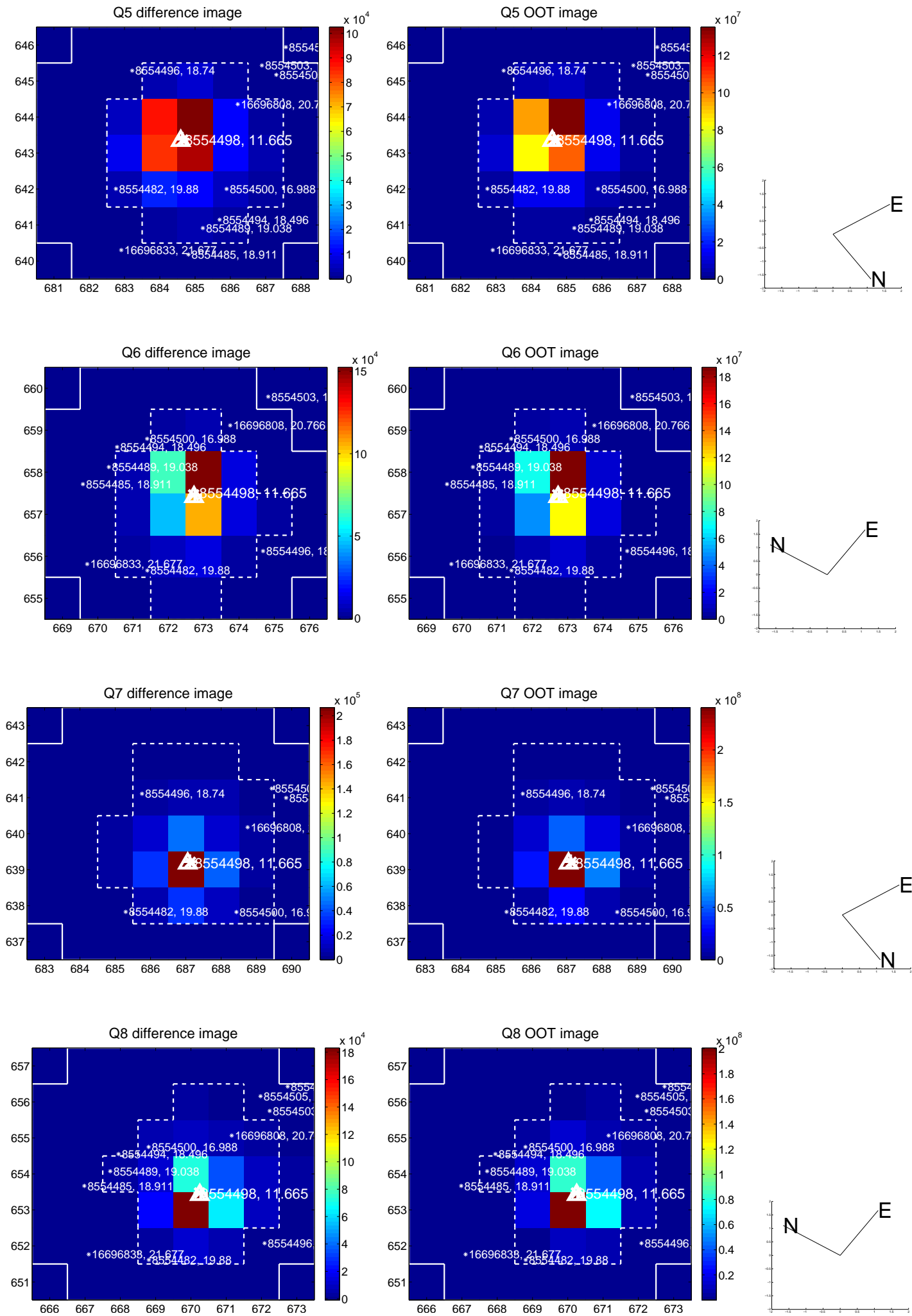


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

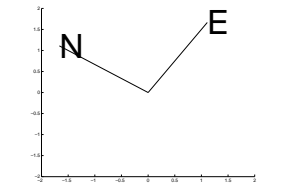
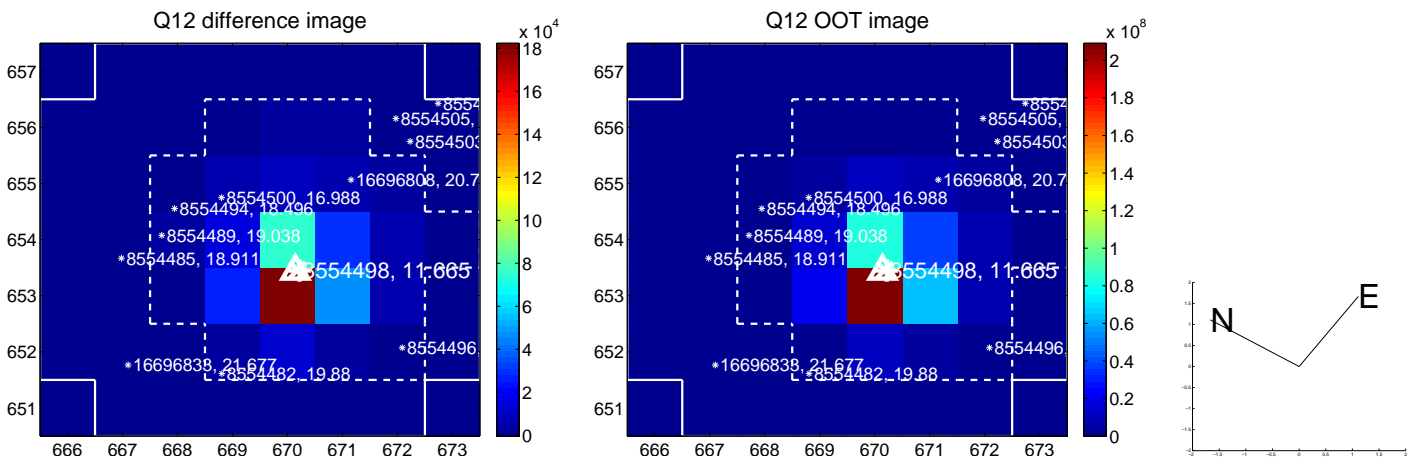
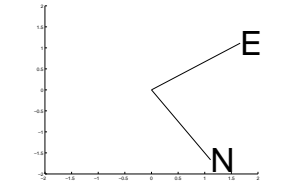
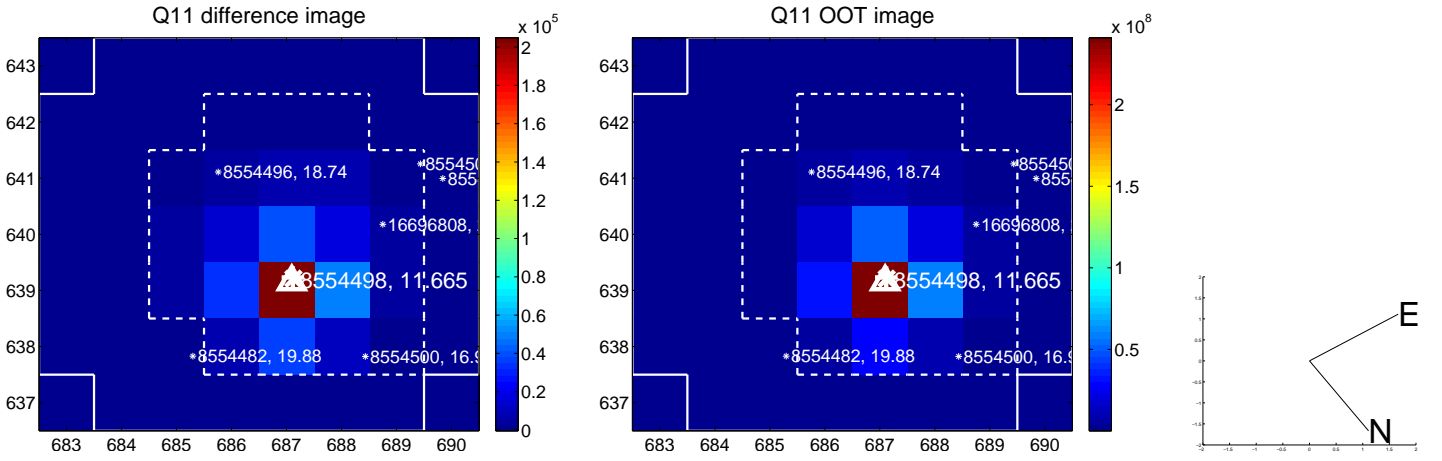
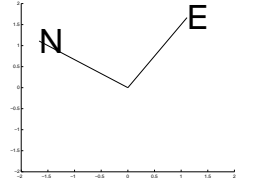
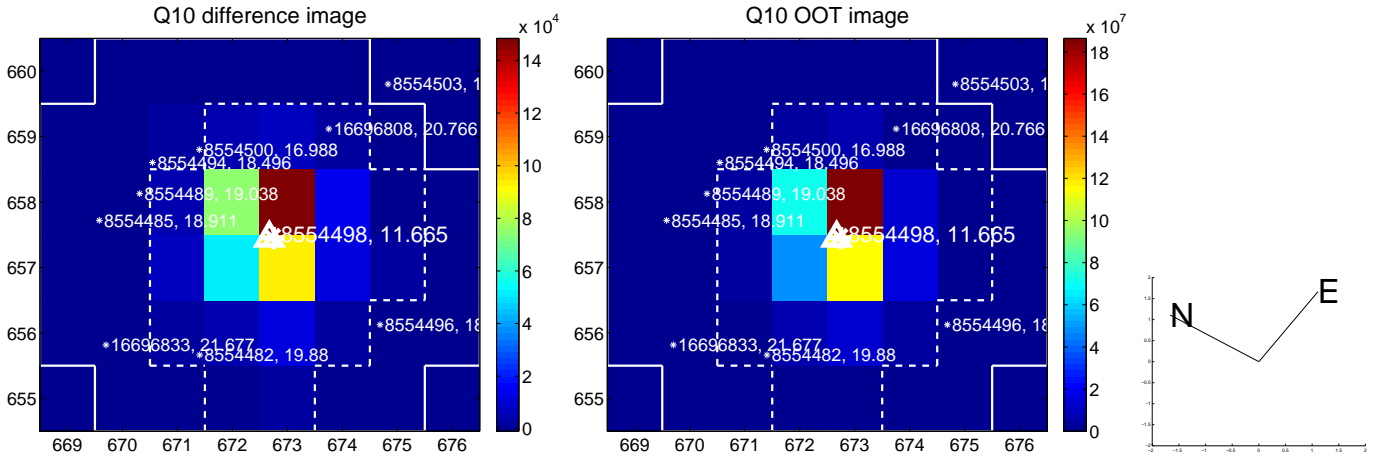
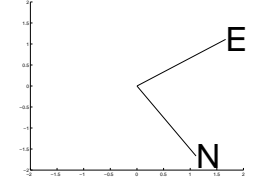
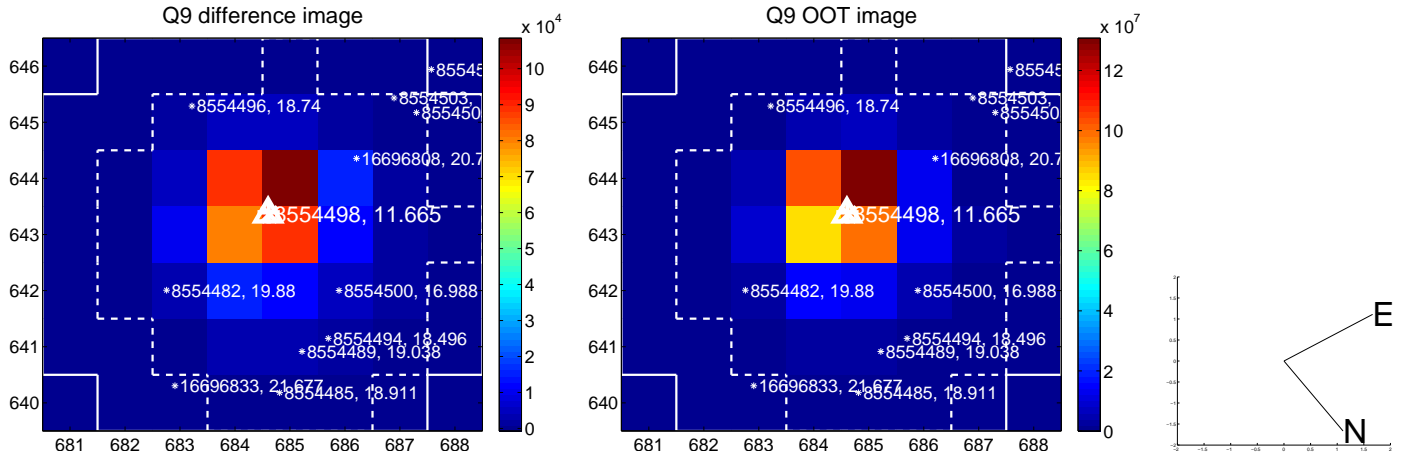
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



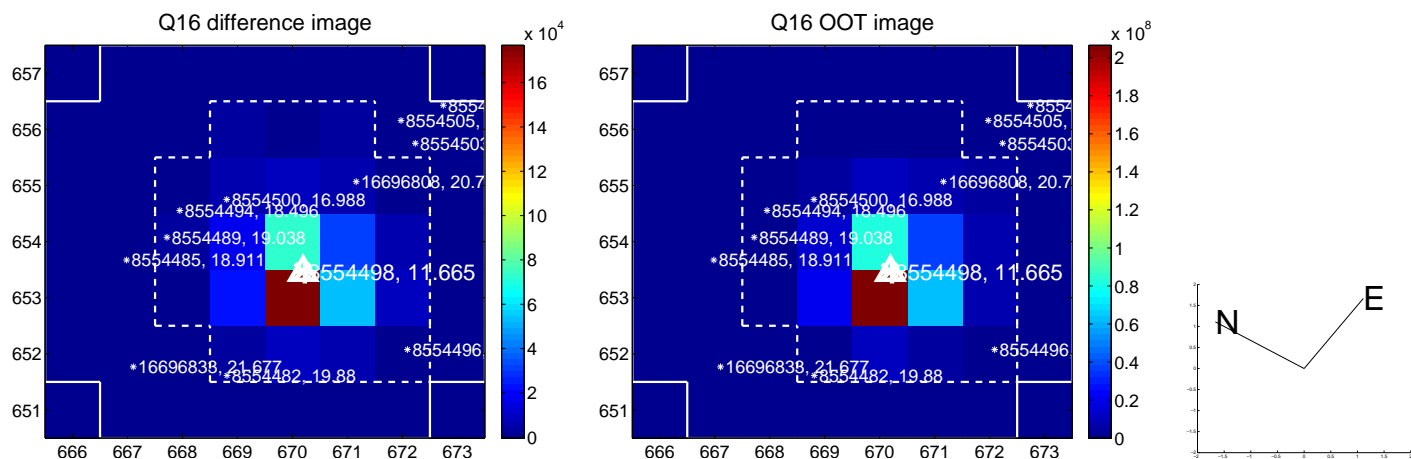
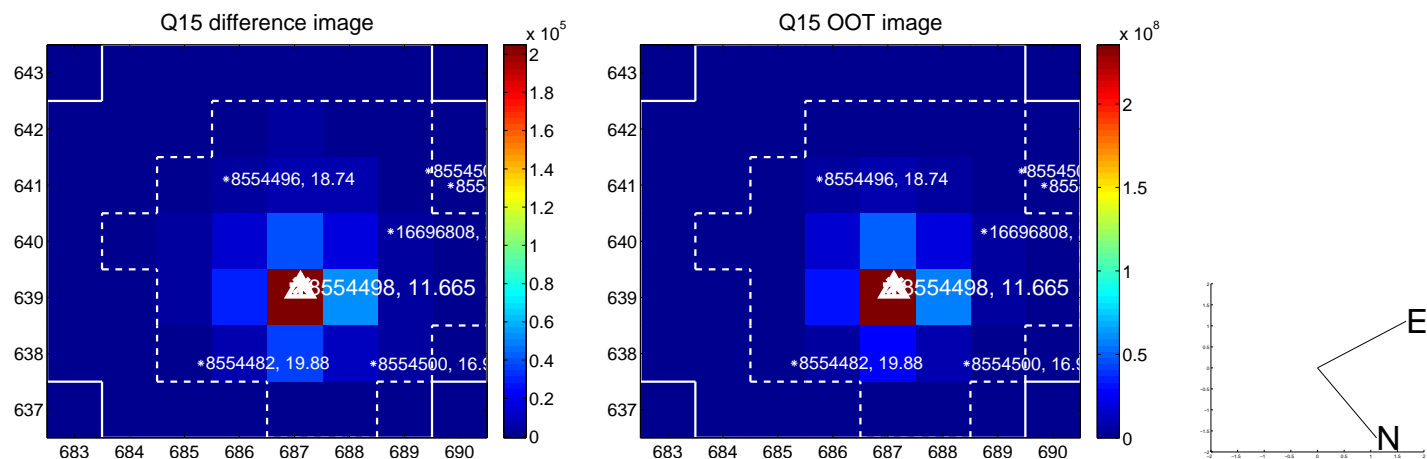
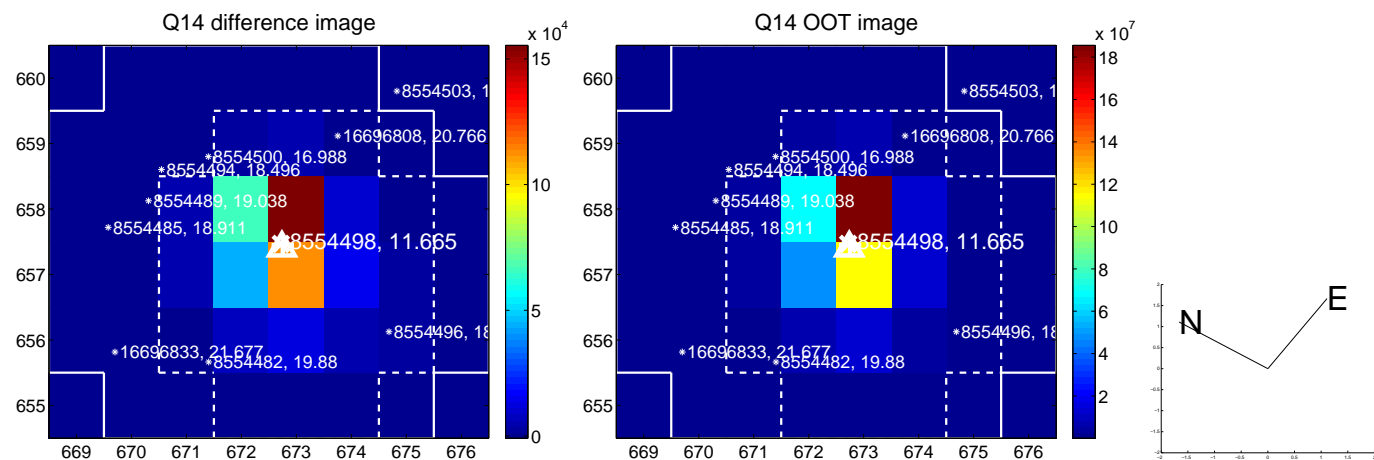
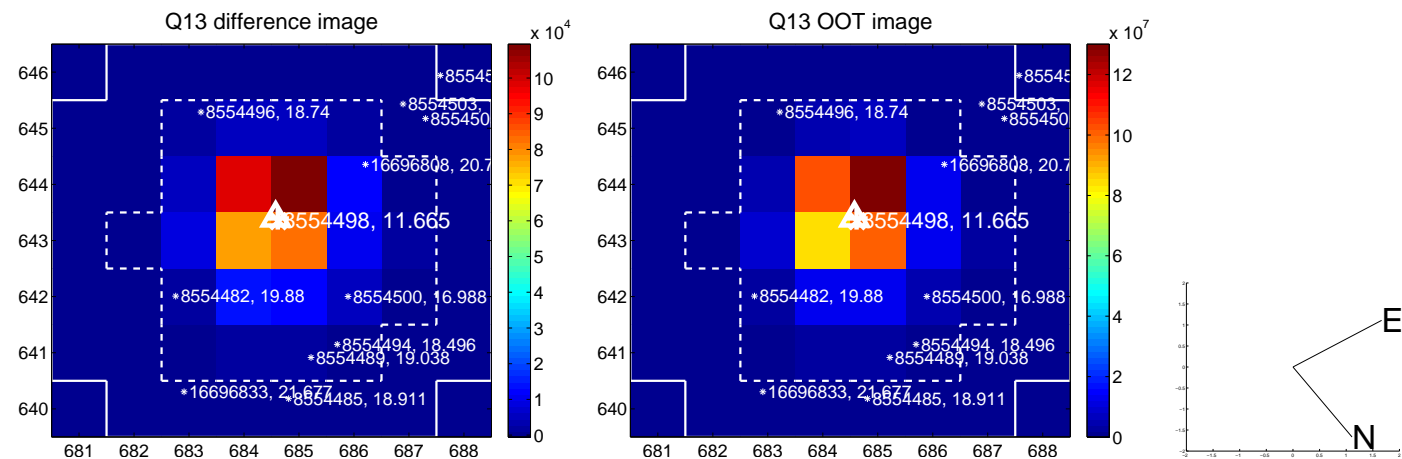
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



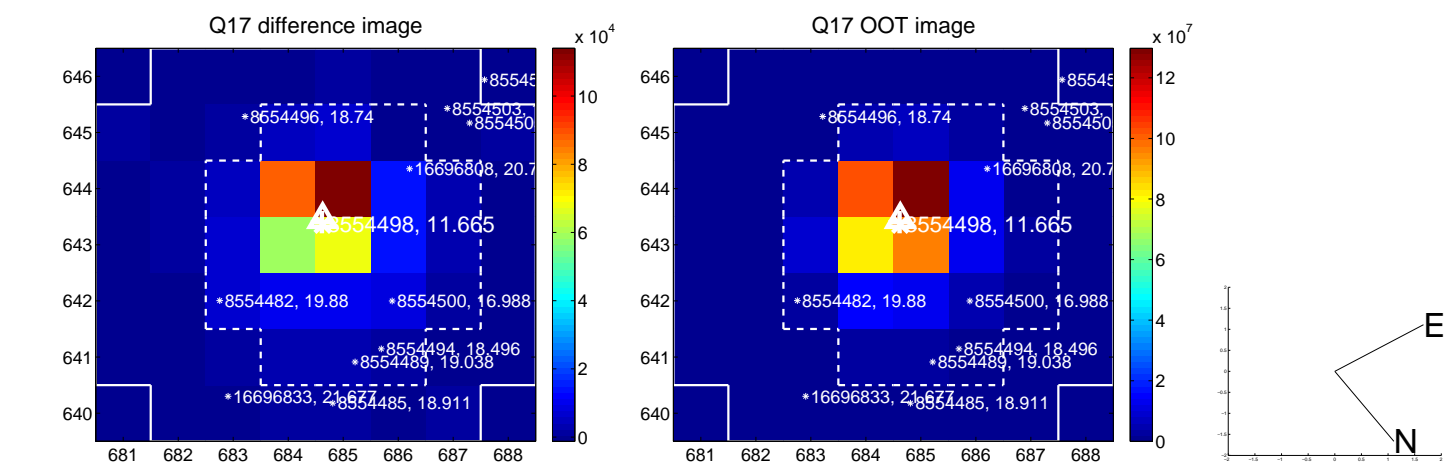
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



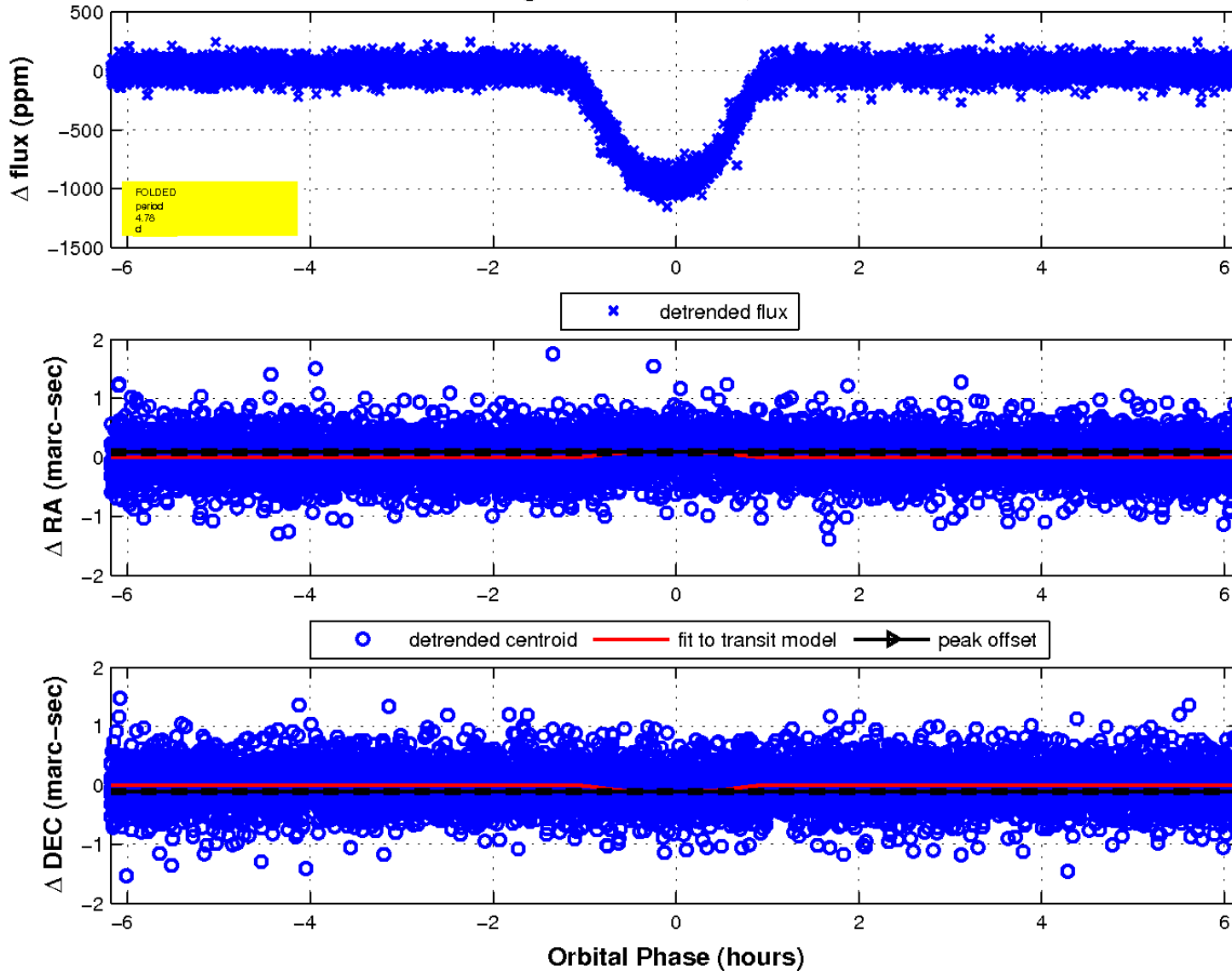
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

