

KIC 011758544

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})
011758544-01	OBS	1883.01	2.707298	132.432812	70.5	3.543	34.2	36.9	1.63	6045	1.64	2018.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011758544-01	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 011758544-01

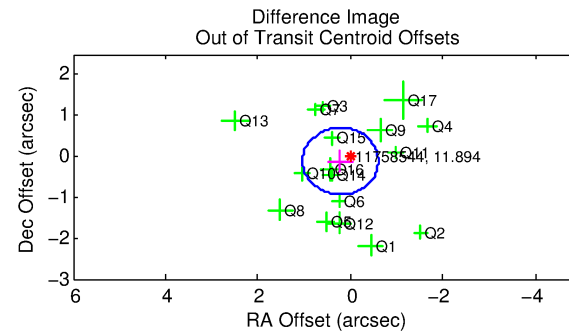
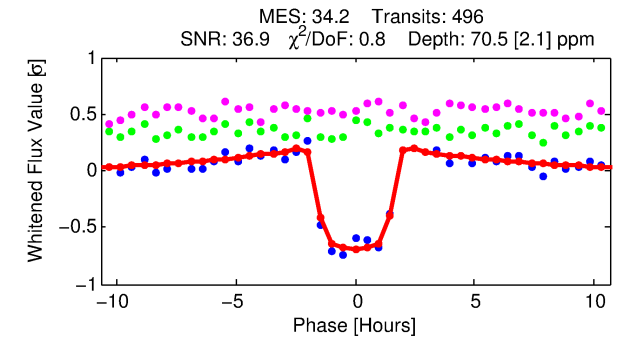
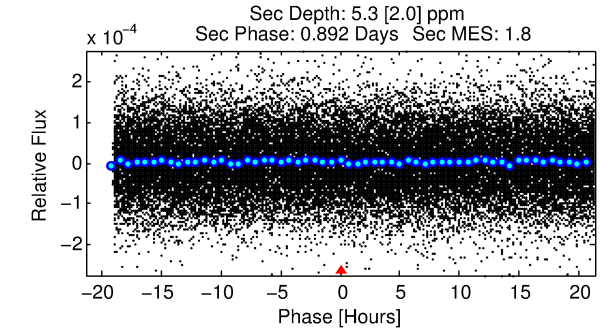
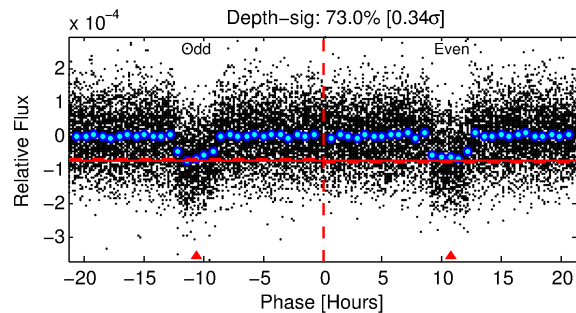
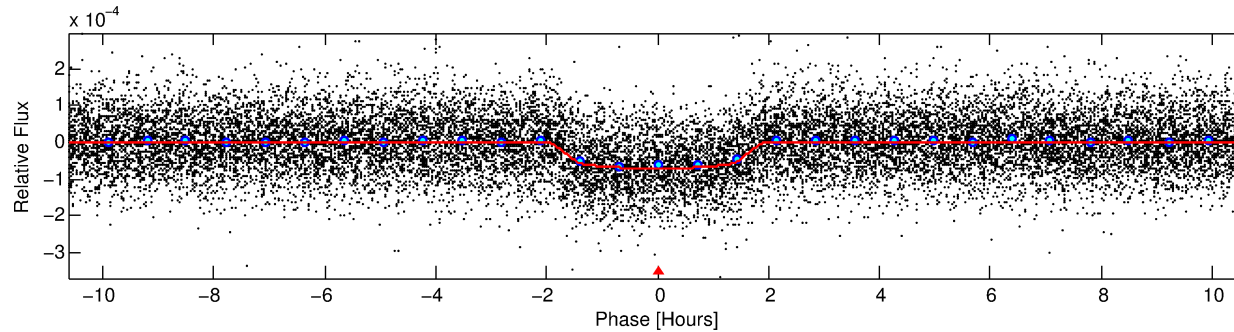
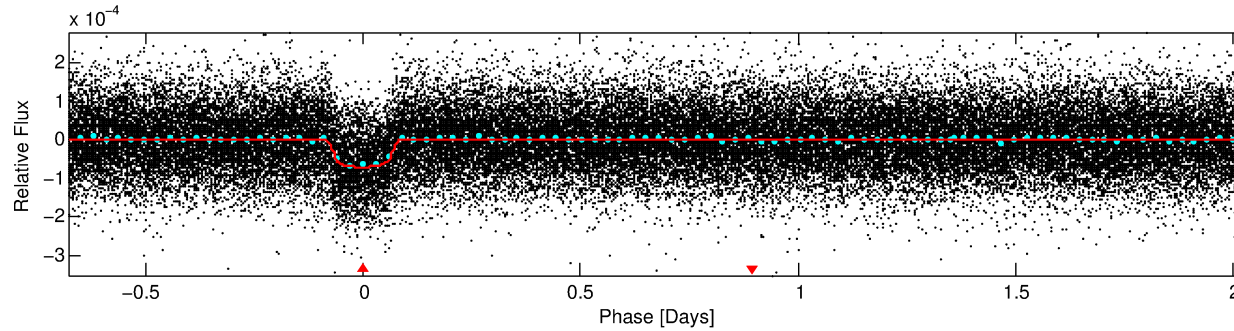
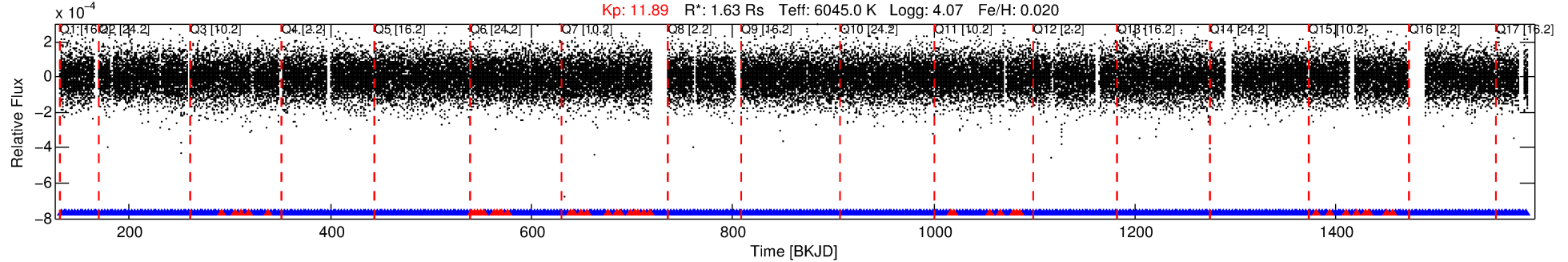
No Significant Match Found

DV One-Page Summary

KIC: 11758544 Candidate: 1 of 1 Period: 2.707 d

KOI: K01883.01 Corr: 0.988

Kp: 11.89 R*: 1.63 Rs Teff: 6045.0 K Logg: 4.07 Fe/H: 0.020



DV Fit Results:

Period = 2.70730 [0.00001] d
Epoch = 132.4328 [0.0011] BKJD
Rp/R* = 0.0092 [0.0010]
a/R* = 2.66 [1.27]
b = 0.91 [0.10]
Seff = 2018.58 [683.64]
Teq = 1709 [145] K
Rp = 1.64 [0.42] Re
a = 0.0397 [0.0084] AU
Ag = 1.70 [0.92] [0.76σ]
Teff = 3016 [334] K [3.59σ]

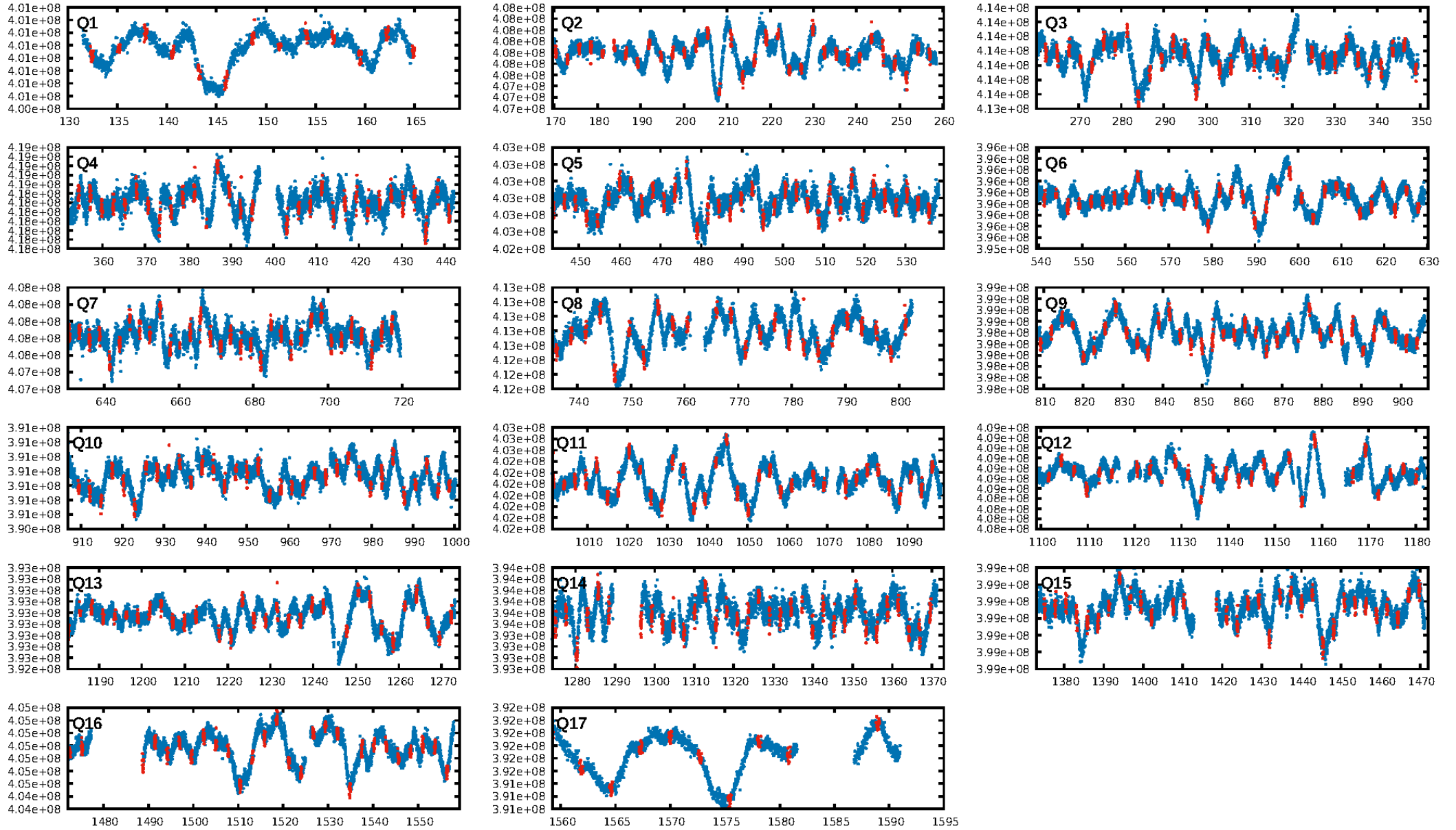
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.09e-248
RollingBand-fgt: 0.91 [431/473]
GhostDiagnostic-chr: 3.627
Centroid-sig: 9.3%
Centroid-so: 0.262 arcsec [1.04σ]
OotOffset-rm: 0.247 arcsec [0.91σ]
KicOffset-rm: 0.245 arcsec [0.90σ]
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]

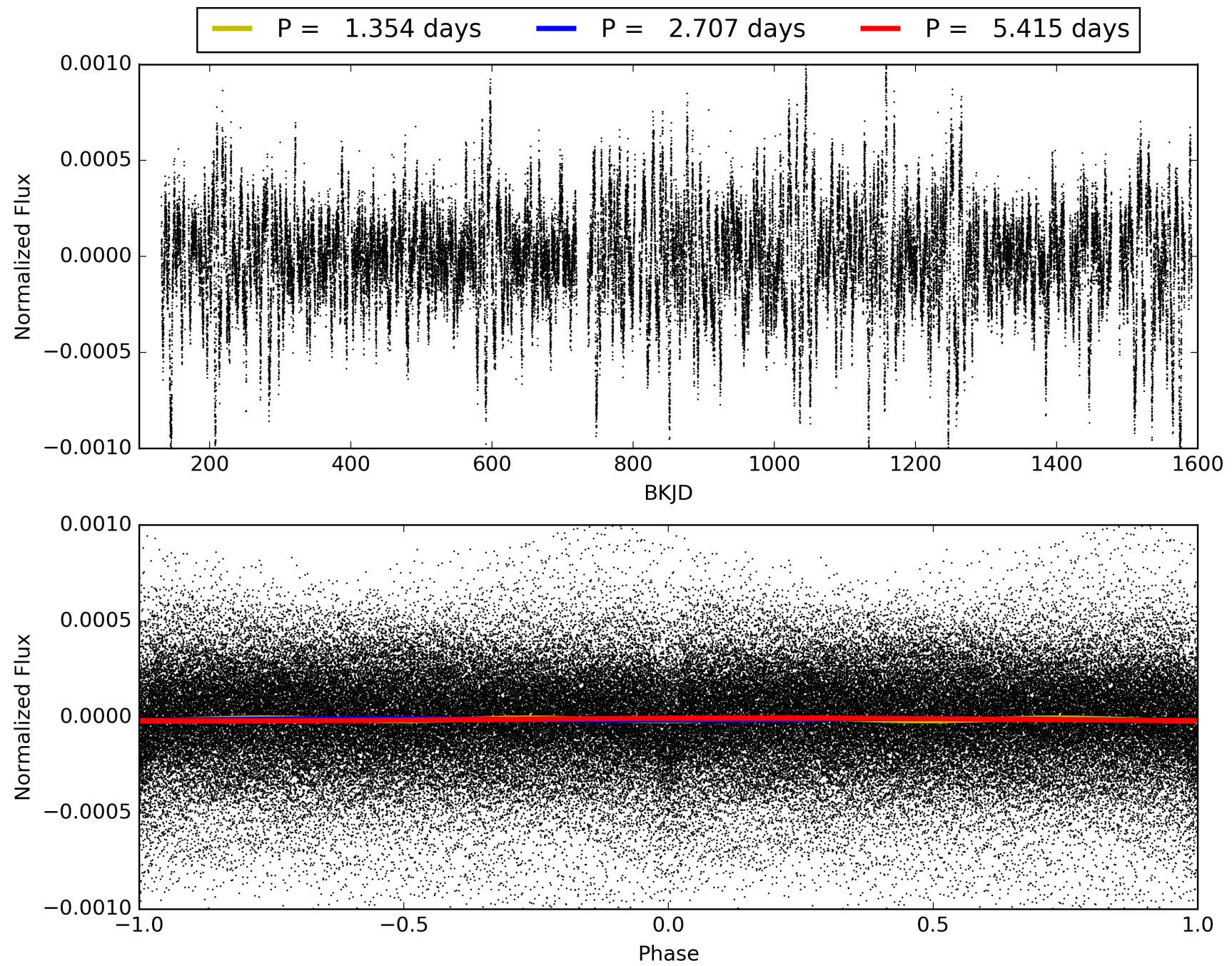
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:24:18 Z

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

TCE 011758544-01, PDC Light Curves

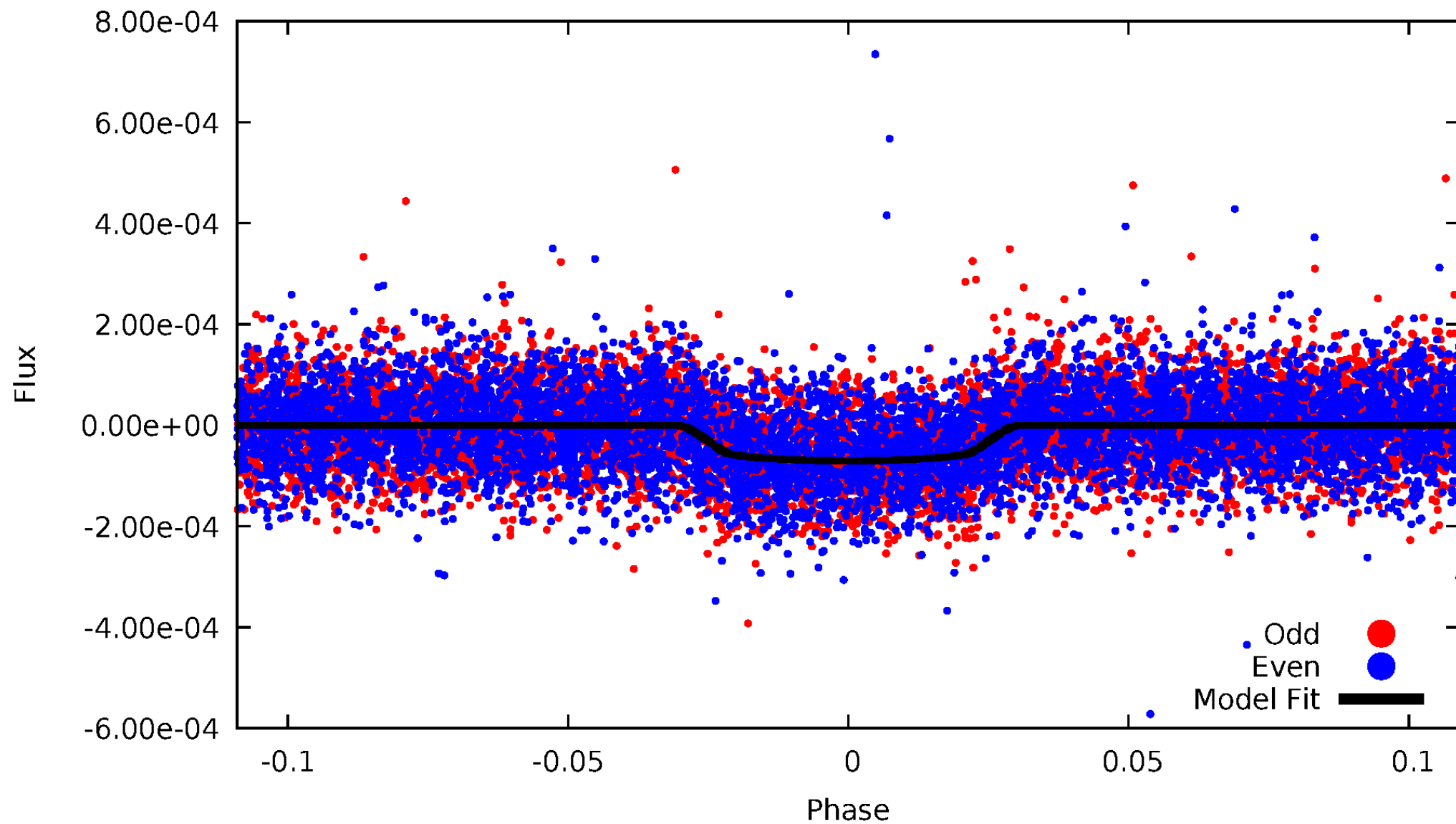


TCE 011758544-01



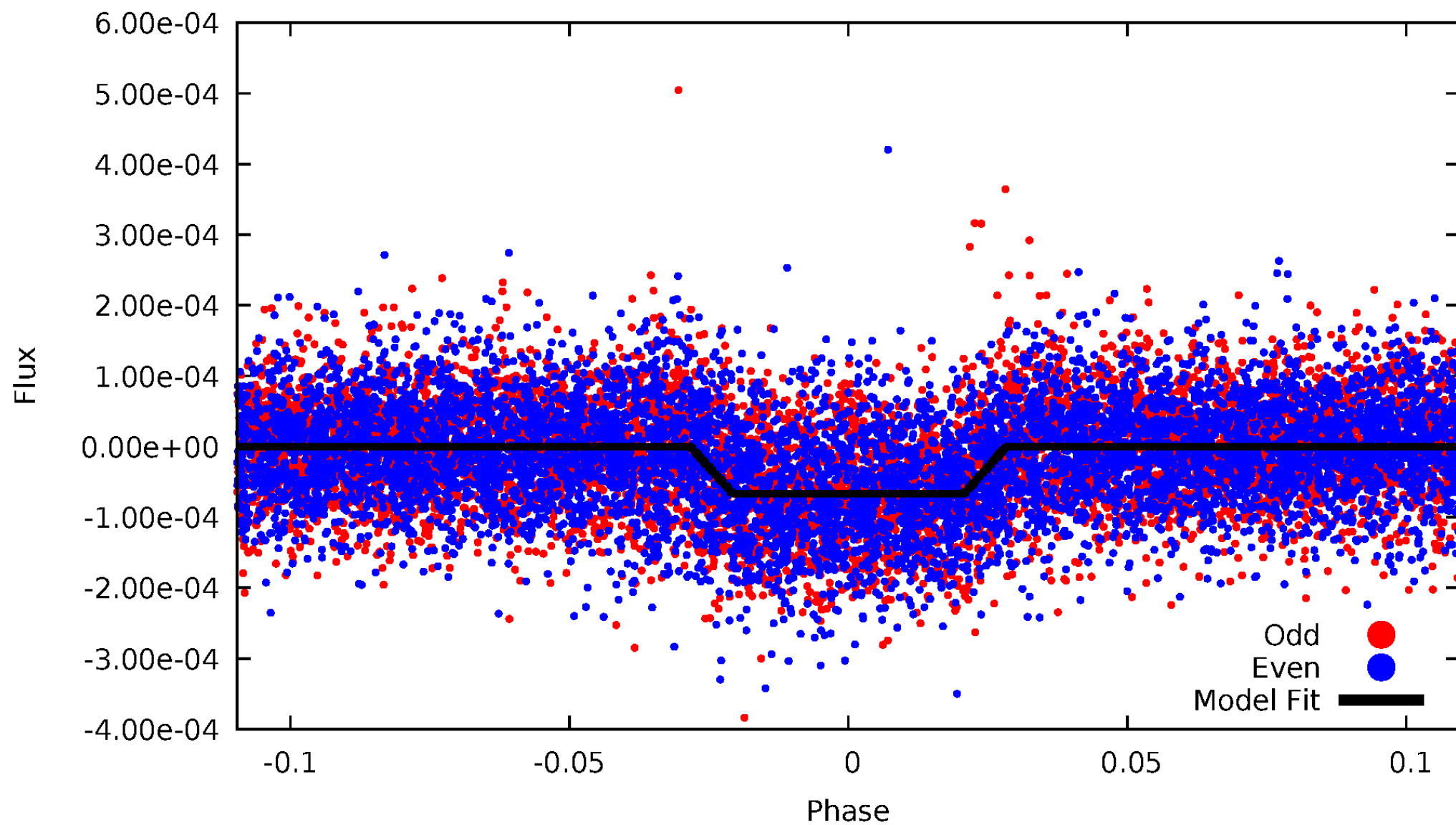
DV Odd/Even

TCE 011758544-01



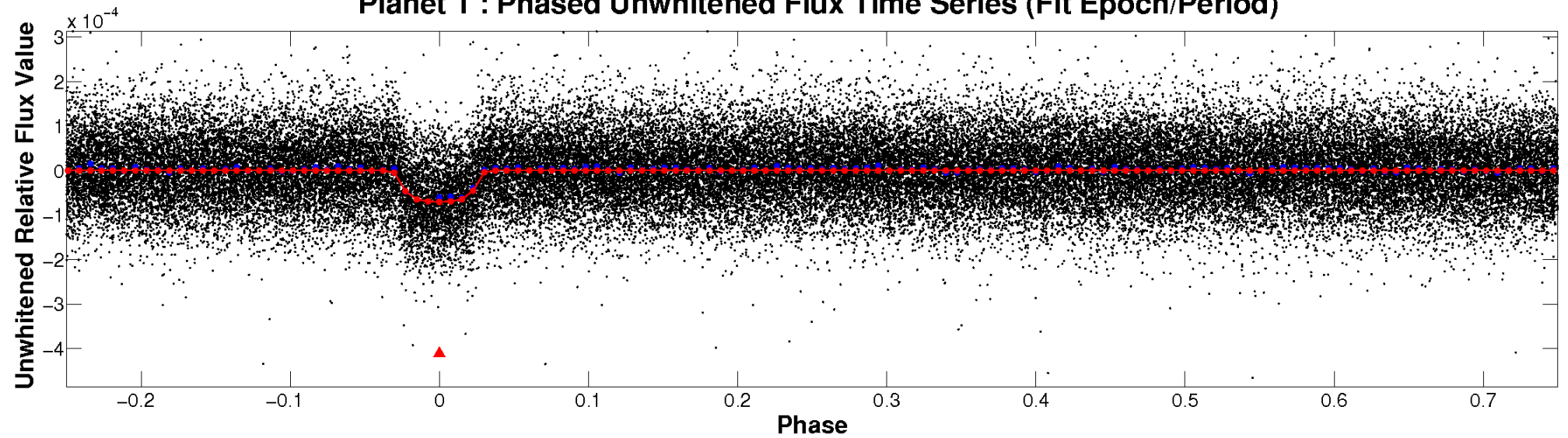
ALT Odd/Even

TCE 011758544-01

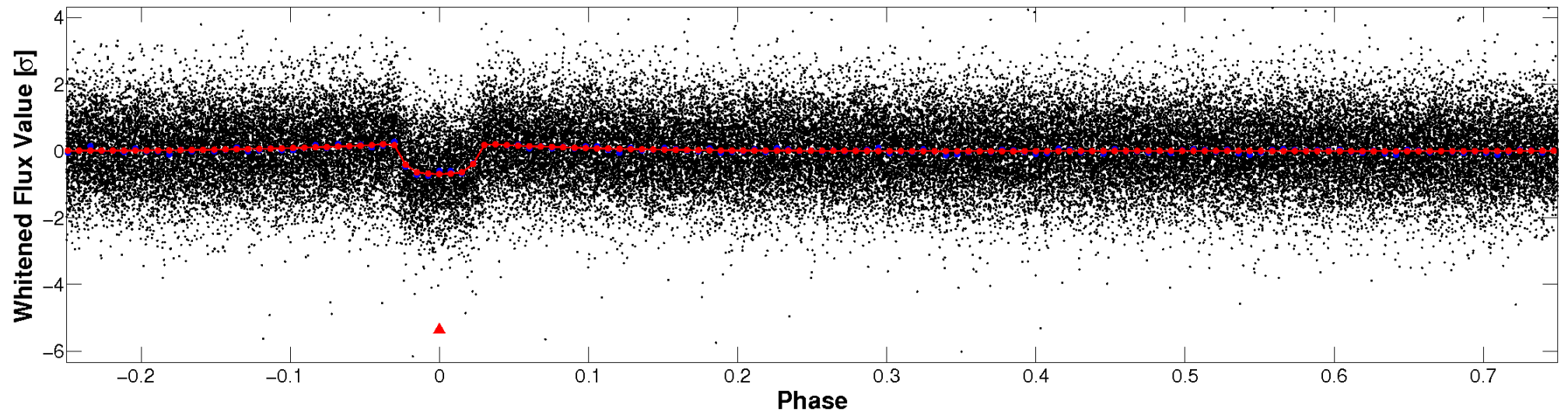


Non-Whitened Vs. Whitened Light Curve

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

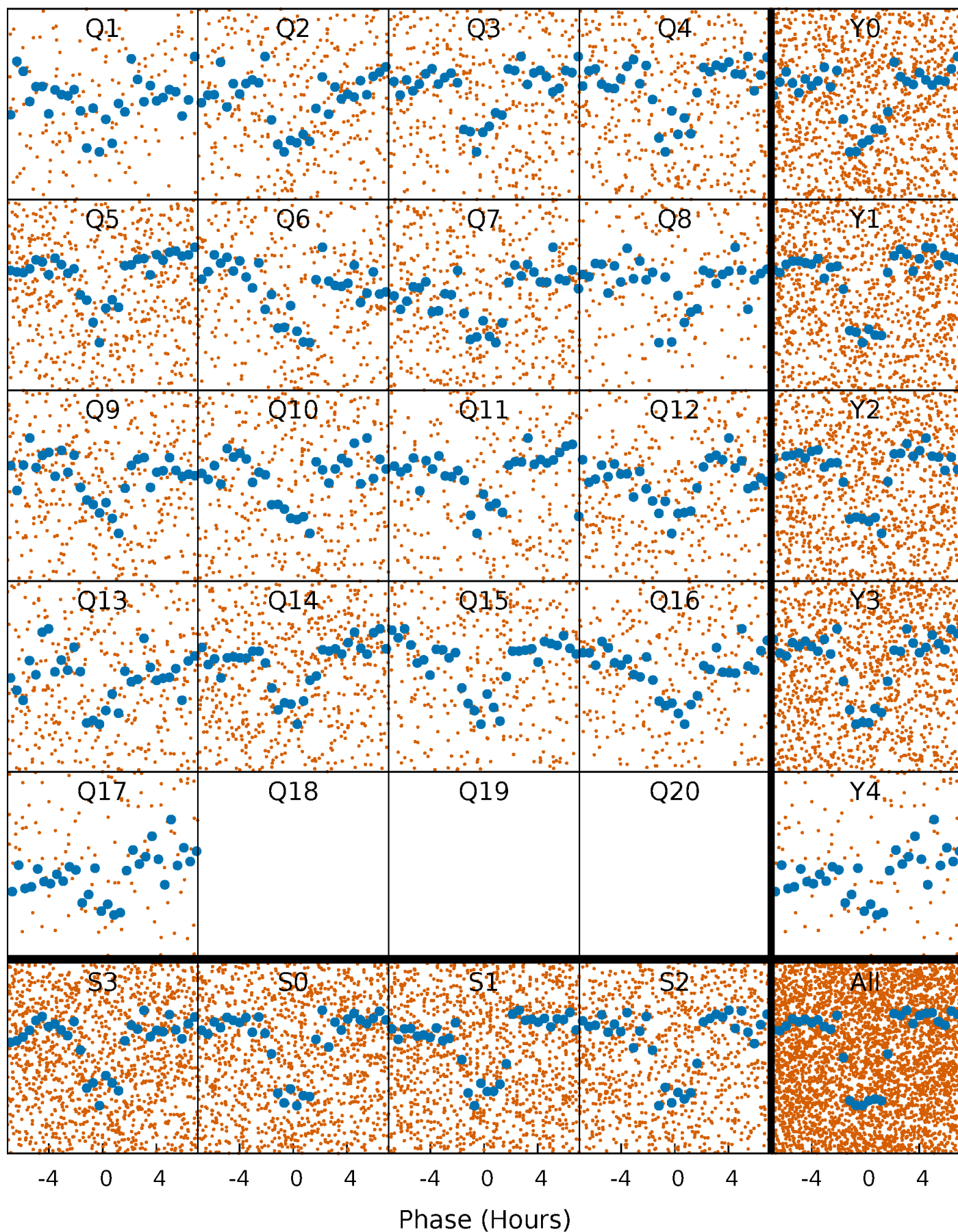


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



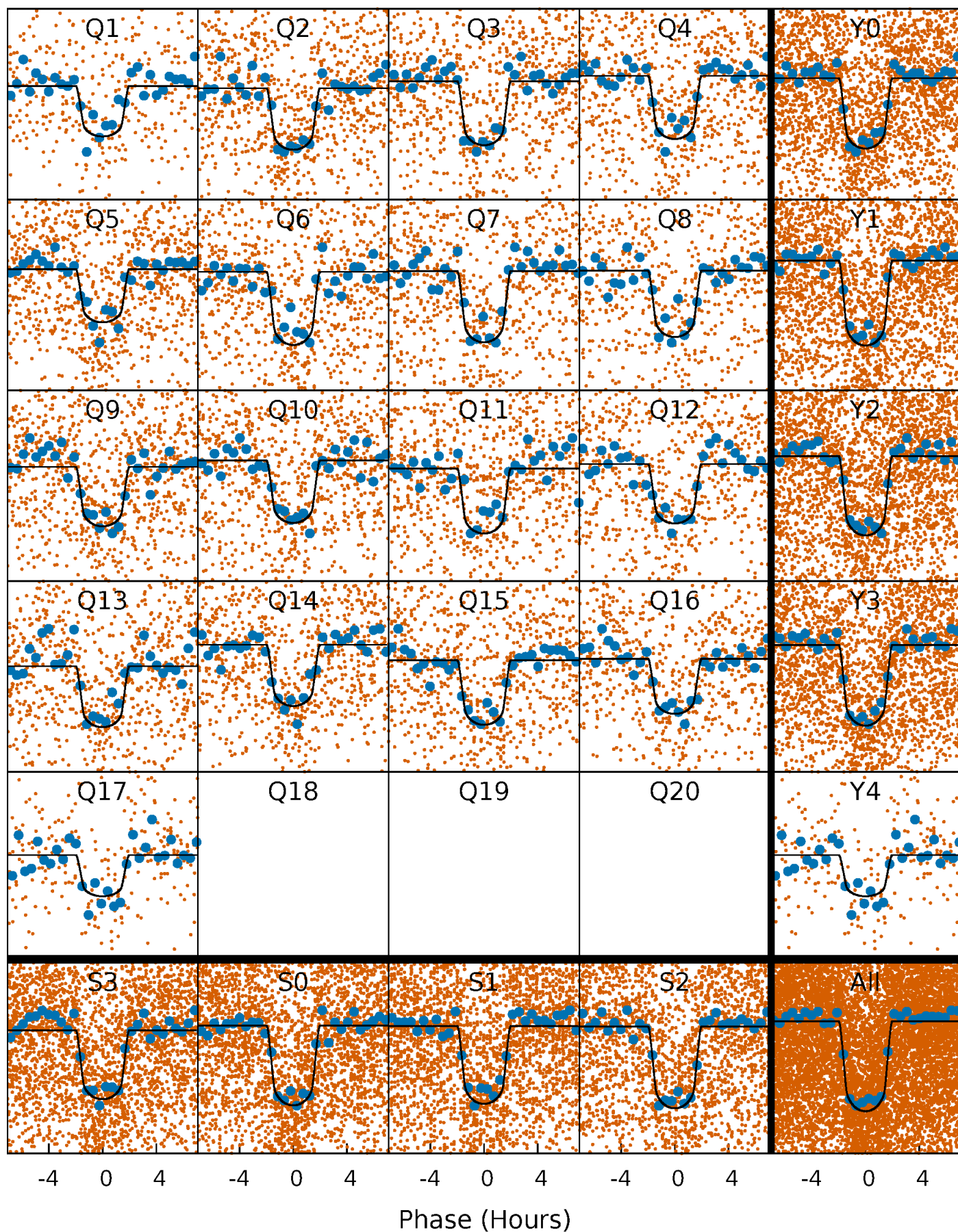
PDC Quarter-Phased Transit Curves

TCE 011758544-01 P= 2.707298 Days $T_0=132.432812$ (BKJD)



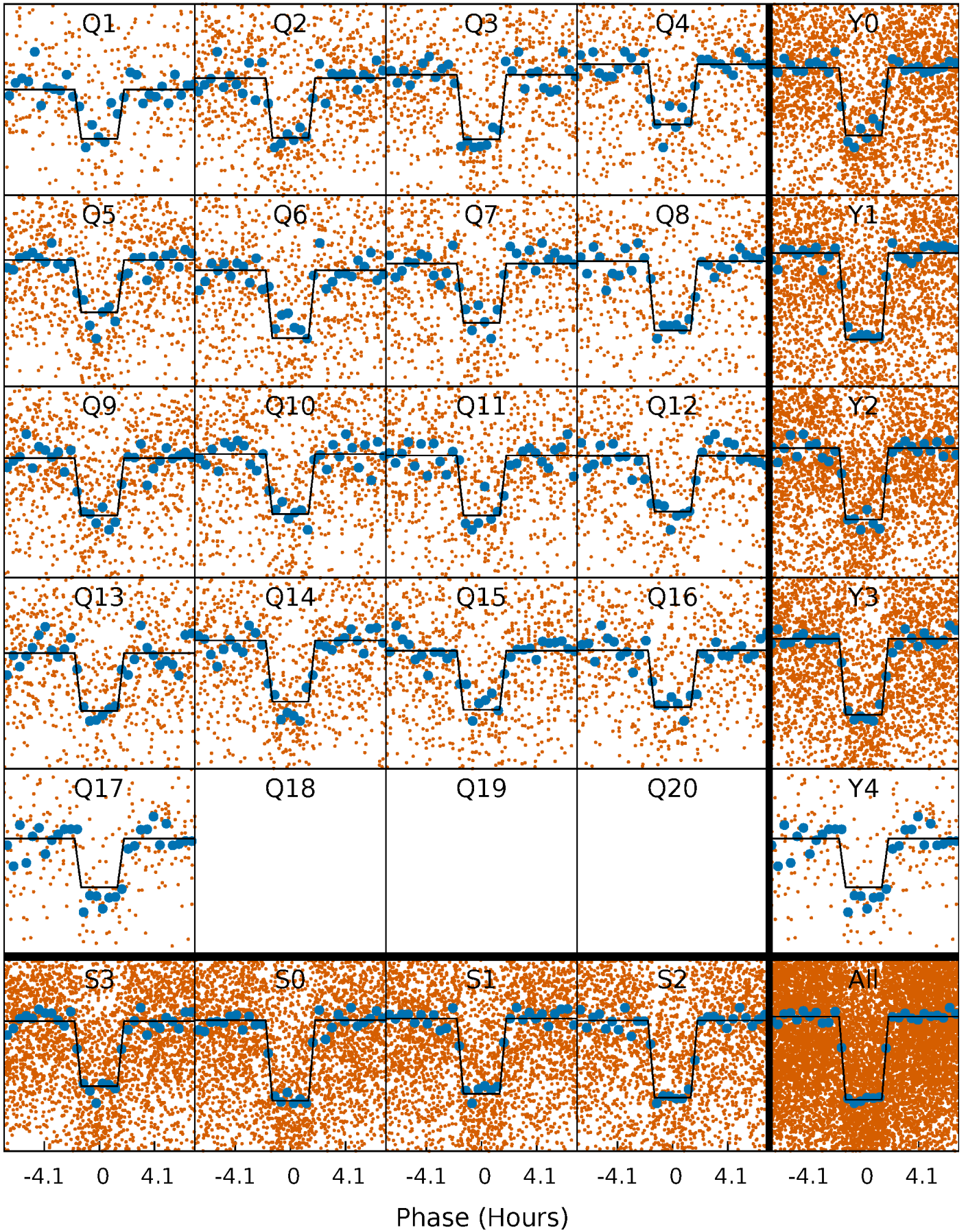
DV Quarter-Phased Transit Curves

TCE 011758544-01 P= 2.707298 Days $T_0=132.432812$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

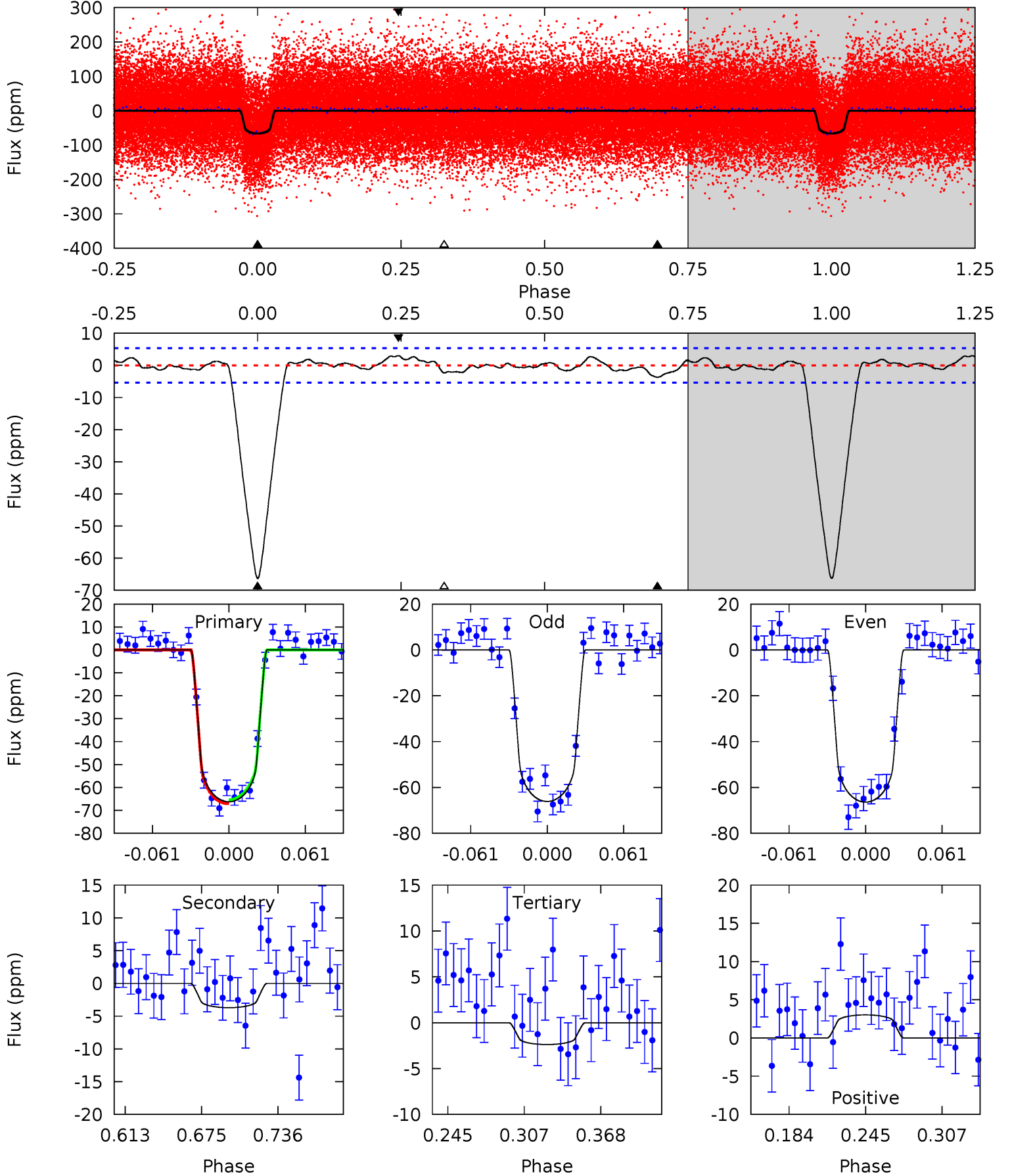
TCE 011758544-01 P= 2.707287 Days $T_0=132.435003$ (BKJD)



DV Model-Shift Uniqueness Test

011758544-01, P = 2.707298 Days, E = 129.725514 Days

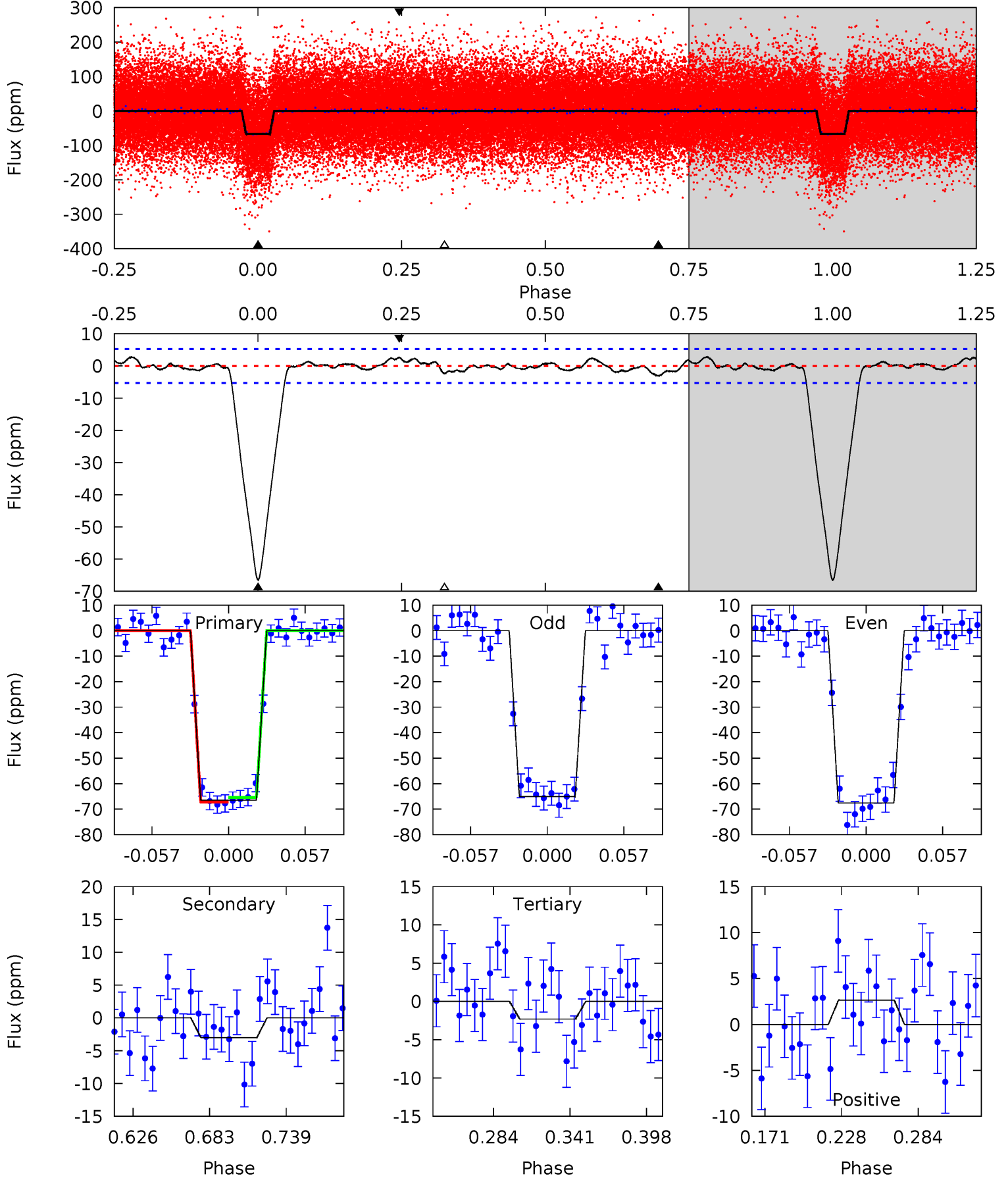
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
57.6	3.23	2.07	2.63	4.67	1.87	1.10	55.6	55.0	1.16	0.60	0.13	0.96	0.04	0.70



Alt Model-Shift Uniqueness Test

011758544-01, P = 2.707287 Days, E = 129.727716 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
59.1	2.70	2.04	2.35	4.68	1.90	0.96	57.0	56.7	0.65	0.35	1.09	1.00	0.04	0.81



Stellar Parameters For KIC 011758544

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6045^{+121}_{-134}	$4.069^{+0.188}_{-0.101}$	$0.020^{+0.150}_{-0.150}$	$1.629^{+0.281}_{-0.375}$	$1.133^{+0.128}_{-0.104}$	$0.369^{+0.384}_{-0.119}$
	+2%/-2%	+5%/-2%	+750%/-750%	+17%/-23%	+11%/-9%	+104%/-32%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 011758544-01 / KOI 1883.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-4 ± 1	$1.63^{+0.25}_{-0.25}$	2374^{+109}_{-138}	3152^{+249}_{-245}	$1.188^{+0.686}_{-0.415}$
Alt.	-3 ± 1	$1.41^{+0.24}_{-0.24}$	2366^{+119}_{-156}	3209^{+257}_{-324}	$1.294^{+0.881}_{-0.555}$

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

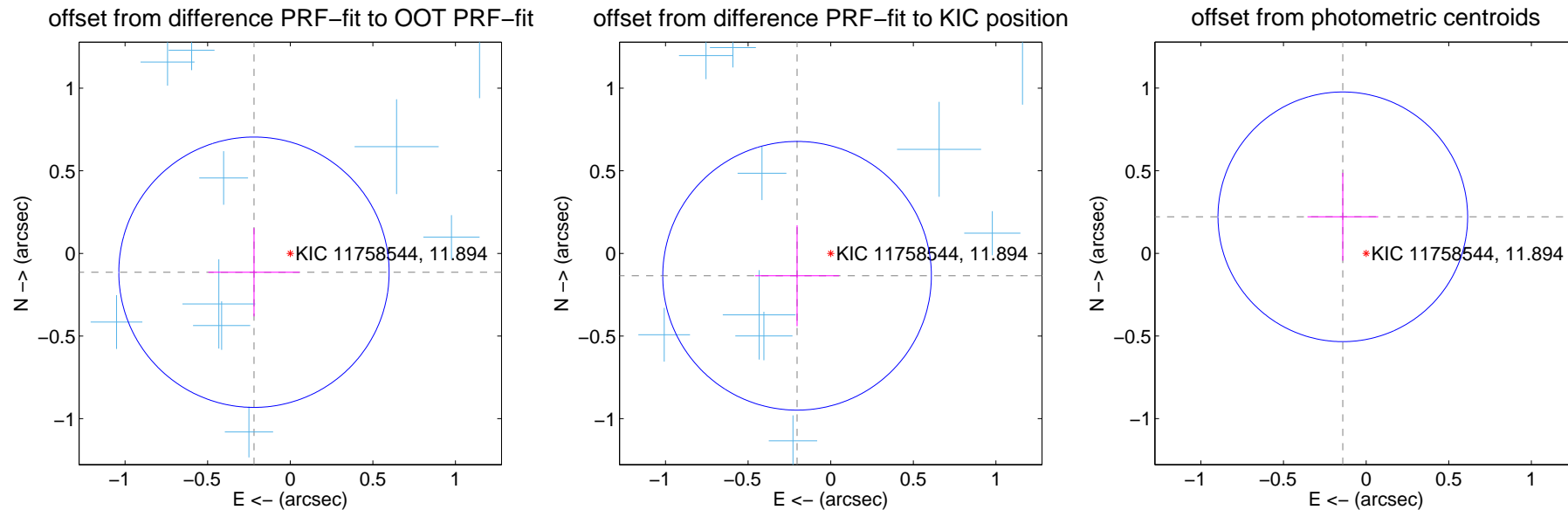
DV Centroid Data

Supplemental centroid analysis for 011758544-01. **Kepler magnitude: 11.89.** Transit SNR 36.95

There are 17 quarters with good PRF difference image offsets

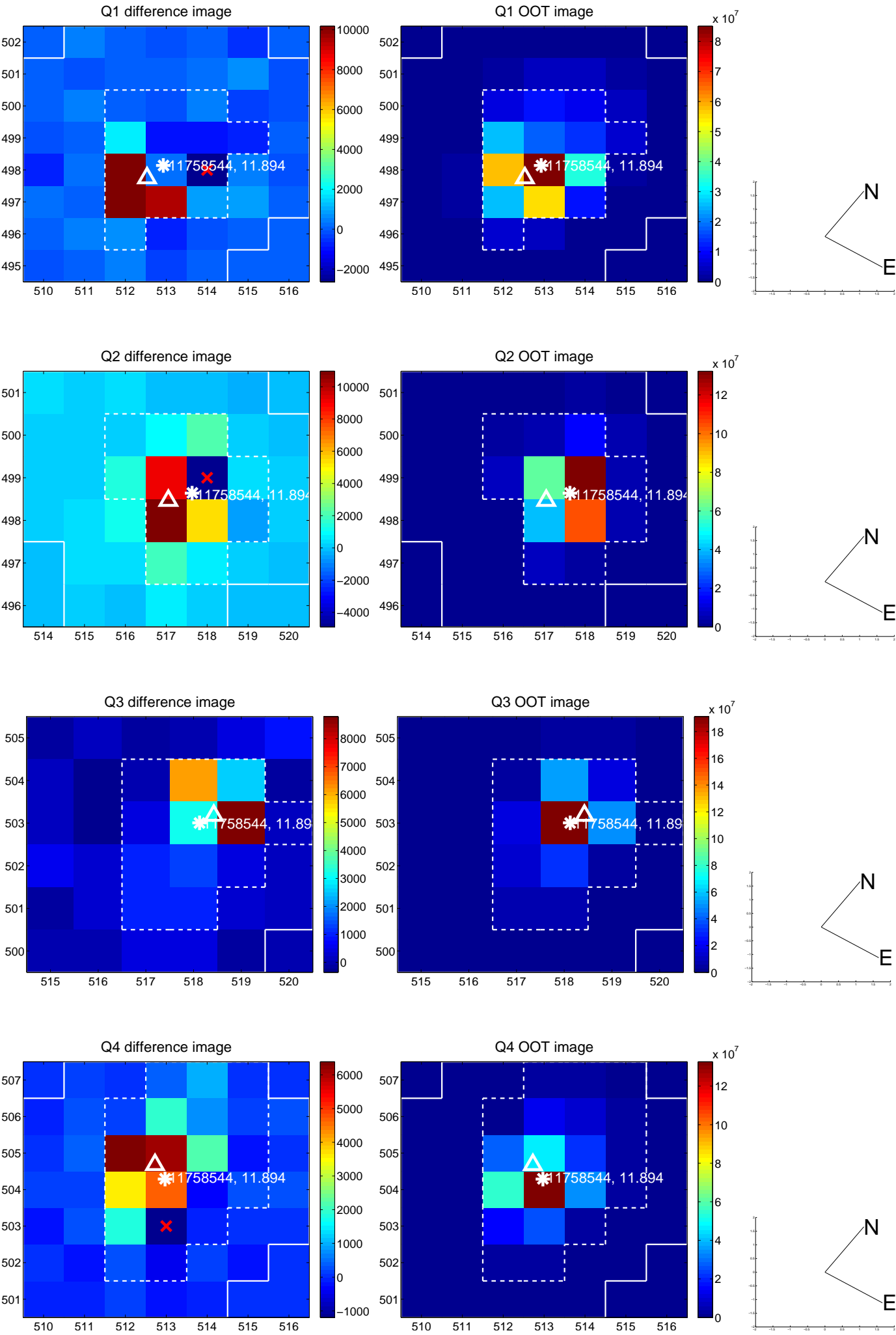
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.247 ± 0.273	0.91	0.220 ± 0.276	-0.114 ± 0.267
PRF-fit source offset from KIC position	0.245 ± 0.271	0.90	0.204 ± 0.254	-0.135 ± 0.306
photometric centroid source offset	0.26 ± 0.25	1.04	0.14 ± 0.21	0.22 ± 0.27

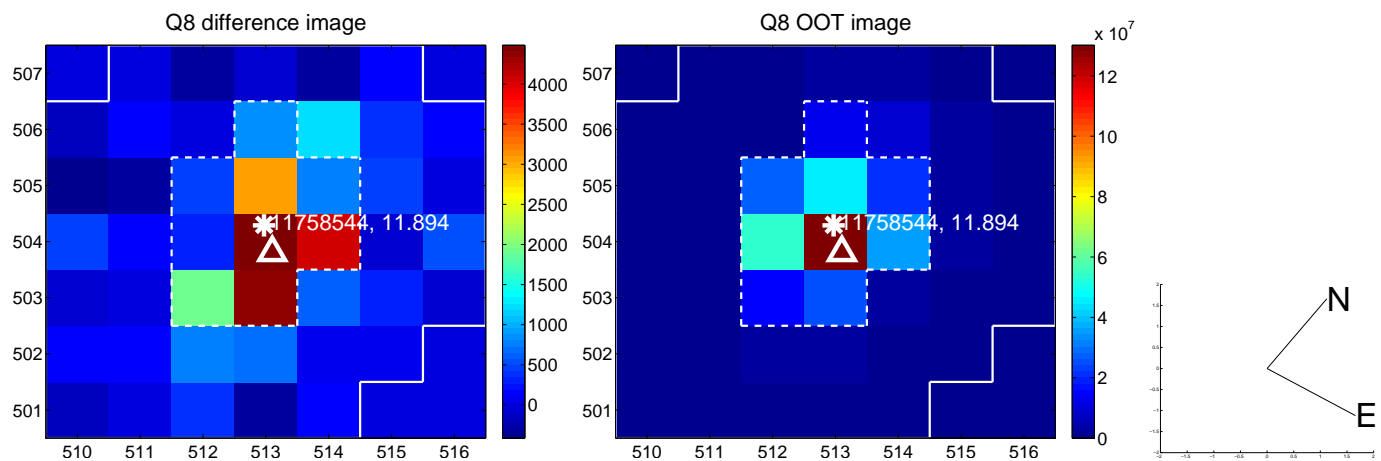
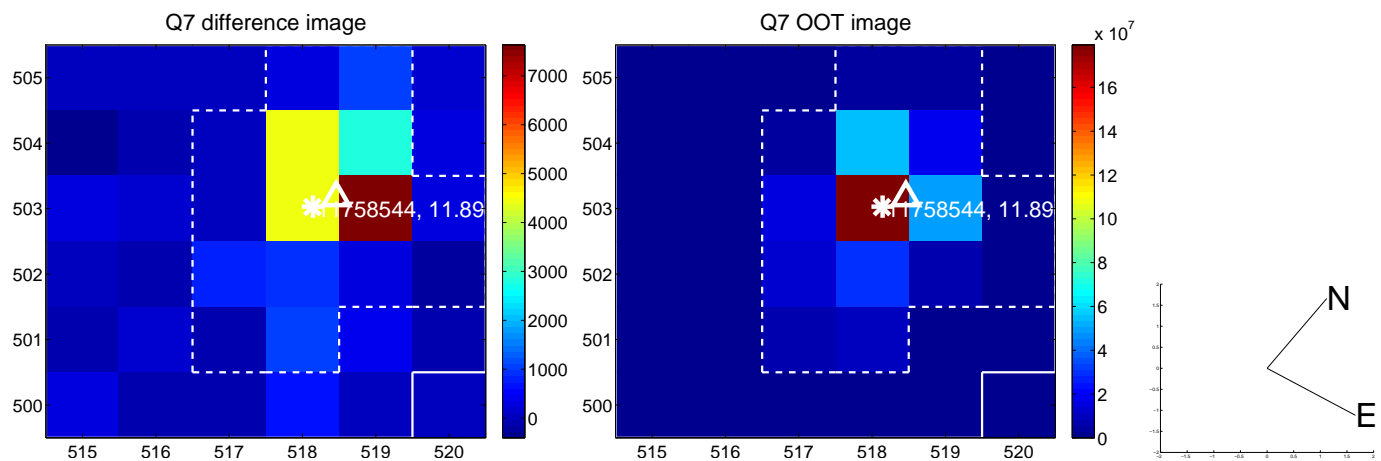
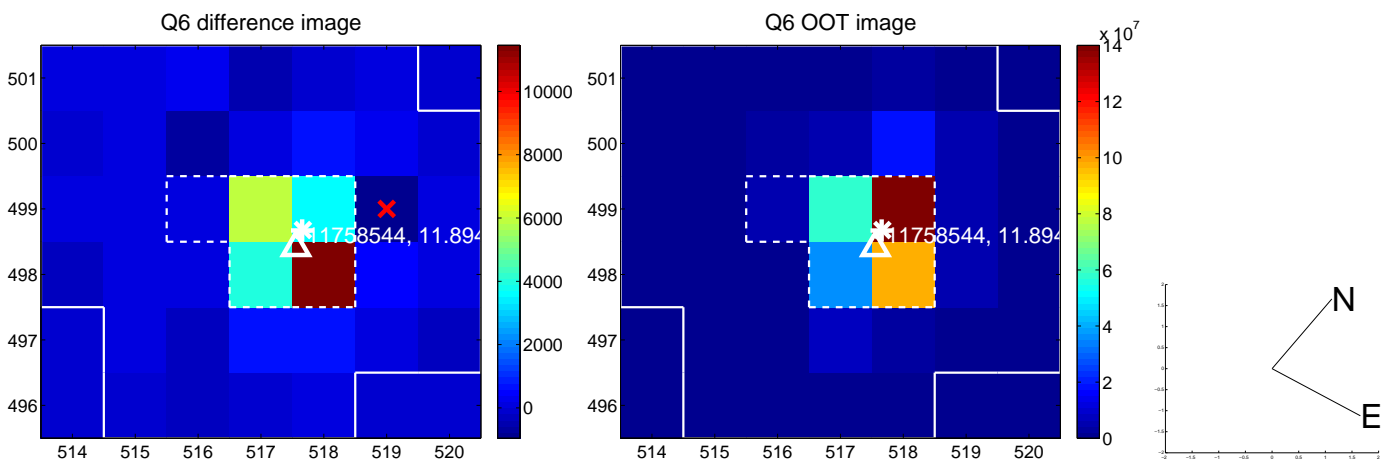
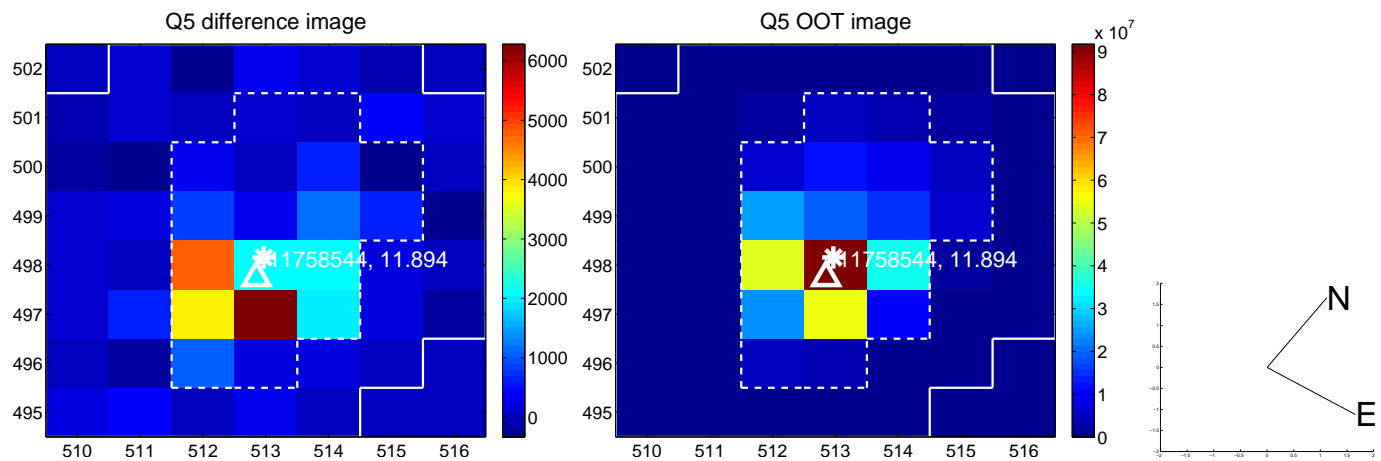


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

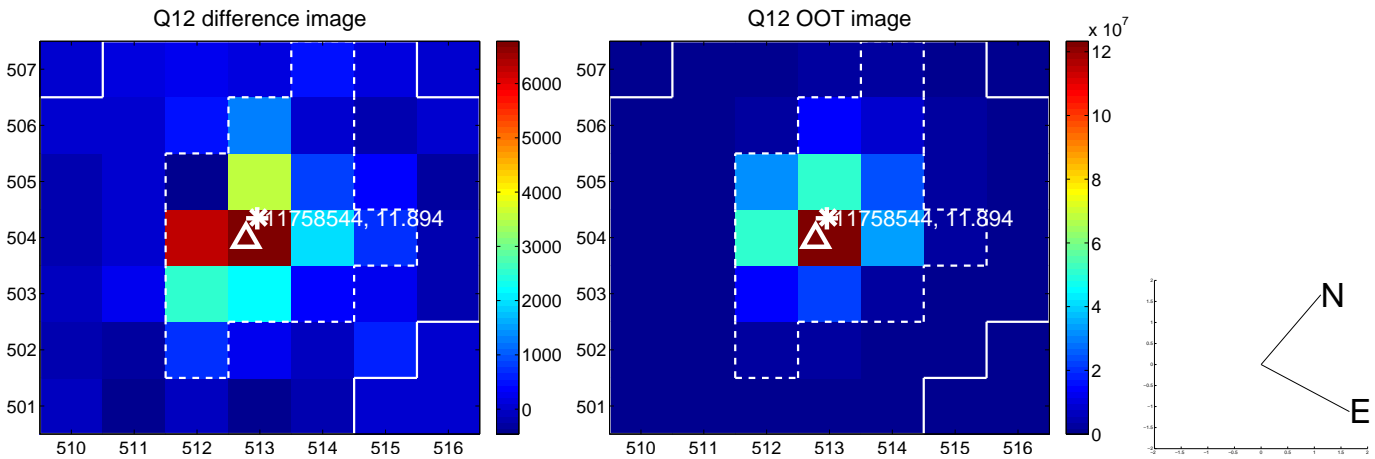
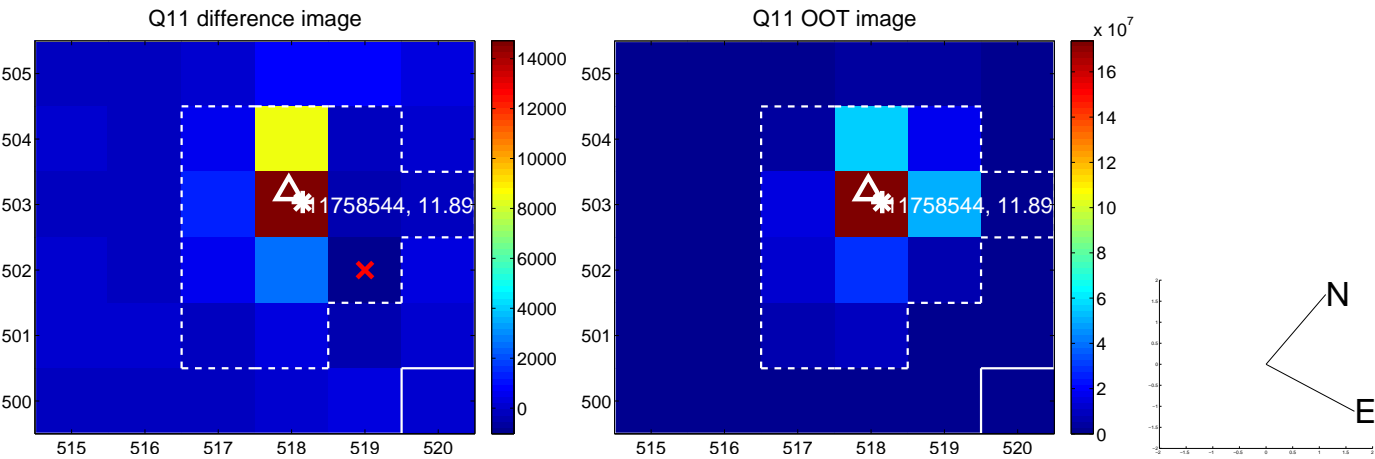
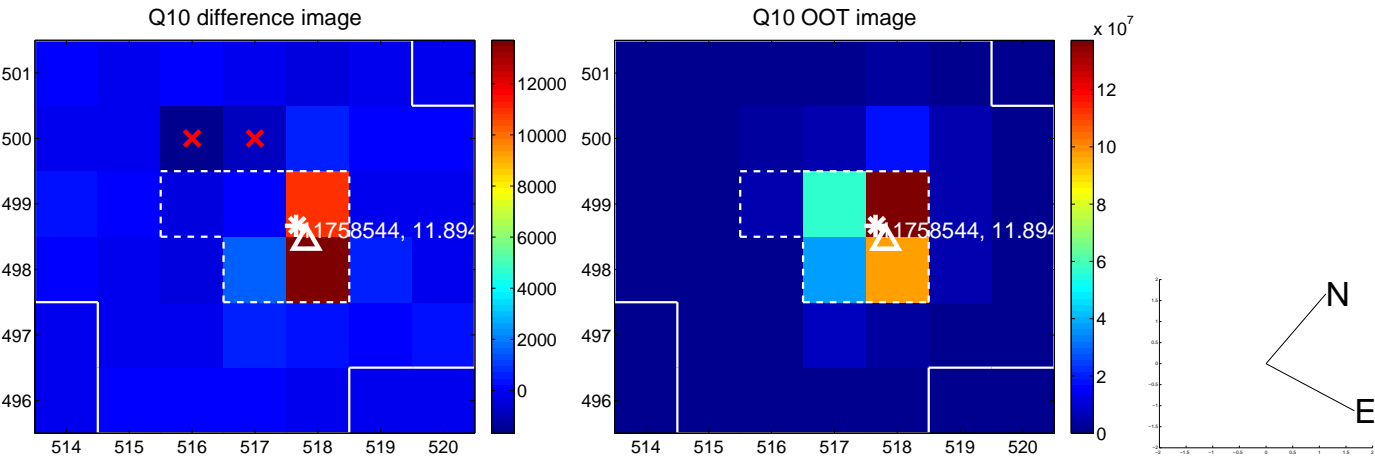
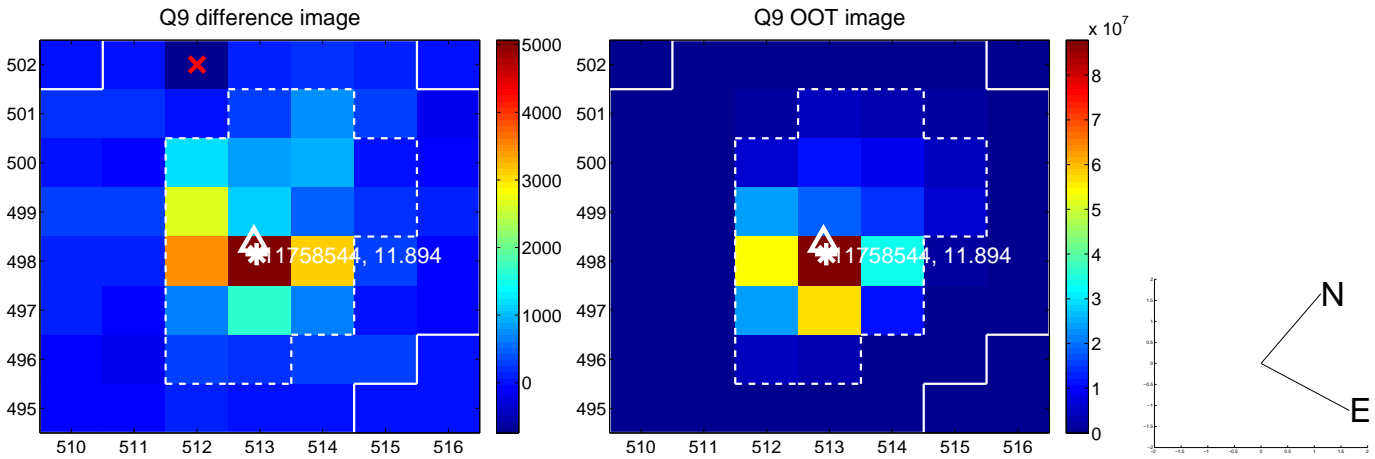
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



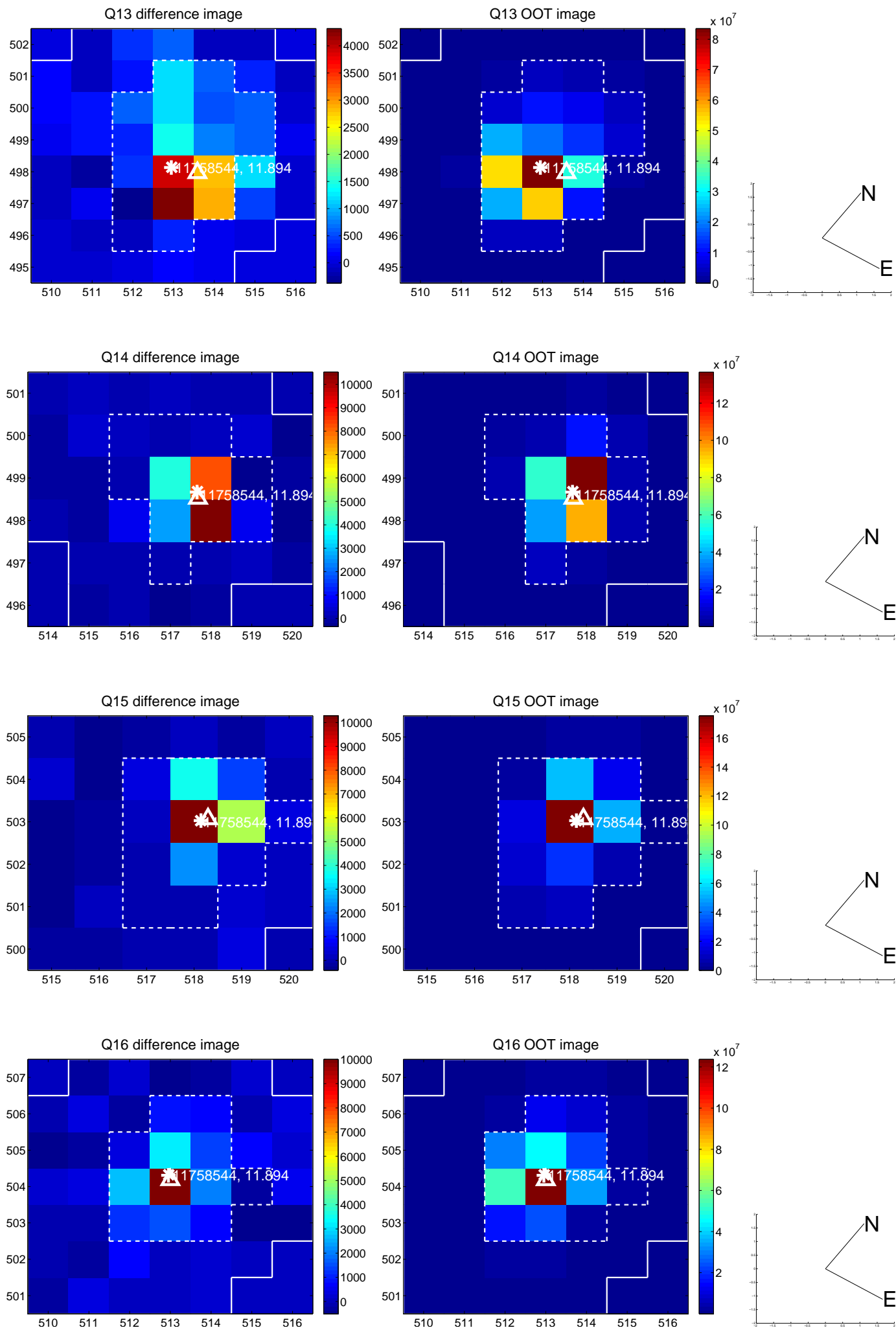
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



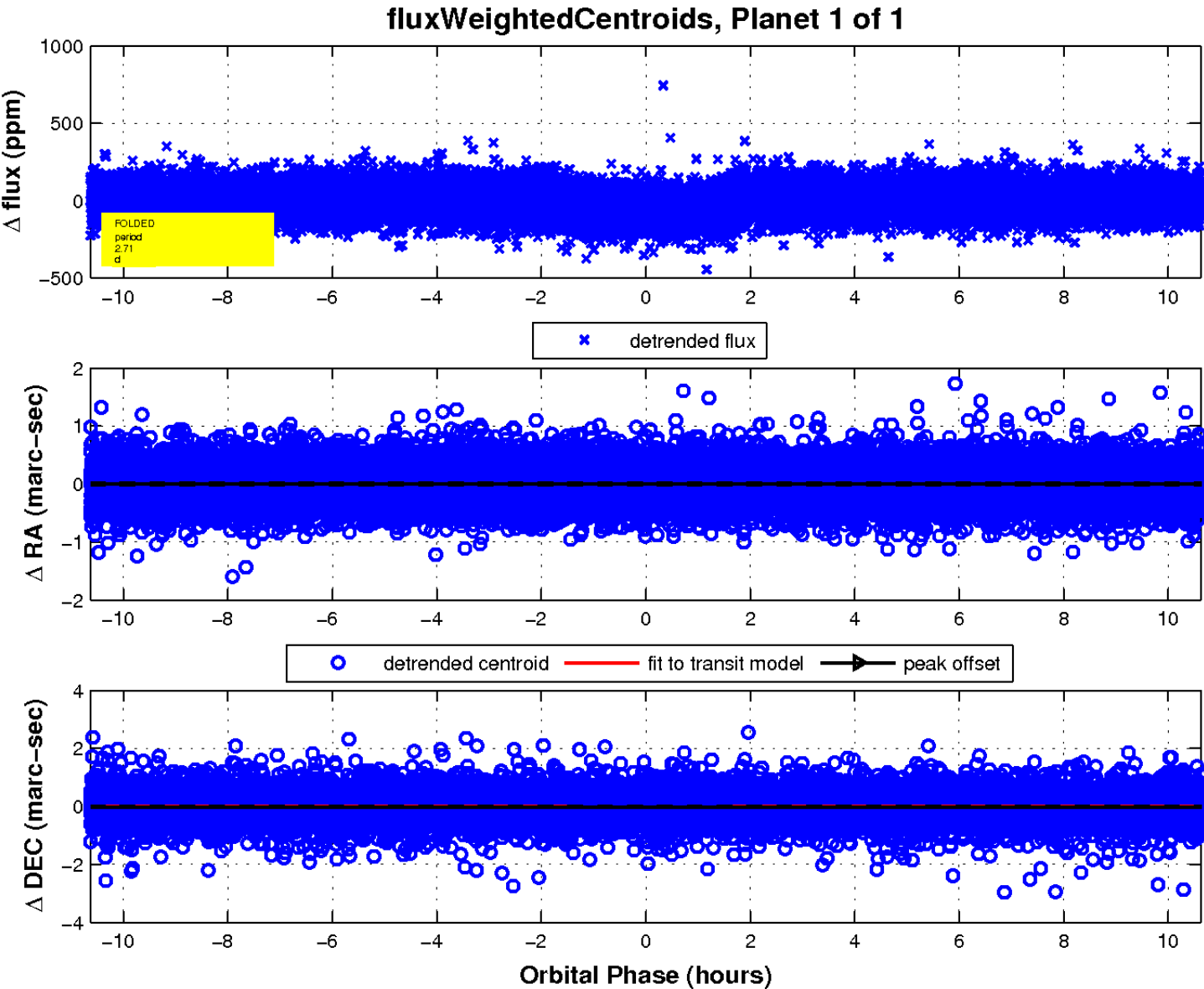
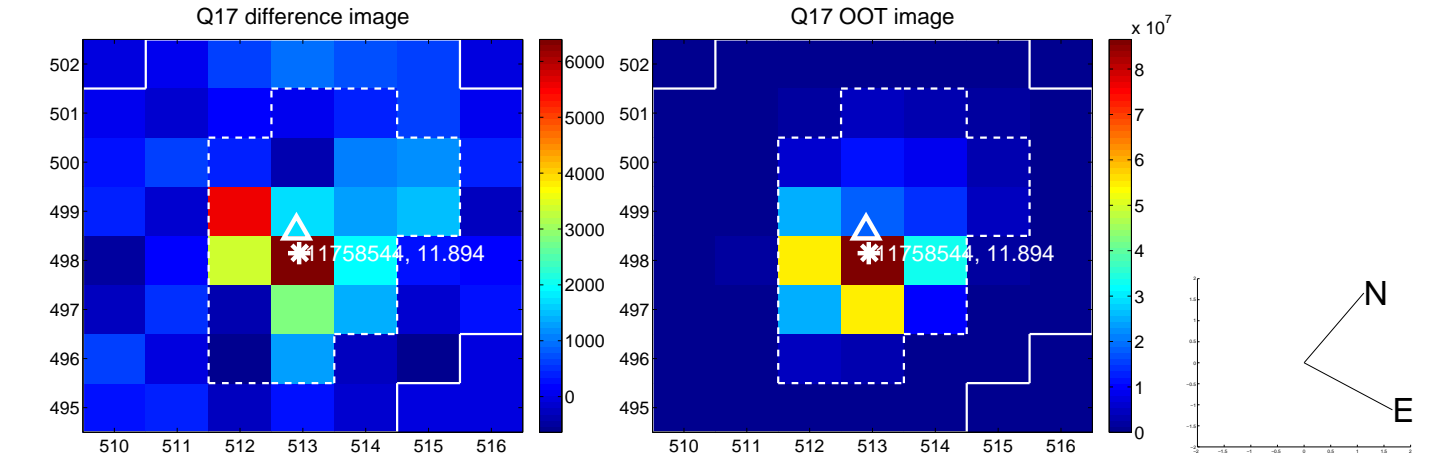
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UKIRT Image

