

KIC 004545926

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})
004545926-01	OBS	4787.01	2.482603	133.797302	34.9	2.623	8.8	9.9	1.23	6356	0.84	1626.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004545926-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_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.

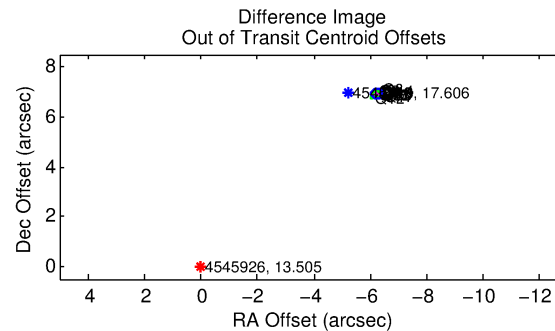
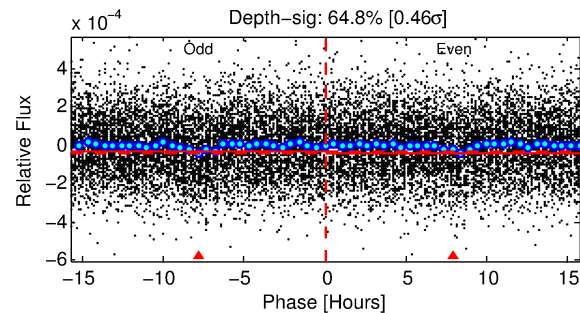
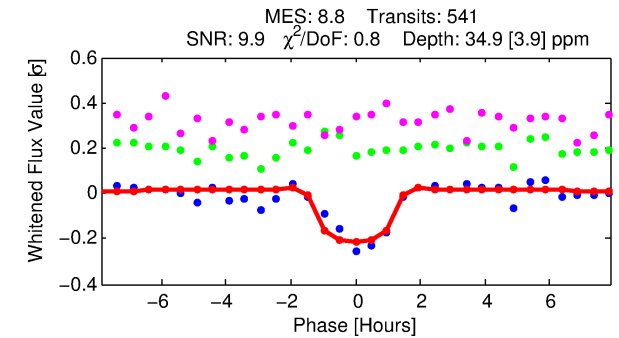
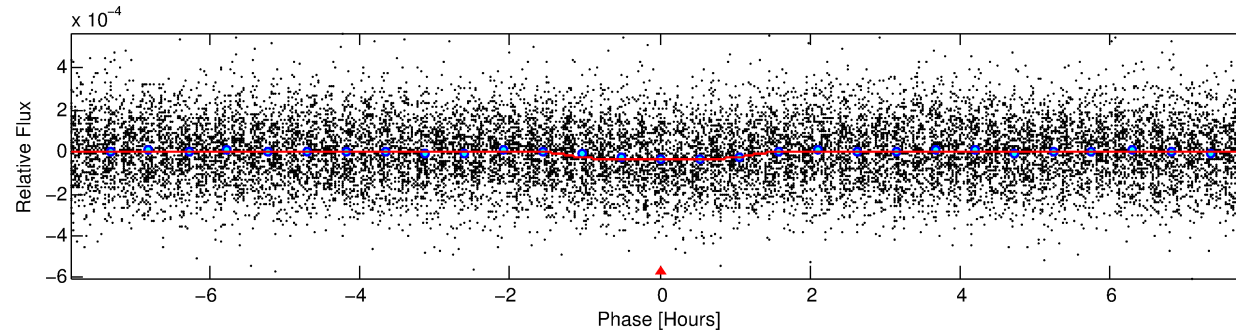
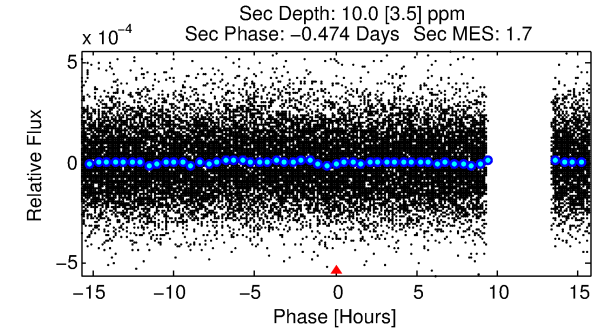
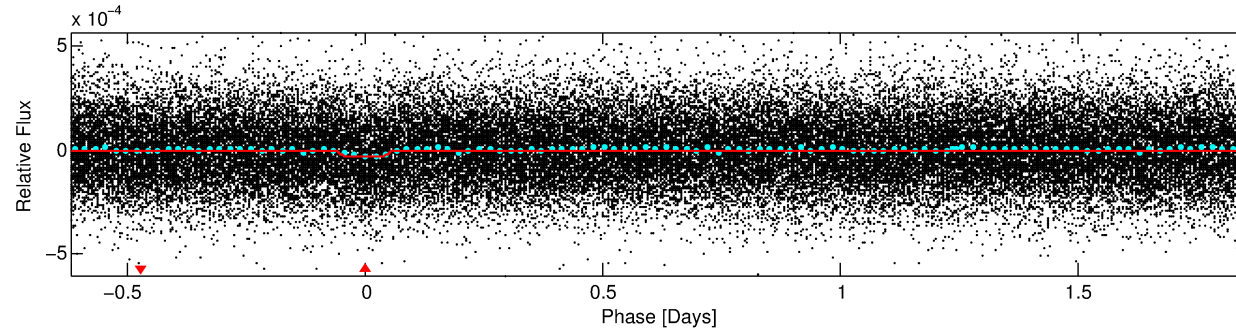
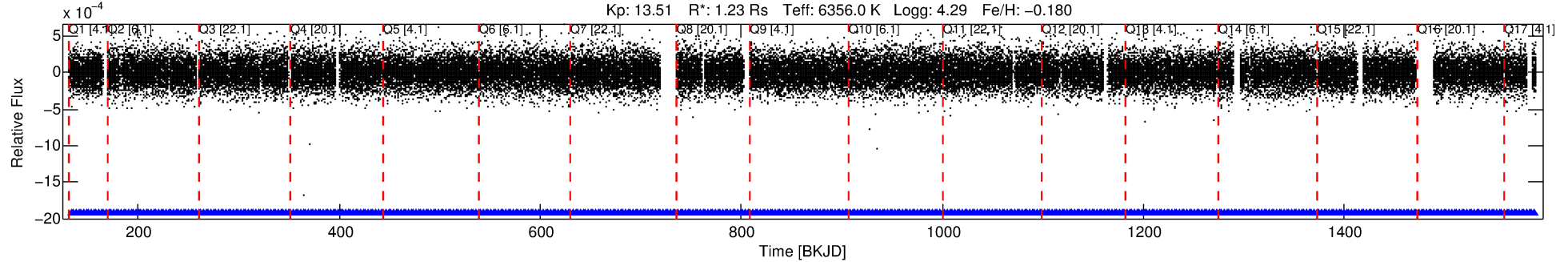
Ephemeris Match Information For 004545926-01

No Significant Match Found

DV One-Page Summary

KIC: 4545926 Candidate: 1 of 1 Period: 2.483 d
KOI: K04787.01 Corr: 0.860

Kp: 13.51 R*: 1.23 Rs Teff: 6356.0 K Logg: 4.29 Fe/H: -0.180



DV Fit Results:

Period = 2.48260 [0.00002] d
Epoch = 133.7973 [0.0039] BKJD
Rp/R* = 0.0063 [0.0024]
a/R* = 3.55 [6.95]
b = 0.89 [0.51]
Seff = 1626.21 [621.49]
Teq = 1619 [155] K
Rp = 0.84 [0.42] Re
a = 0.0367 [0.0095] AU
Ag = 10.54 [9.66] [0.99σ]
Teff = 4511 [958] K [2.98σ]

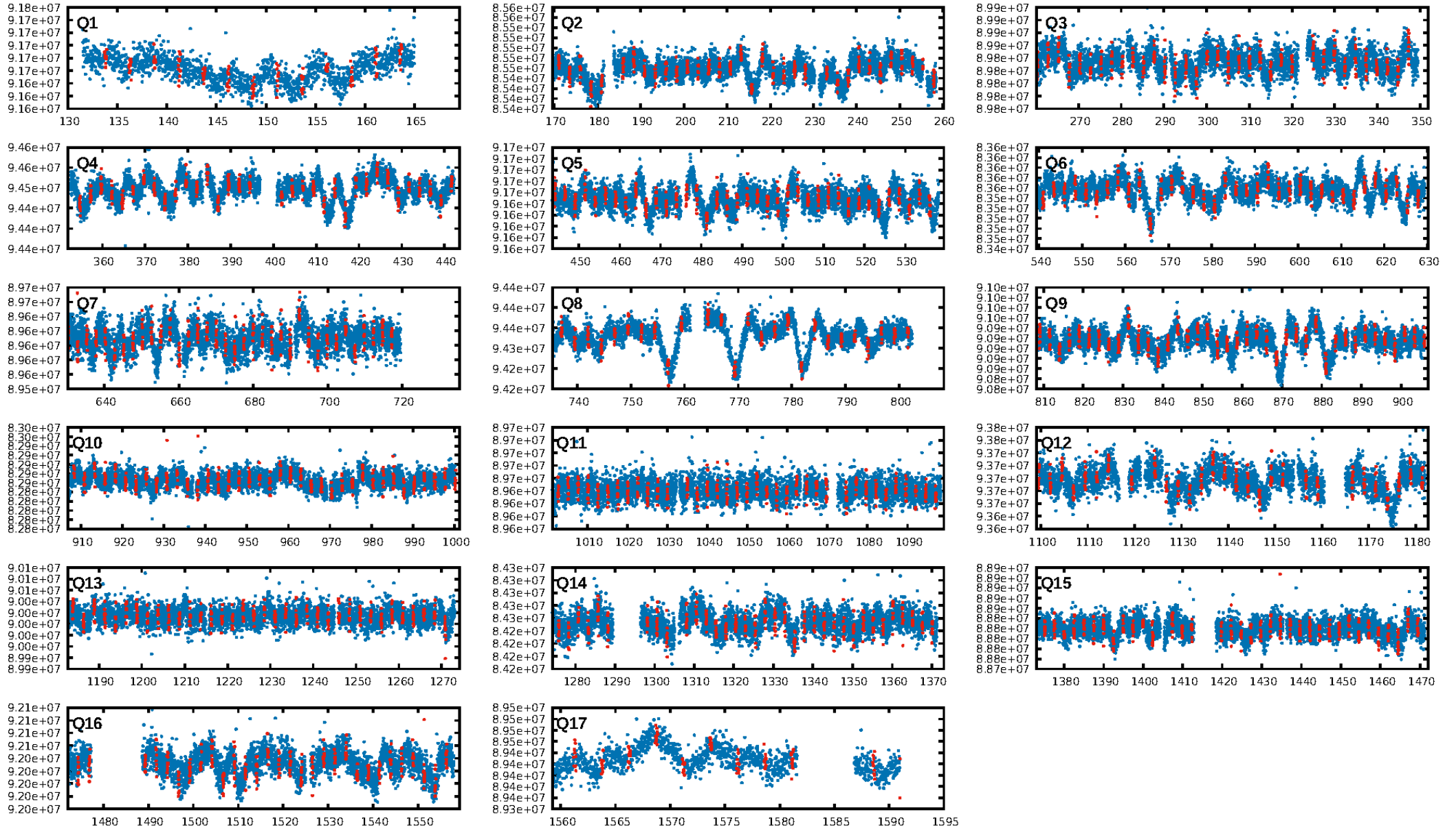
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.94e-18
RollingBand-fgt: 1.00 [518/518]
GhostDiagnostic-chr: -0.4727
Centroid-sig: 0.0%
Centroid-so: 25.489 arcsec [22.46σ]
OotOffset-rm: 9.310 arcsec [132.58σ]
KicOffset-rm: 9.332 arcsec [135.62σ]
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]

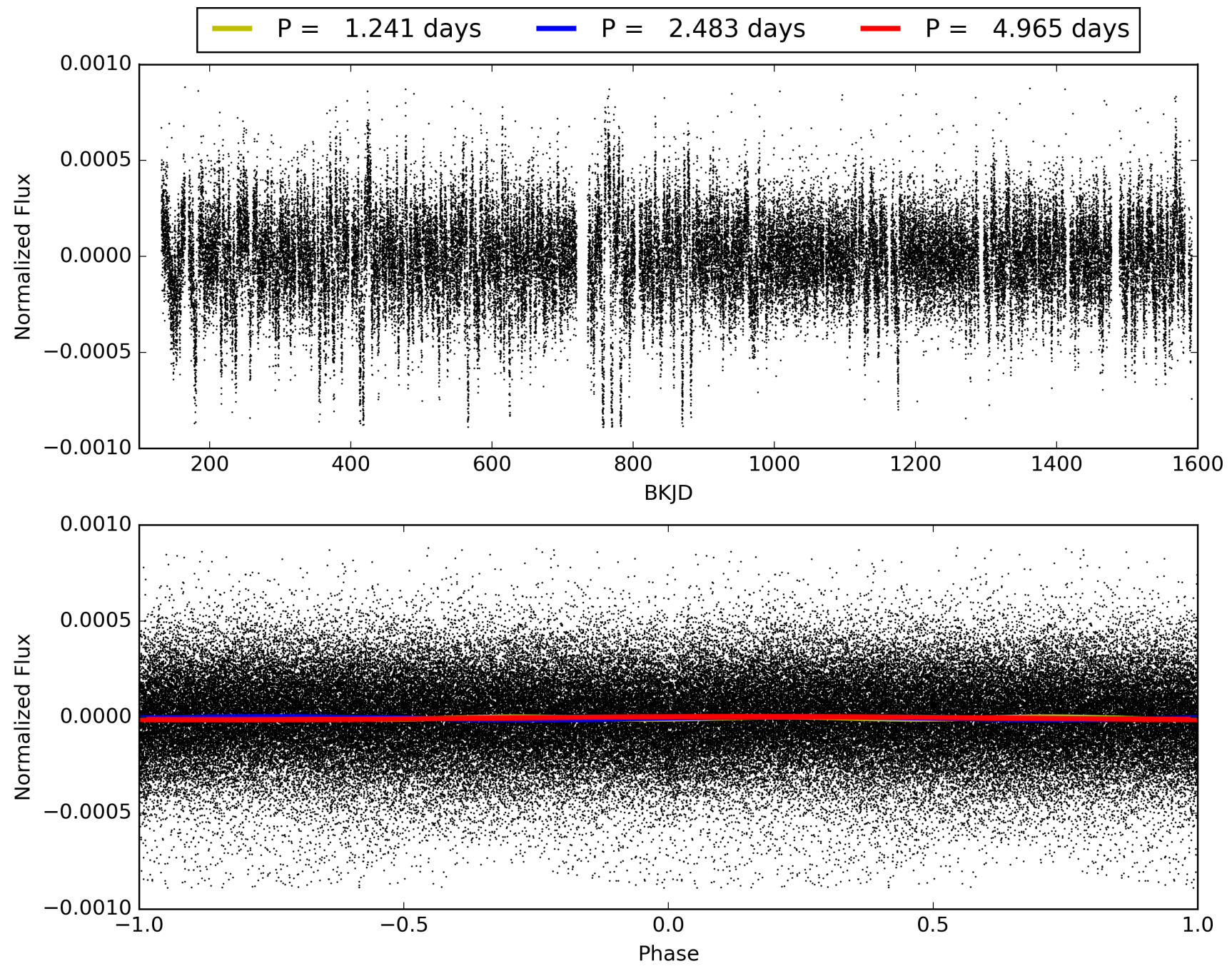
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:06:31 Z

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

TCE 004545926-01, PDC Light Curves

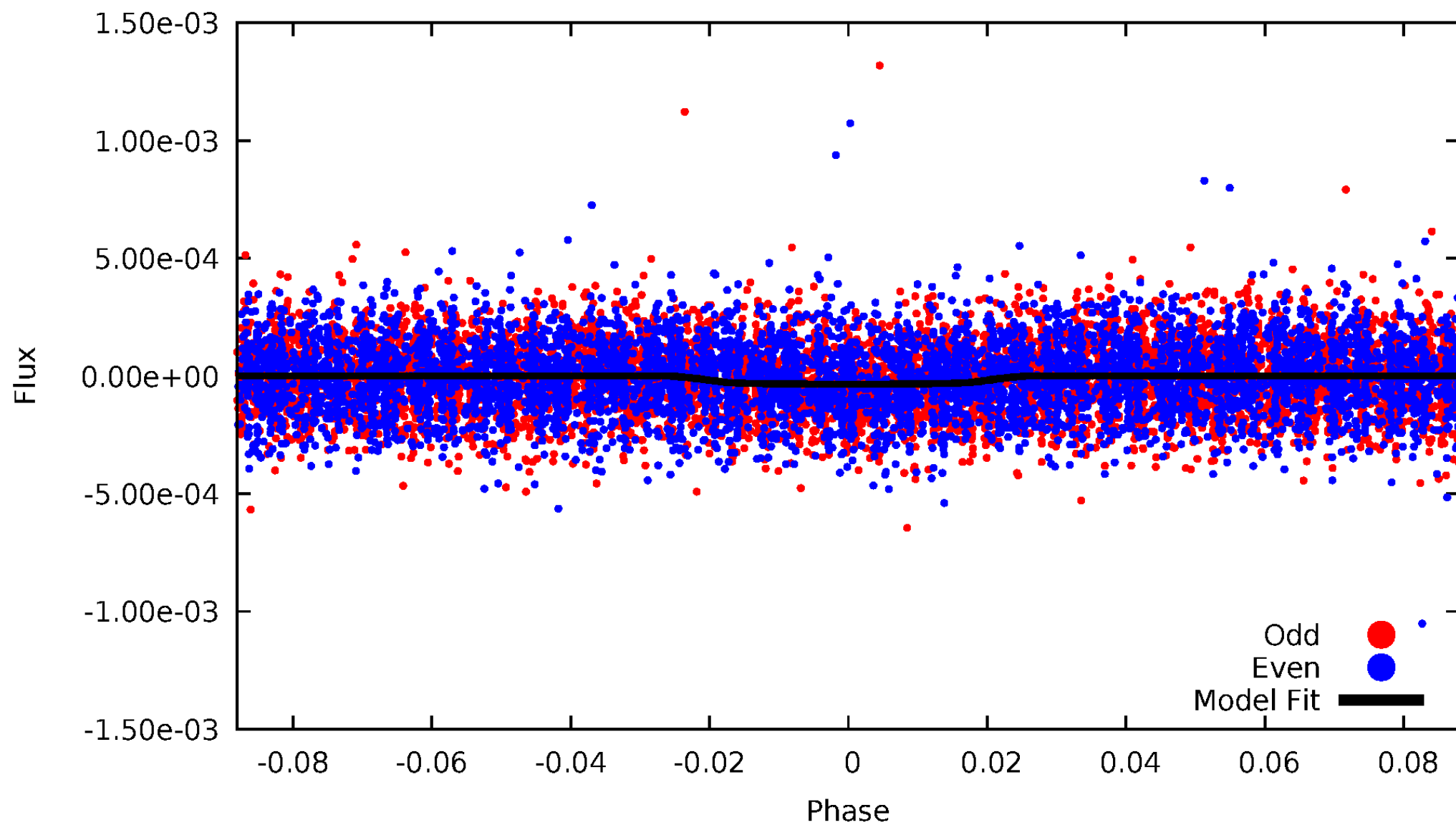


TCE 004545926-01



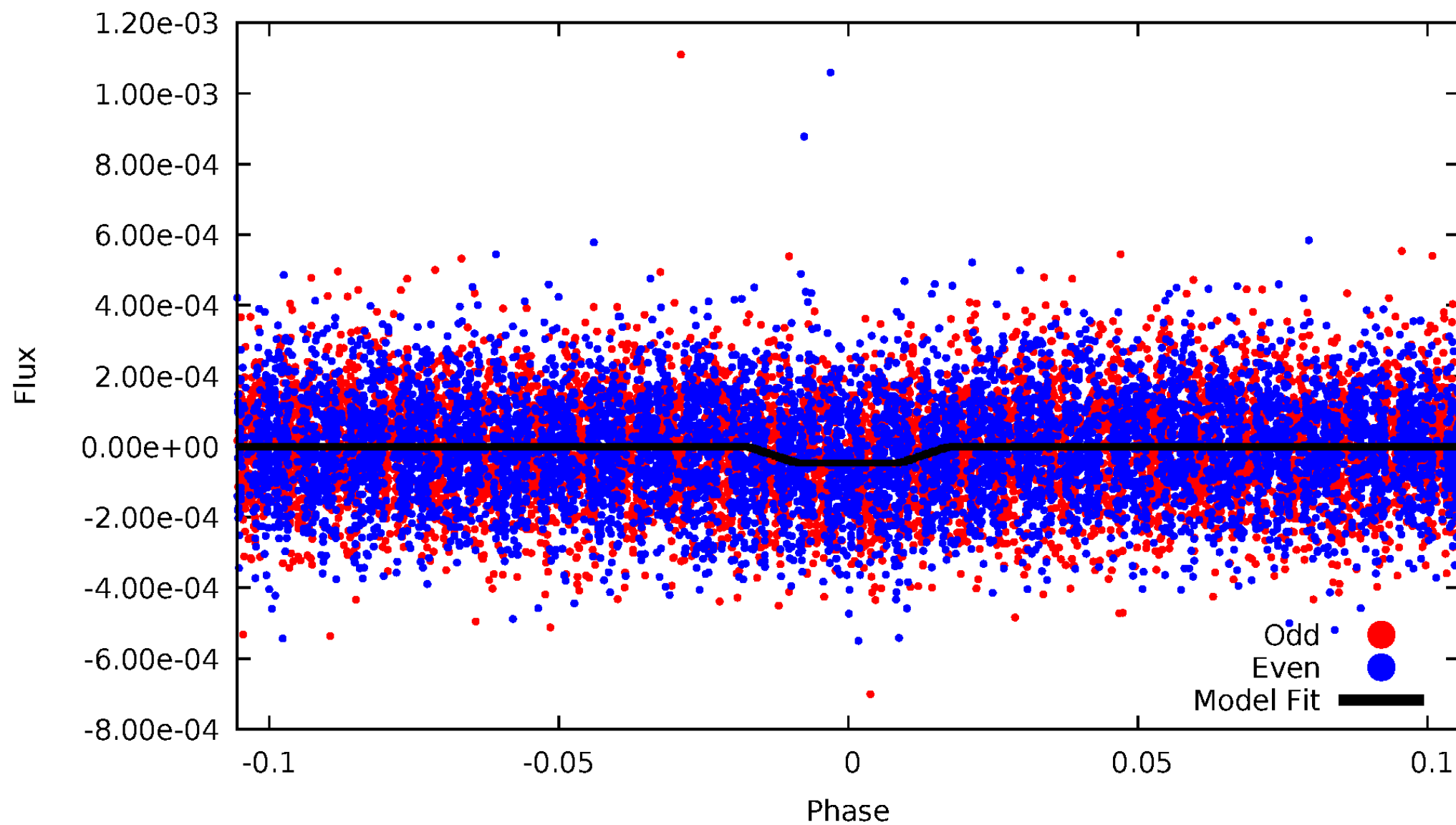
DV Odd/Even

TCE 004545926-01



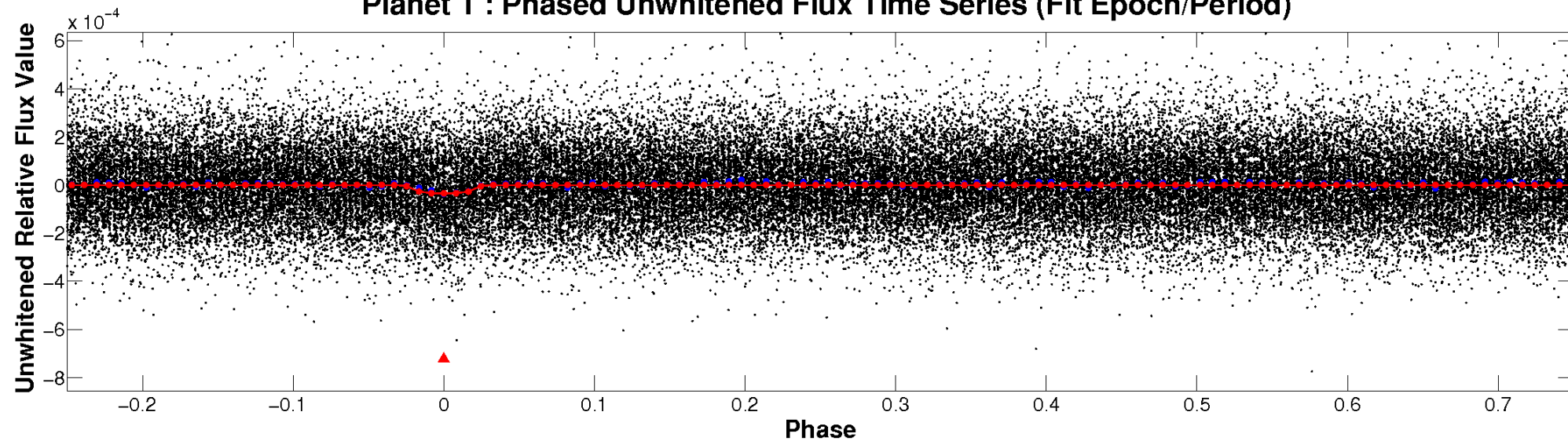
ALT Odd/Even

TCE 004545926-01

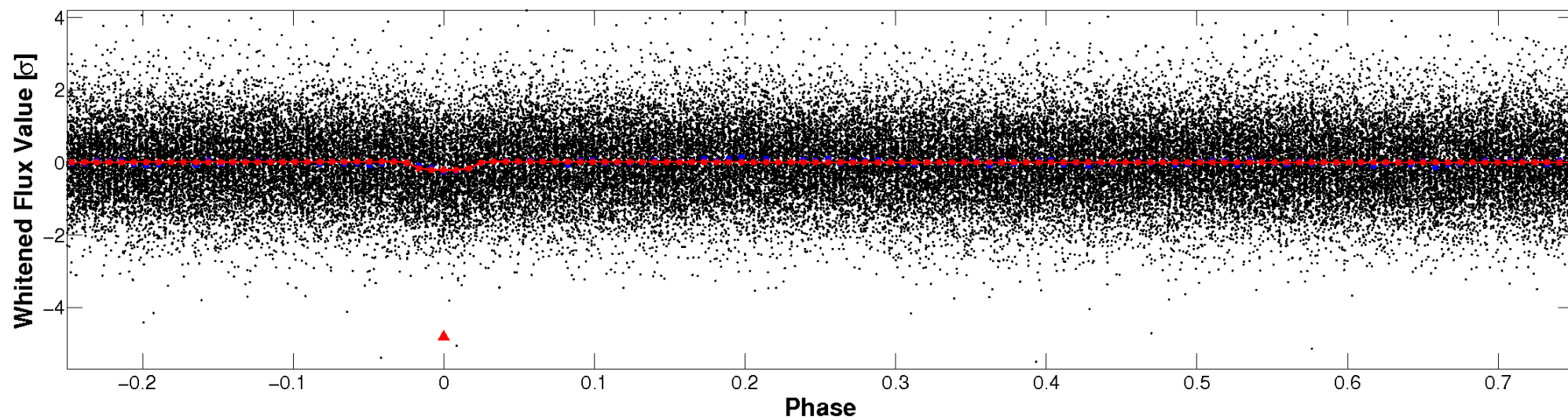


Non-Whitened Vs. Whitened Light Curve

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

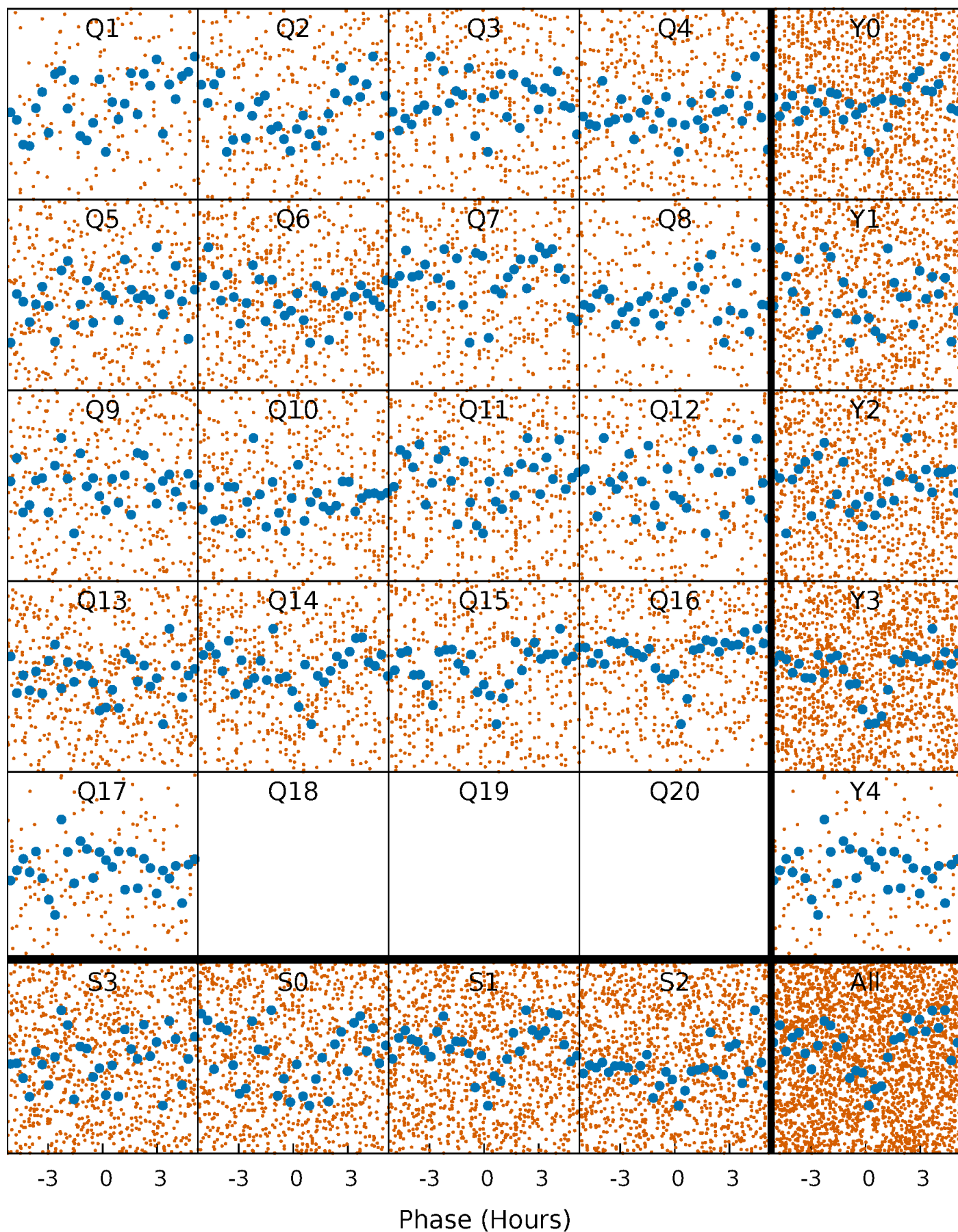


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



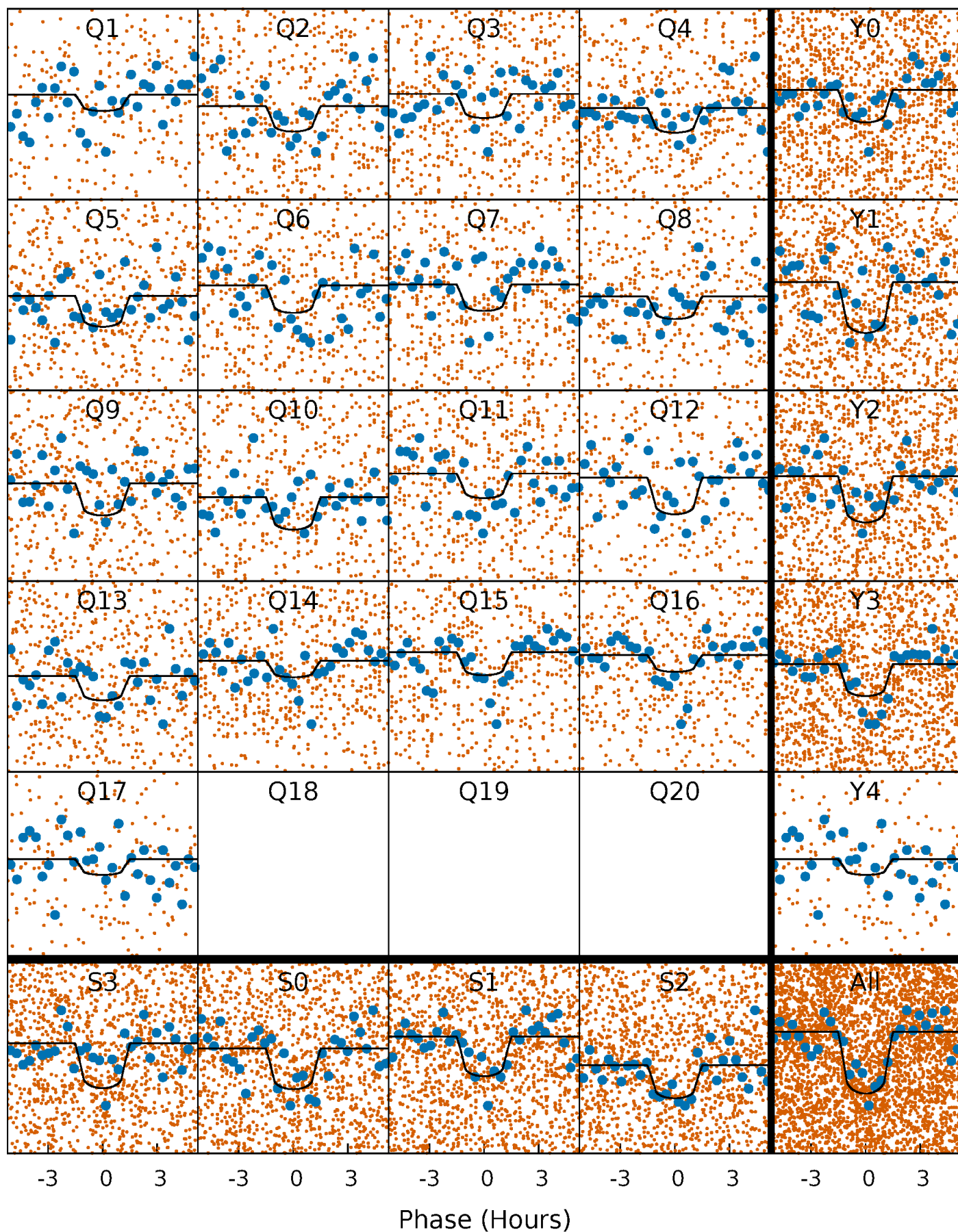
PDC Quarter-Phased Transit Curves

TCE 004545926-01 P= 2.482603 Days $T_0=133.797302$ (BKJD)



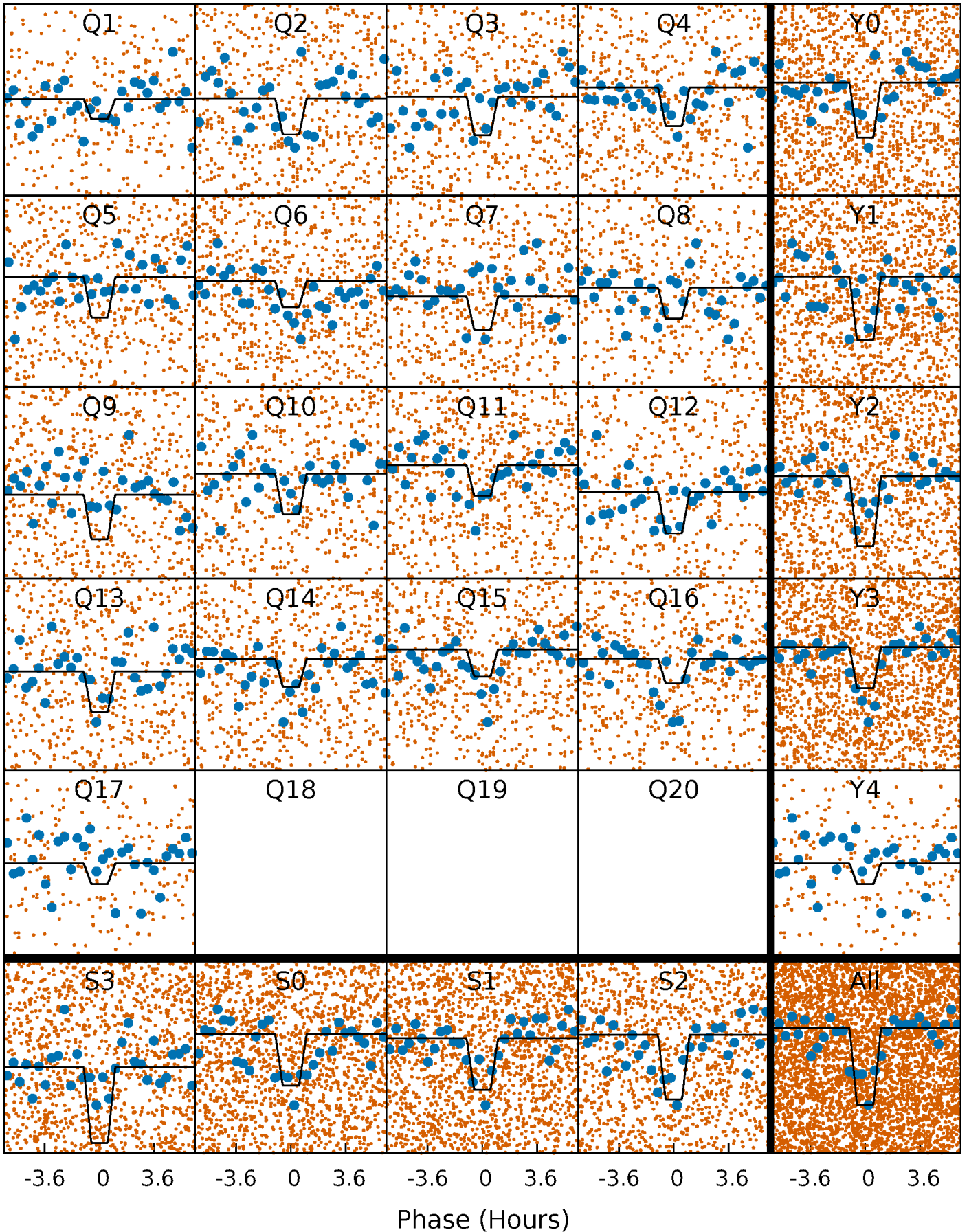
DV Quarter-Phased Transit Curves

TCE 004545926-01 P= 2.482603 Days $T_0=133.797302$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

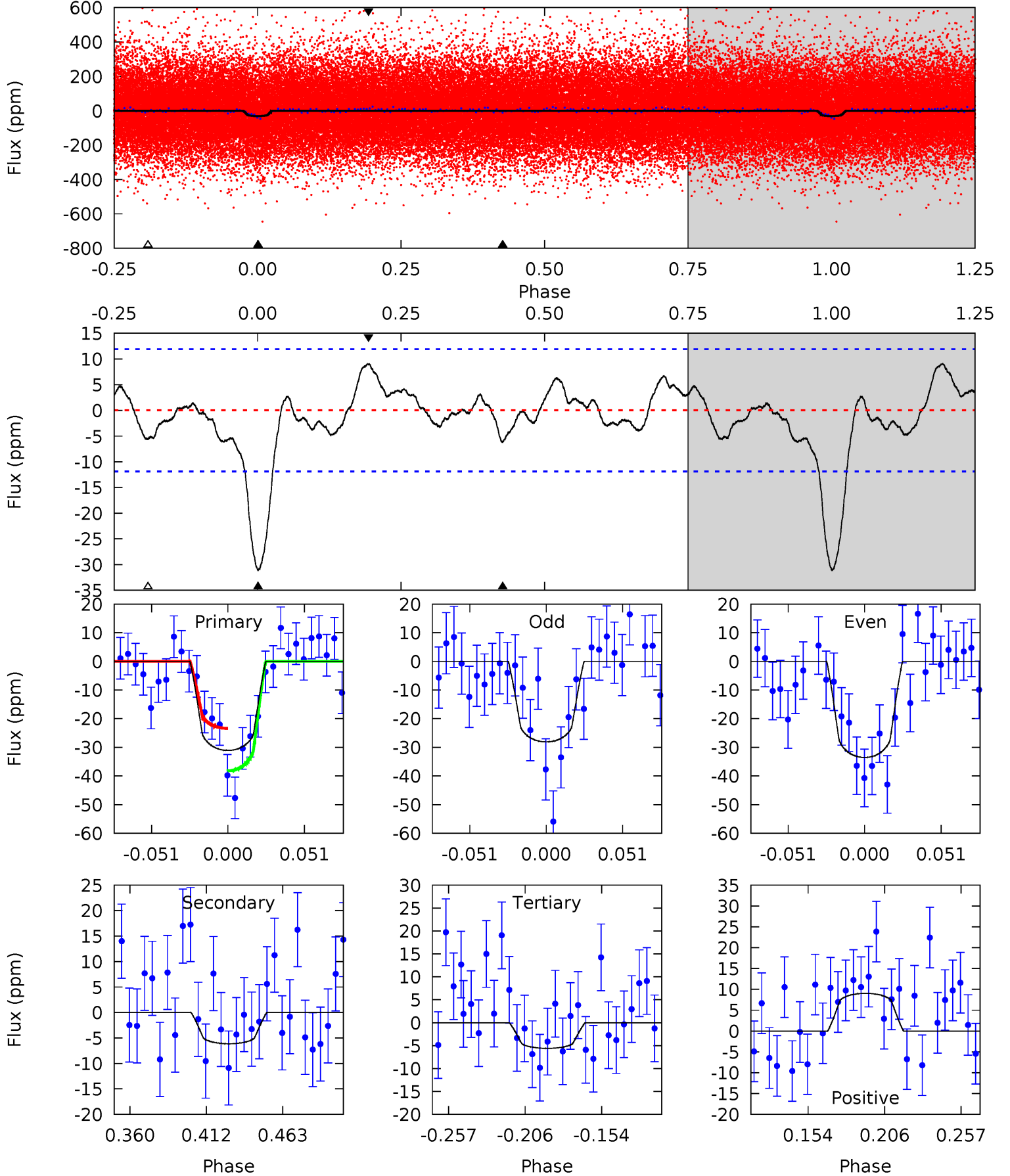
TCE 004545926-01 P= 2.482627 Days $T_0=133.797763$ (BKJD)



DV Model-Shift Uniqueness Test

004545926-01, P = 2.482603 Days, E = 131.314699 Days

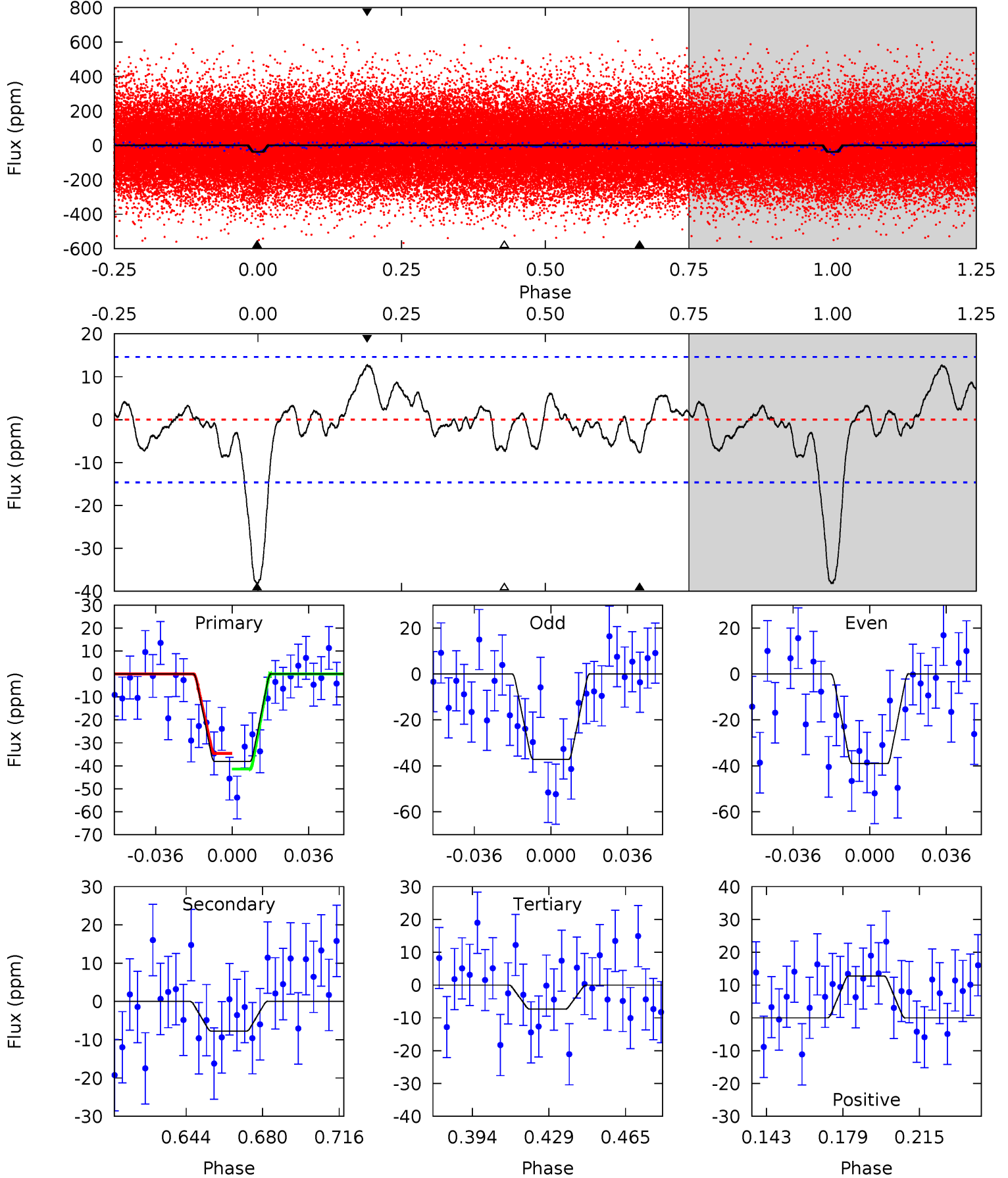
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	2.43	2.21	3.57	4.70	1.95	1.36	10.1	8.72	0.22	-1.14	1.08	0.85	0.23	2.93



Alt Model-Shift Uniqueness Test

004545926-01, P = 2.482627 Days, E = 131.315136 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	2.53	2.40	4.17	4.78	2.10	1.37	10.1	8.29	0.12	-1.64	0.30	0.82	0.25	1.11



Stellar Parameters For KIC 004545926

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6356^{+153}_{-192}	$4.292^{+0.128}_{-0.192}$	$-0.180^{+0.250}_{-0.300}$	$1.225^{+0.388}_{-0.179}$	$1.068^{+0.188}_{-0.125}$	$0.818^{+0.489}_{-0.413}$
	+2%/-3%	+3%/-4%	+139%/-167%	+32%/-15%	+18%/-12%	+60%/-50%
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 004545926-01 / KOI 4787.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 3	$0.86^{+0.36}_{-0.32}$	2274^{+169}_{-120}	4165^{+963}_{-594}	$5.992^{+10.400}_{-3.405}$
Alt.	-8 ± 3	$0.90^{+0.37}_{-0.34}$	2275^{+152}_{-127}	4274^{+995}_{-602}	$6.734^{+12.431}_{-3.805}$

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 $A_{obs} \gg 1.0$

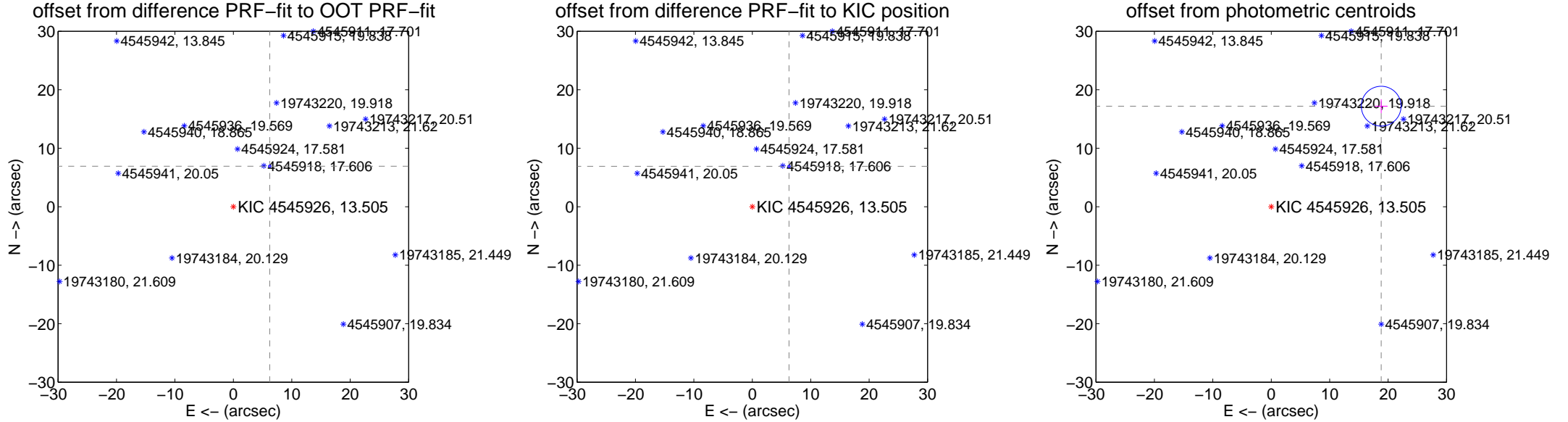
DV Centroid Data

Supplemental centroid analysis for 004545926-01. Kepler magnitude: 13.51. Transit SNR 9.91

There are 17 quarters with good PRF difference image offsets

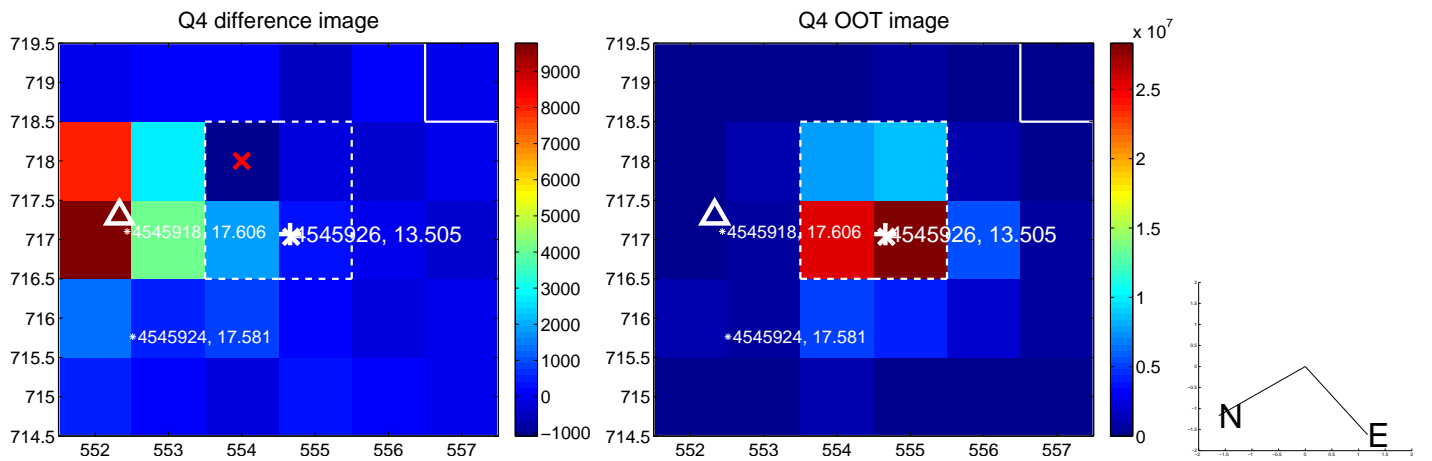
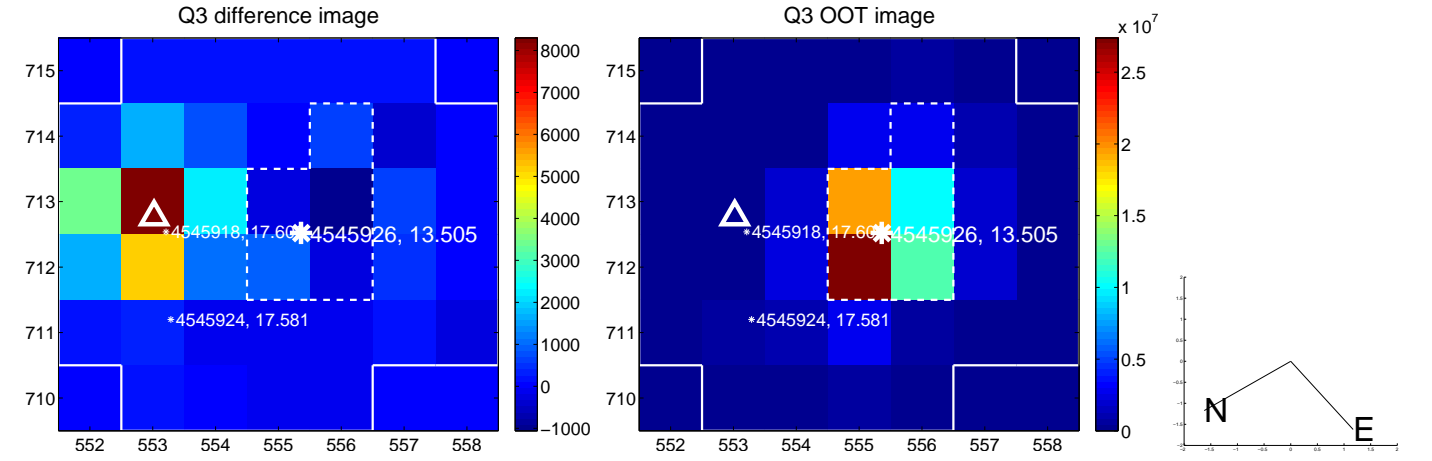
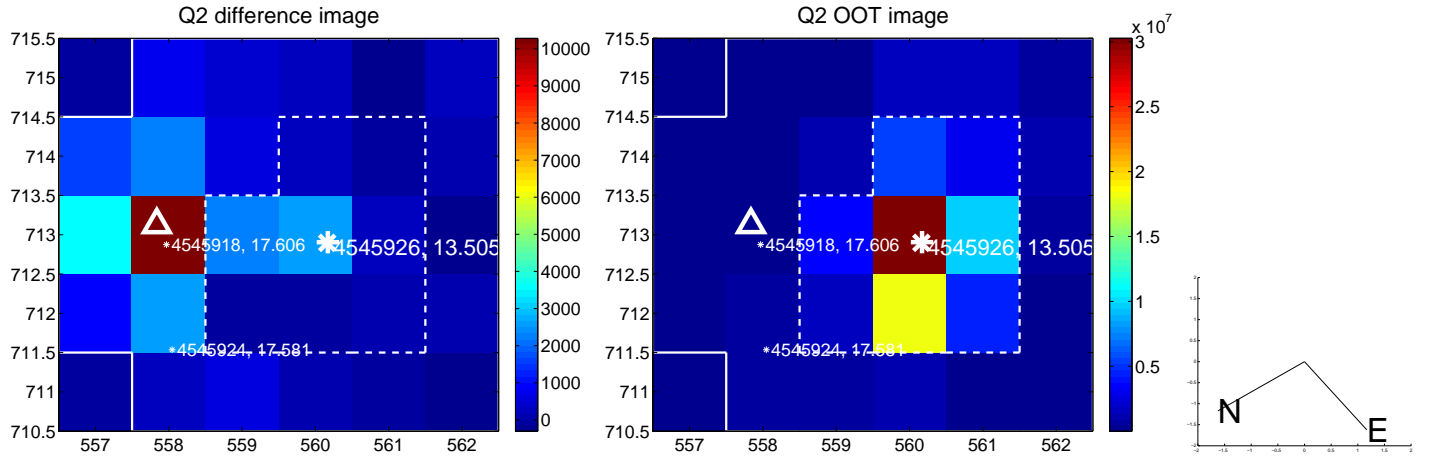
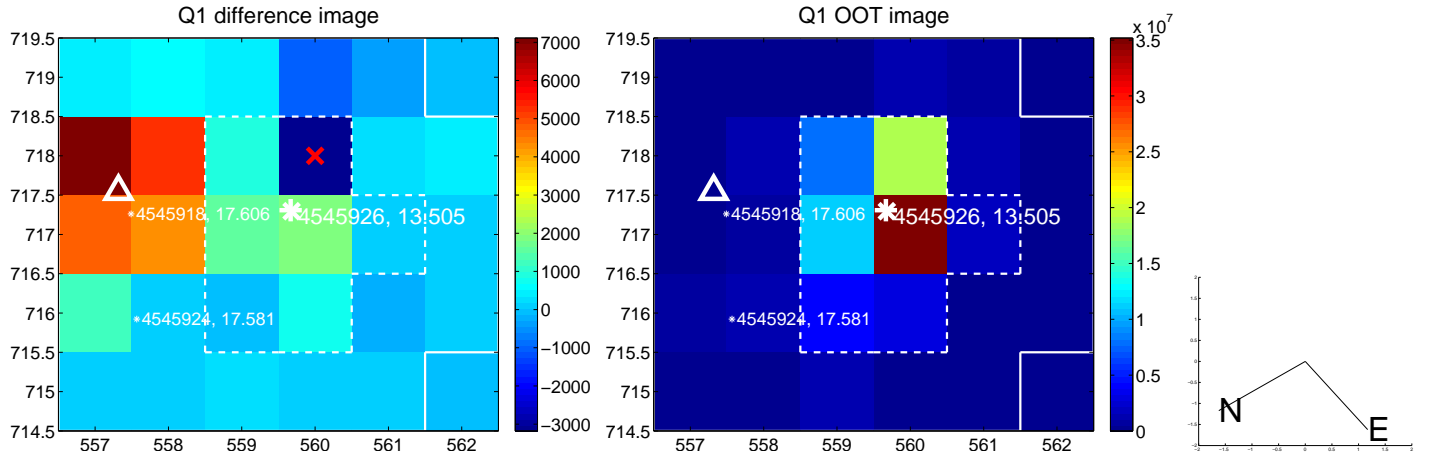
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.310 \pm 0.070	132.58	-6.225 \pm 0.069	6.923 \pm 0.069
PRF-fit source offset from KIC position	9.332 \pm 0.069	135.62	-6.283 \pm 0.068	6.900 \pm 0.069
photometric centroid source offset	25.49 \pm 1.13	22.46	-18.82 \pm 1.10	17.19 \pm 1.18

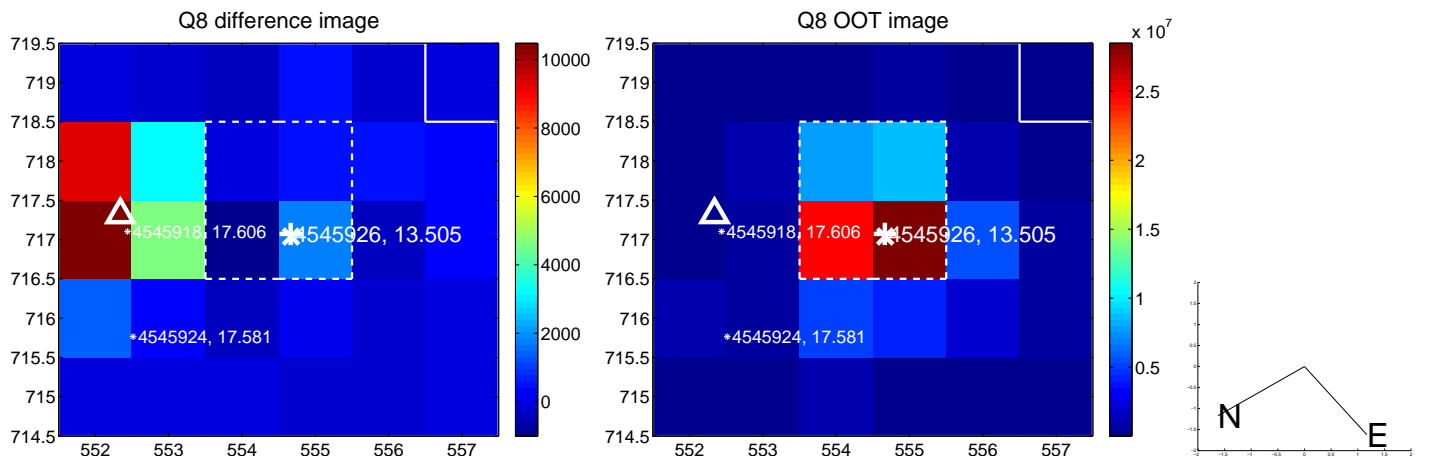
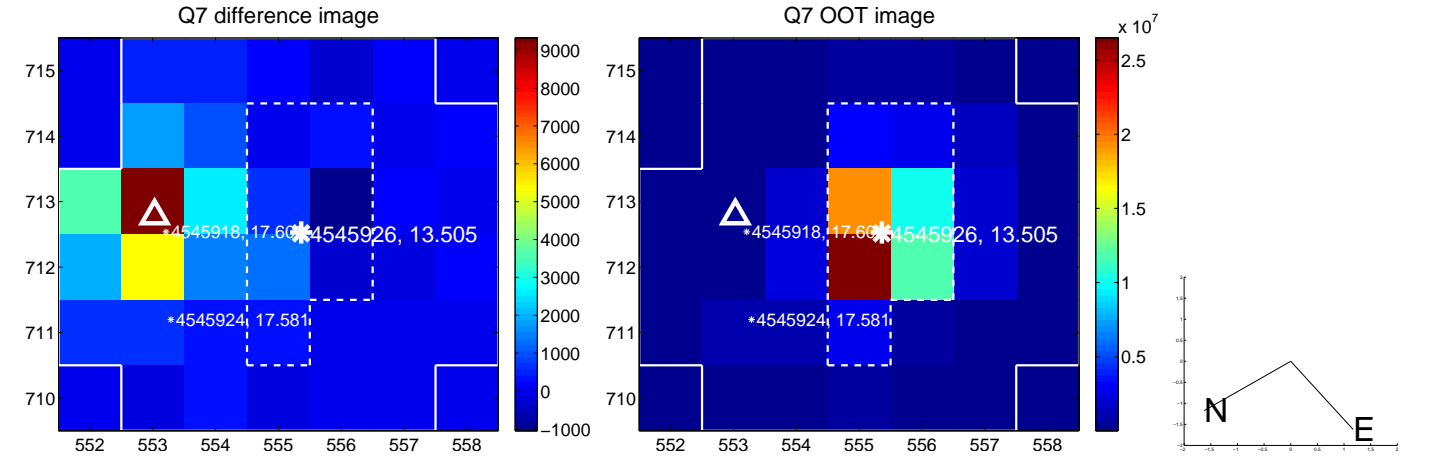
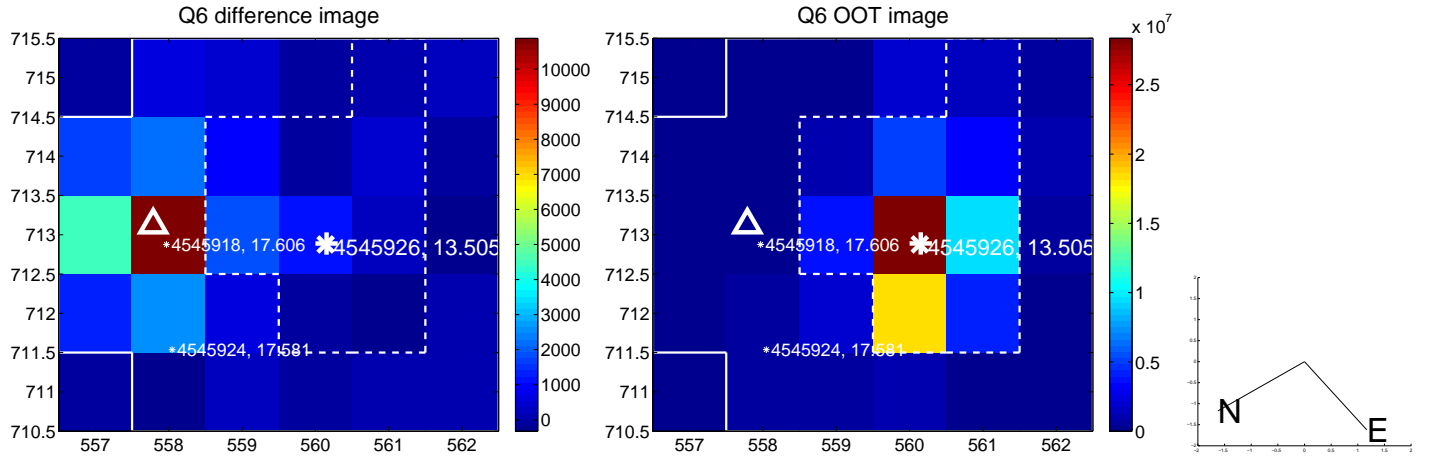
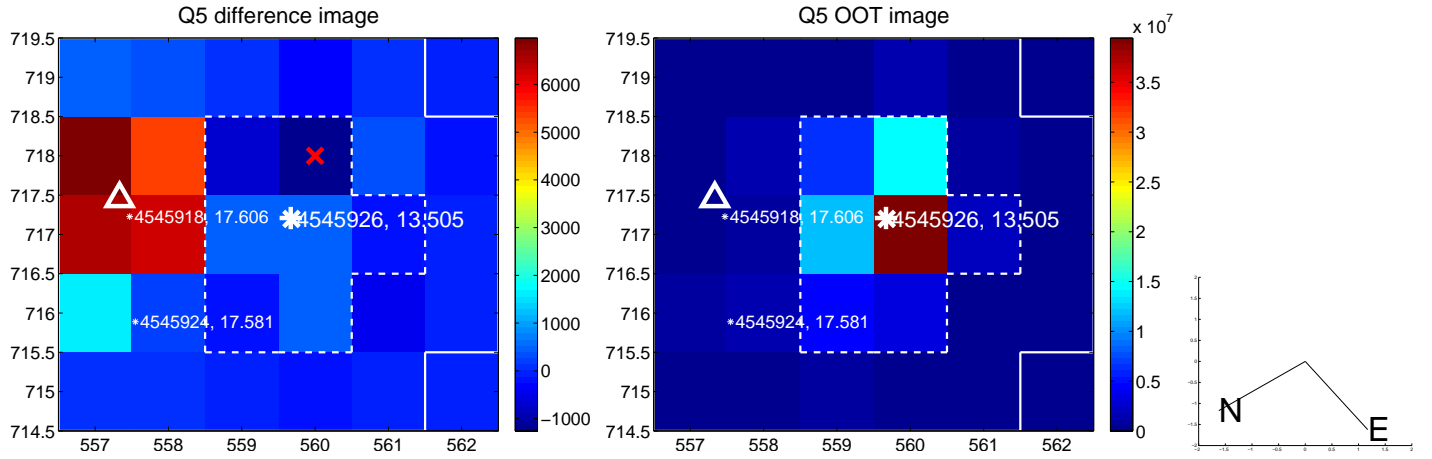


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

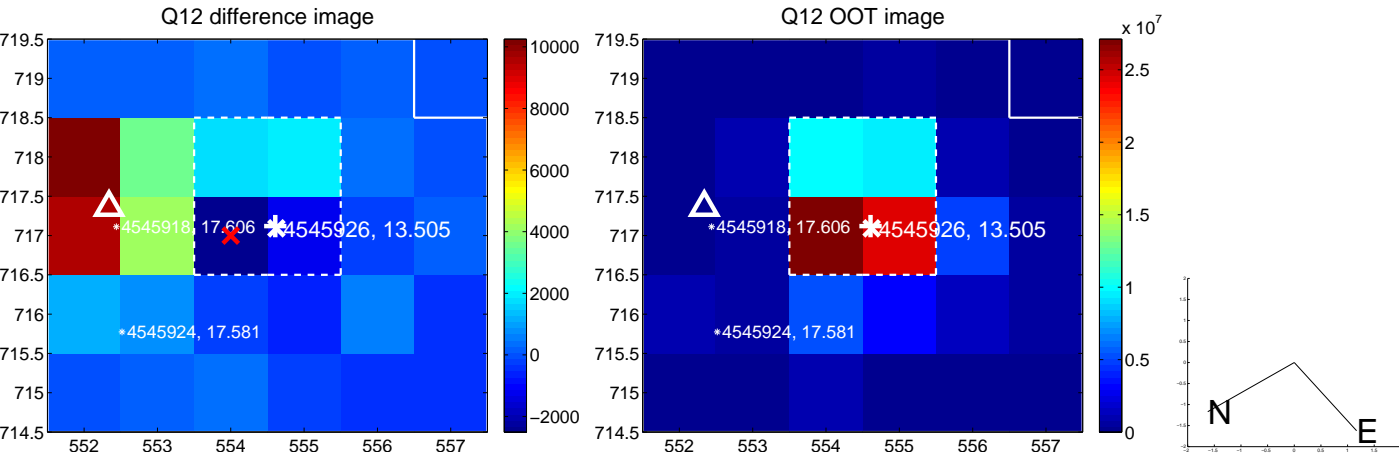
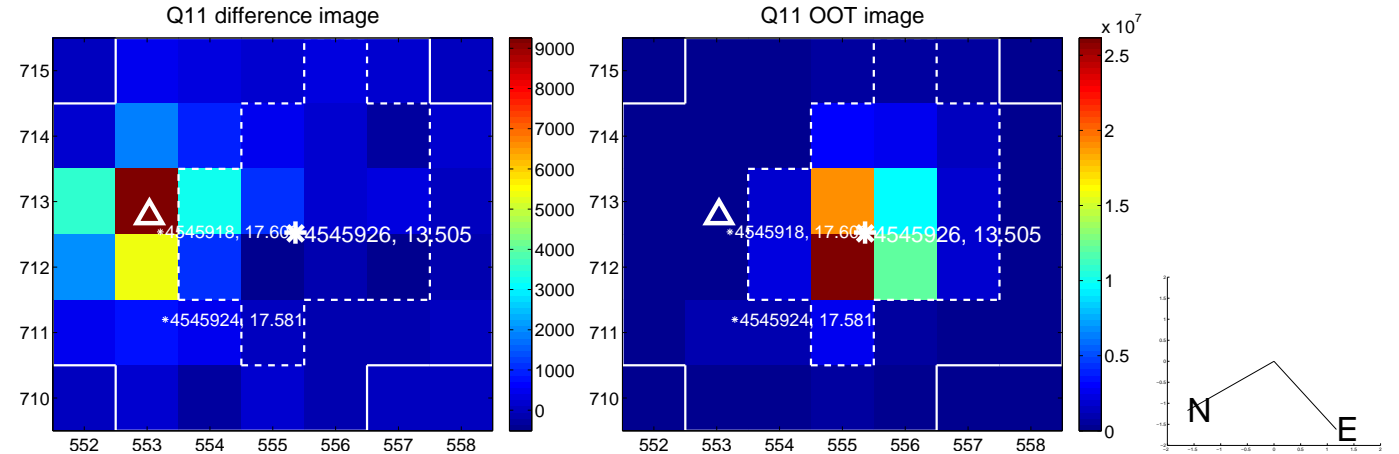
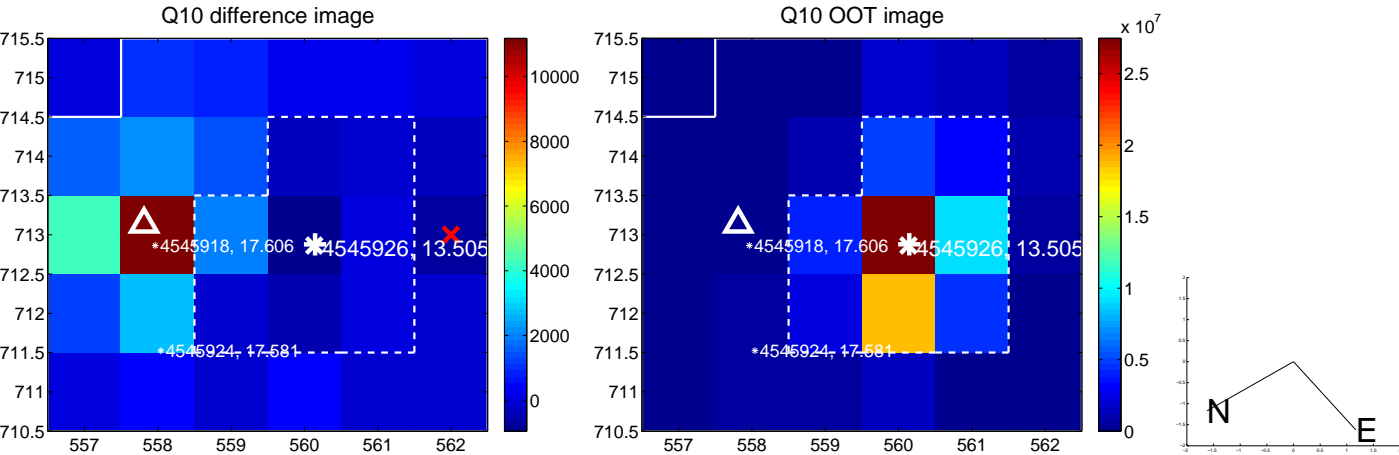
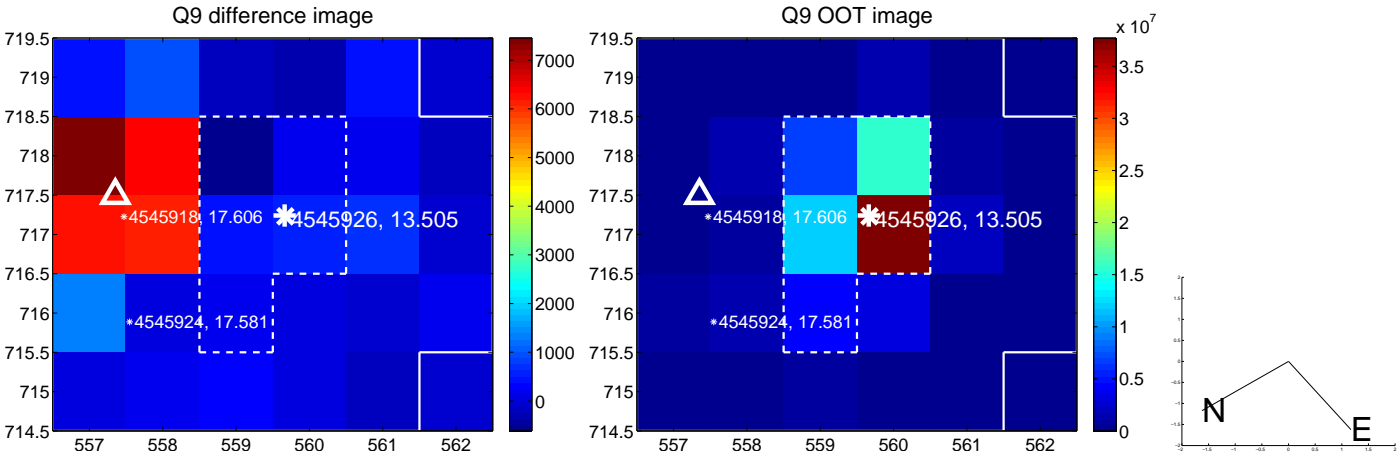
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



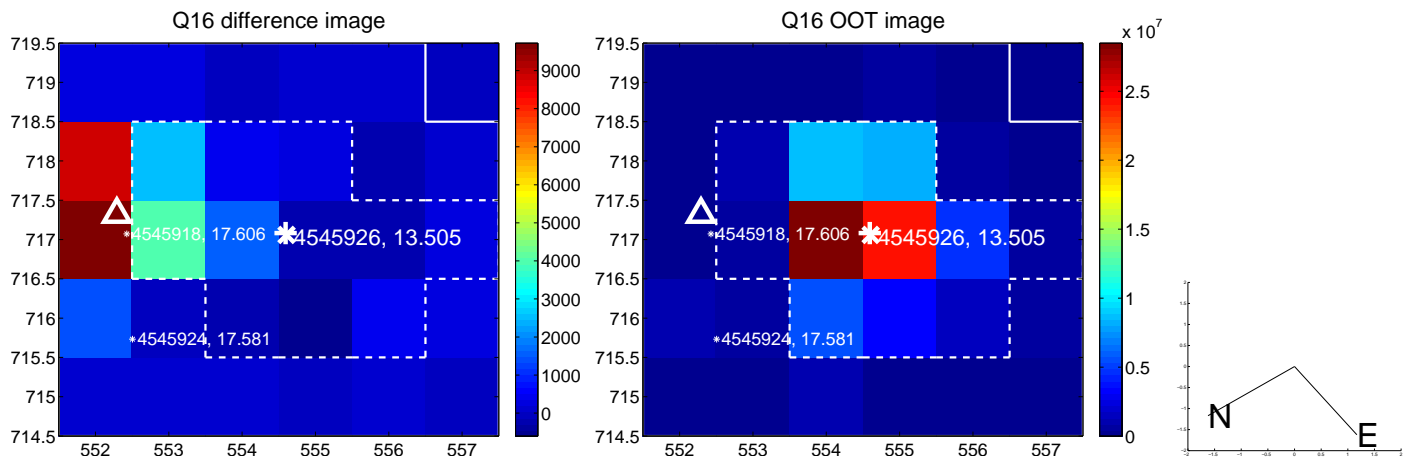
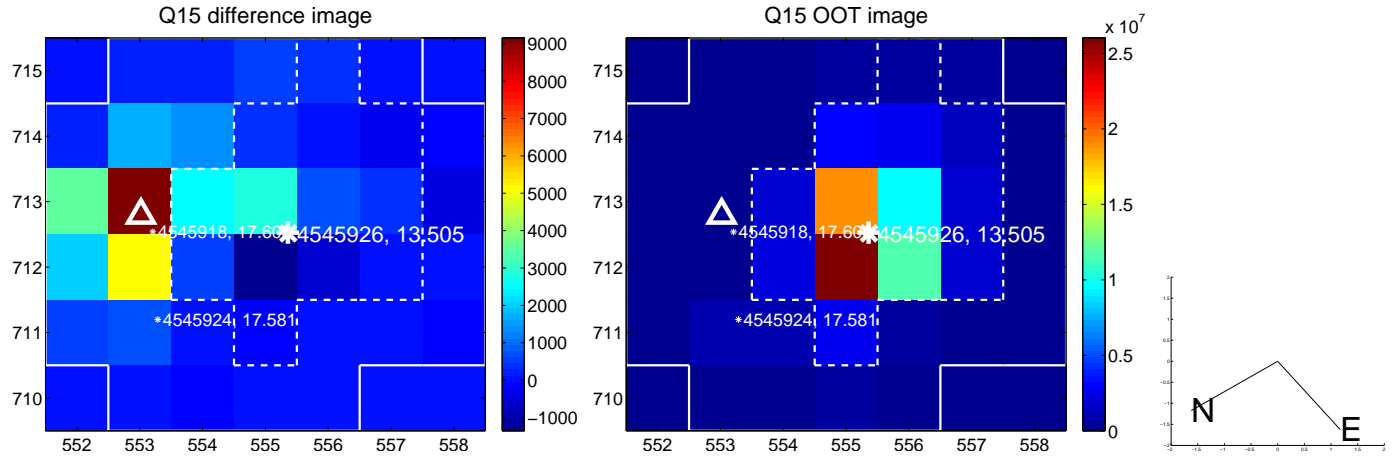
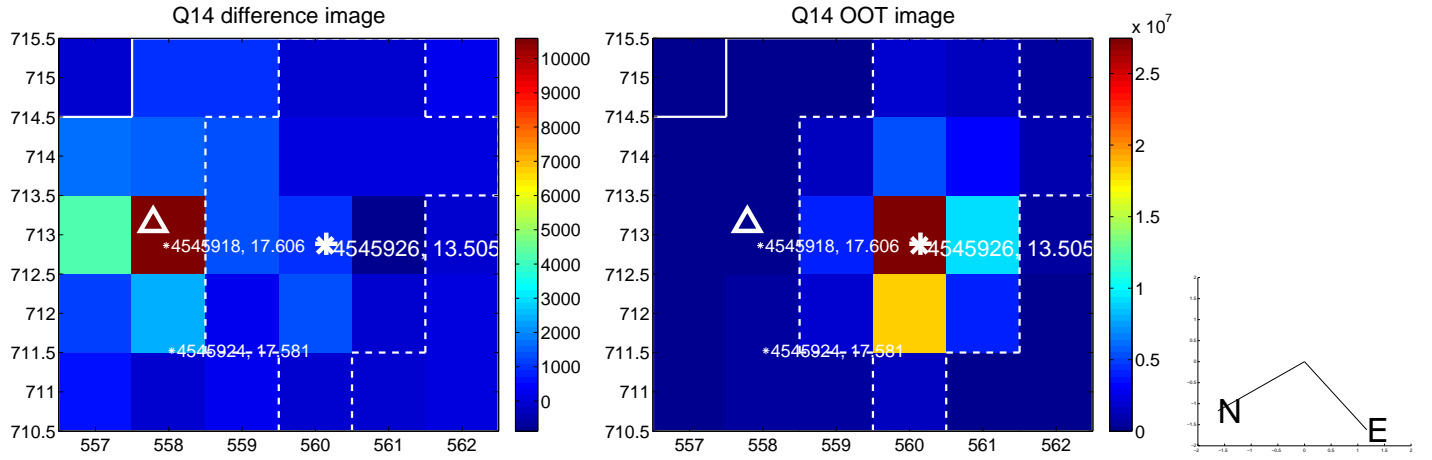
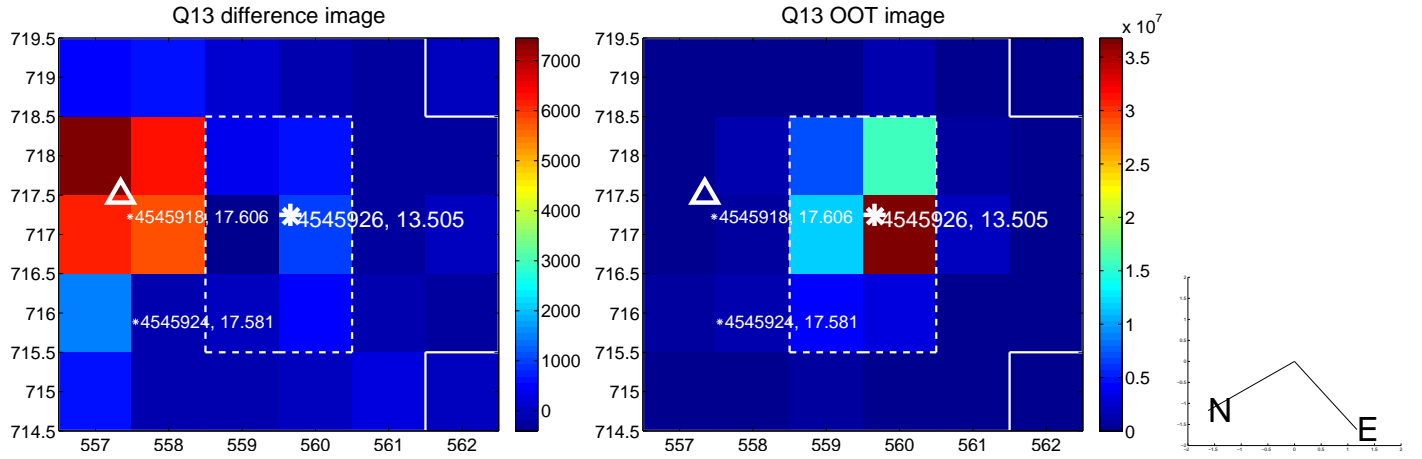
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



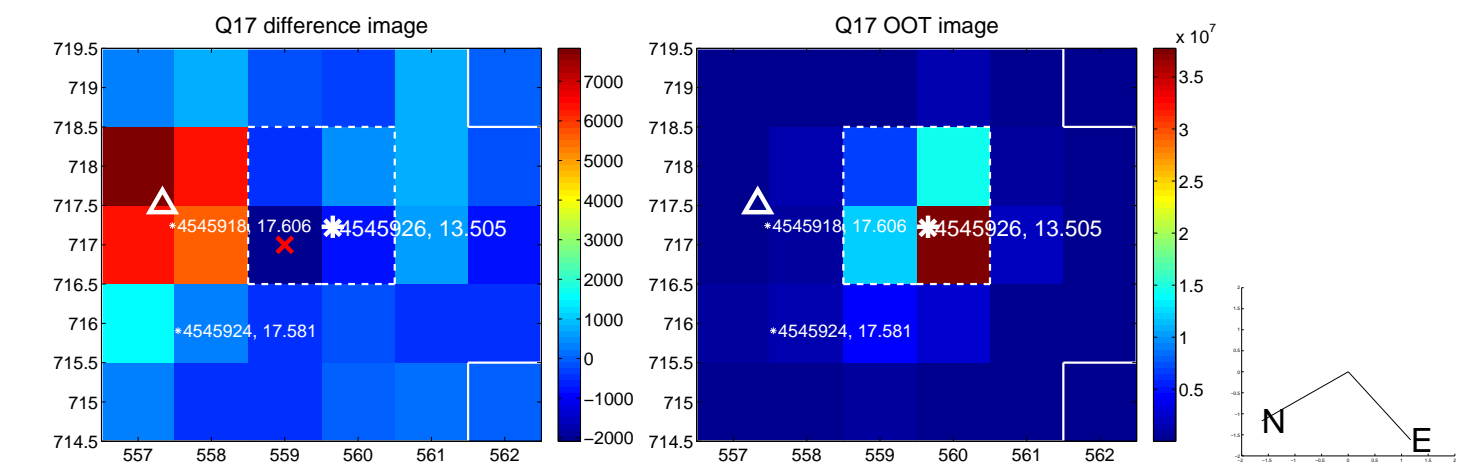
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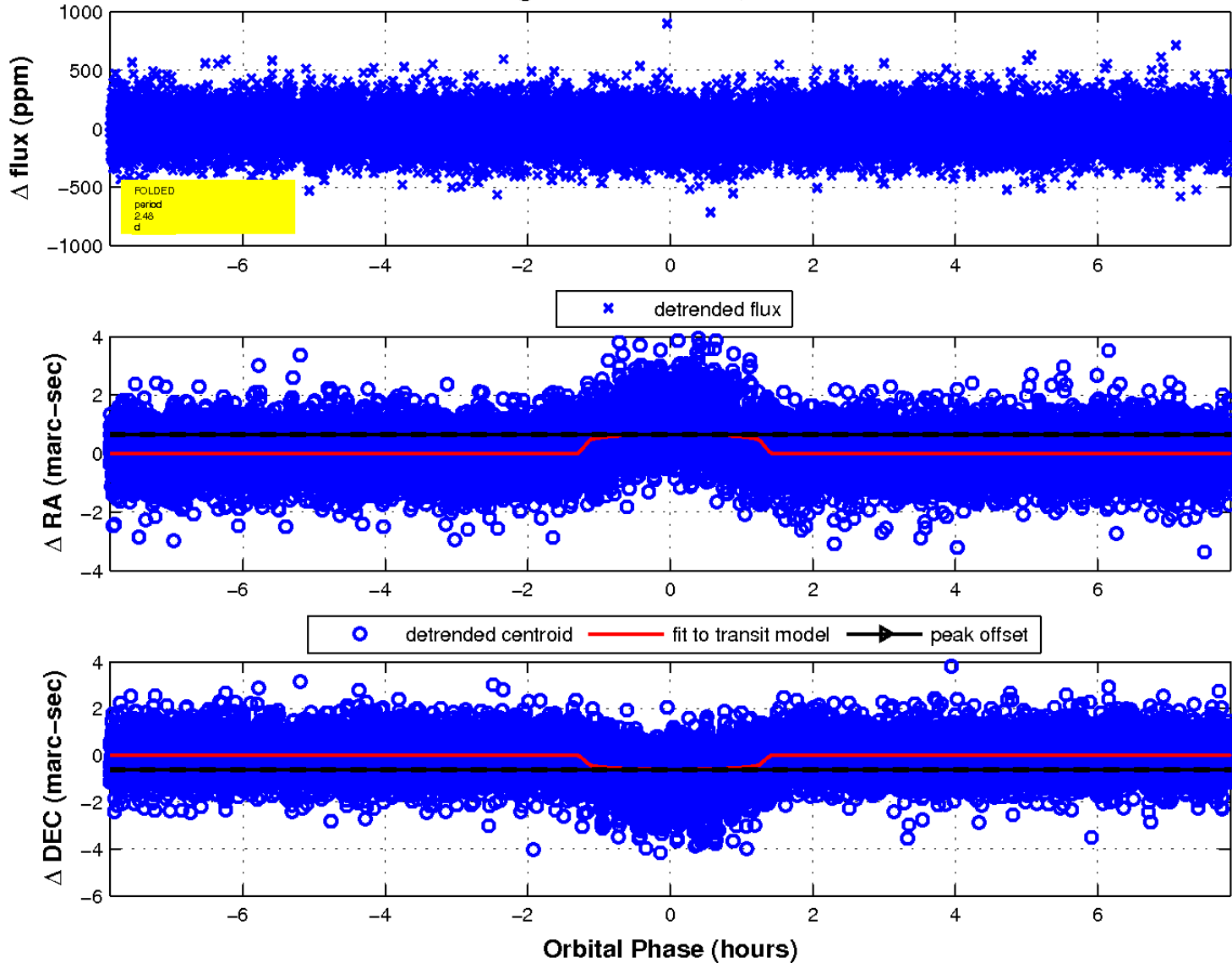
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

