

KIC 006549466

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})
006549466-01	OBS	No	4.322704	133.561777	8.8	27.010	8.6	8.5	2.97	7358	0.89	5800.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006549466-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

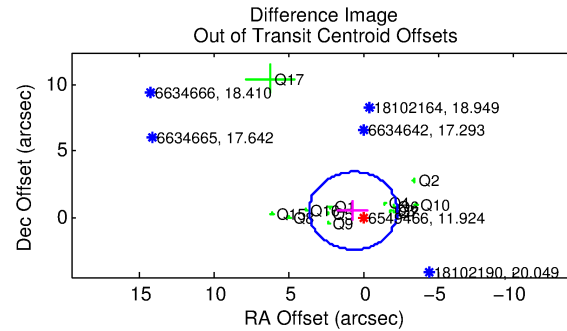
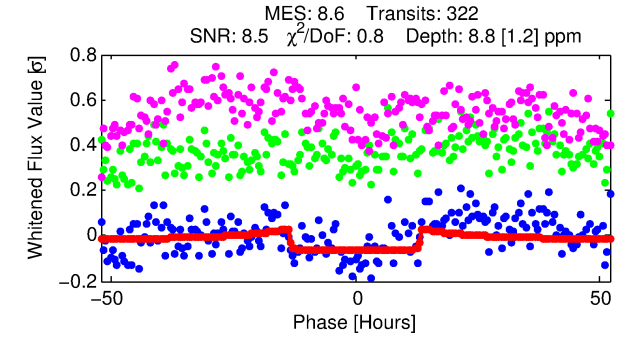
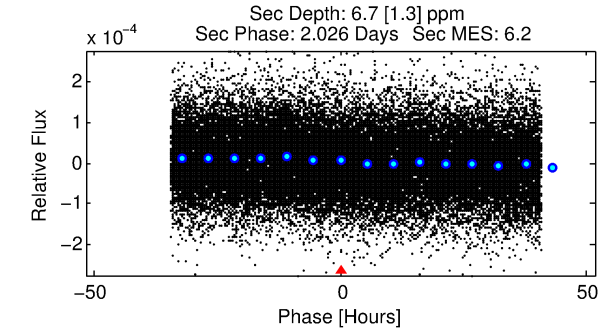
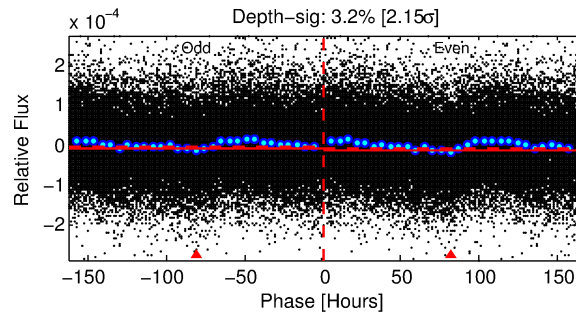
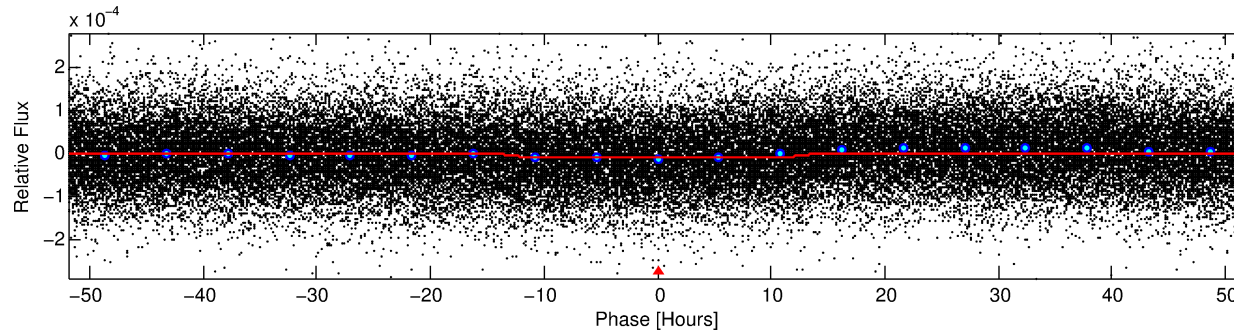
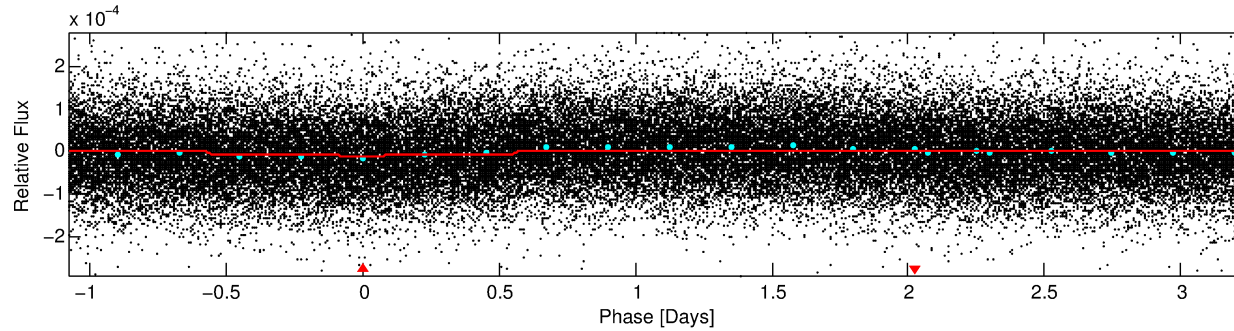
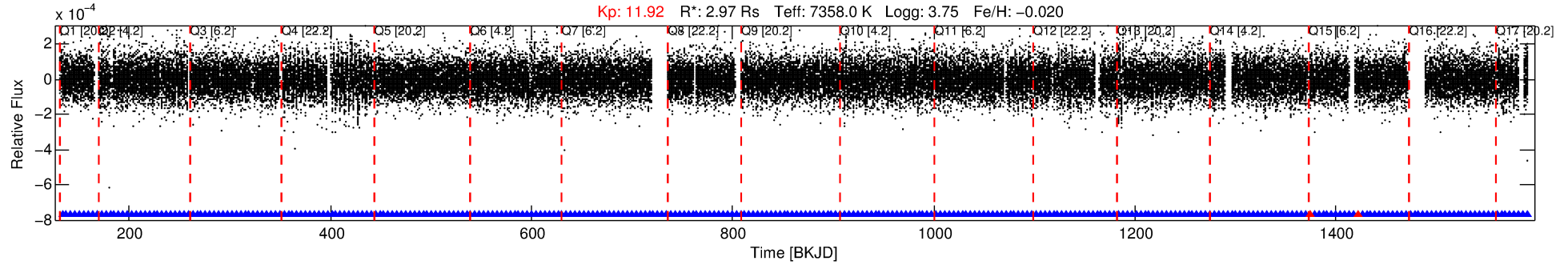
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006549466-01

No Significant Match Found

DV One-Page Summary

KIC: 6549466 Candidate: 1 of 1 Period: 4.323 d



DV Fit Results:

Period = 4.32270 [0.00010] d
Epoch = 133.5618 [0.0154] BKJD
Rp/R* = 0.0028 [0.0020]
a/R* = 1.37 [2.74]
b = 0.06 [67.37]
Seff = 5800.03 [4180.91]
Teq = 2225 [401] K
Rp = 0.89 [0.74] Re
a = 0.0632 [0.0272] AU
Ag = 18.52 [29.60] [0.59 σ]
Teffp = 7137 [2580] K [1.88 σ]

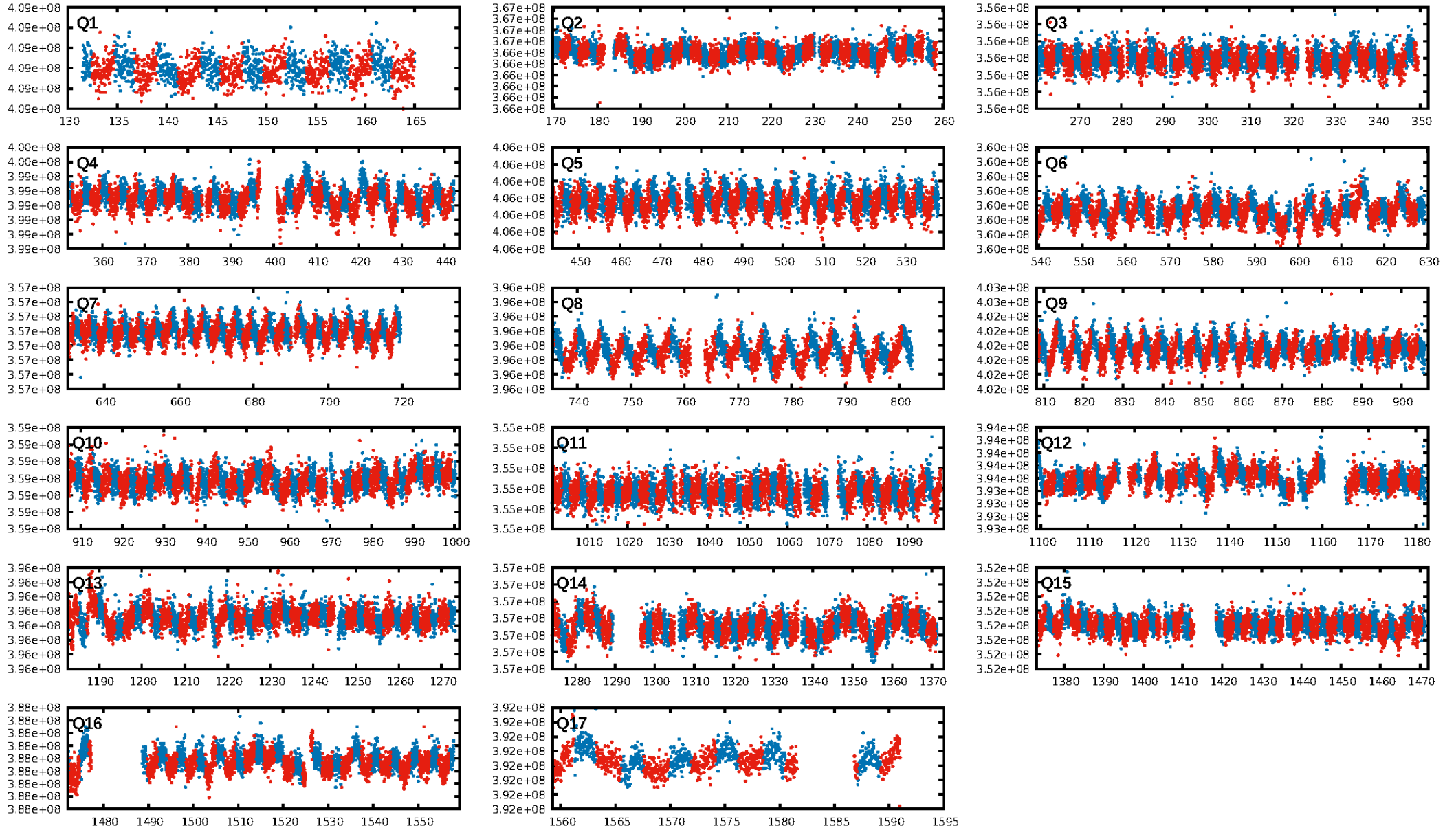
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.00e-20
RollingBand-fgt: 0.99 [305/307]
GhostDiagnostic-chr: 1.853
Centroid-sig: 39.7%
Centroid-so: 1.509 arcsec [0.88 σ]
OotOffset-rm: 0.824 arcsec [0.84 σ]
KicOffset-rm: 0.830 arcsec [0.77 σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.69 [9/13]
DiffImageOverlap-fno: 1.00 [17/17]

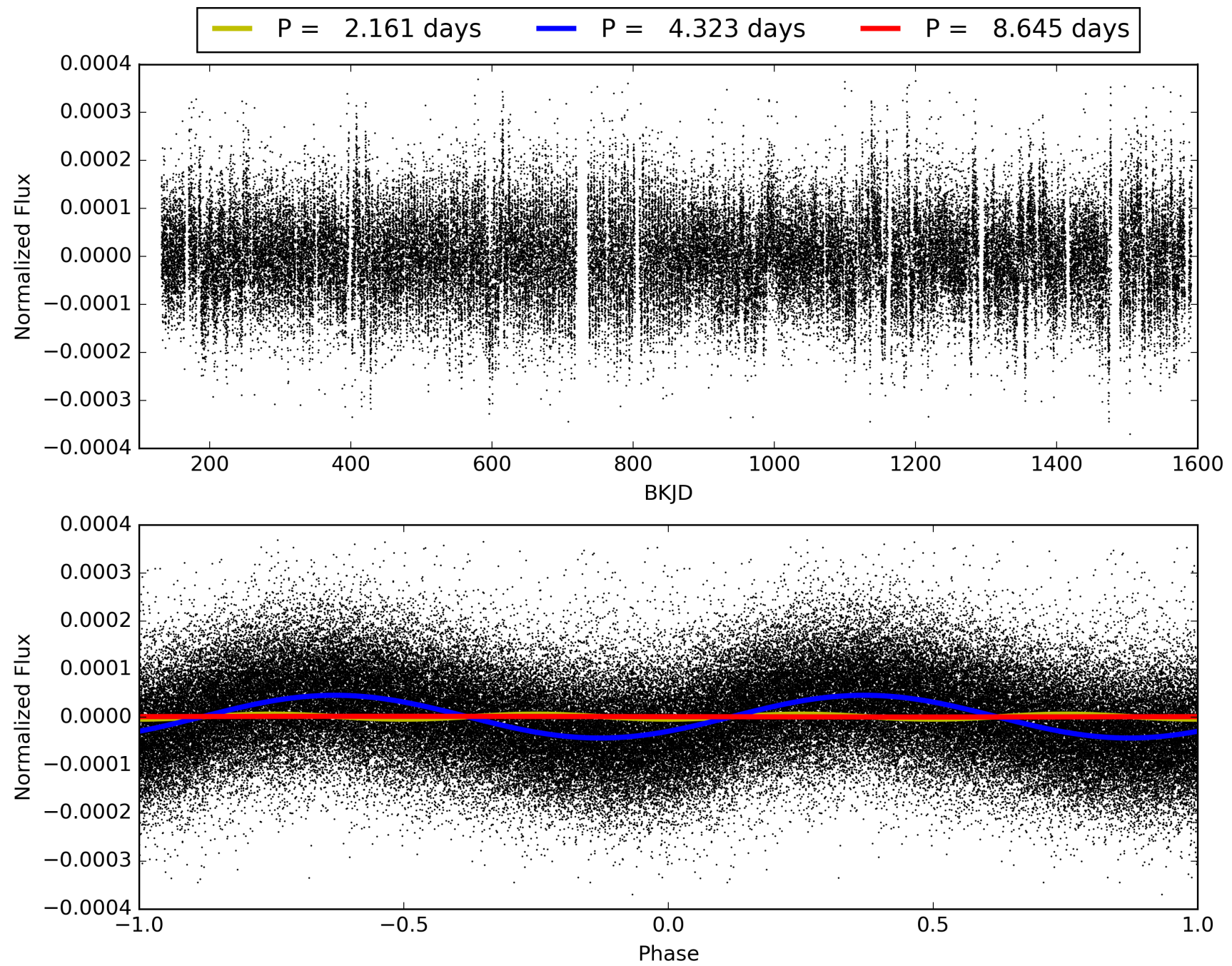
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:05:09 Z

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

TCE 006549466-01, PDC Light Curves

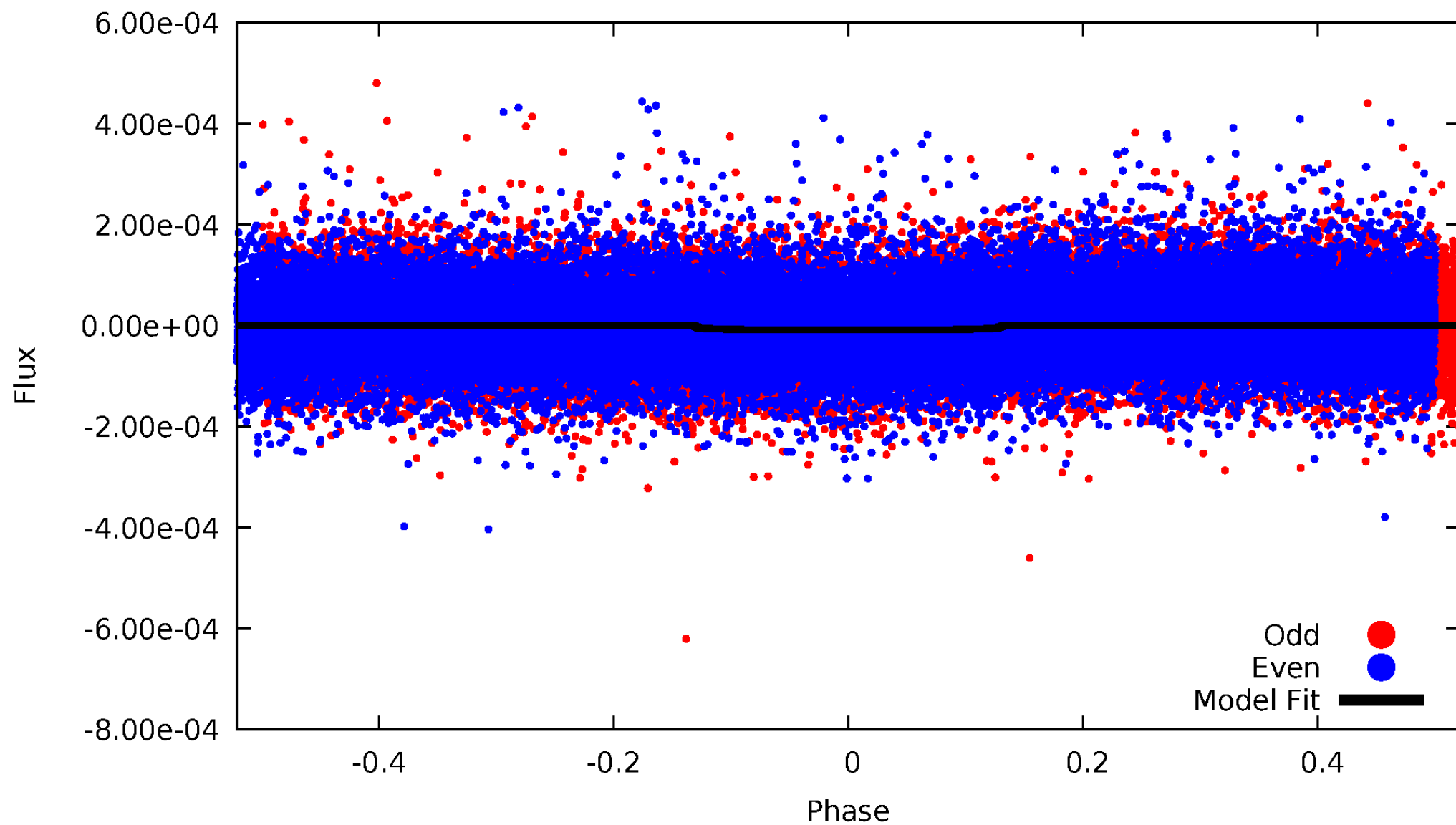


TCE 006549466-01



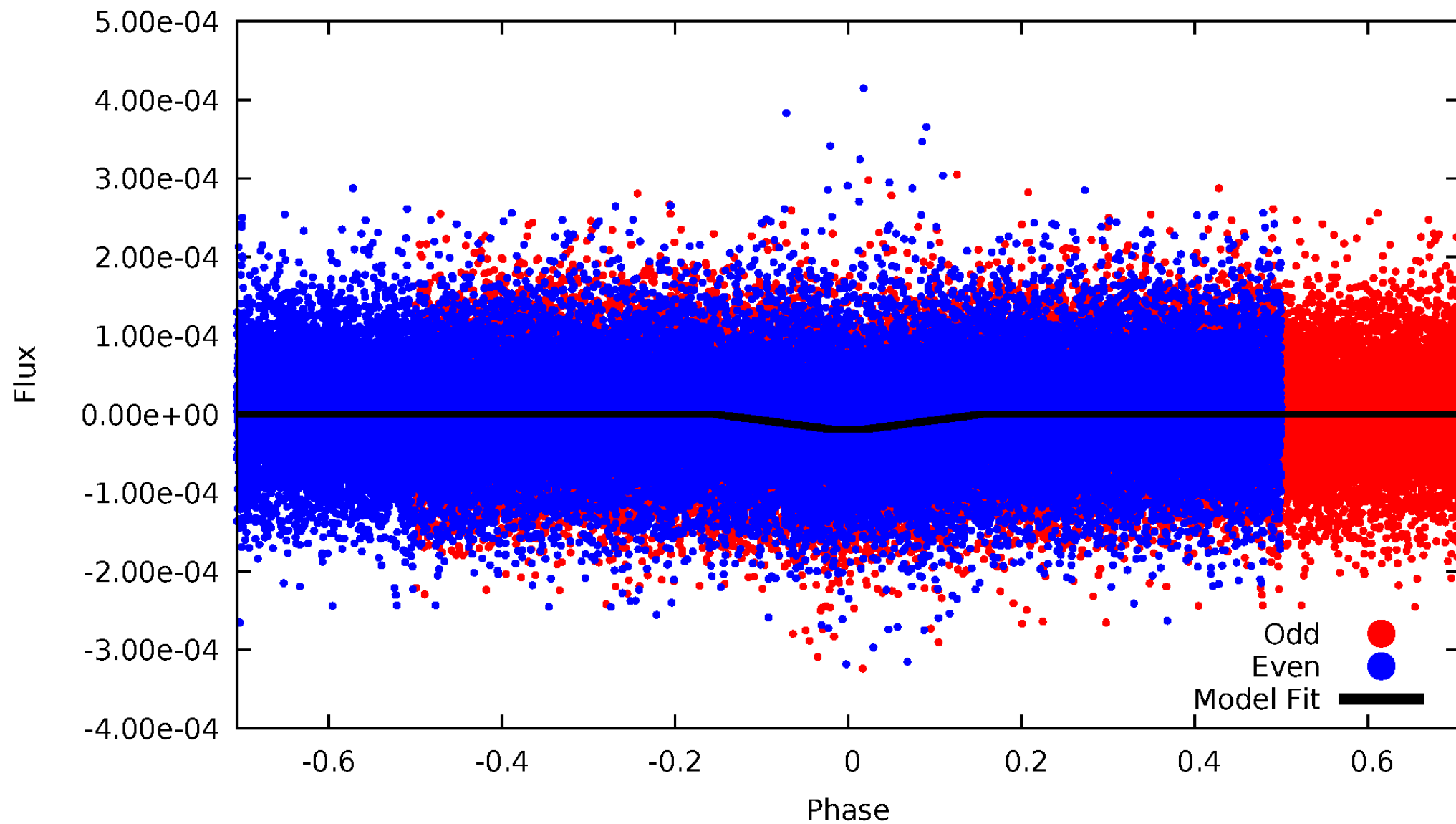
DV Odd/Even

TCE 006549466-01



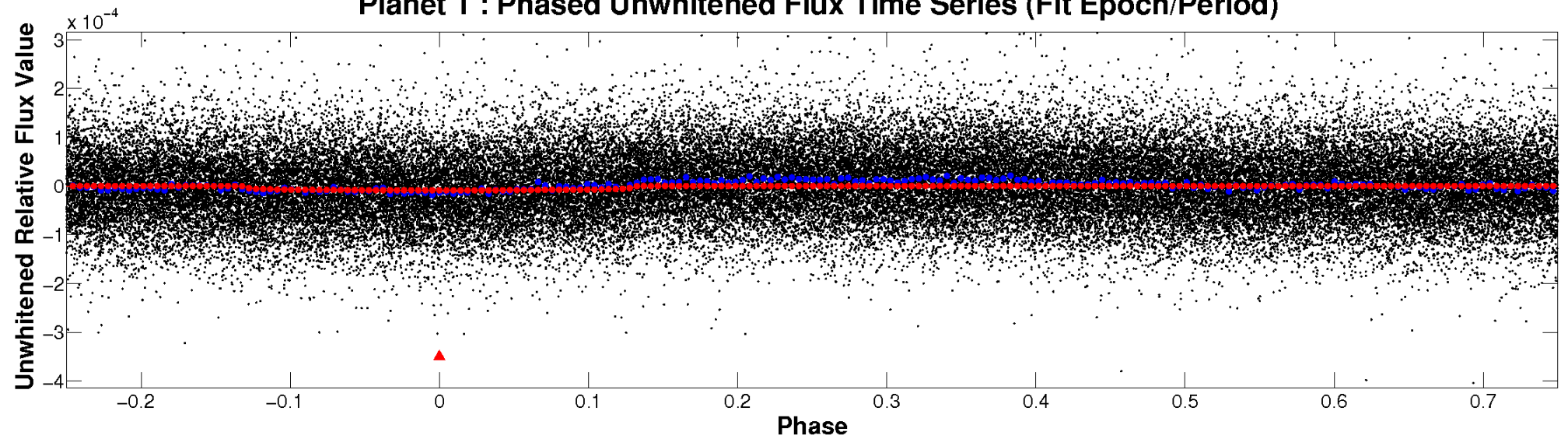
ALT Odd/Even

TCE 006549466-01

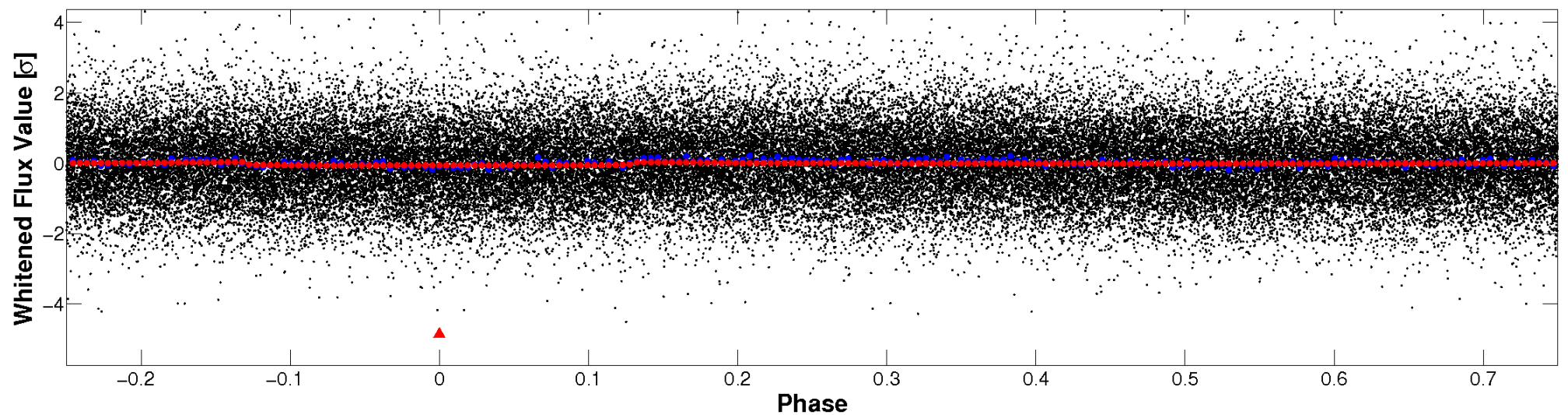


Non-Whitened Vs. Whitened Light Curve

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

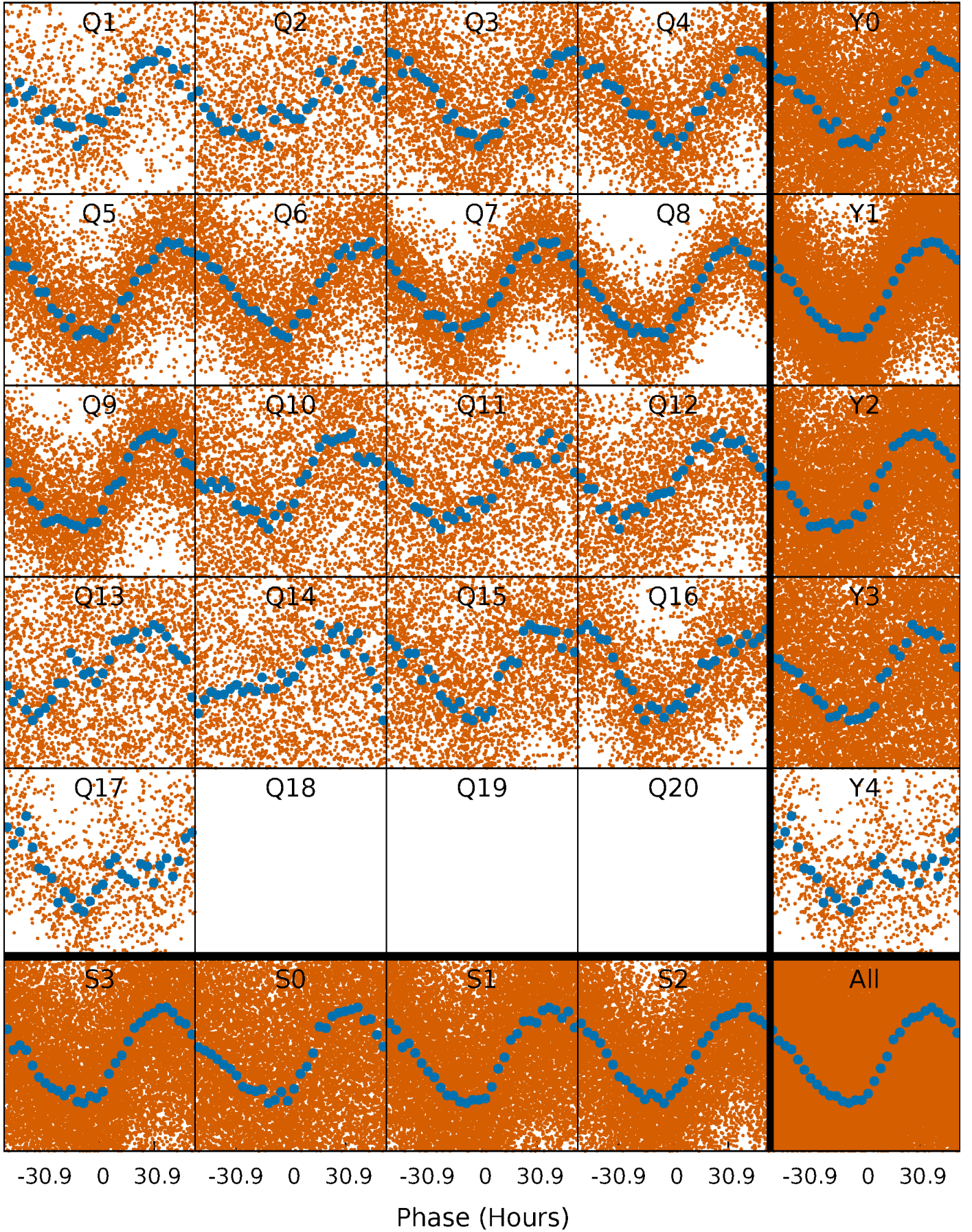


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



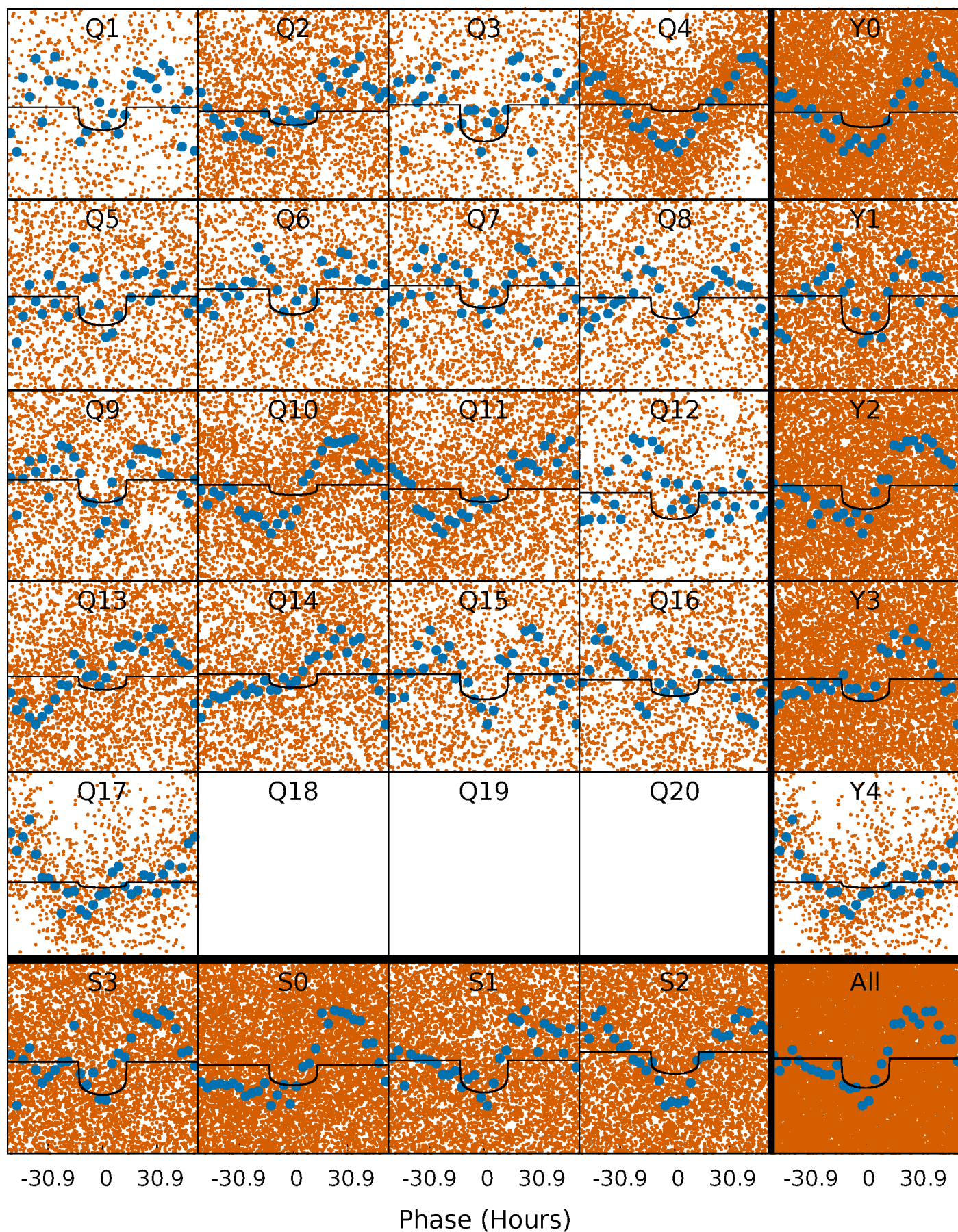
PDC Quarter-Phased Transit Curves

TCE 006549466-01 P= 4.322704 Days $T_0=133.561777$ (BKJD)



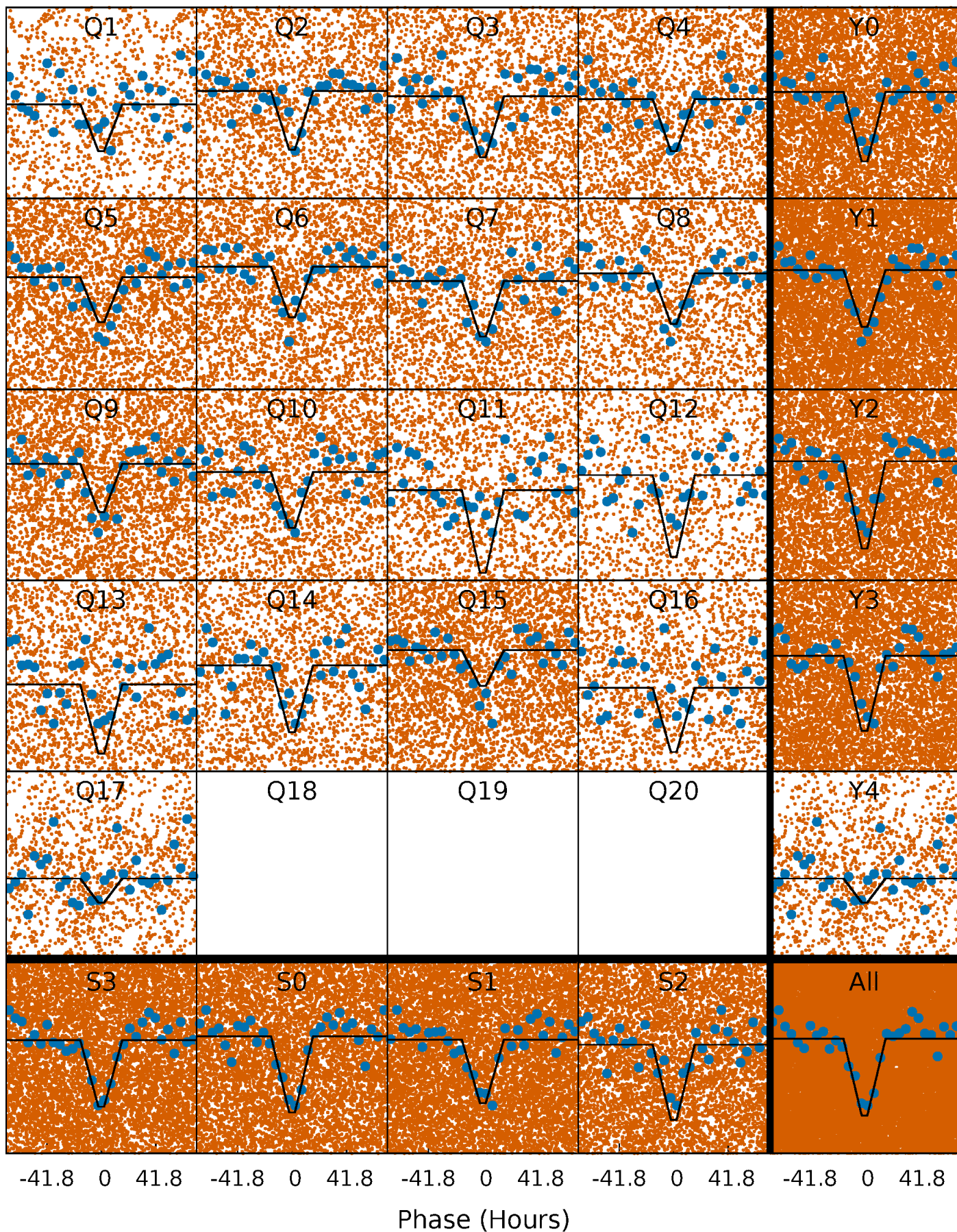
DV Quarter-Phased Transit Curves

TCE 006549466-01 P= 4.322704 Days $T_0=133.561777$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

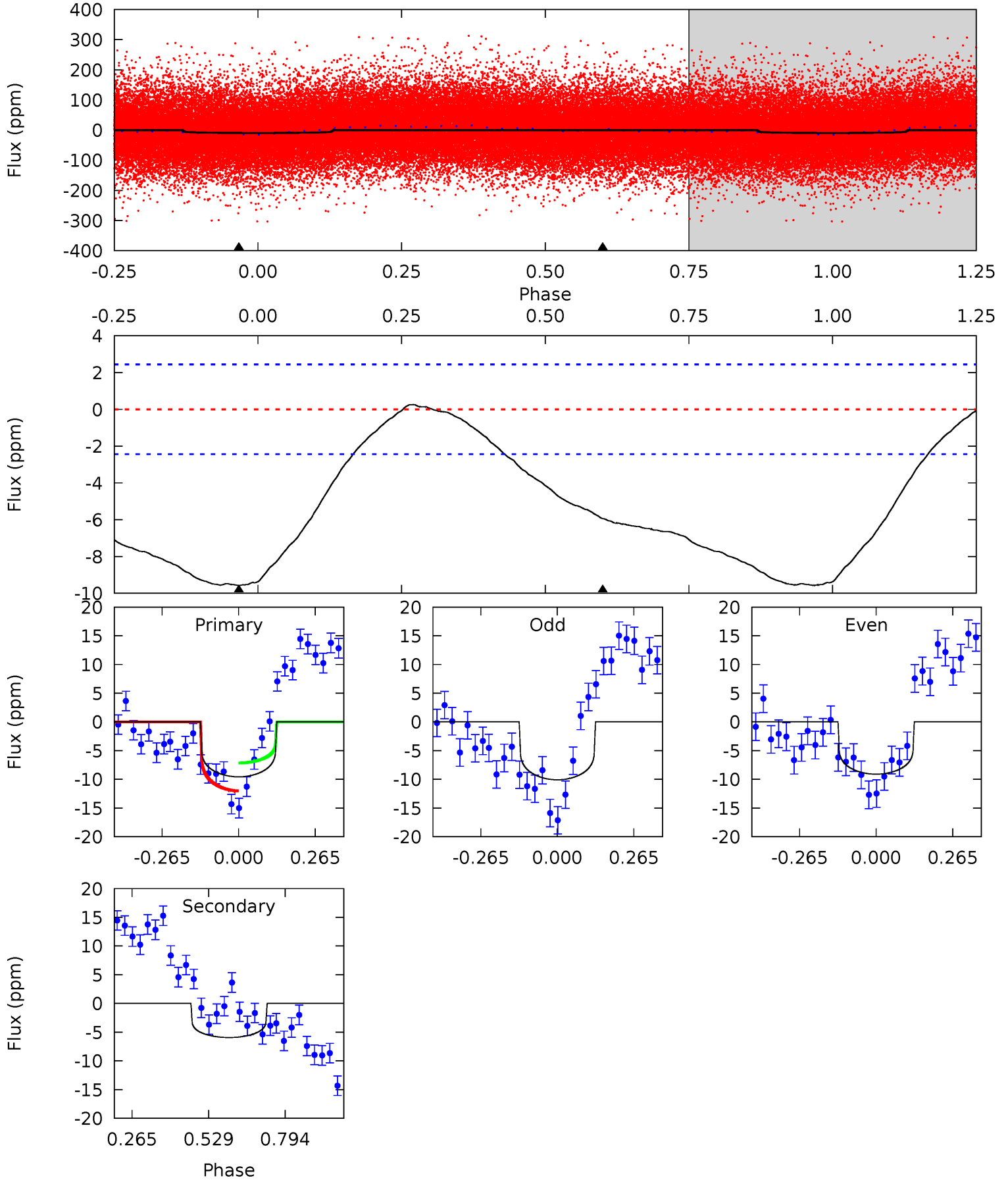
TCE 006549466-01 P= 4.321762 Days $T_0=133.702317$ (BKJD)



DV Model-Shift Uniqueness Test

006549466-01, P = 4.322704 Days, E = 129.239073 Days

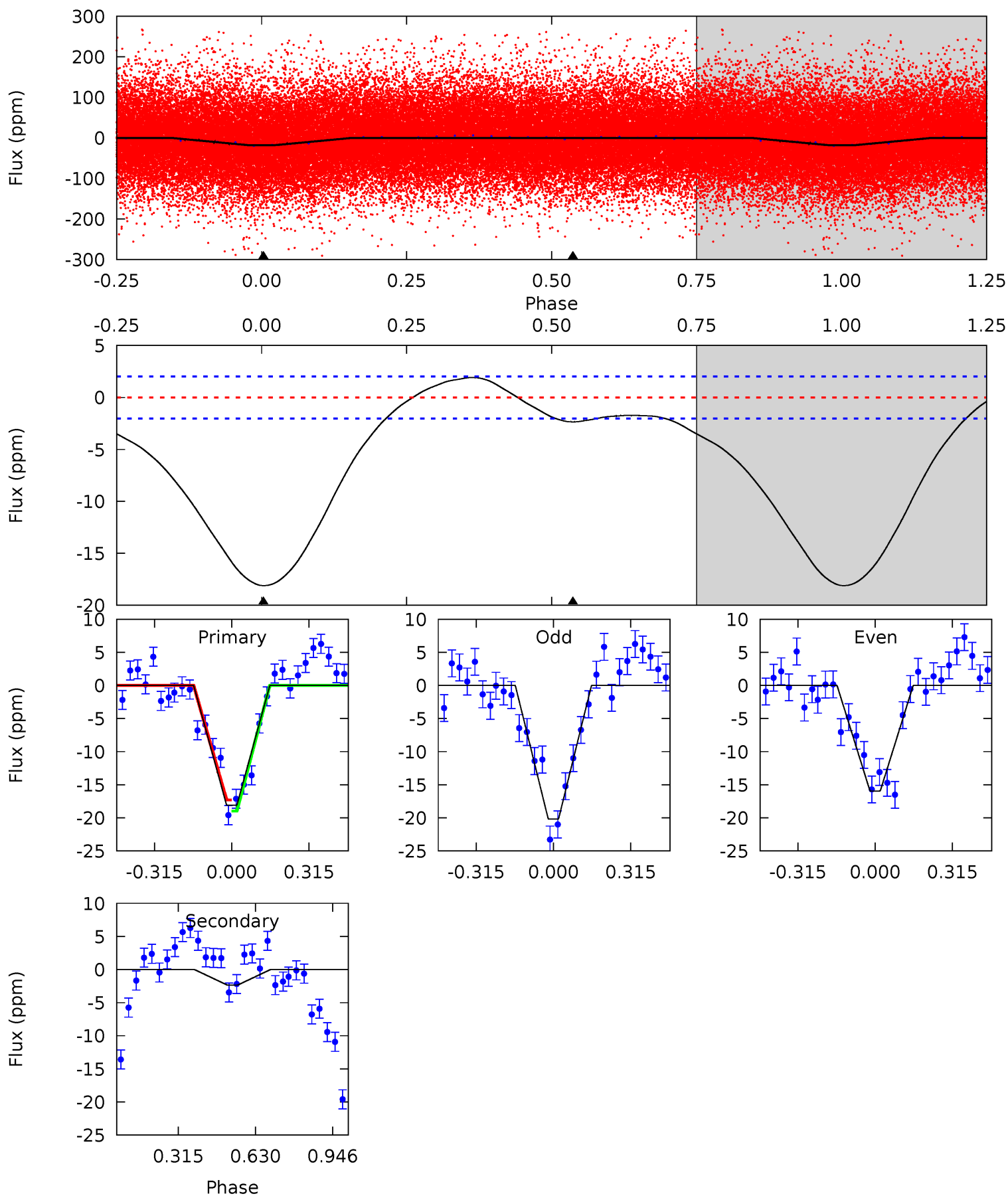
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	10.6	0	0	4.36	1.12	0.34	17.1	17.1	10.6	10.6	0.87	1.31	0.03	4.39



Alt Model-Shift Uniqueness Test

006549466-01, P = 4.321762 Days, E = 129.380555 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.7	5.02	0	0	4.32	1.00	3.88	38.7	38.7	5.02	5.02	4.52	1.01	0.10	1.77



Stellar Parameters For KIC 006549466

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7358^{+228}_{-304}	$3.748^{+0.417}_{-0.074}$	$-0.020^{+0.200}_{-0.350}$	$2.970^{+0.427}_{-1.280}$	$1.799^{+0.194}_{-0.389}$	$0.097^{+0.351}_{-0.029}$
	+3%/-4%	+11%/-2%	+1000%/-1750%	+14%/-43%	+11%/-22%	+363%/-30%
Source	KIC0	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 006549466-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 1	$0.83^{+0.62}_{-0.44}$	3007^{+207}_{-337}	6644^{+4423}_{-1509}	18^{+68}_{-12}
Alt.	-2 ± 0	$1.22^{+0.67}_{-0.52}$	2990^{+227}_{-335}	4403^{+1223}_{-664}	$3.334^{+6.898}_{-1.955}$

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 $A_{obs} \gg 1.0$

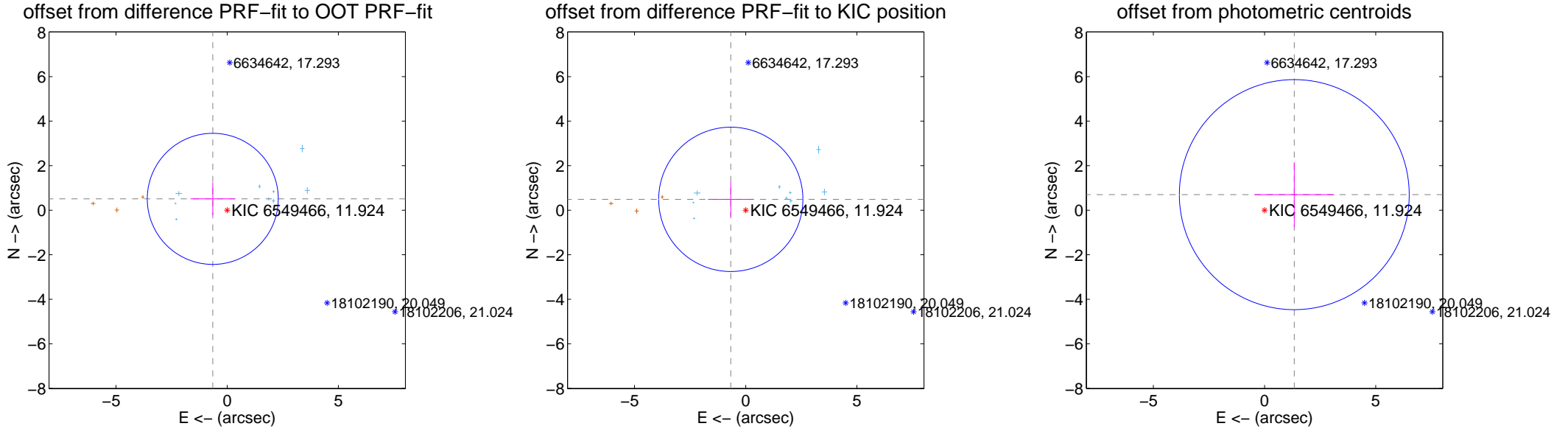
DV Centroid Data

Supplemental centroid analysis for 006549466-01. **Kepler magnitude: 11.92.** Transit SNR 8.55

There are 9 quarters with good PRF difference image offsets

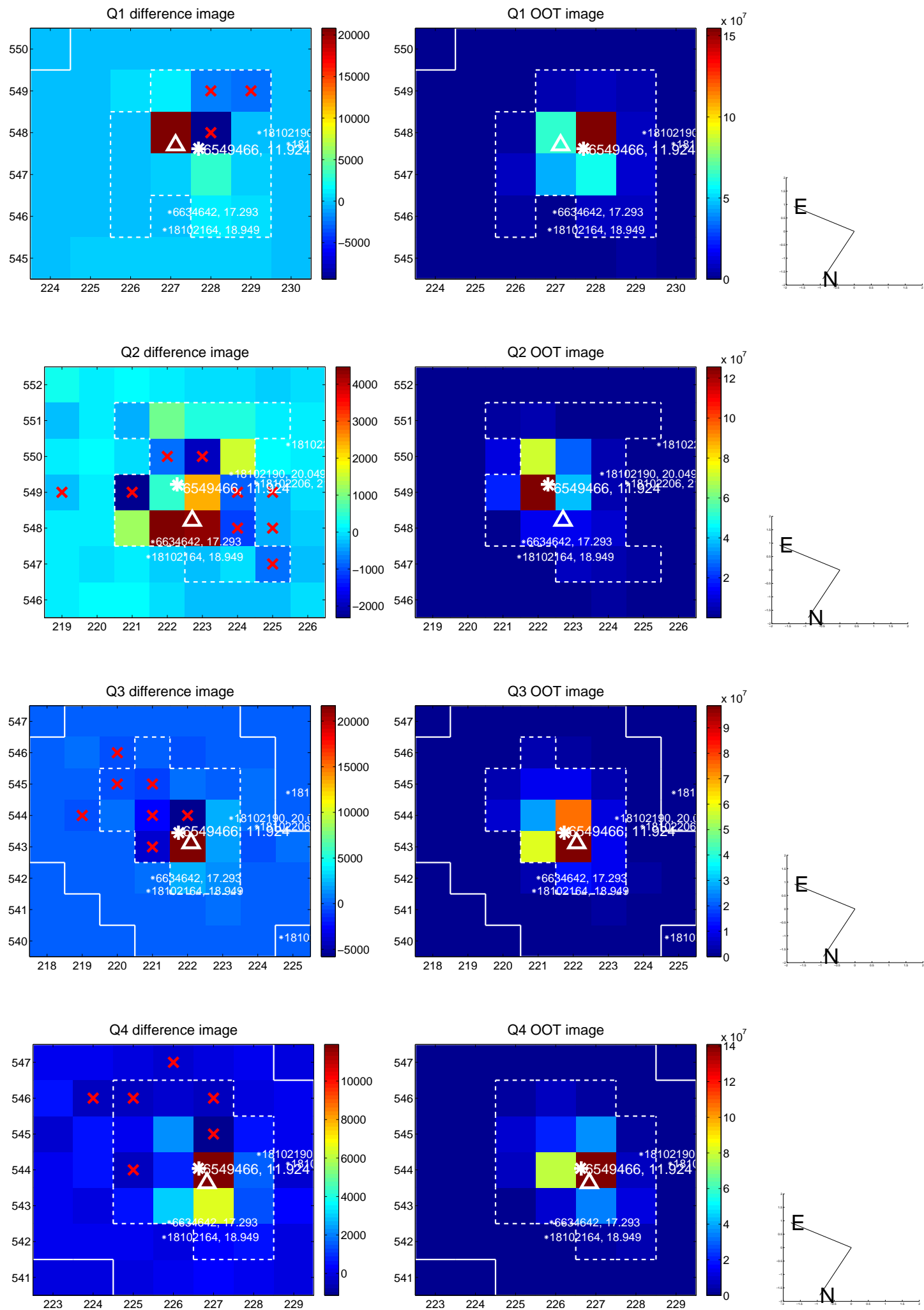
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.824 ± 0.981	0.84	0.647 ± 1.003	0.509 ± 0.736
PRF-fit source offset from KIC position	0.830 ± 1.080	0.77	0.671 ± 1.027	0.488 ± 0.782
photometric centroid source offset	1.51 ± 1.72	0.88	-1.34 ± 1.79	0.70 ± 1.45

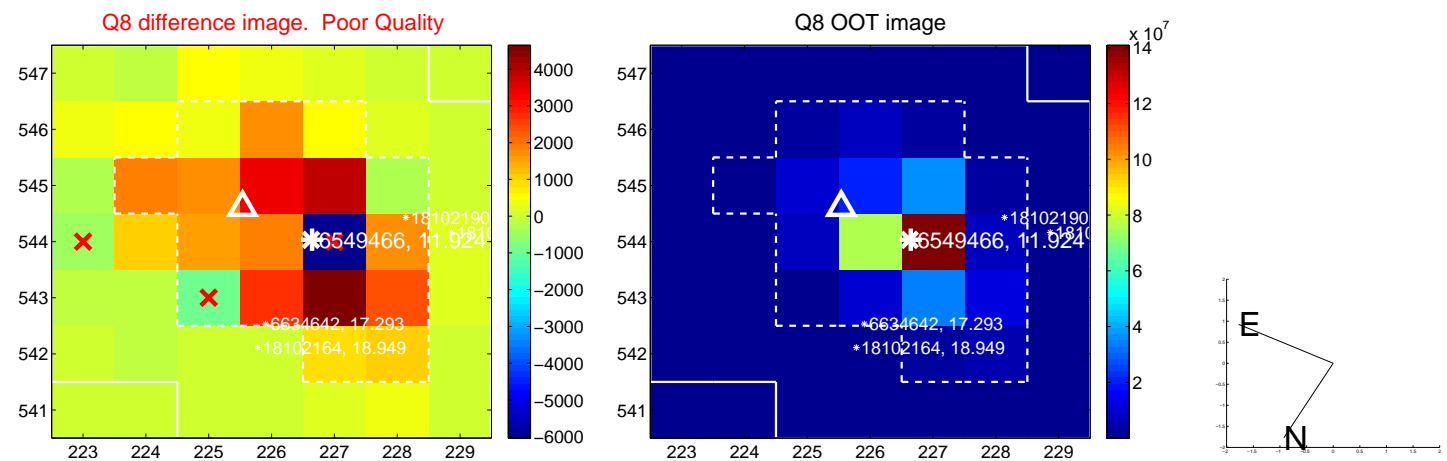
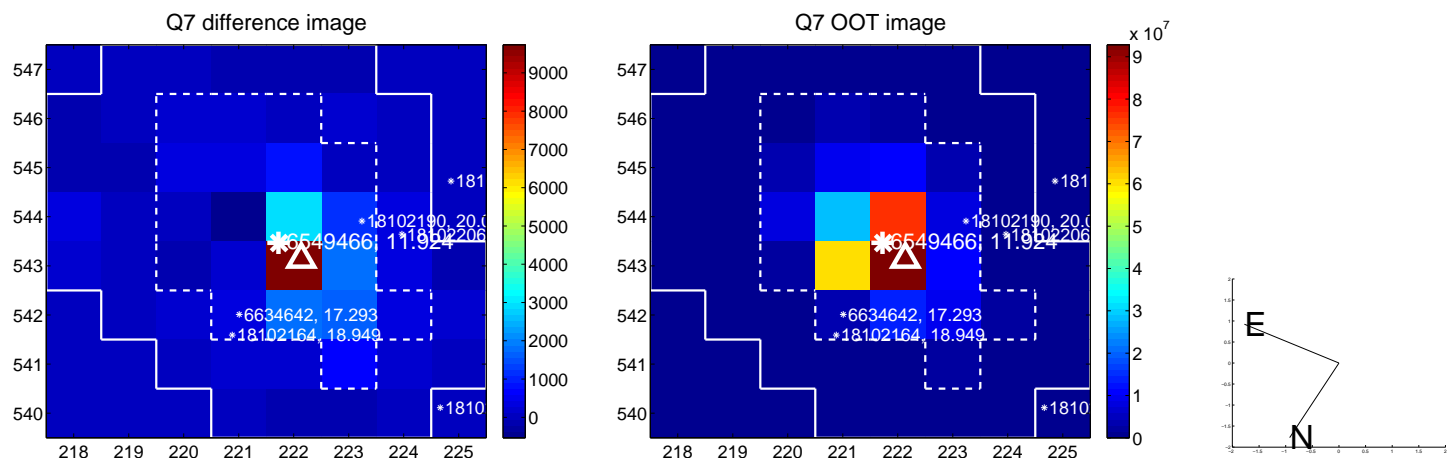
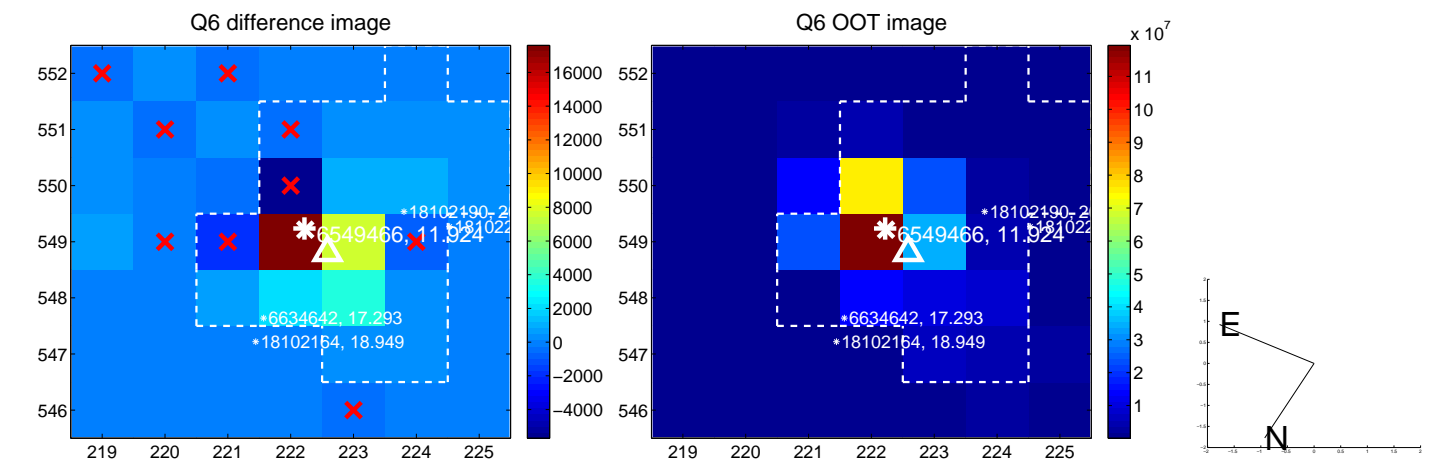
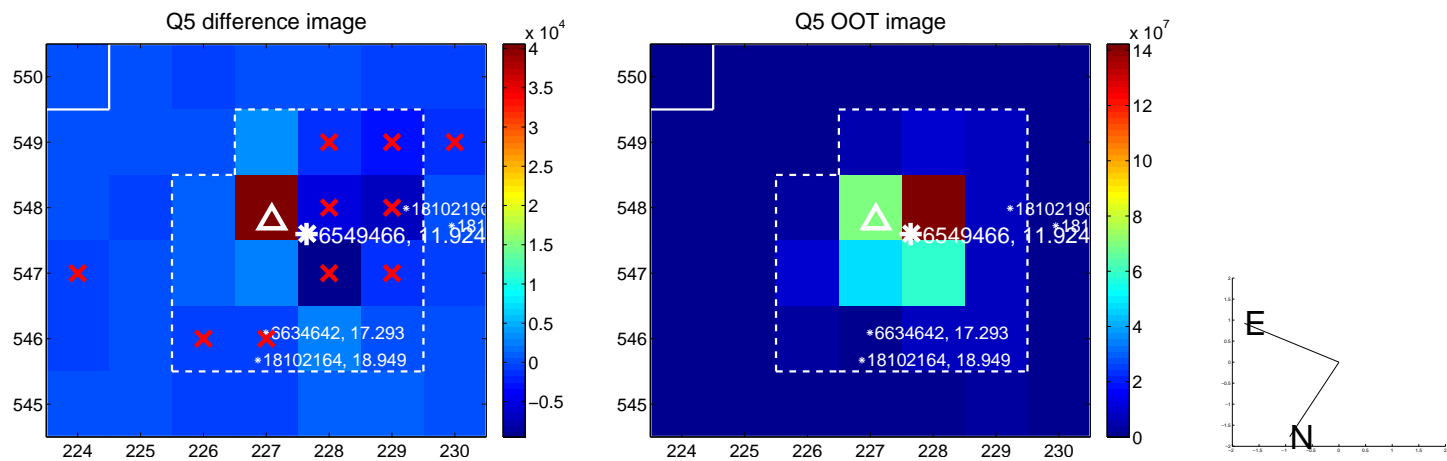


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

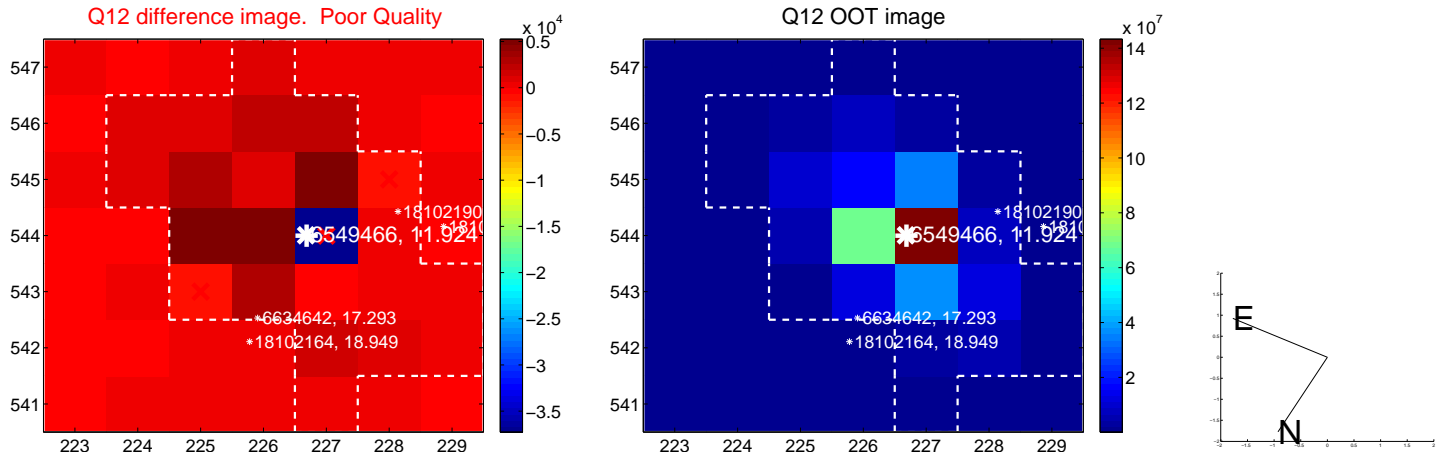
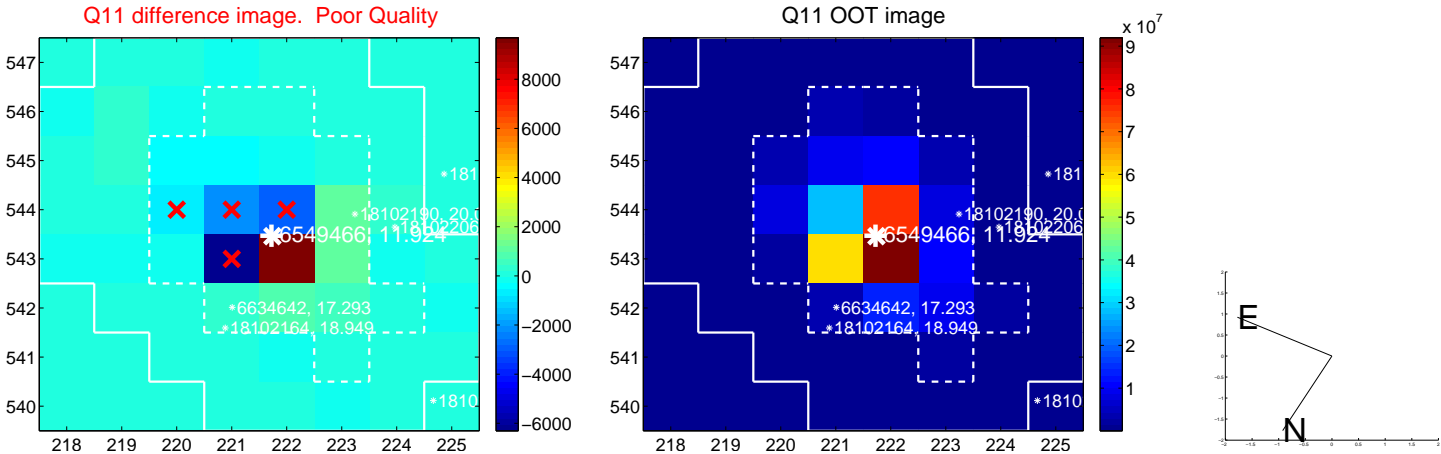
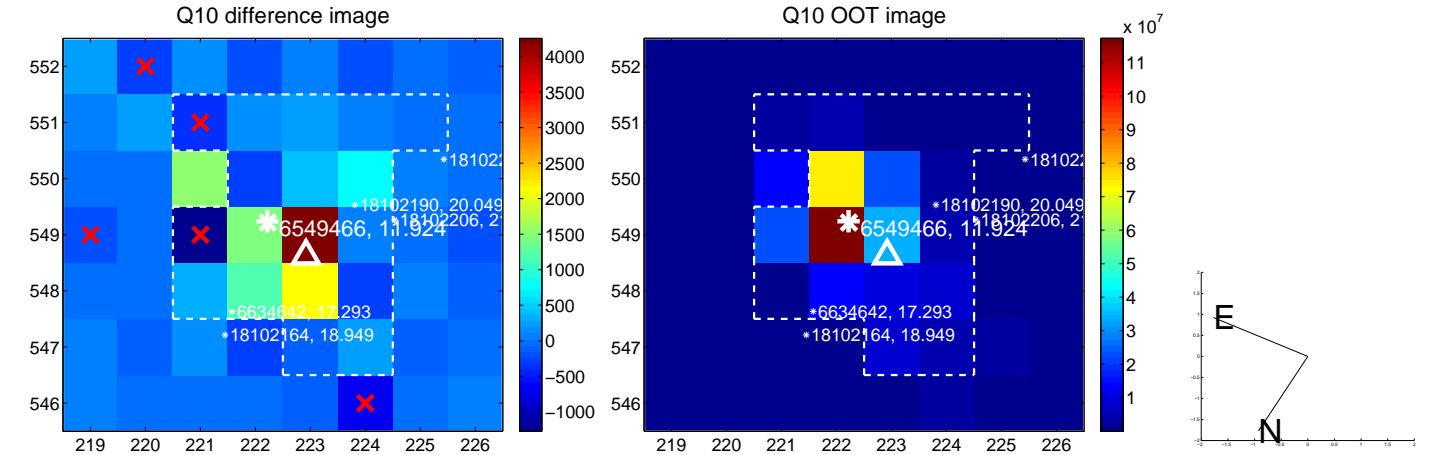
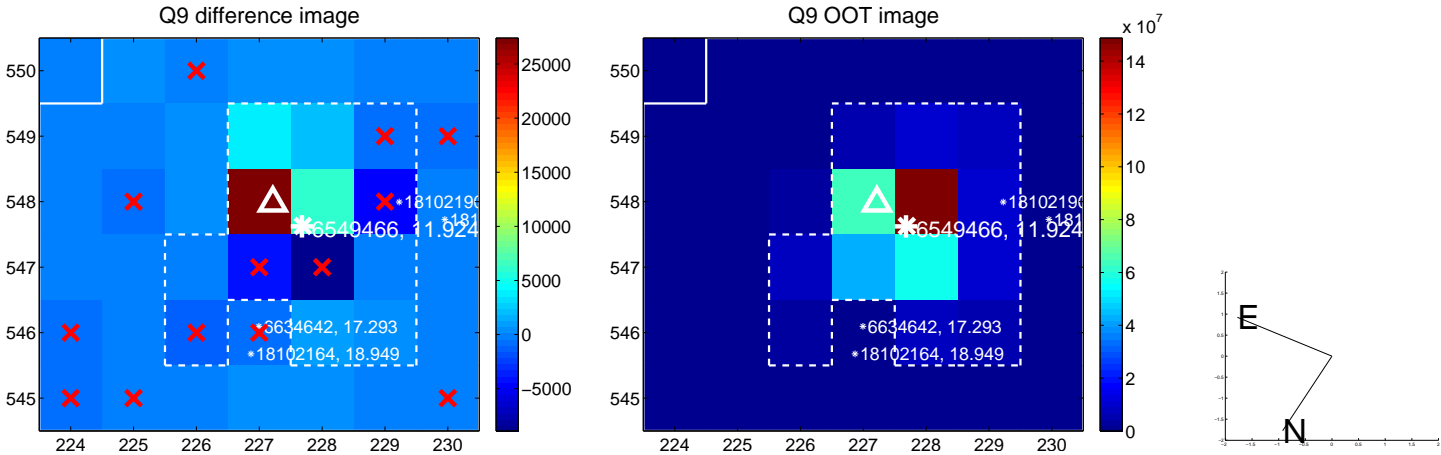
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



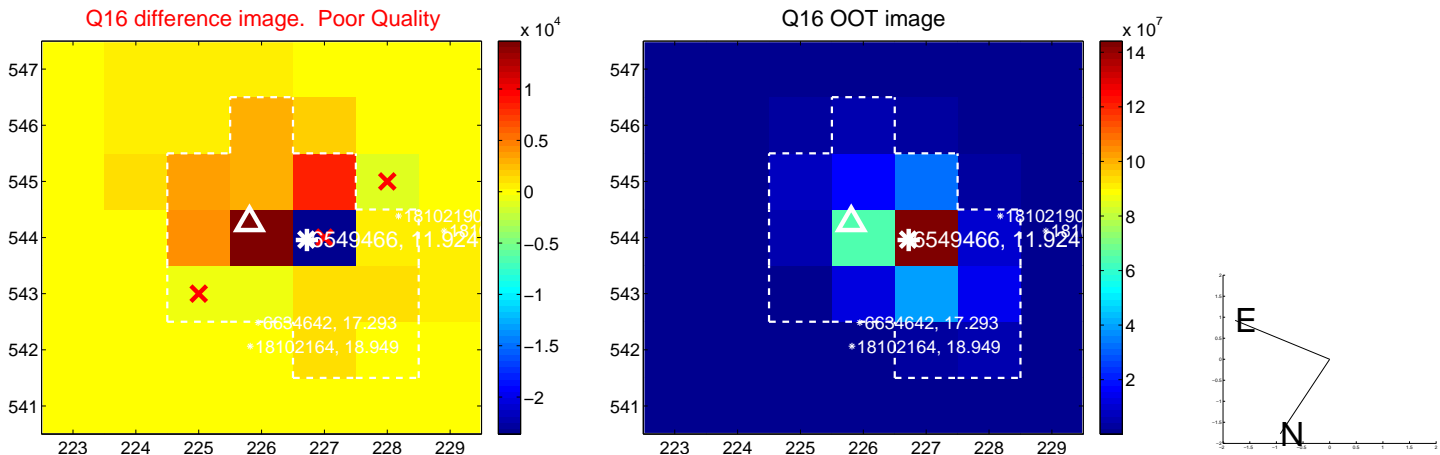
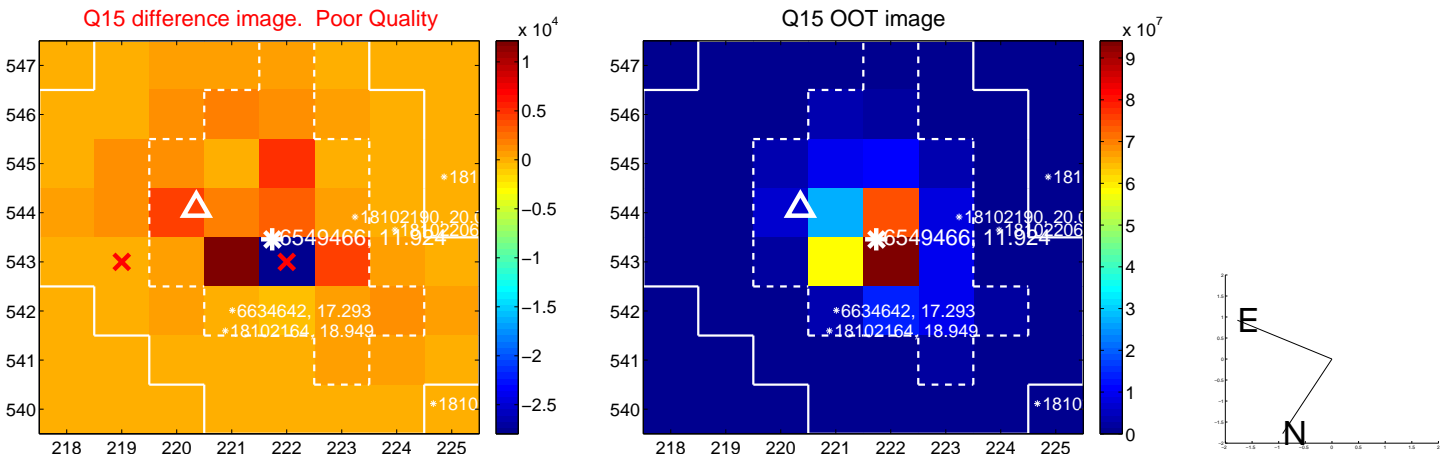
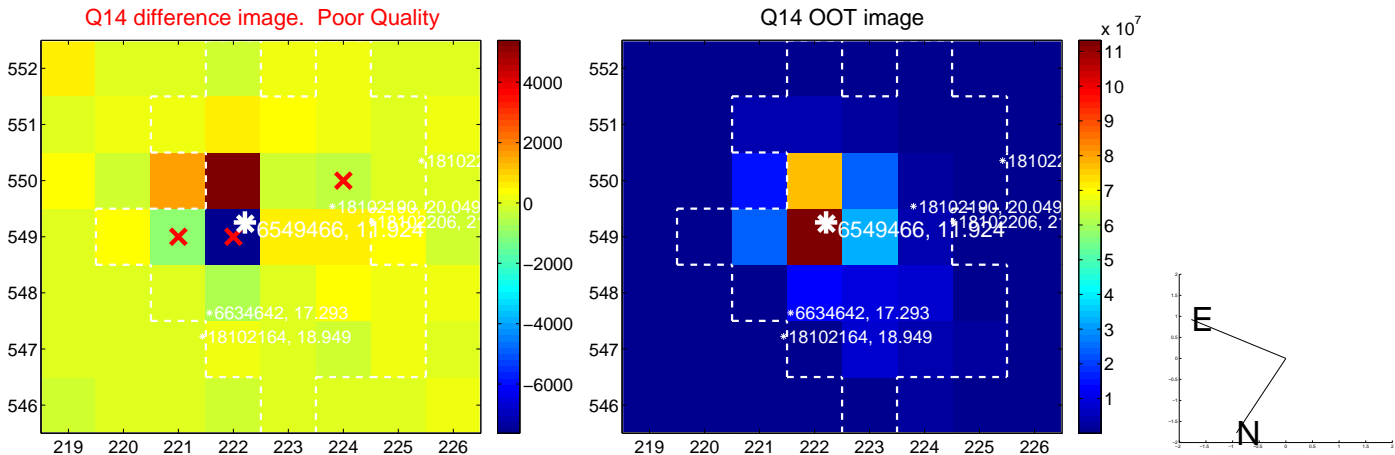
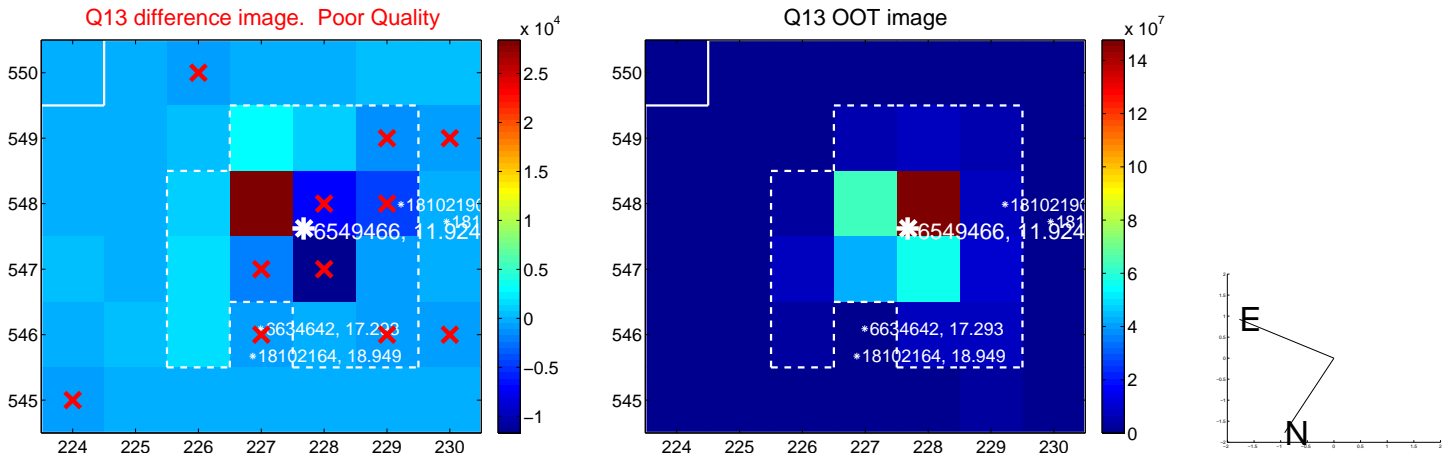
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



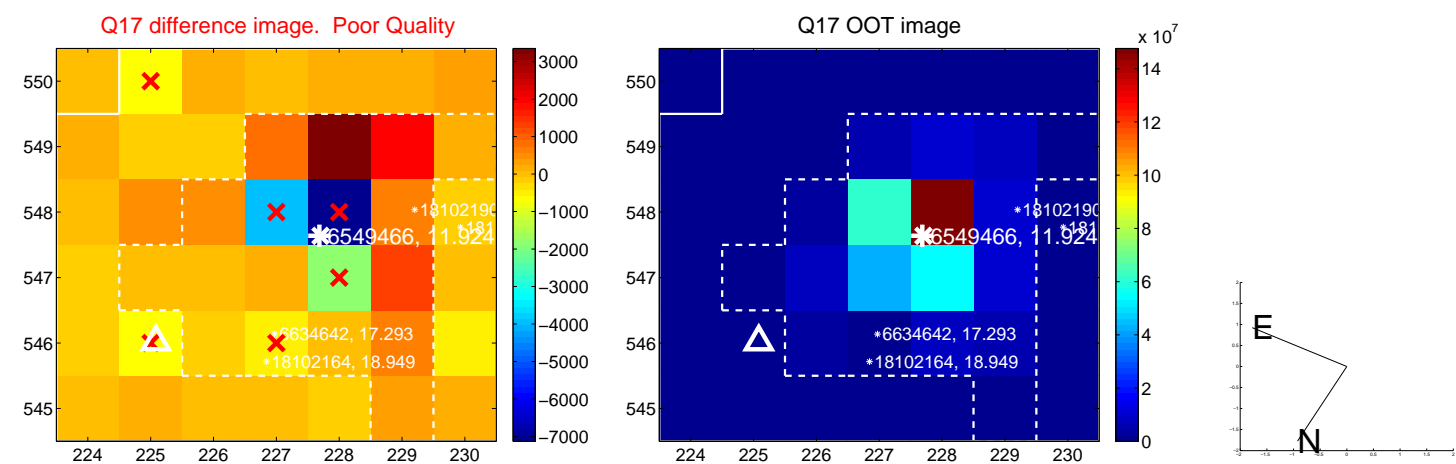
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



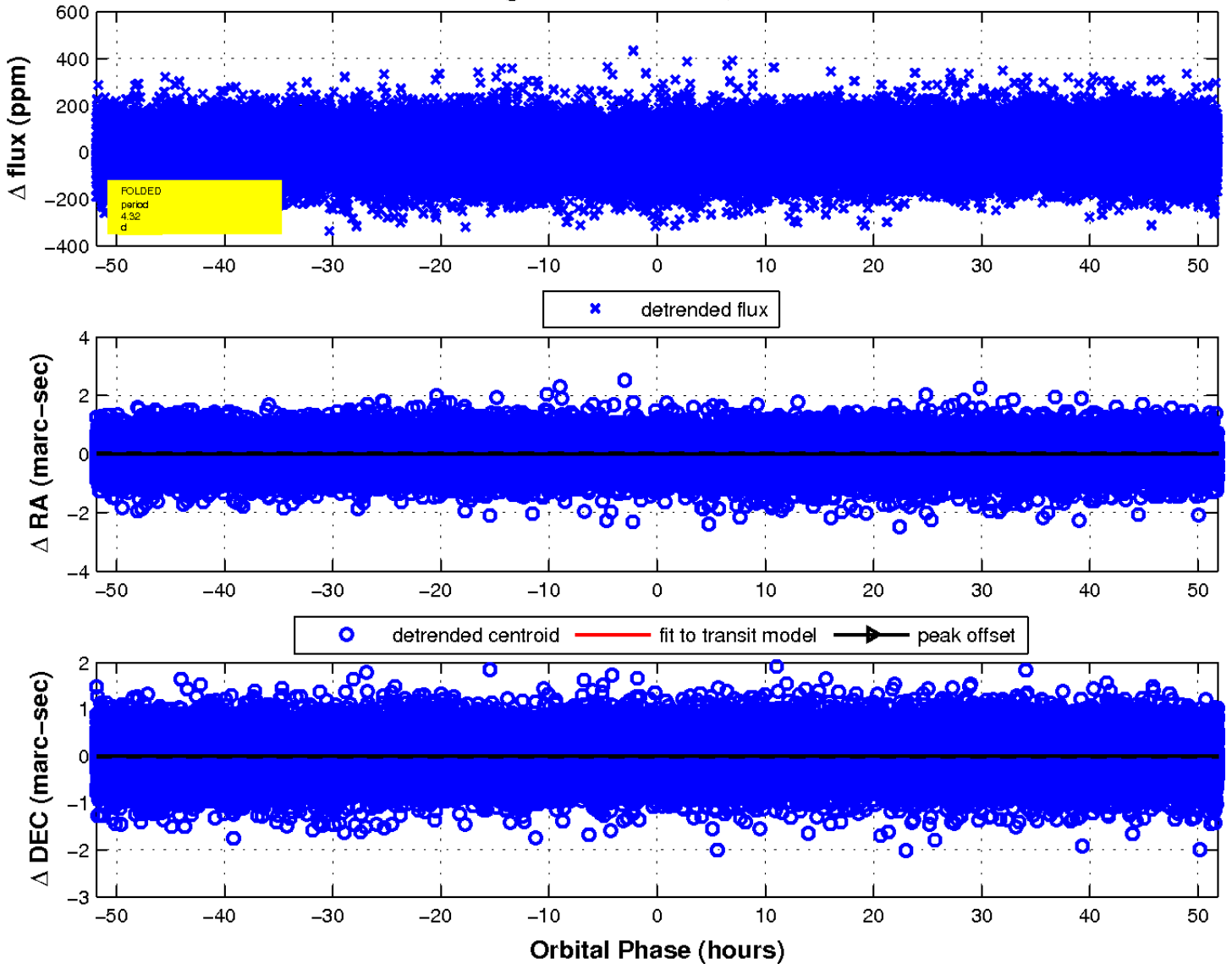
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

