

KIC 008636600

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})
008636600-01	OBS	4478.01	6.386687	131.531879	221.1	1.146	12.6	14.9	0.81	5071	1.22	102.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008636600-01	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.

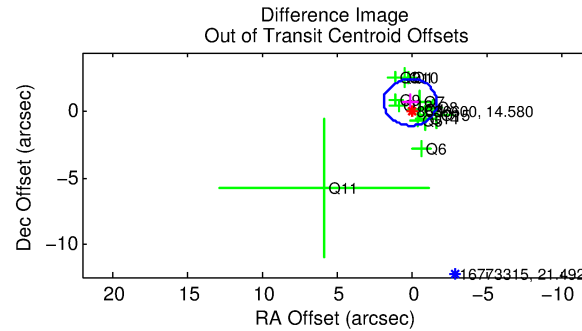
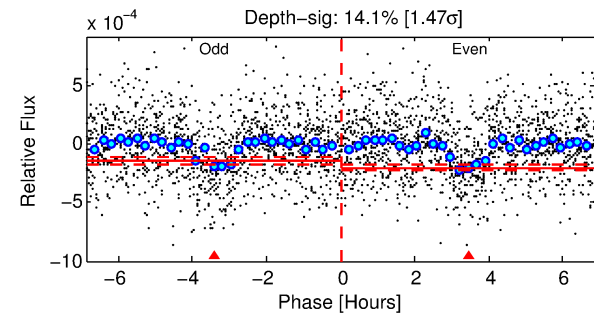
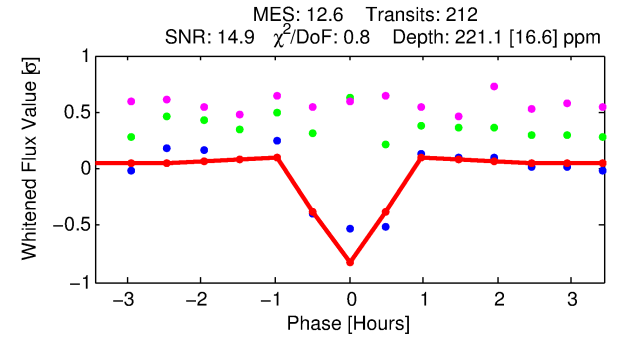
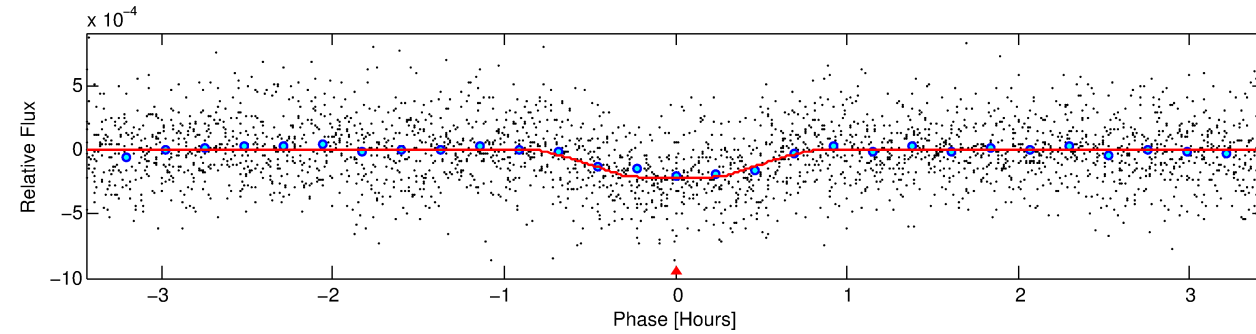
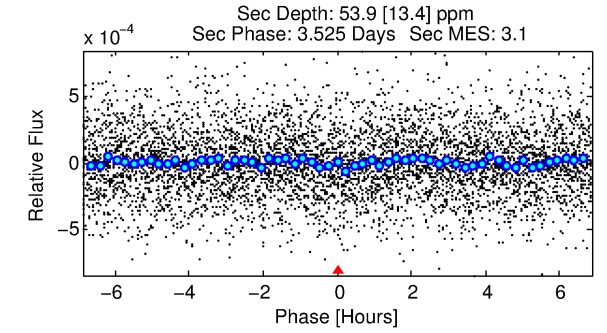
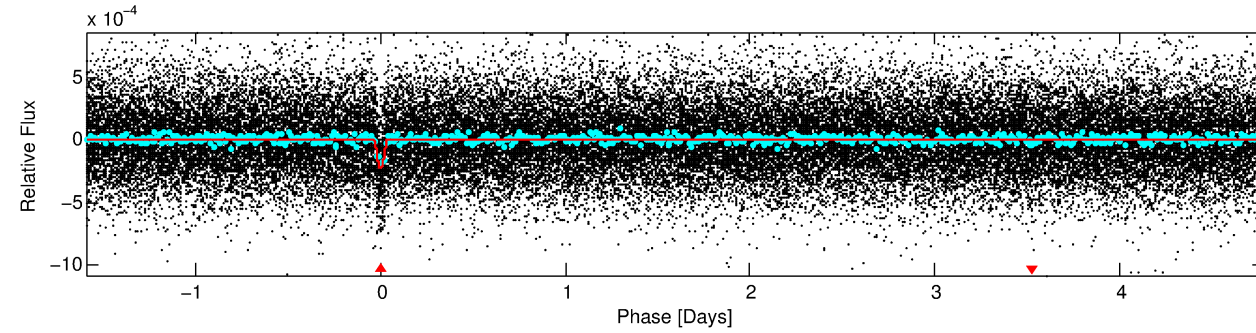
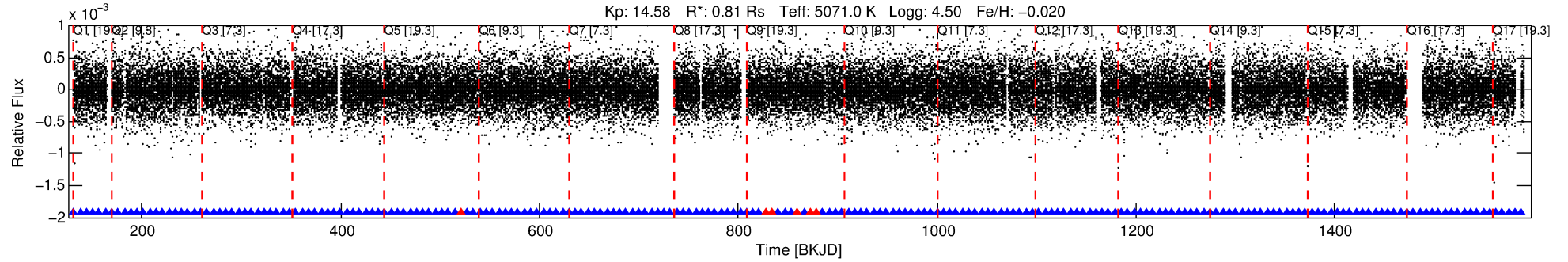
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008636600-01

No Significant Match Found

DV One-Page Summary

KIC: 8636600 Candidate: 1 of 1 Period: 6.387 d
KOI: K04478.01 Corr: 0.944



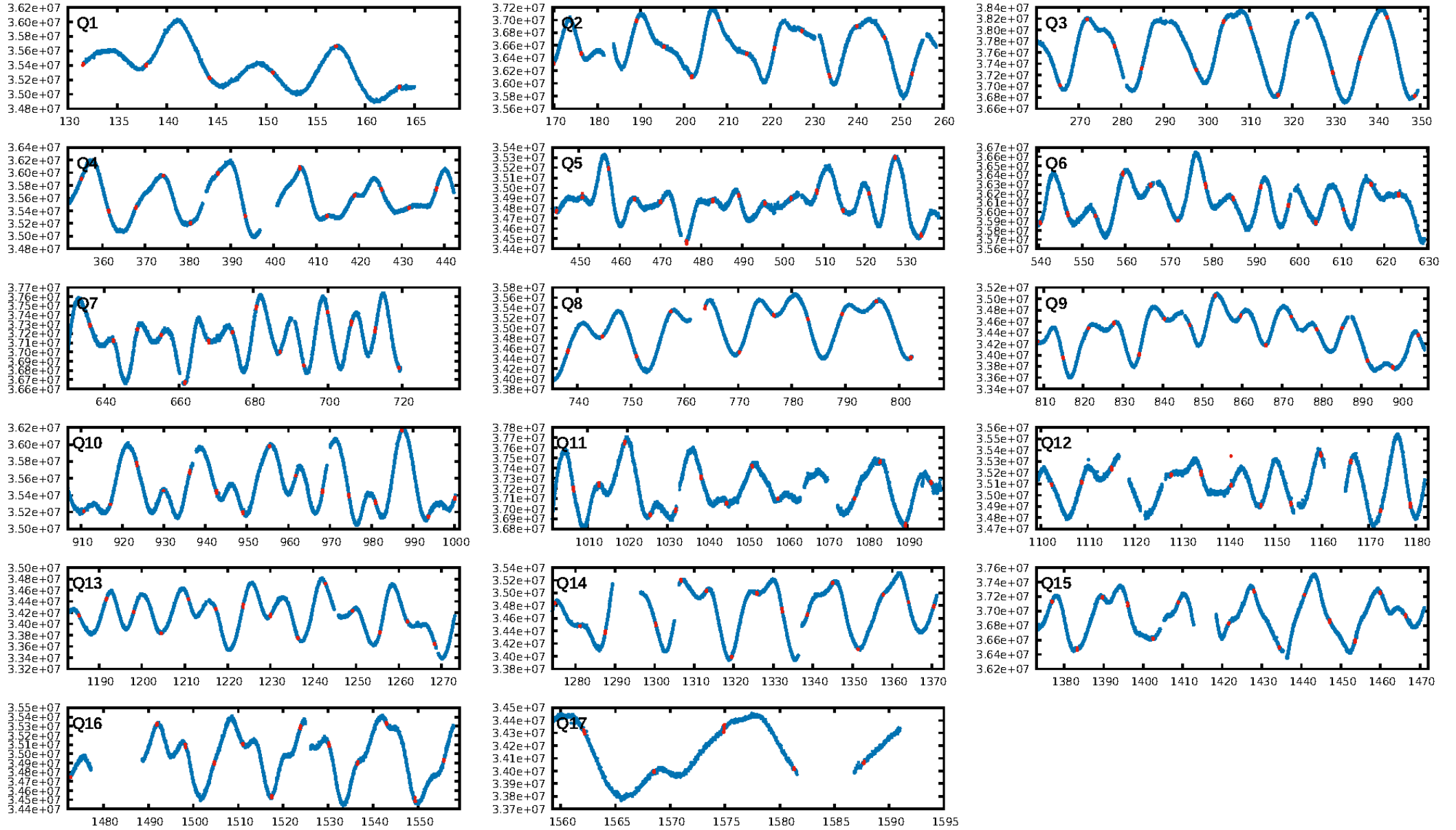
DV Fit Results:

Period = 6.38669 [0.00002] d
Epoch = 131.5319 [0.0018] BKJD
Rp/R* = 0.0137 [0.0112]
a/R* = 38.88 [109.99]
b = 0.44 [5.27]
Seff = 102.39 [19.97]
Teff = 811 [40] K
Rp = 1.22 [1.00] Re
a = 0.0617 [0.0061] AU
Ag = 76.27 [126.53] [0.59σ]
Teffp = 3706 [1535] K [1.89σ]

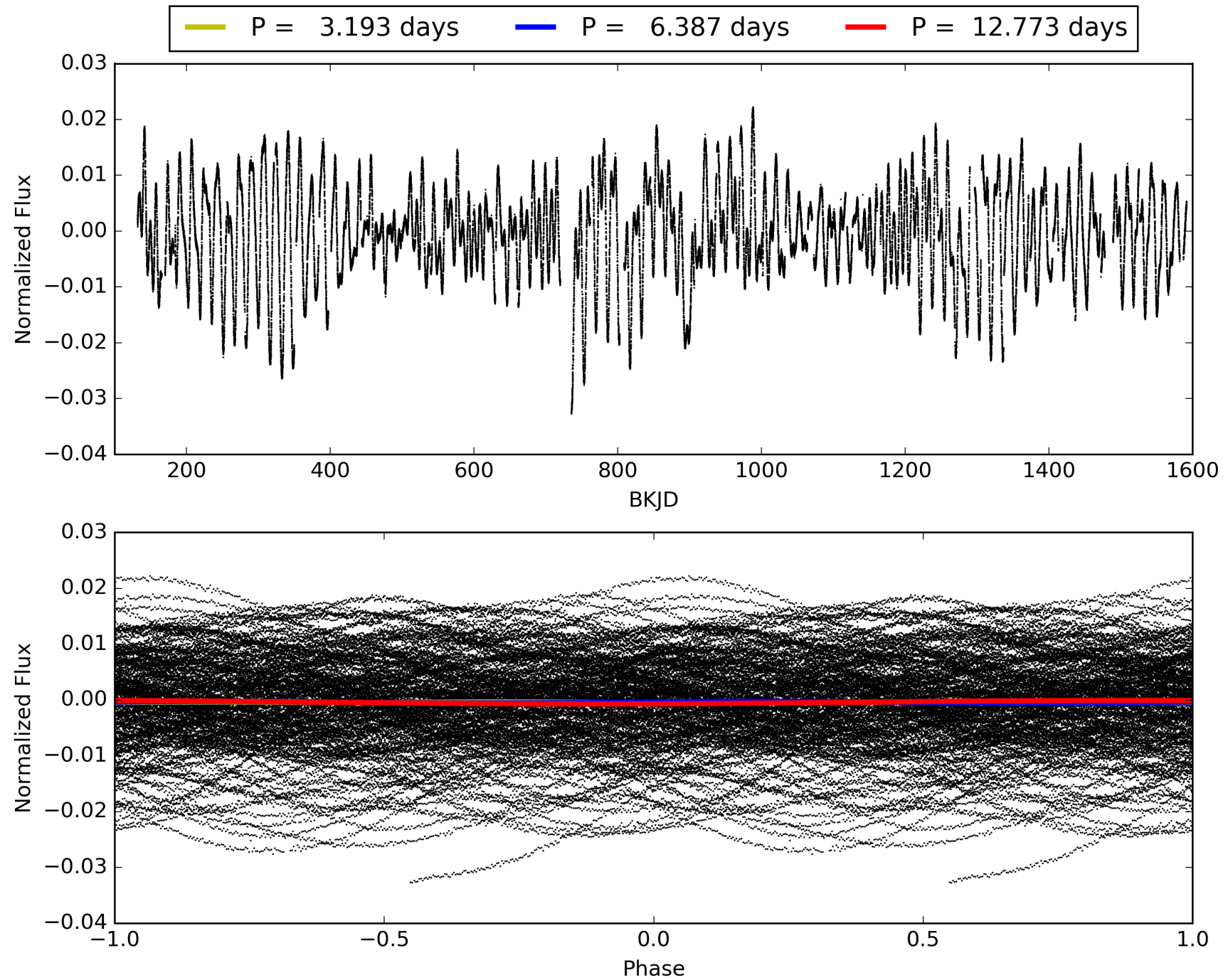
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.04e-35
RollingBand-fgt: 0.97 [195/201]
GhostDiagnostic-chr: -2.272
Centroid-sig: 48.5%
Centroid-so: 0.597 arcsec [0.73σ]
OotOffset-rm: 0.719 arcsec [1.22σ]
KicOffset-rm: 0.686 arcsec [1.15σ]
OotOffset-st: 4/3/2/4 [13]
KicOffset-st: 4/3/2/4 [13]
DiffImageQuality-fgm: 0.69 [9/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008636600-01, PDC Light Curves

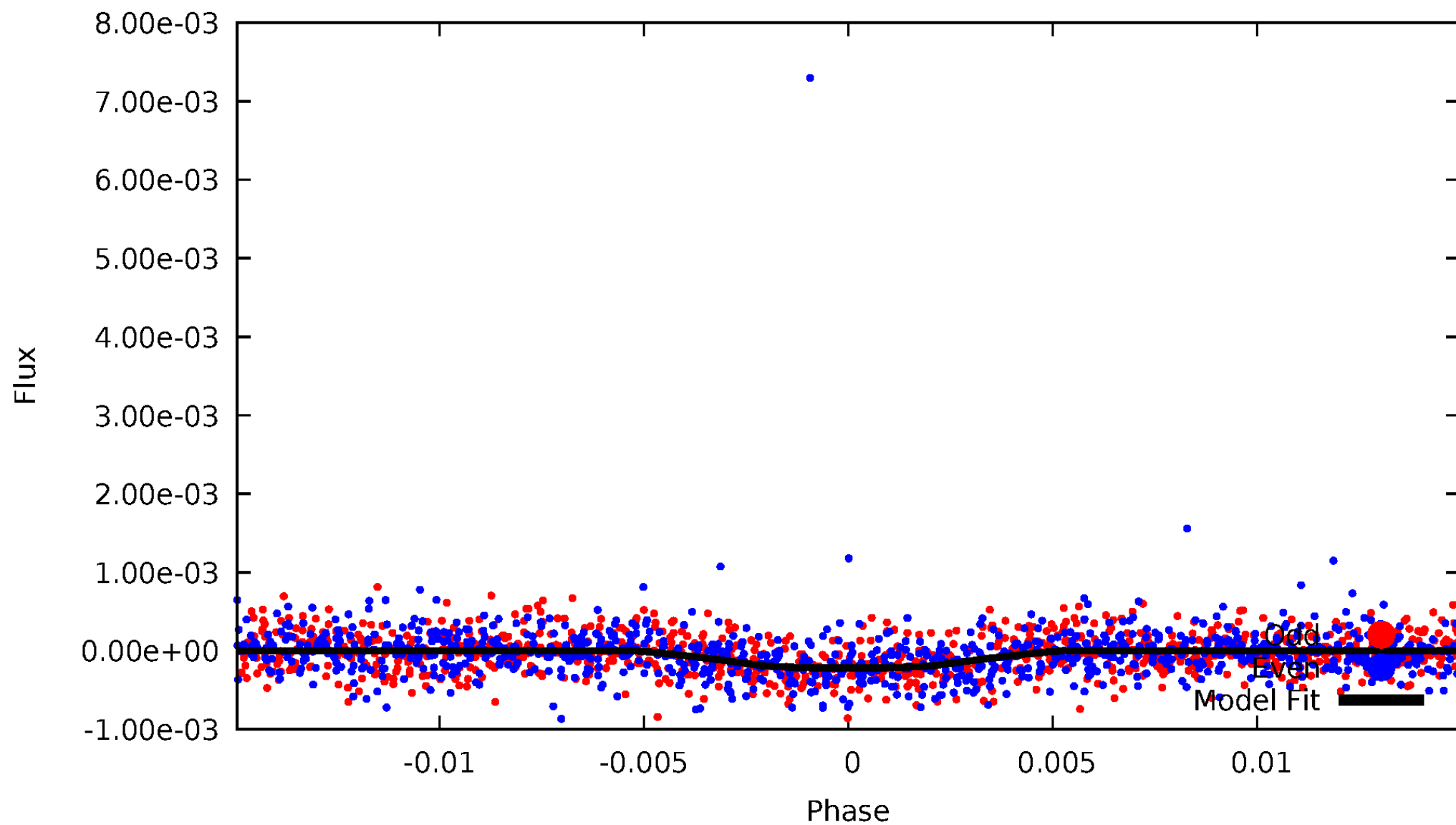


TCE 008636600-01



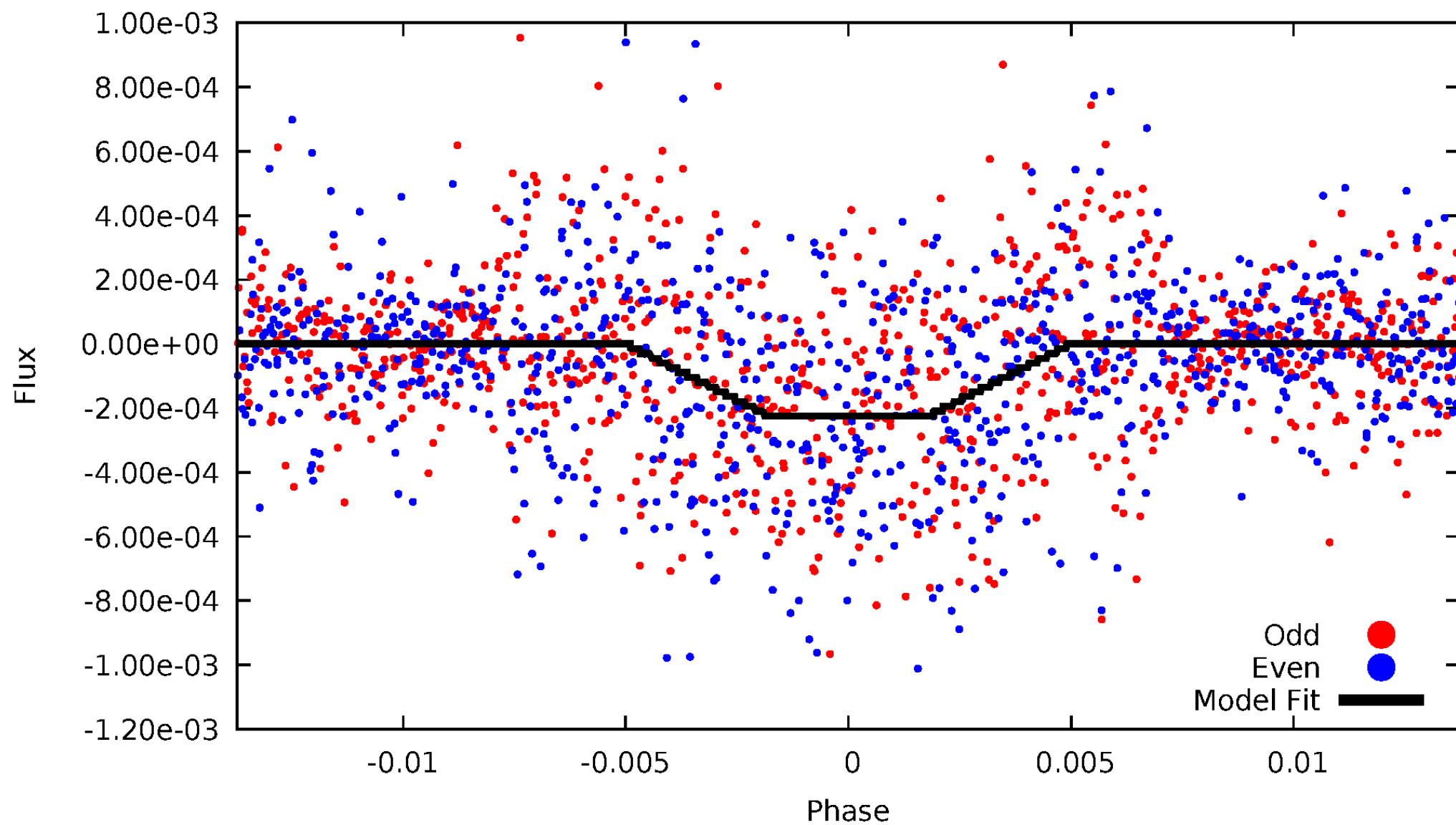
DV Odd/Even

TCE 008636600-01



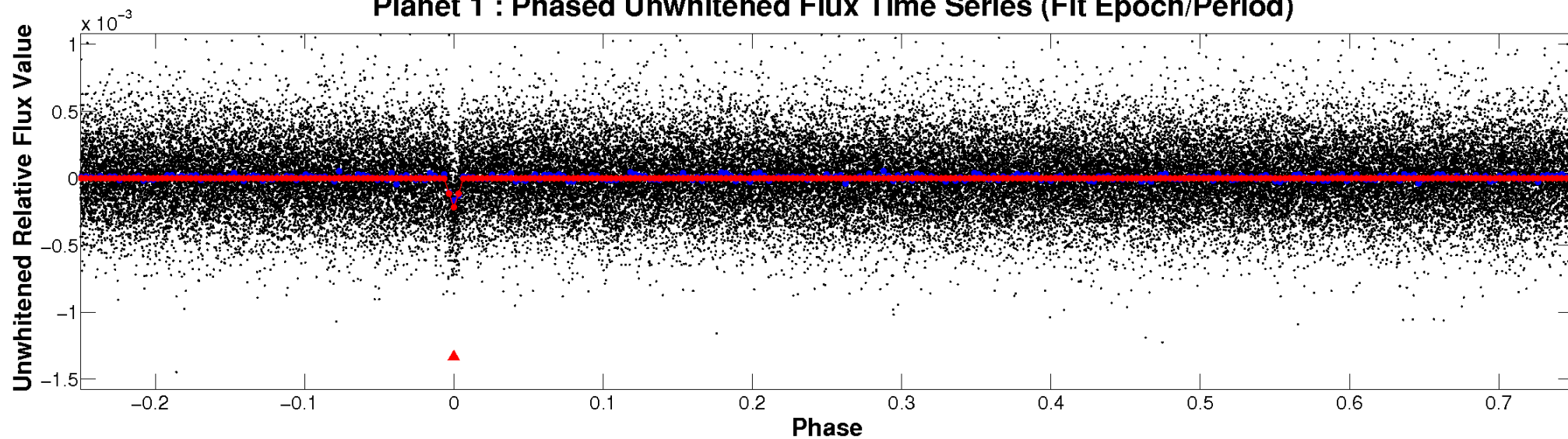
ALT Odd/Even

TCE 008636600-01

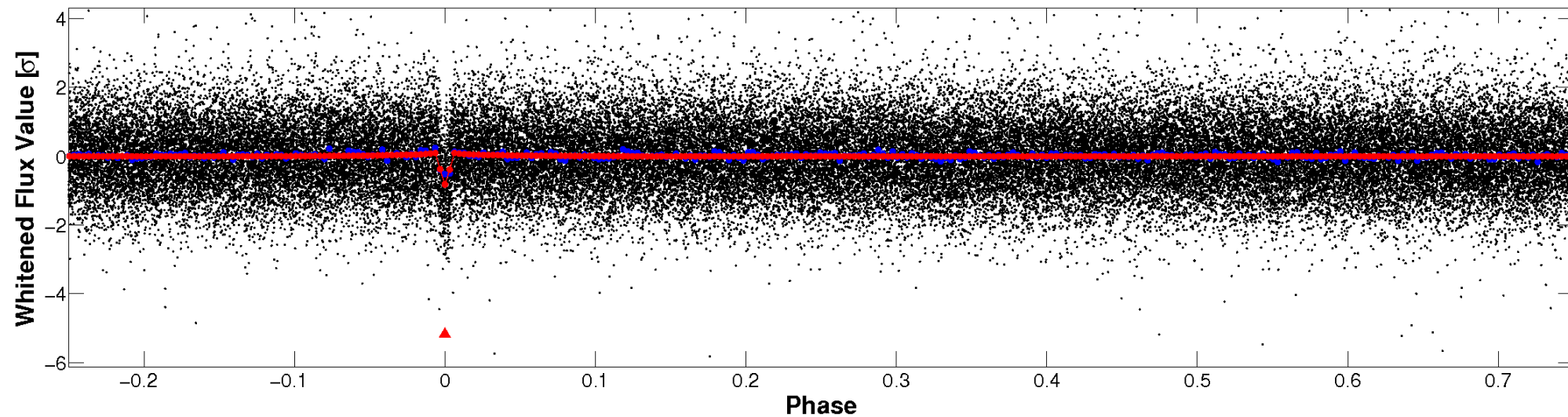


Non-Whitened Vs. Whitened Light Curve

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

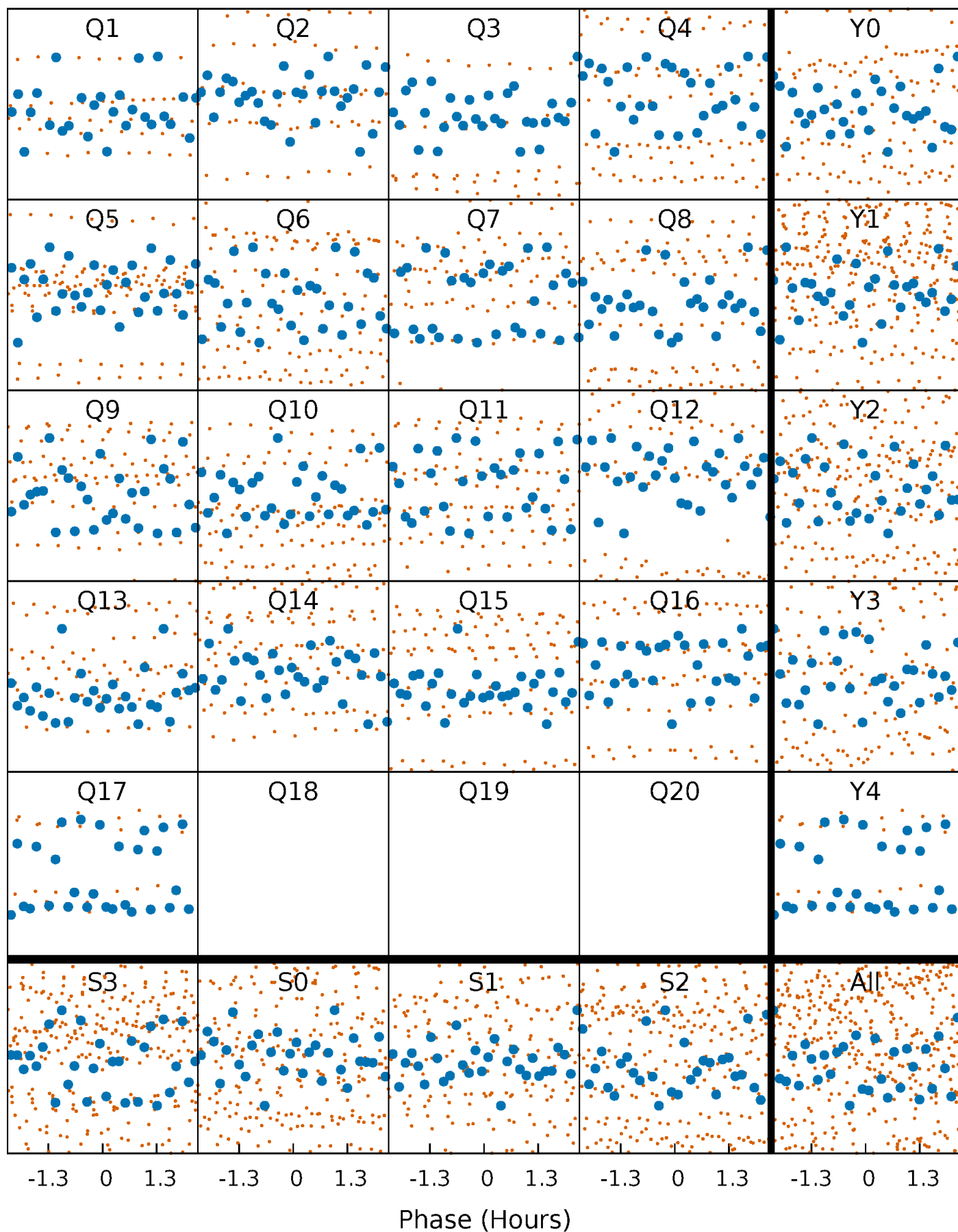


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



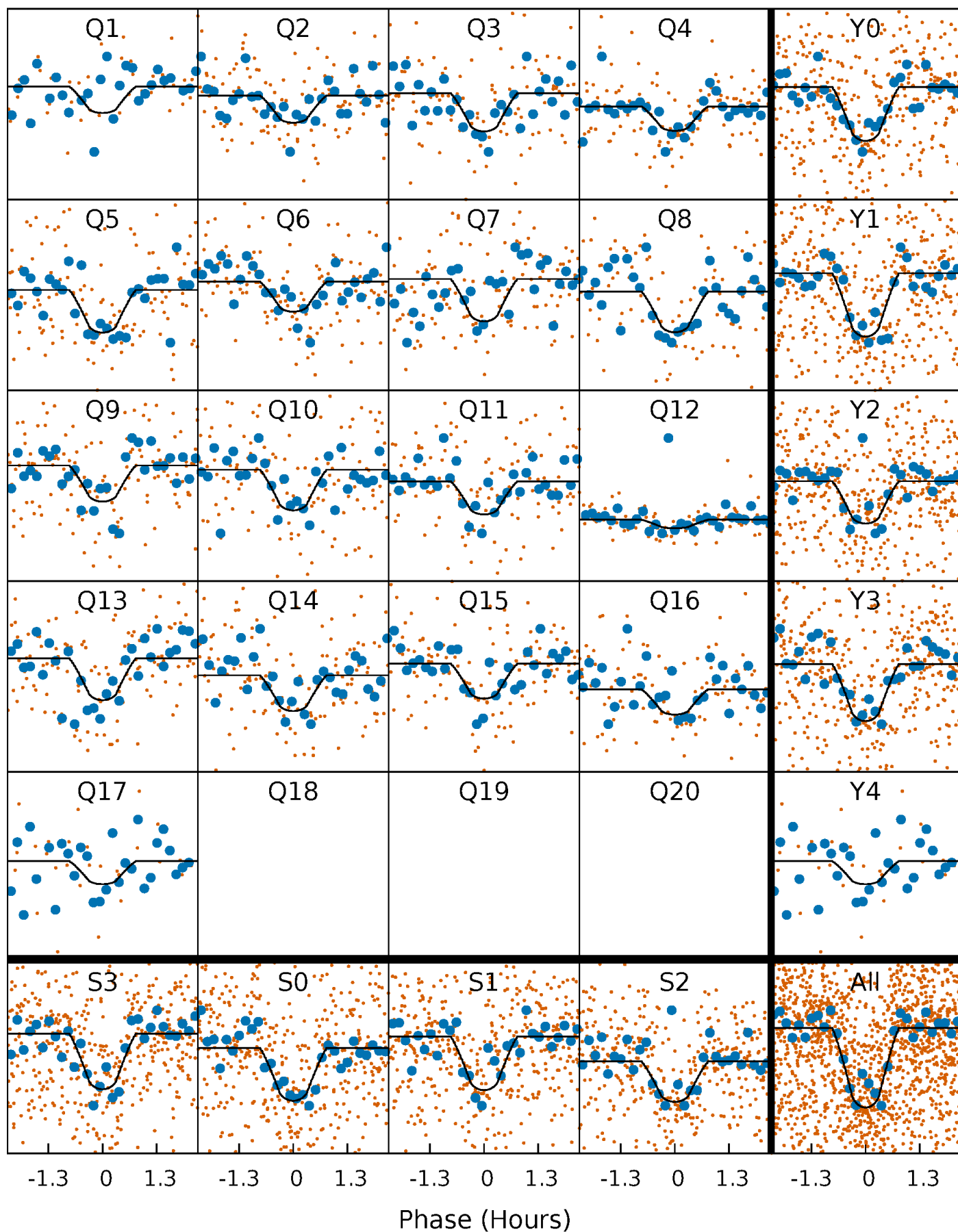
PDC Quarter-Phased Transit Curves

TCE 008636600-01 P= 6.386687 Days $T_0=131.531879$ (BKJD)



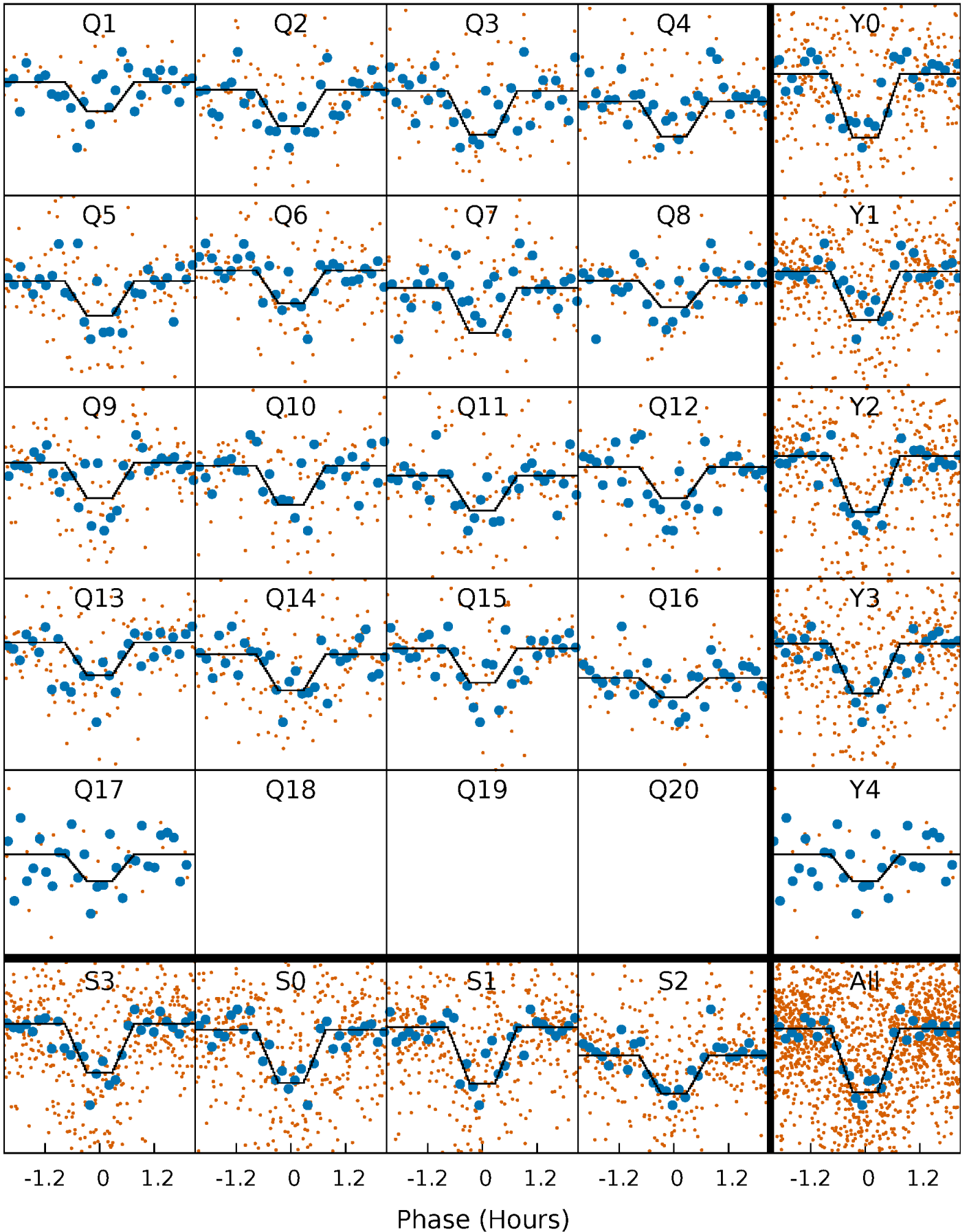
DV Quarter-Phased Transit Curves

TCE 008636600-01 P= 6.386687 Days $T_0=131.531879$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

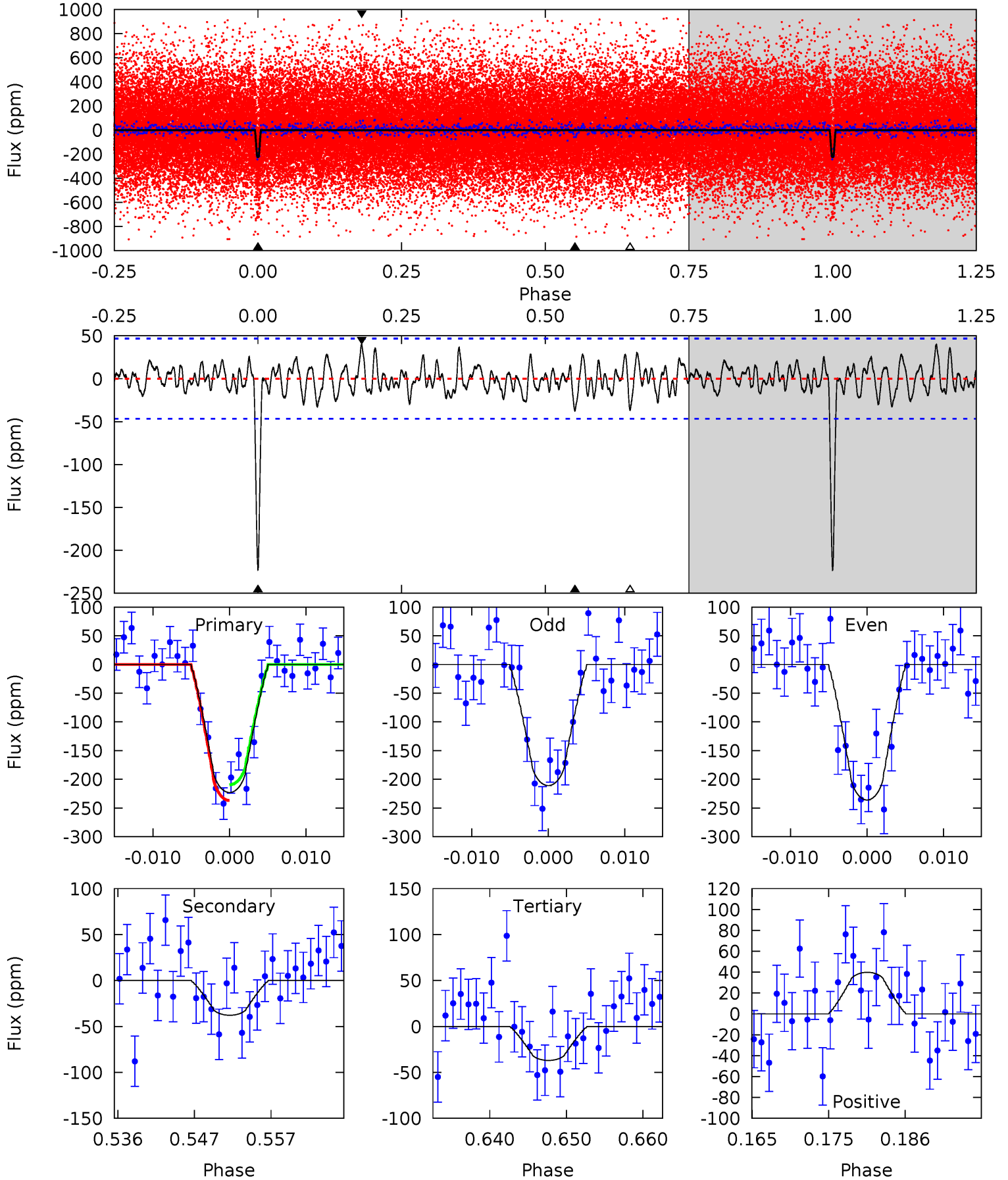
TCE 008636600-01 P= 6.386672 Days $T_0=131.534582$ (BKJD)



DV Model-Shift Uniqueness Test

008636600-01, P = 6.386687 Days, E = 125.145192 Days

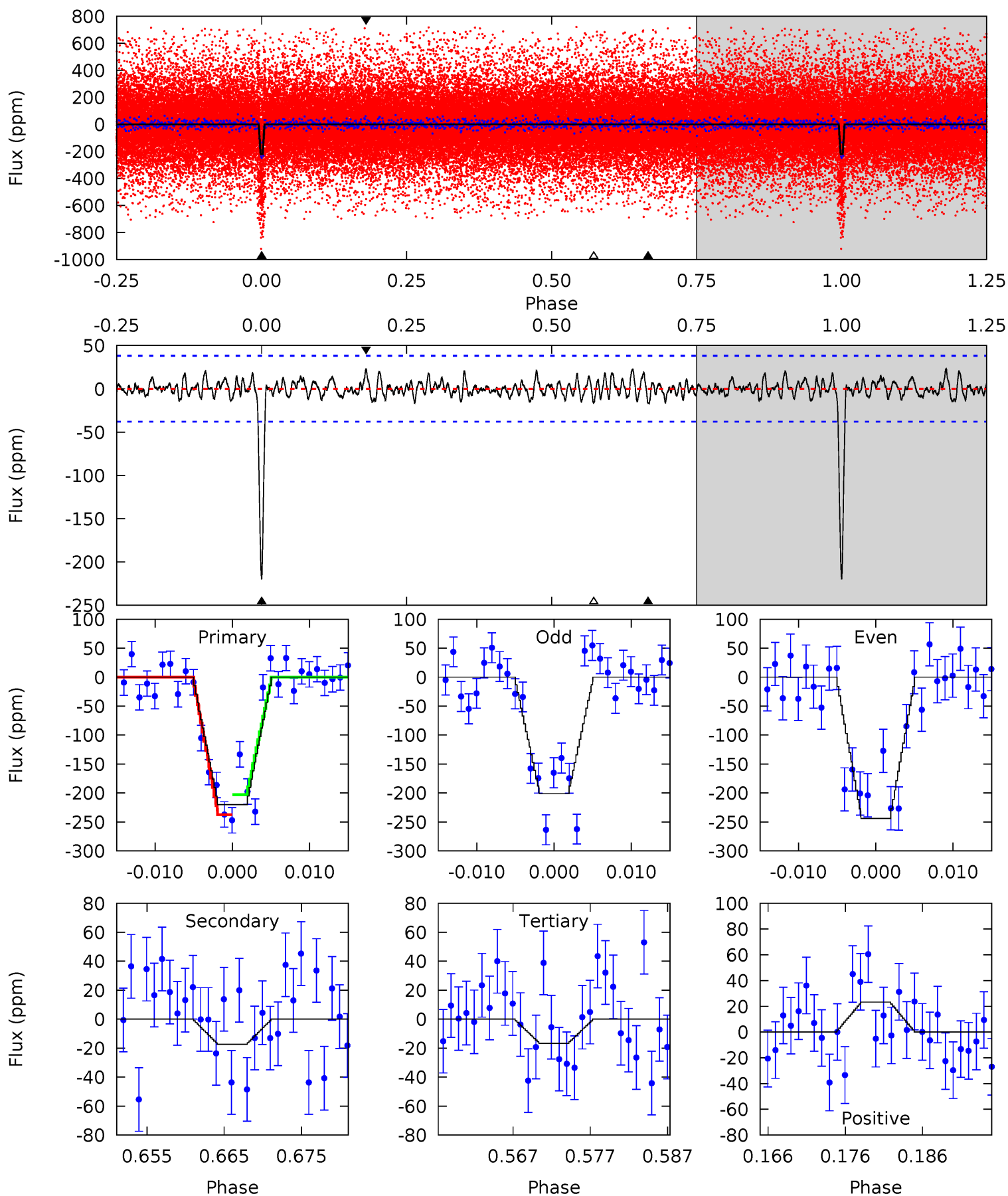
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.0	4.07	3.98	4.28	5.02	2.57	1.41	20.0	19.7	0.09	-0.21	1.35	0.80	0.15	1.47



Alt Model-Shift Uniqueness Test

008636600-01, P = 6.386672 Days, E = 125.147910 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.1	2.30	2.21	3.08	5.03	2.58	0.98	26.9	26.0	0.09	-0.78	2.83	1.02	0.10	2.31



Stellar Parameters For KIC 008636600

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5071^{+153}_{-138}	$4.505^{+0.088}_{-0.072}$	$-0.020^{+0.300}_{-0.300}$	$0.811^{+0.080}_{-0.088}$	$0.768^{+0.095}_{-0.059}$	$2.027^{+0.712}_{-0.441}$
	+3%/-3%	+2%/-2%	+1500%/-1500%	+10%/-11%	+12%/-8%	+35%/-22%
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 008636600-01 / KOI 4478.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-38 ± 9	$1.35^{+0.97}_{-0.77}$	1130^{+45}_{-45}	3591^{+1298}_{-569}	43^{+193}_{-29}
Alt.	-17 ± 8	$1.42^{+0.90}_{-0.79}$	1132^{+47}_{-44}	3107^{+966}_{-458}	17^{+69}_{-12}

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

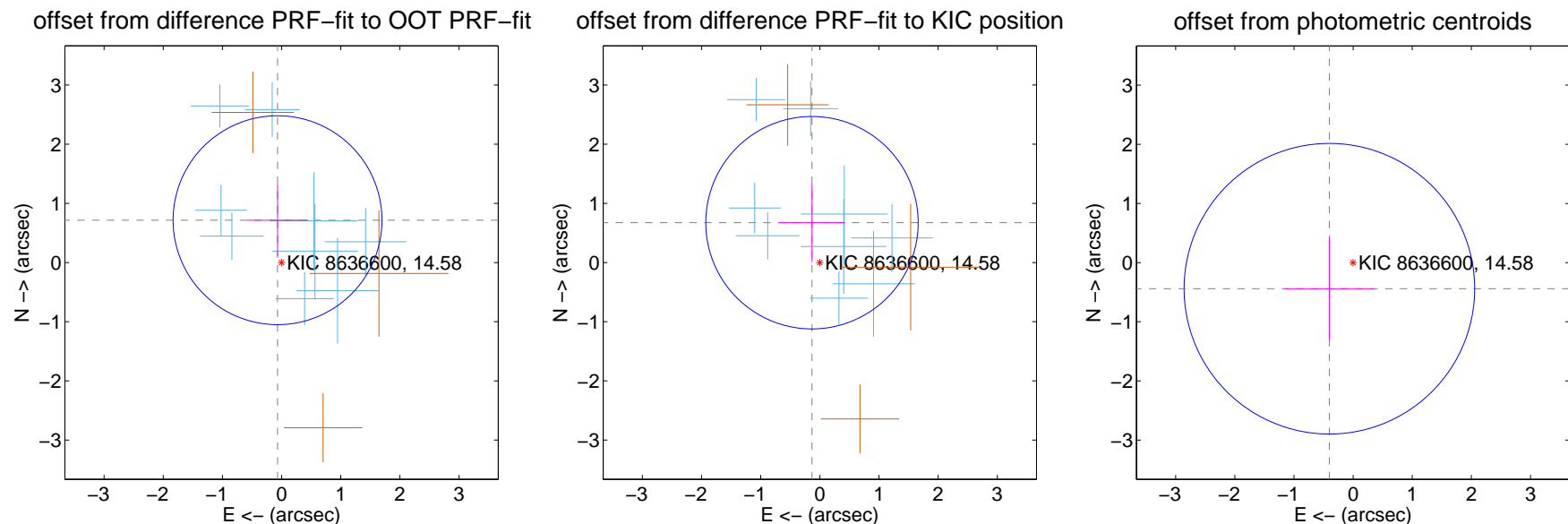
DV Centroid Data

Supplemental centroid analysis for 008636600-01. Kepler magnitude: 14.58. Transit SNR 14.92

There are 9 quarters with good PRF difference image offsets

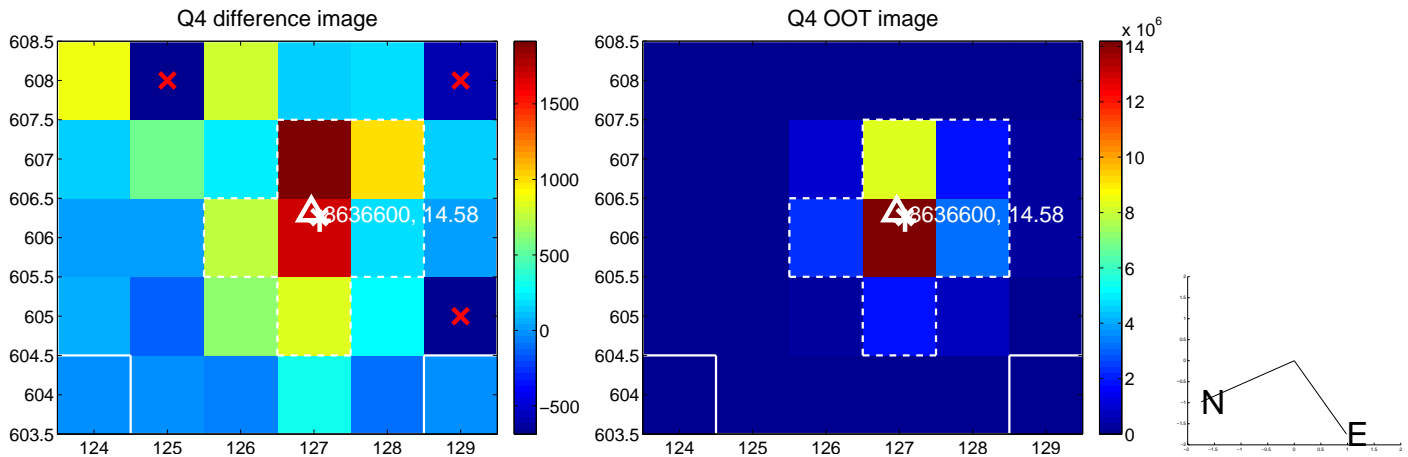
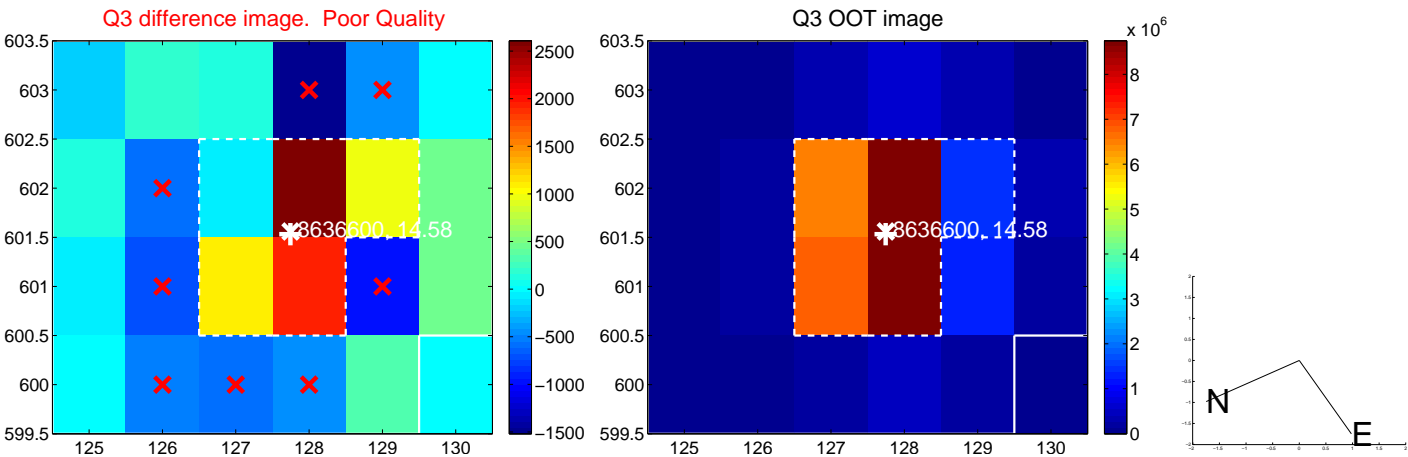
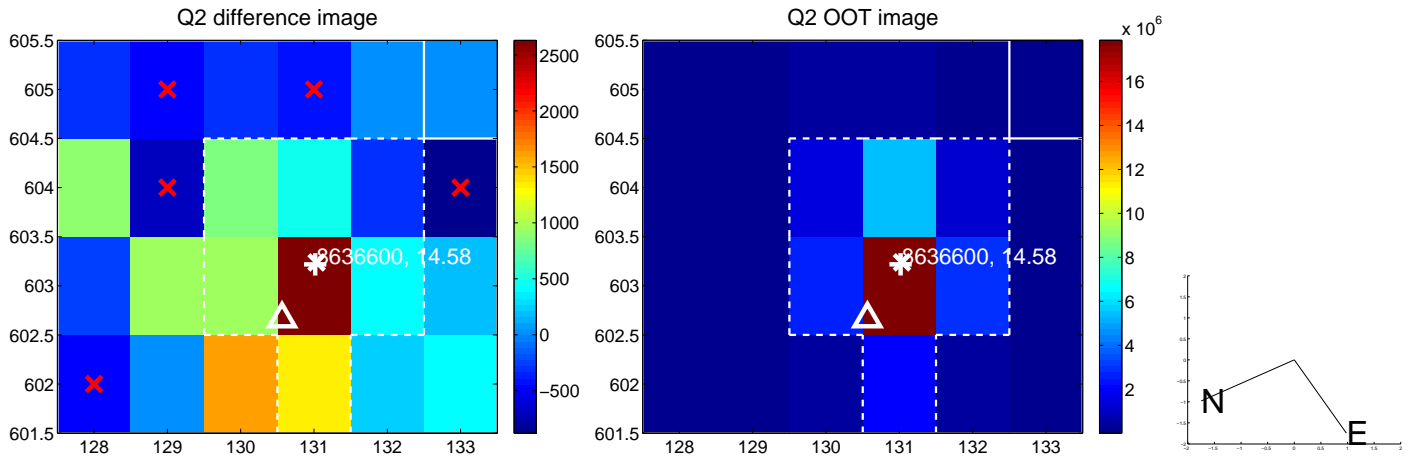
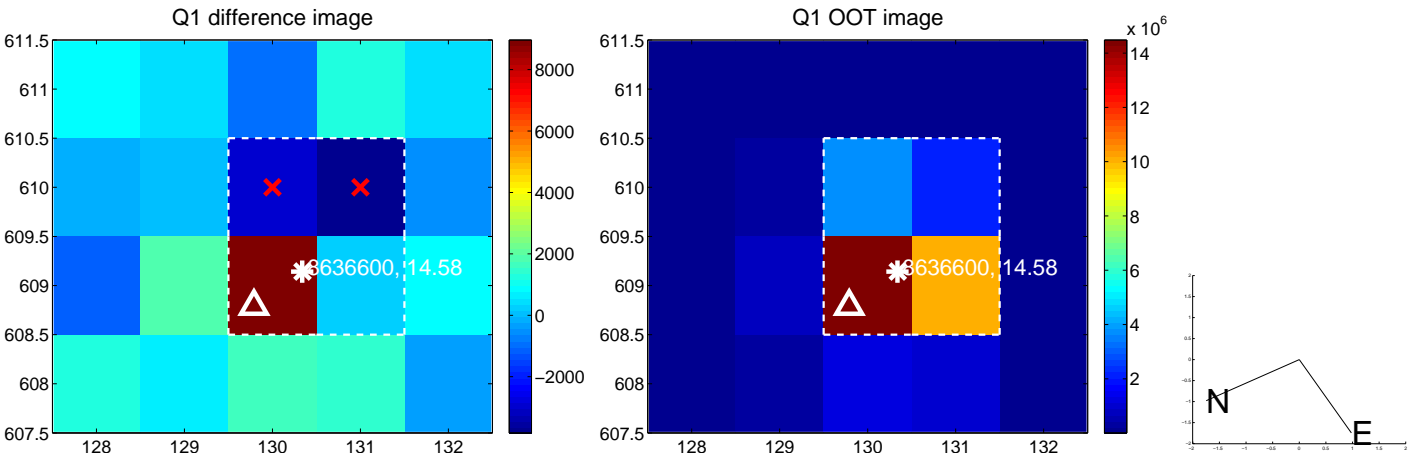
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.719 ± 0.588	1.22	0.068 ± 0.517	0.716 ± 0.611
PRF-fit source offset from KIC position	0.686 ± 0.598	1.15	0.133 ± 0.558	0.673 ± 0.663
photometric centroid source offset	0.60 ± 0.82	0.73	0.40 ± 0.75	-0.44 ± 0.87

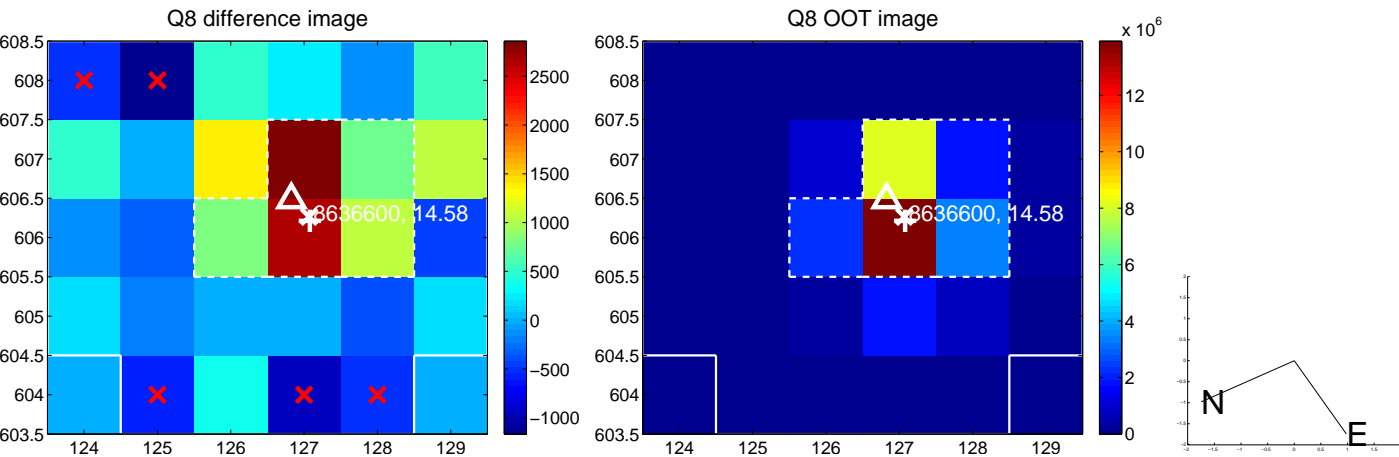
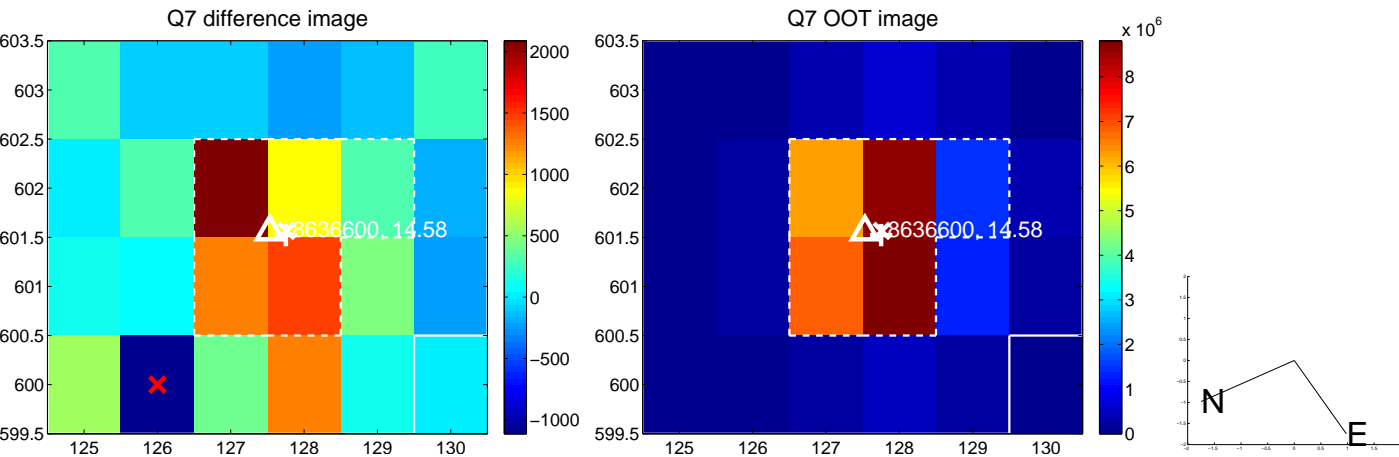
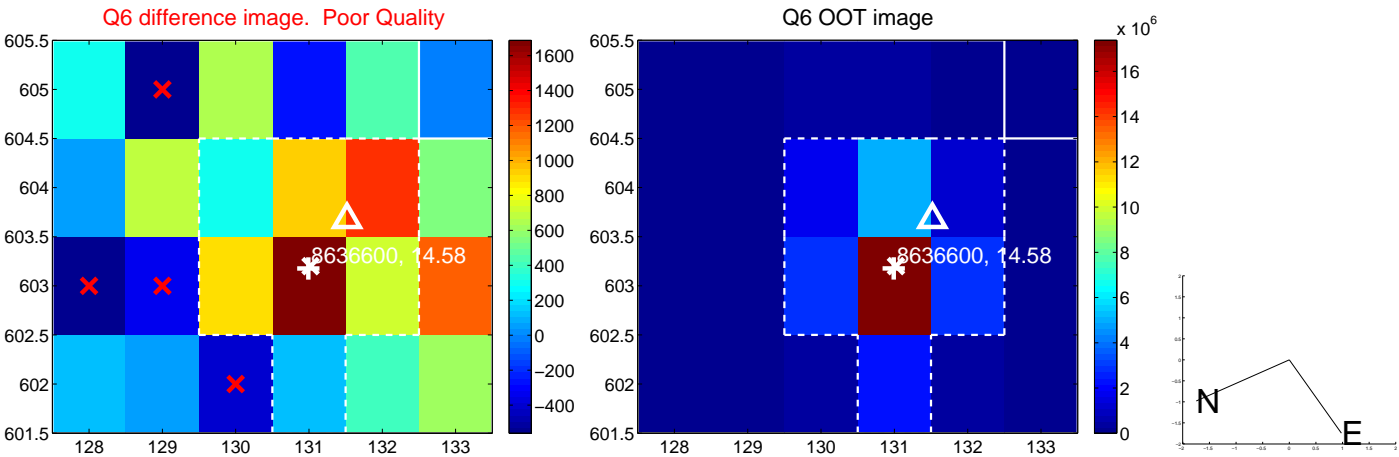
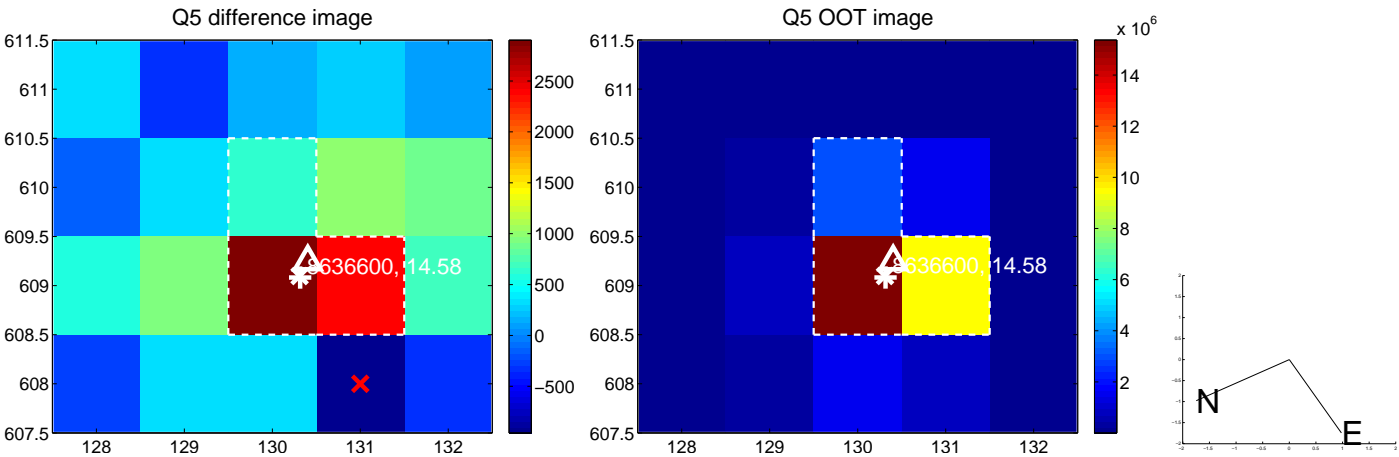


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

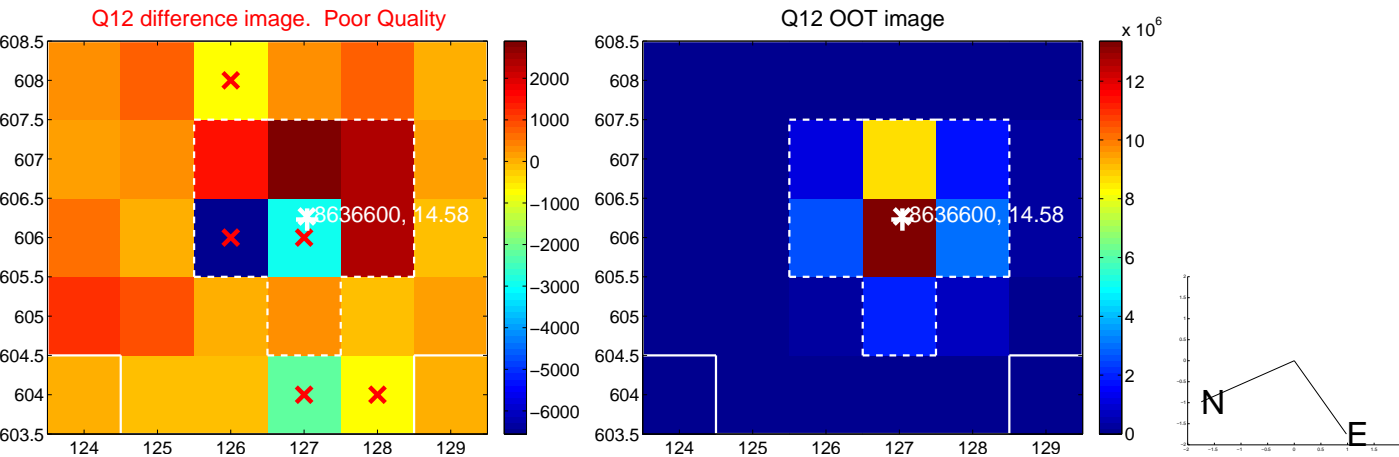
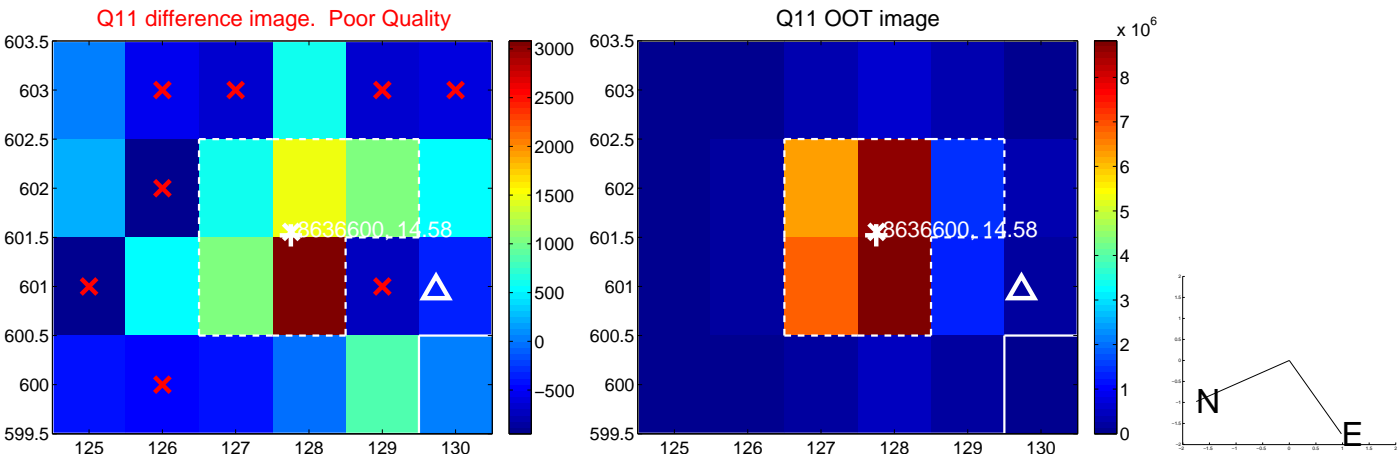
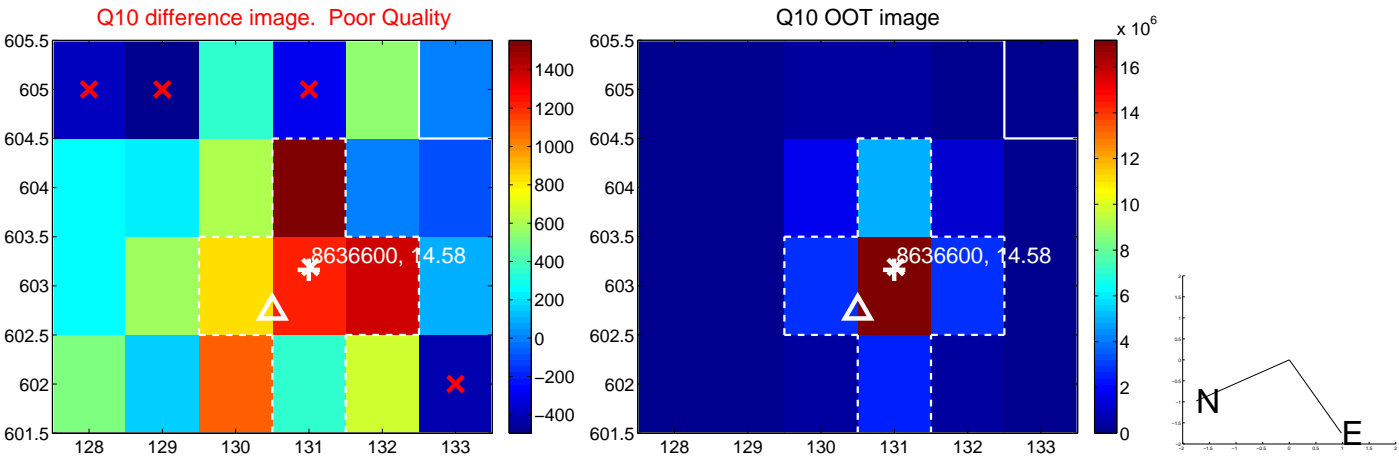
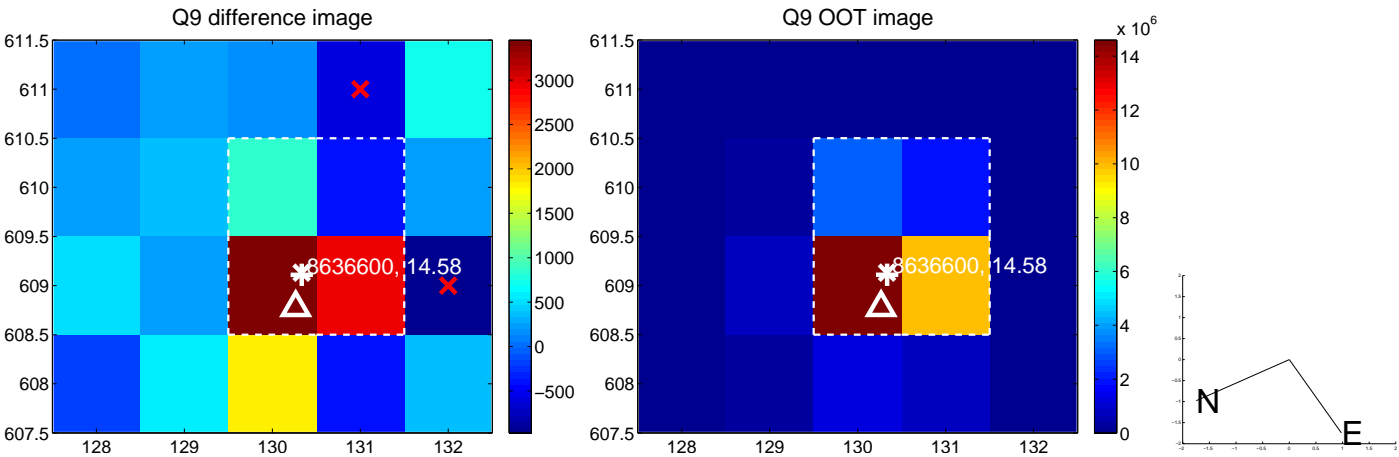
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



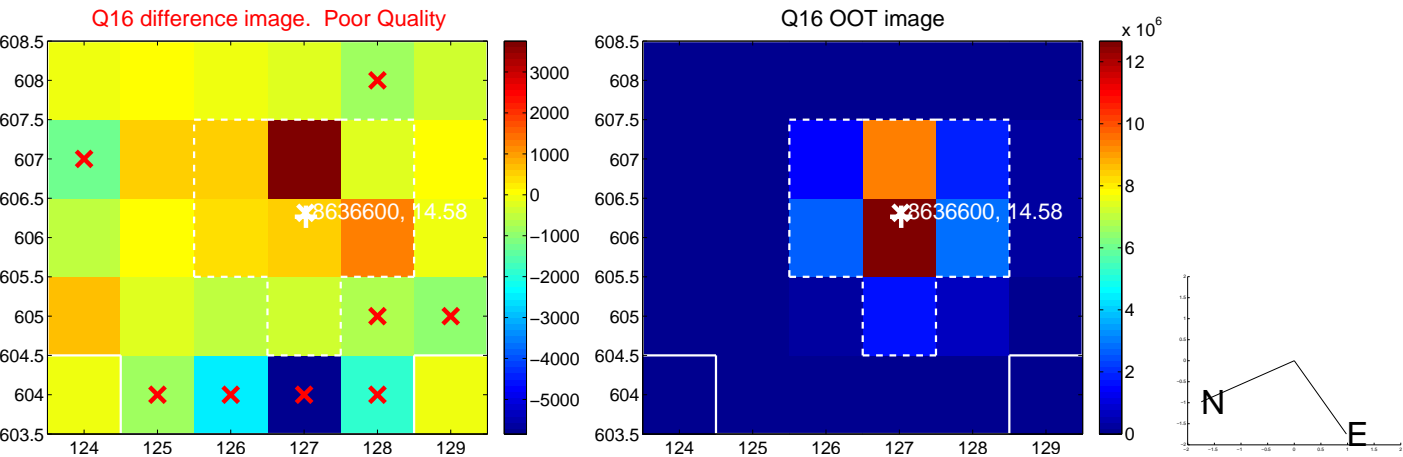
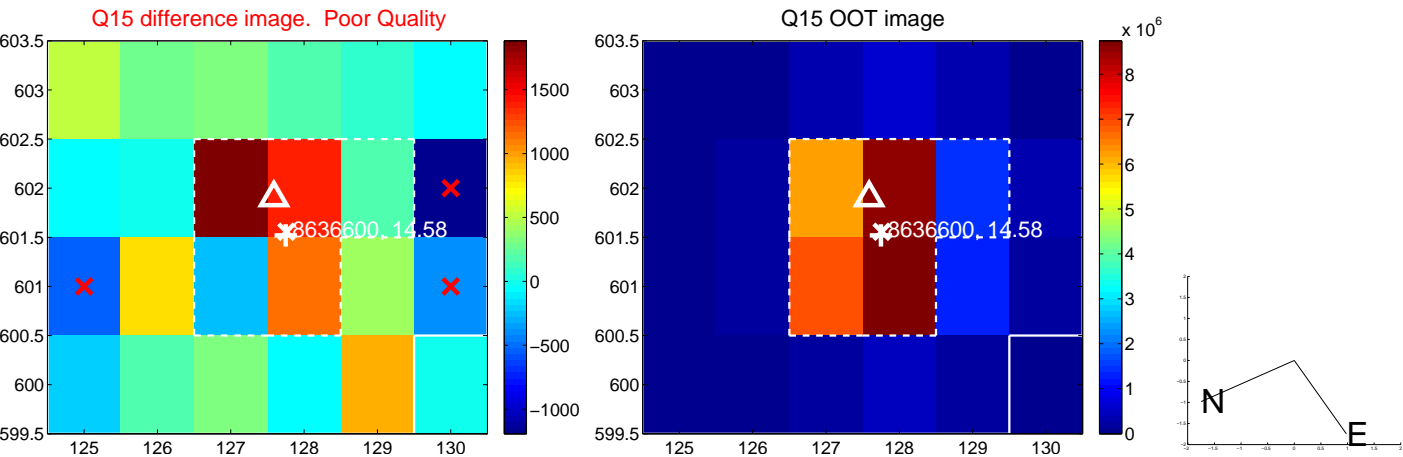
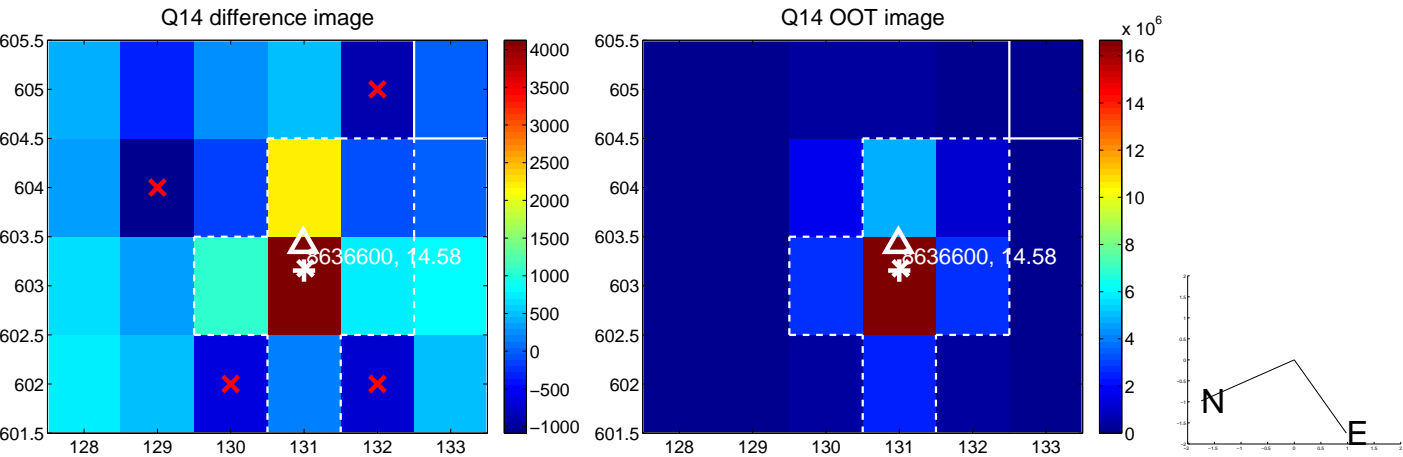
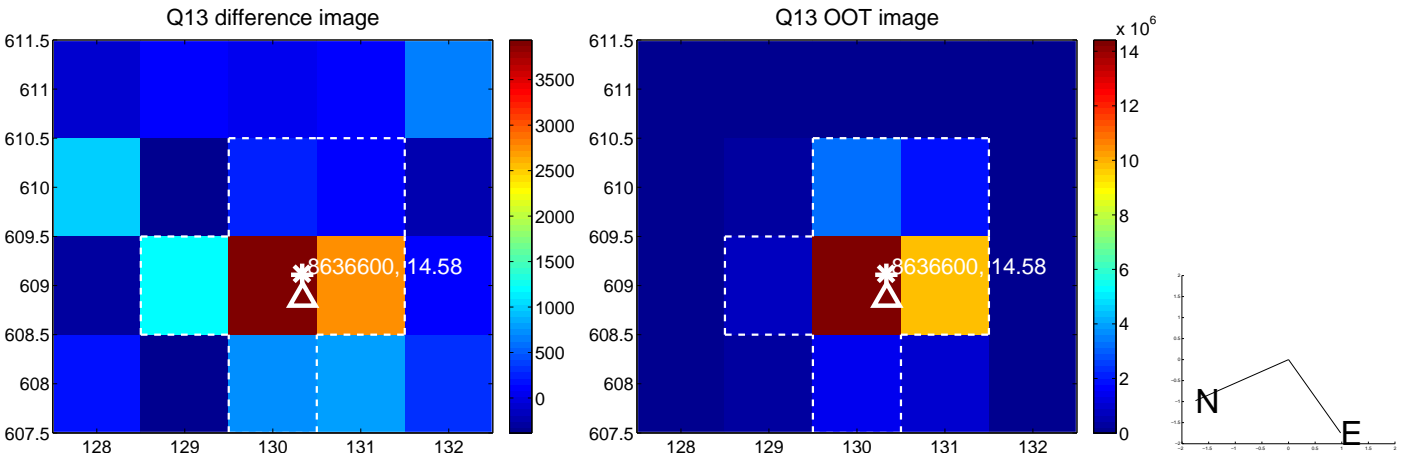
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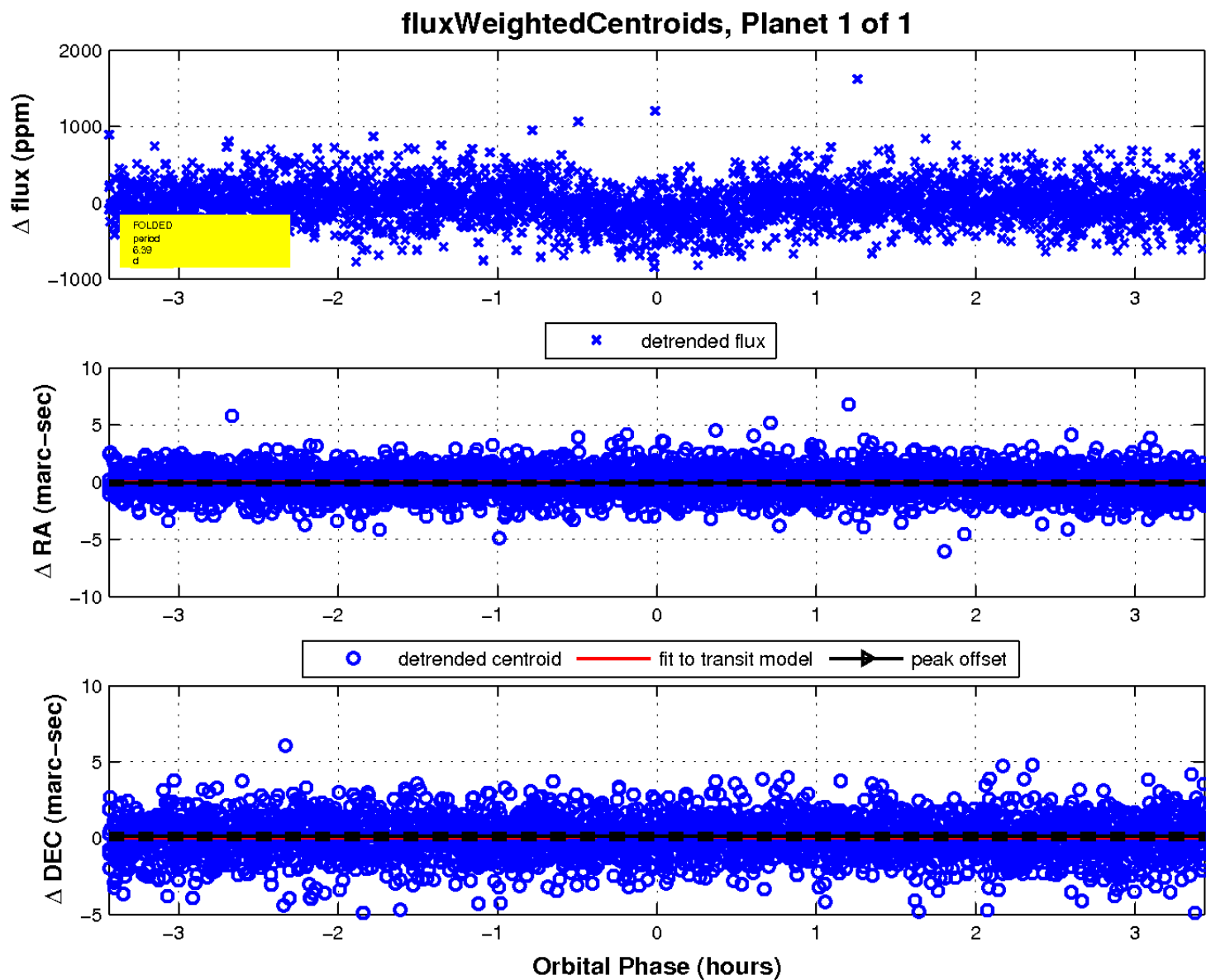
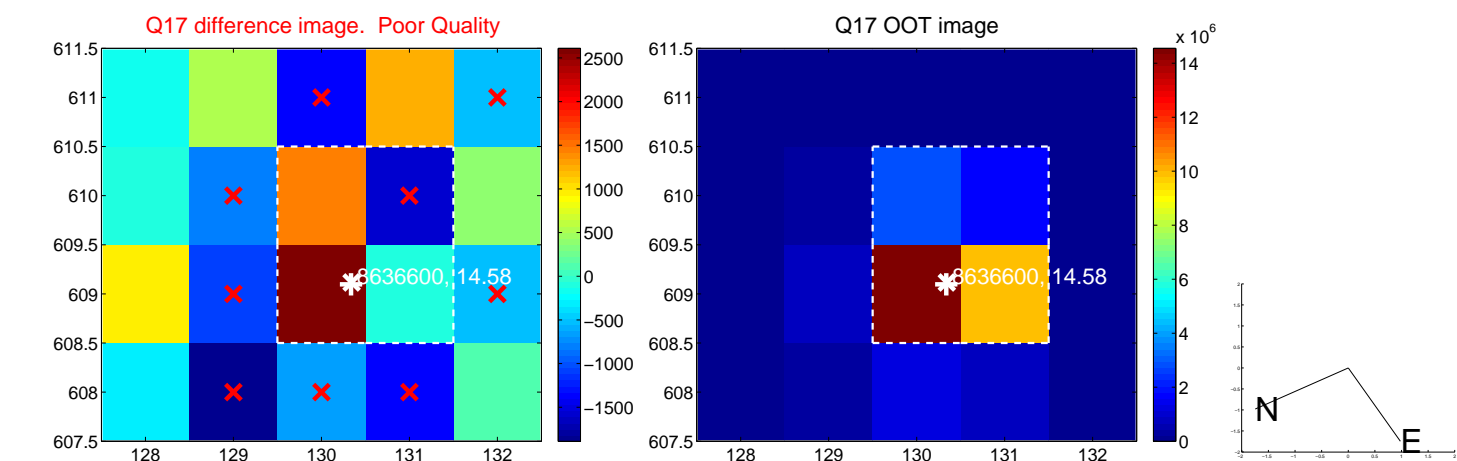
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

