

KIC 005296455

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})
005296455-01	OBS	No	2.949422	133.653288	52.6	5.870	13.7	11.9	1.17	6627	1.00	1319.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005296455-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT

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

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

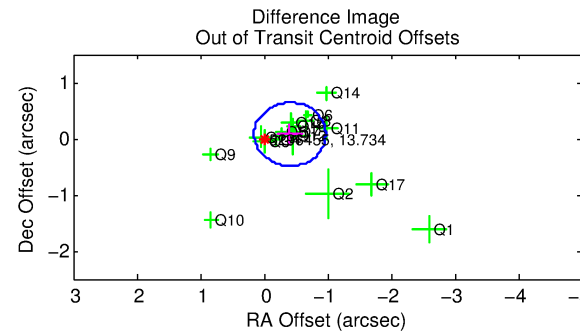
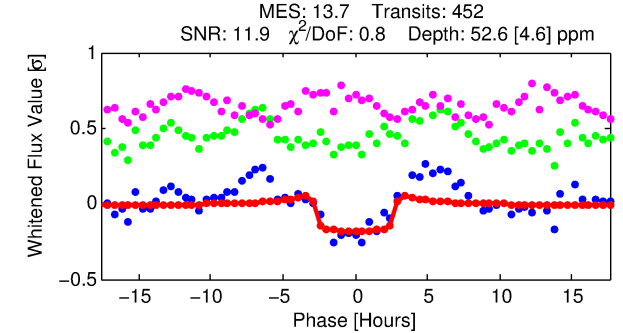
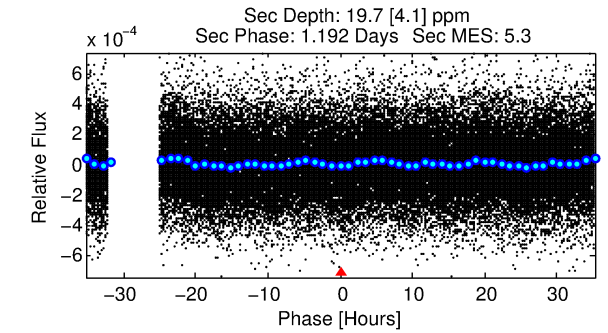
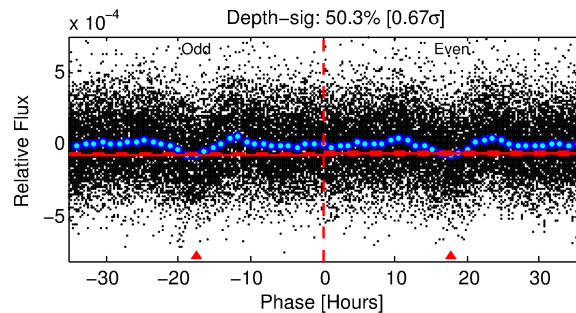
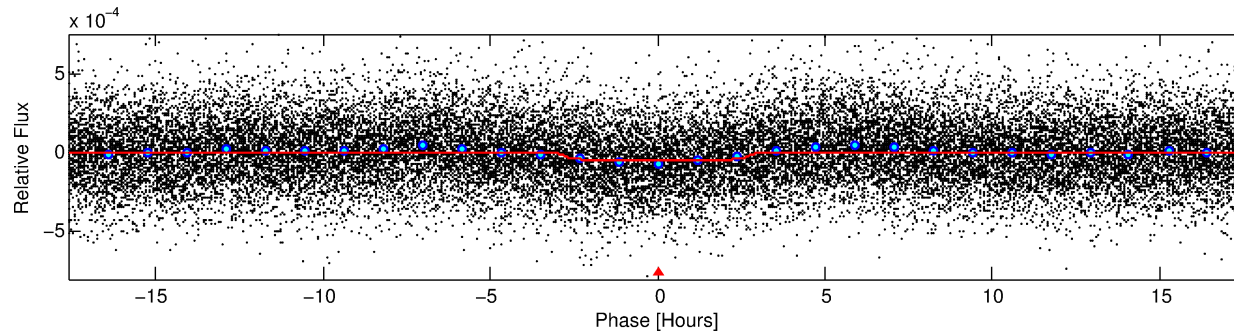
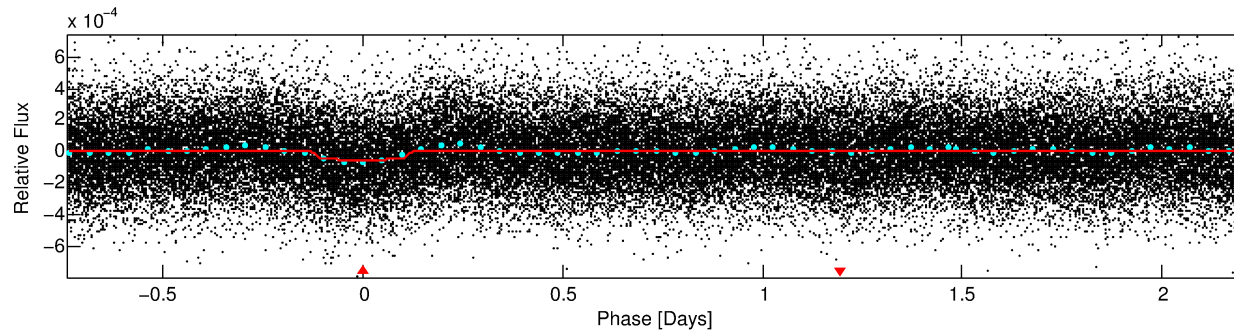
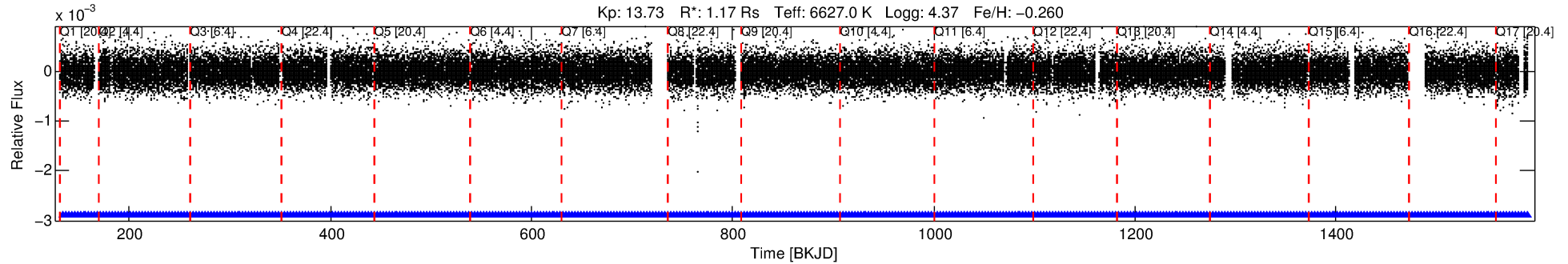
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005296455-01

No Significant Match Found

DV One-Page Summary

KIC: 5296455 Candidate: 1 of 1 Period: 2.949 d



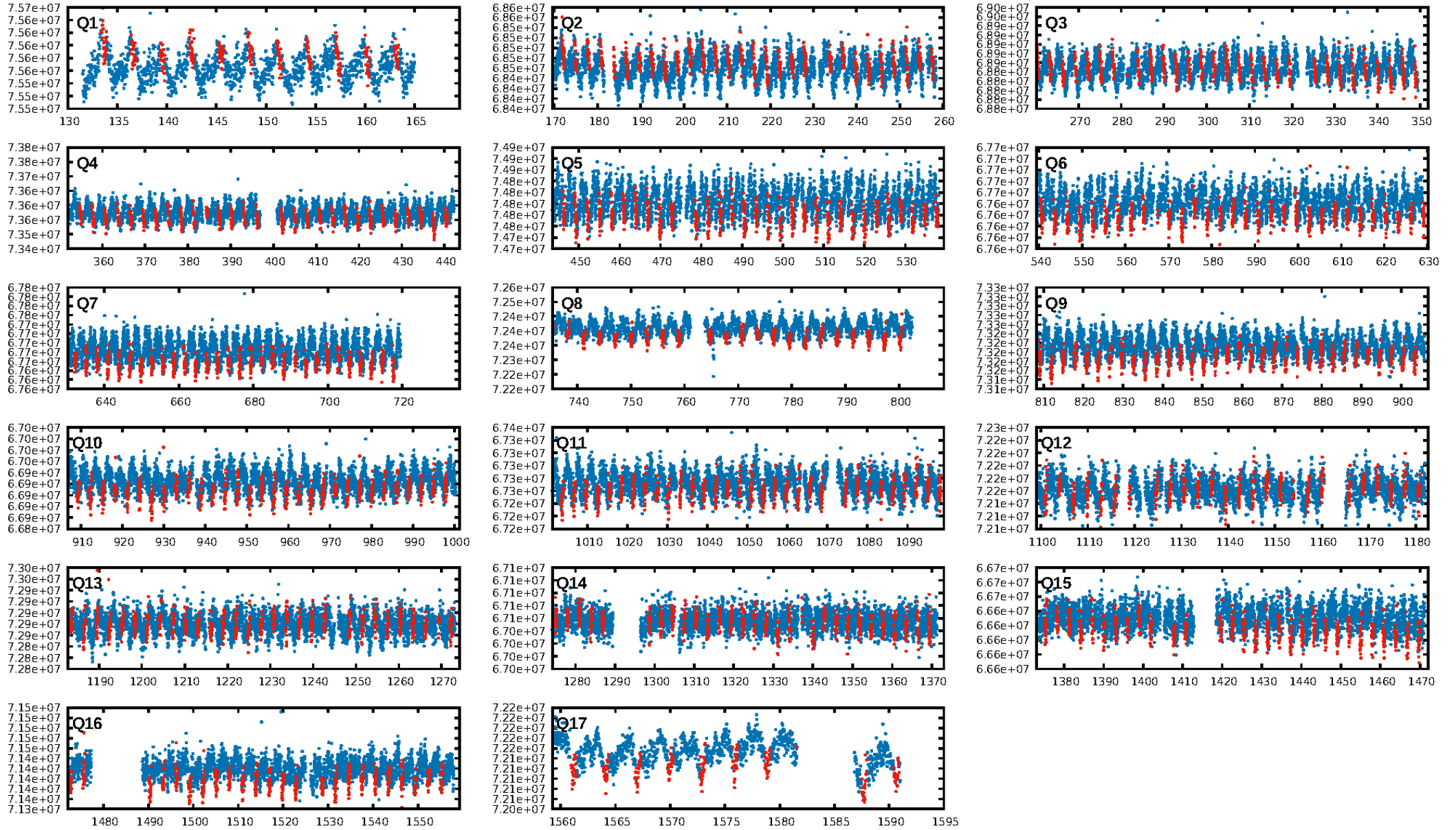
DV Fit Results:

Period = 2.94942 [0.00002] d
Epoch = 133.6533 [0.0043] BKJD
Rp/R* = 0.0078 [0.0016]
a/R* = 1.93 [1.68]
b = 0.91 [0.23]
Seff = 1319.67 [524.96]
Teq = 1537 [153] K
Rp = 1.00 [0.38] Re
a = 0.0424 [0.0111] AU
Ag = 19.68 [11.67] [1.60 σ]
Teffp = 5005 [597] K [5.62 σ]

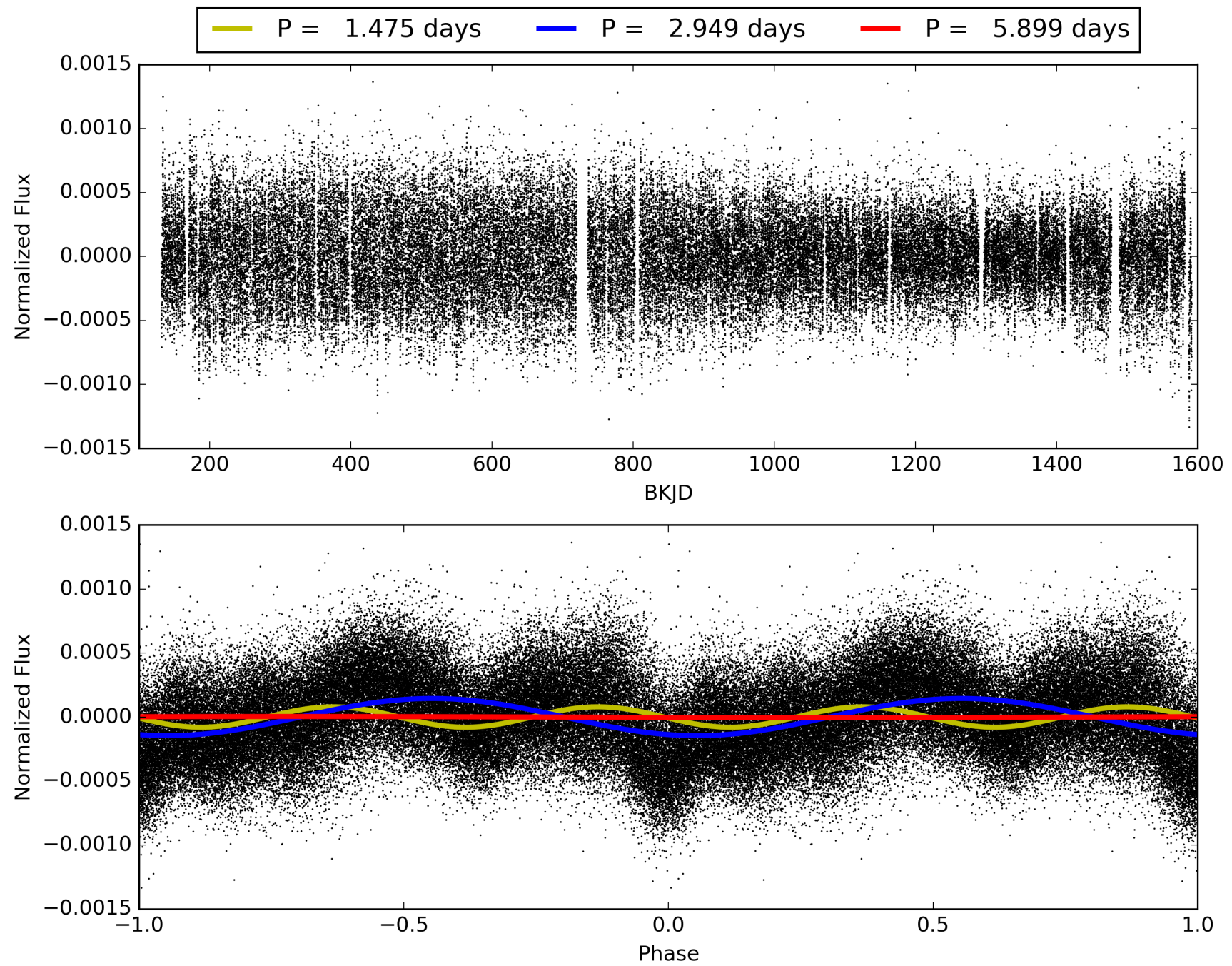
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.32e-35
RollingBand-fgt: 1.00 [432/432]
GhostDiagnostic-chr: 1.054
Centroid-sig: 0.1%
Centroid-so: 1.354 arcsec [1.66 σ]
OotOffset-rm: 0.417 arcsec [2.22 σ]
KicOffset-rm: 0.346 arcsec [1.88 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005296455-01, PDC Light Curves

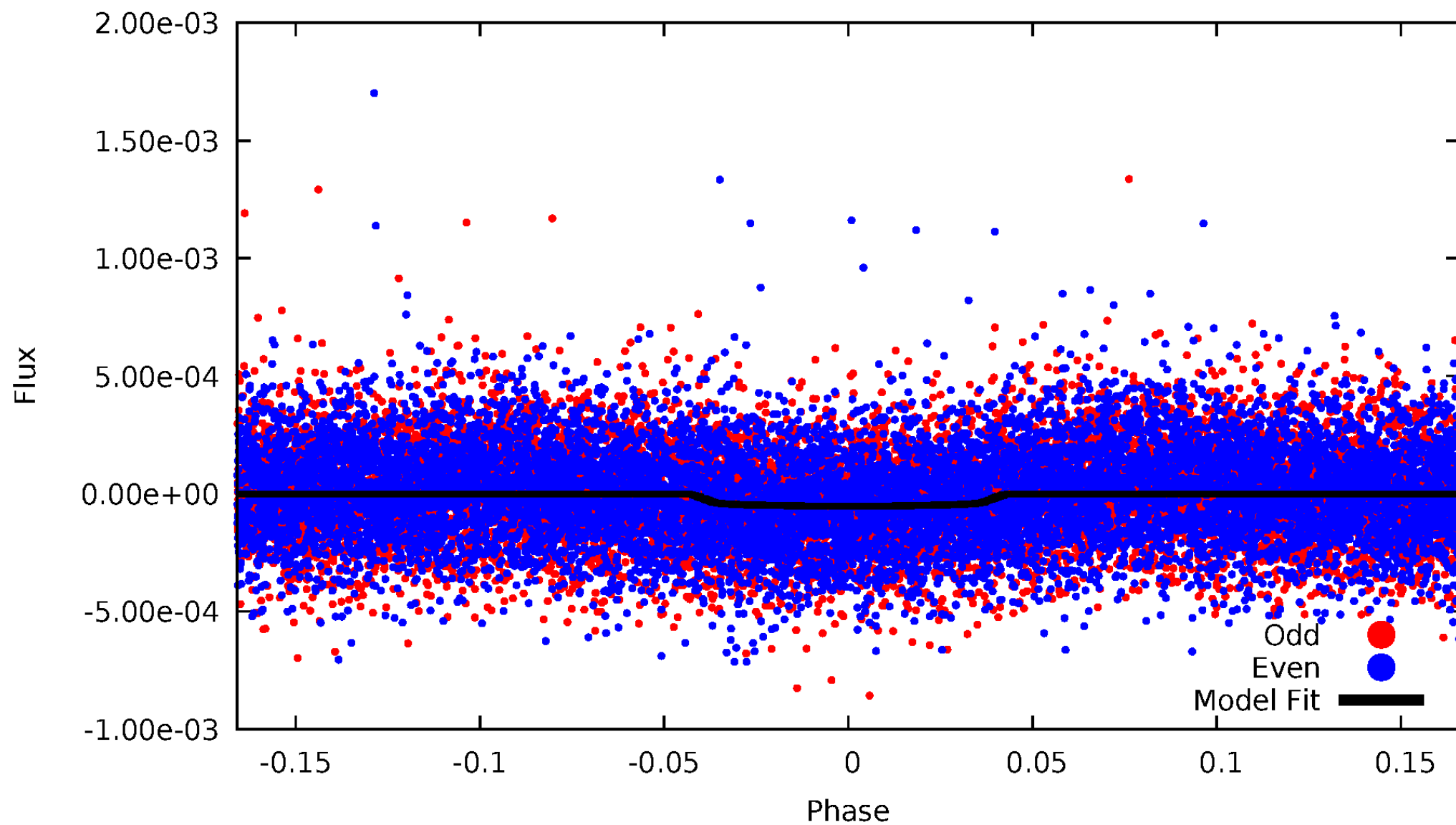


TCE 005296455-01



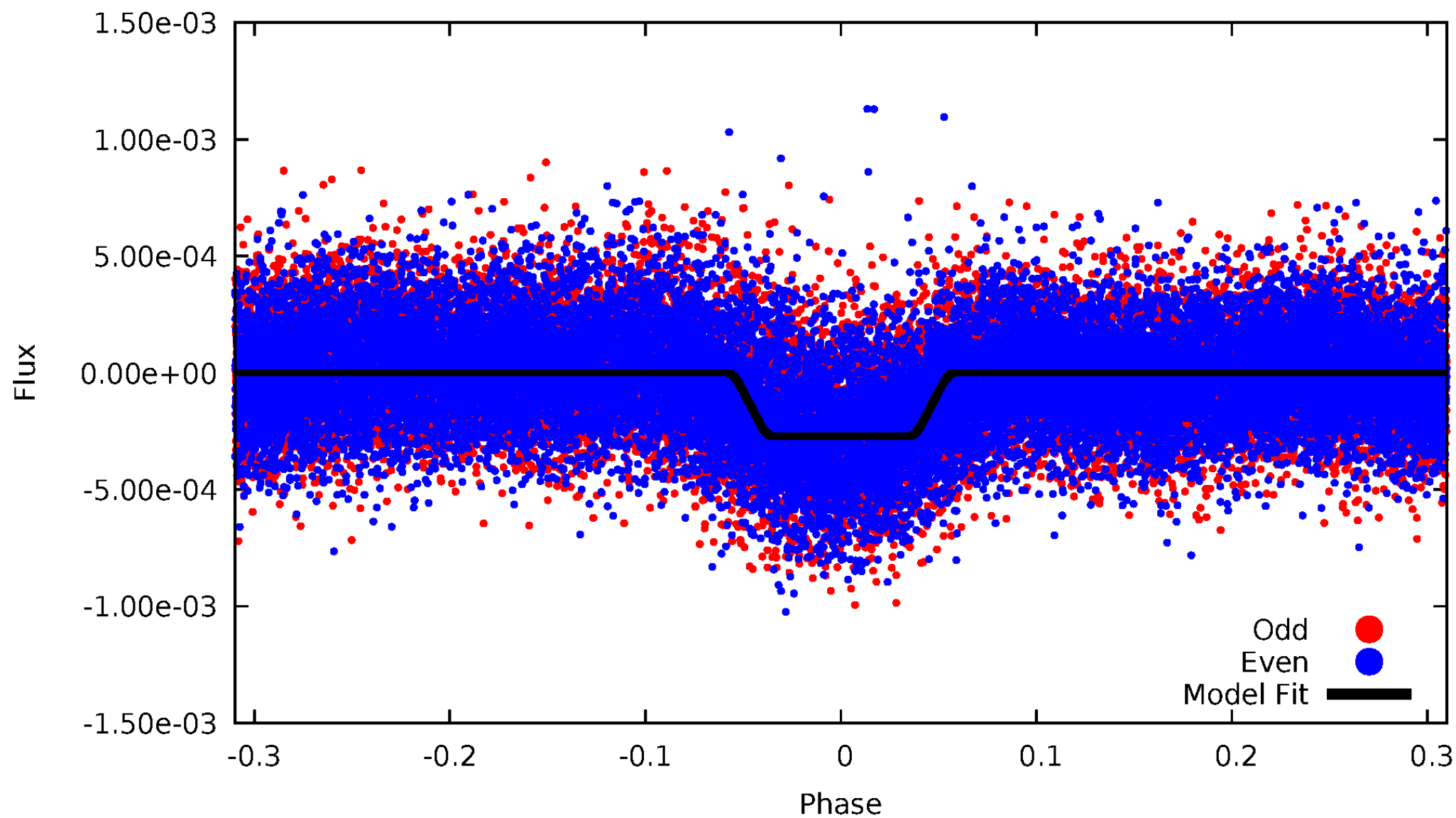
DV Odd/Even

TCE 005296455-01

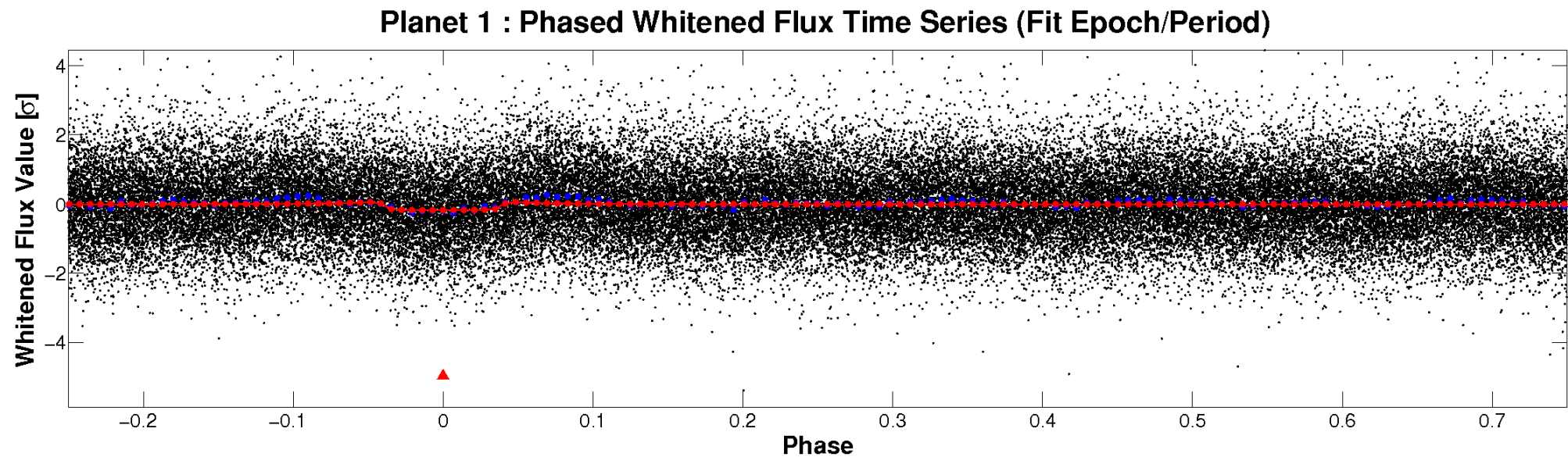
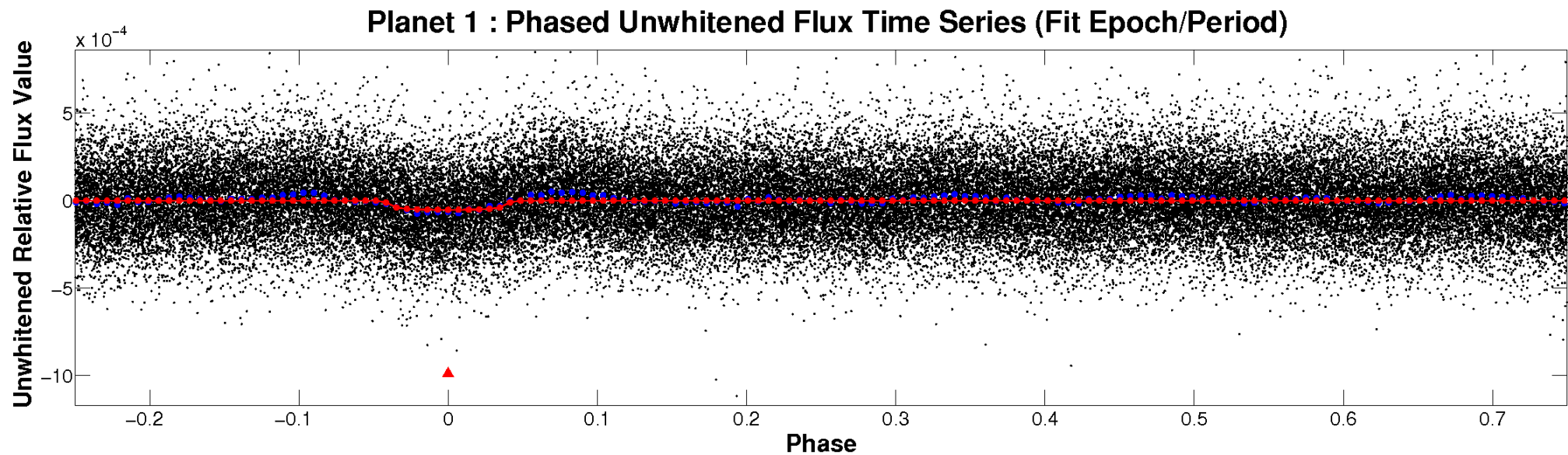


ALT Odd/Even

TCE 005296455-01

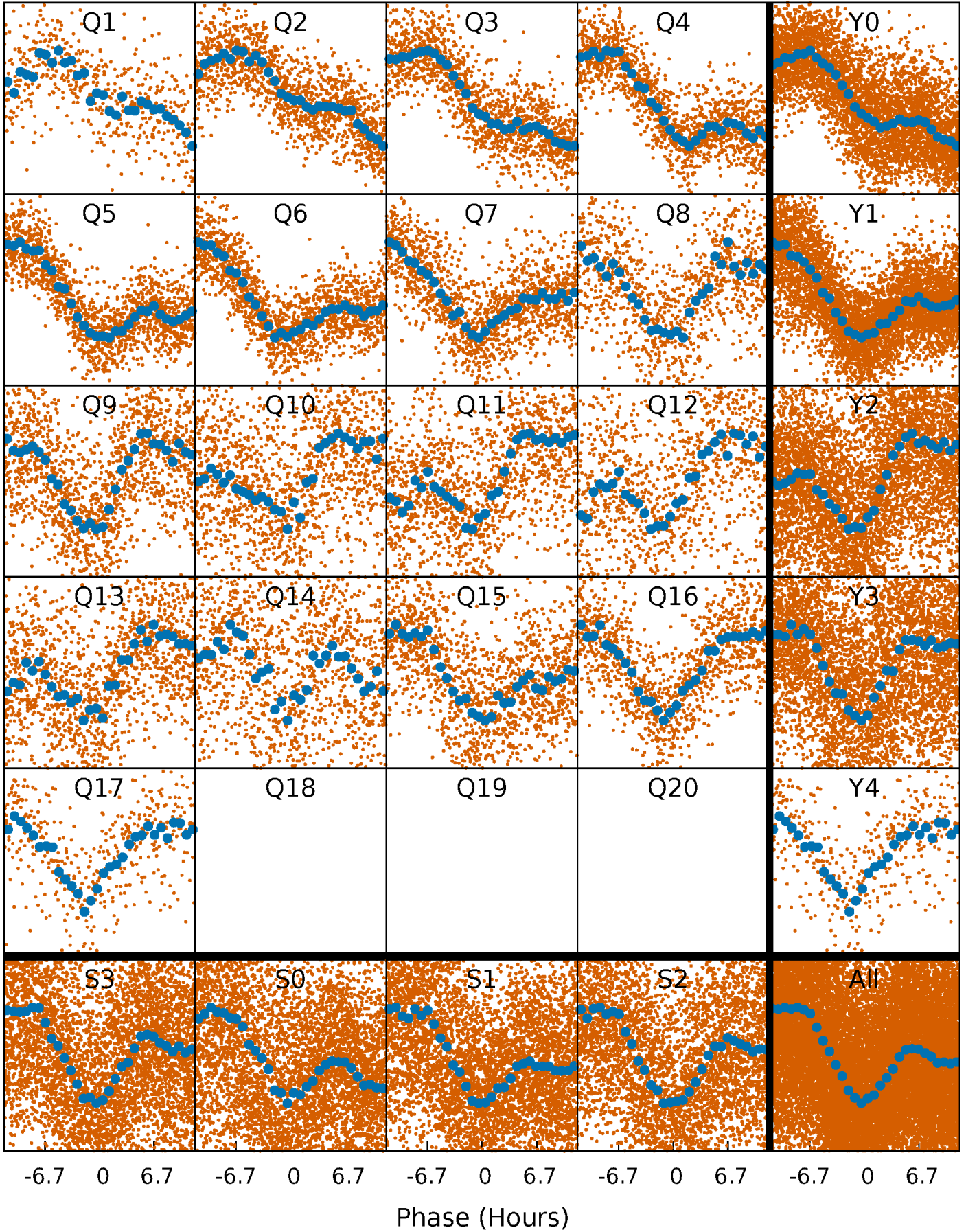


Non-Whitened Vs. Whitened Light Curve



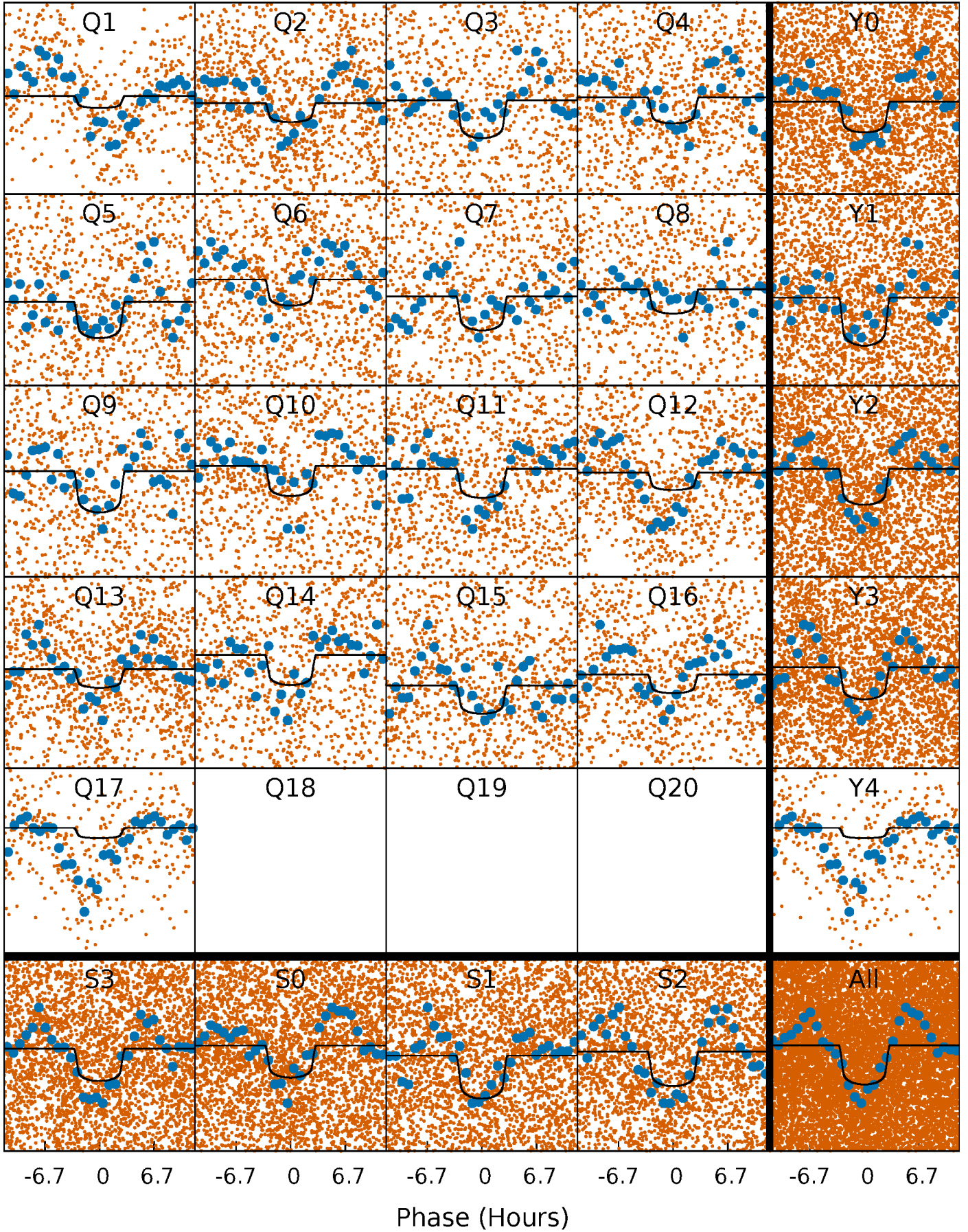
PDC Quarter-Phased Transit Curves

TCE 005296455-01 P= 2.949422 Days $T_0=133.653288$ (BKJD)



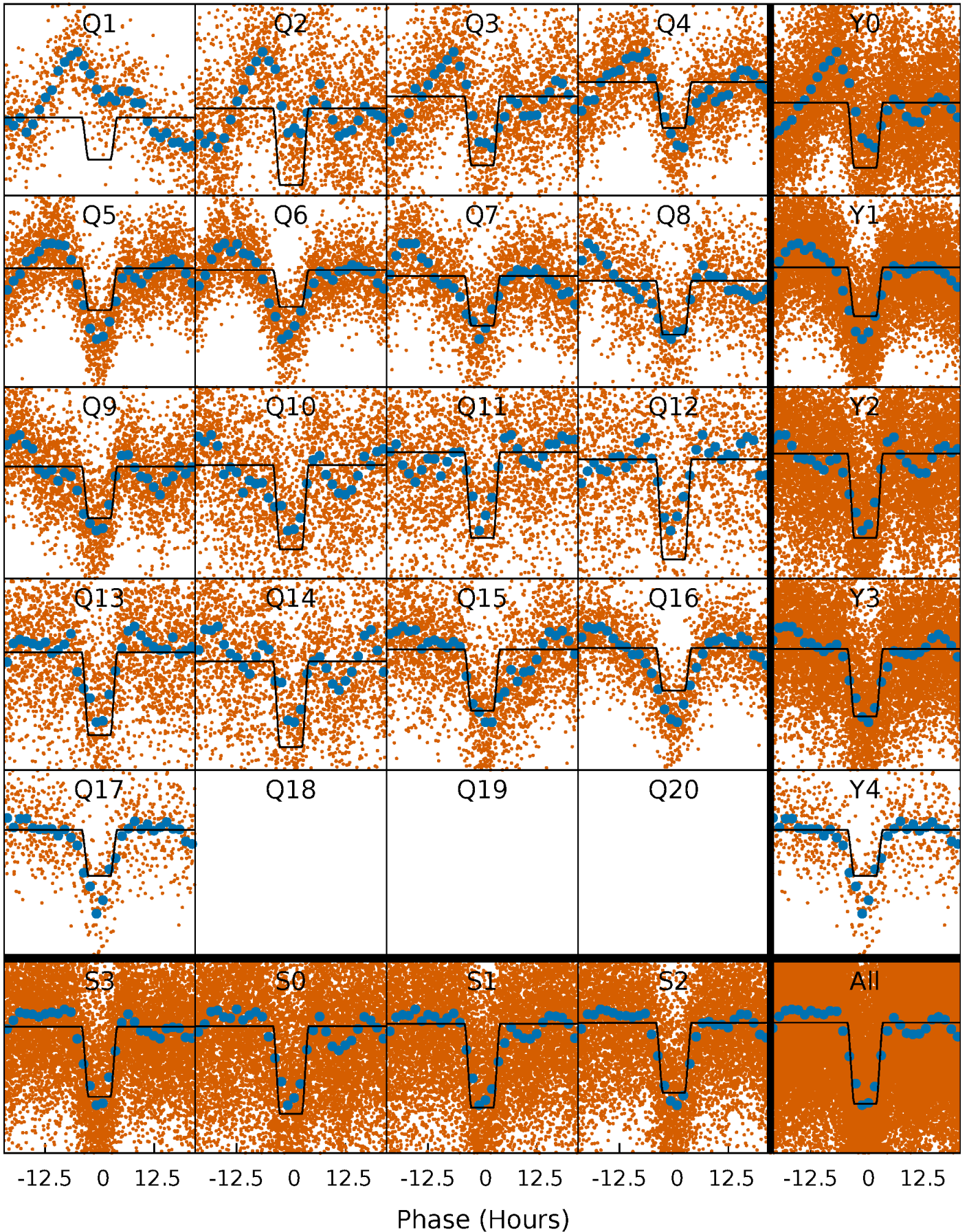
DV Quarter-Phased Transit Curves

TCE 005296455-01 P= 2.949422 Days $T_0=133.653288$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

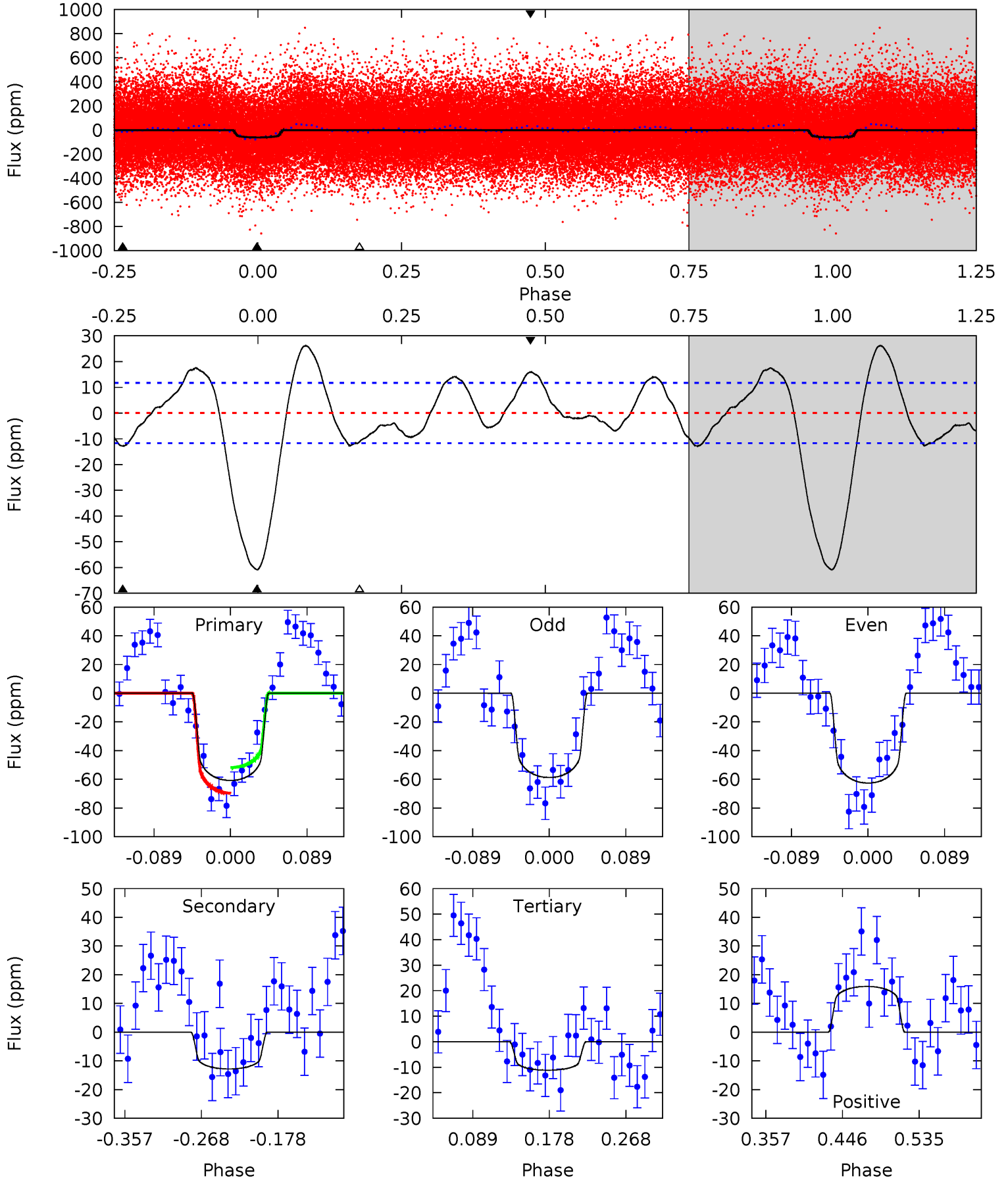
TCE 005296455-01 P= 2.949287 Days $T_0=133.662700$ (BKJD)



DV Model-Shift Uniqueness Test

005296455-01, P = 2.949422 Days, E = 130.703866 Days

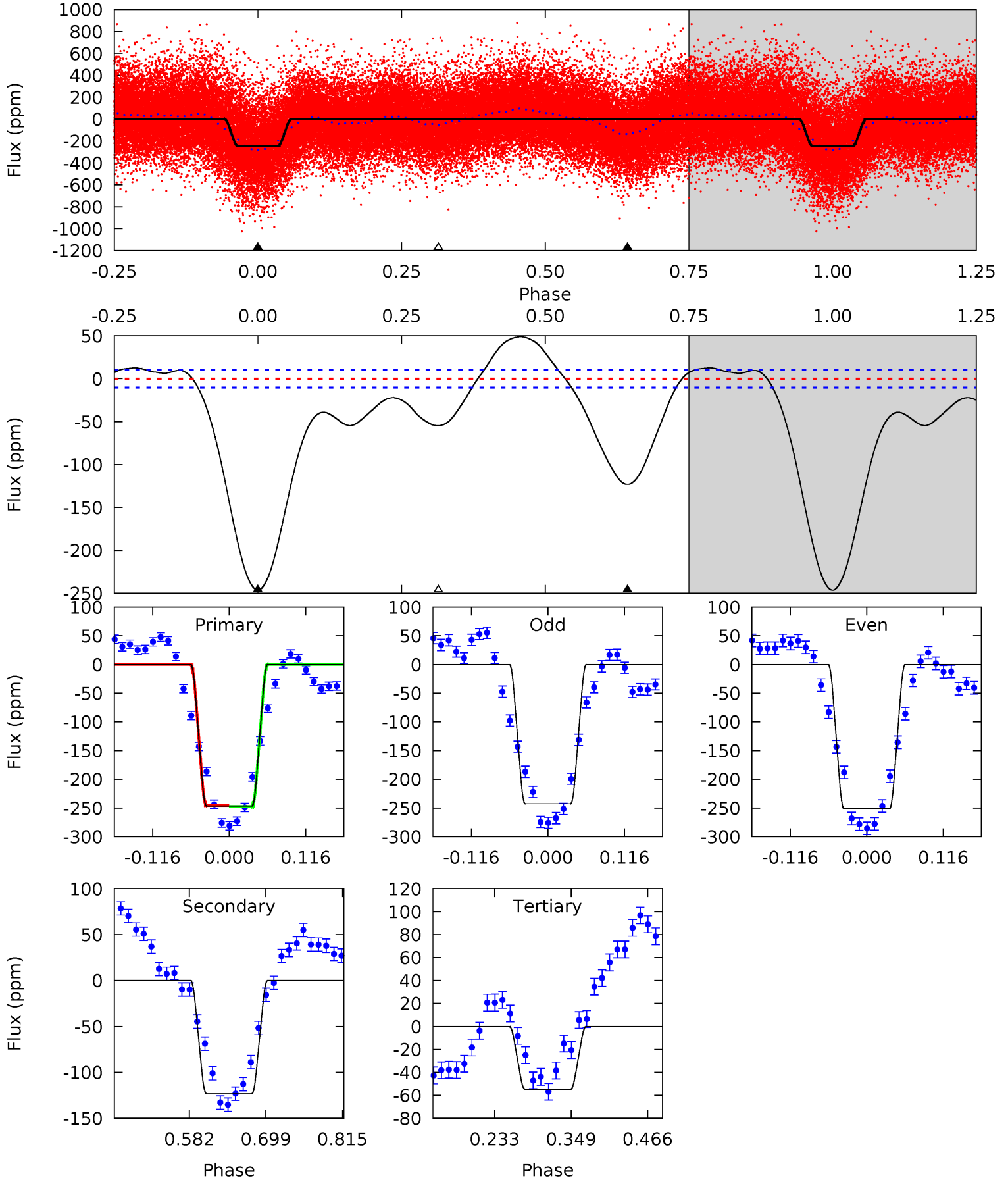
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.8	5.02	4.37	6.23	4.59	1.70	3.53	19.4	17.6	0.64	-1.22	0.76	1.01	0.30	3.49



Alt Model-Shift Uniqueness Test

005296455-01, P = 2.949287 Days, E = 130.713413 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
107.3	53.6	23.9	0	4.53	1.57	14.6	83.4	107.3	29.8	53.6	1.85	0.99	0.17	0.31



Stellar Parameters For KIC 005296455

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6627^{+178}_{-218}	$4.368^{+0.067}_{-0.202}$	$-0.260^{+0.250}_{-0.300}$	$1.172^{+0.372}_{-0.133}$	$1.173^{+0.180}_{-0.164}$	$1.027^{+0.379}_{-0.531}$
	+3%/-3%	+2%/-5%	+96%/-115%	+32%/-11%	+15%/-14%	+37%/-52%
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 005296455-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13 ± 3	$1.02^{+0.23}_{-0.22}$	2177^{+149}_{-103}	4623^{+485}_{-392}	12^{+8}_{-4}
Alt.	-123 ± 2	$2.19^{+0.40}_{-0.31}$	2188^{+152}_{-116}	5421^{+337}_{-272}	25^{+8}_{-7}

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

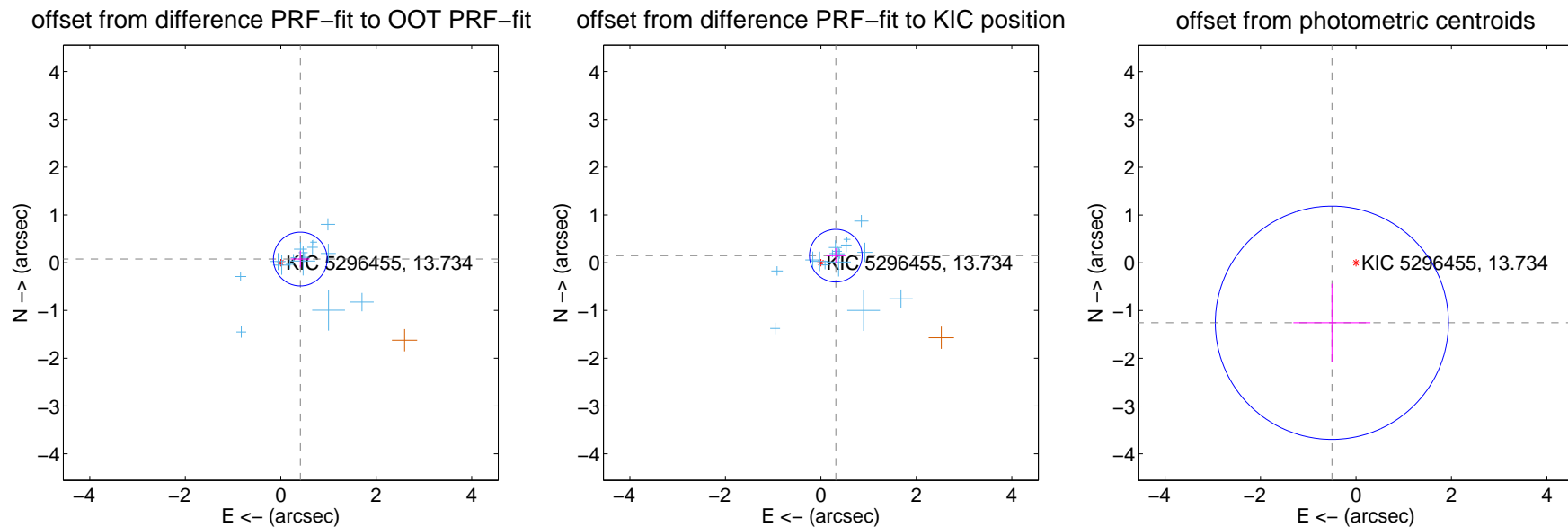
DV Centroid Data

Supplemental centroid analysis for 005296455-01. Kepler magnitude: 13.73. Transit SNR 11.90

There are 16 quarters with good PRF difference image offsets

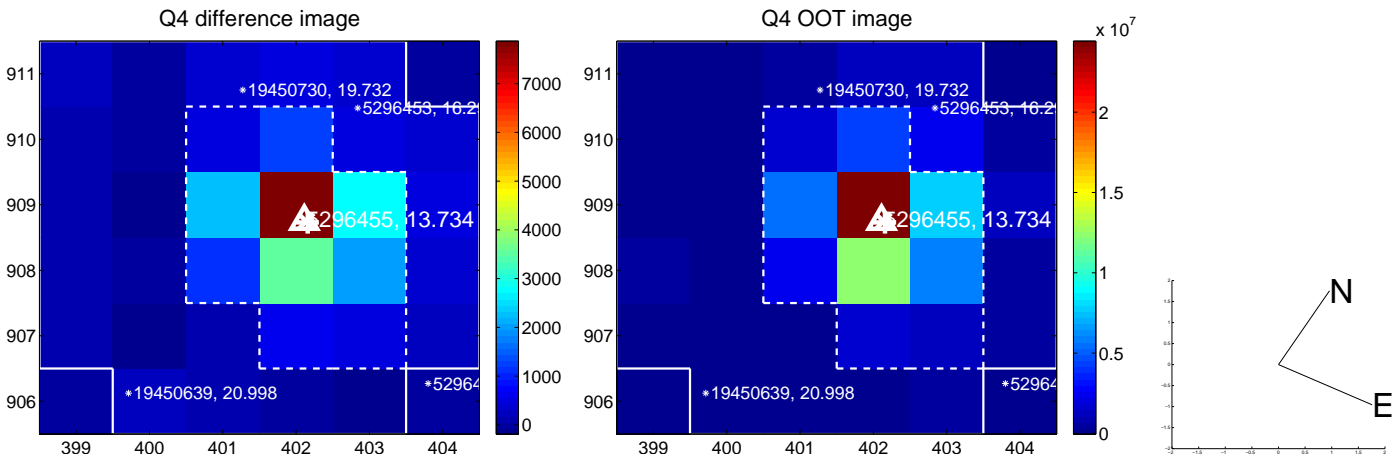
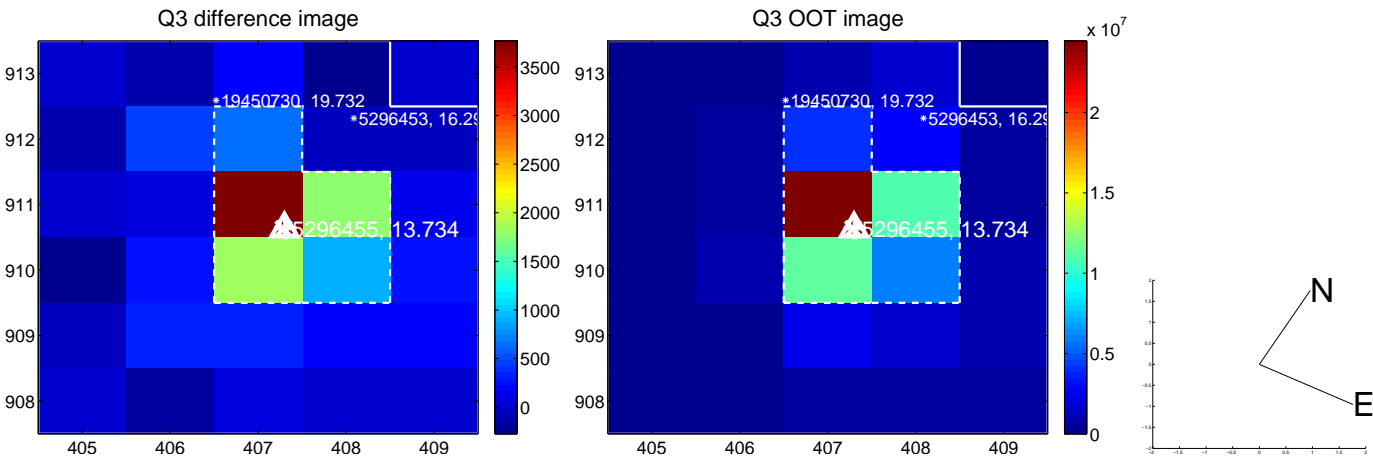
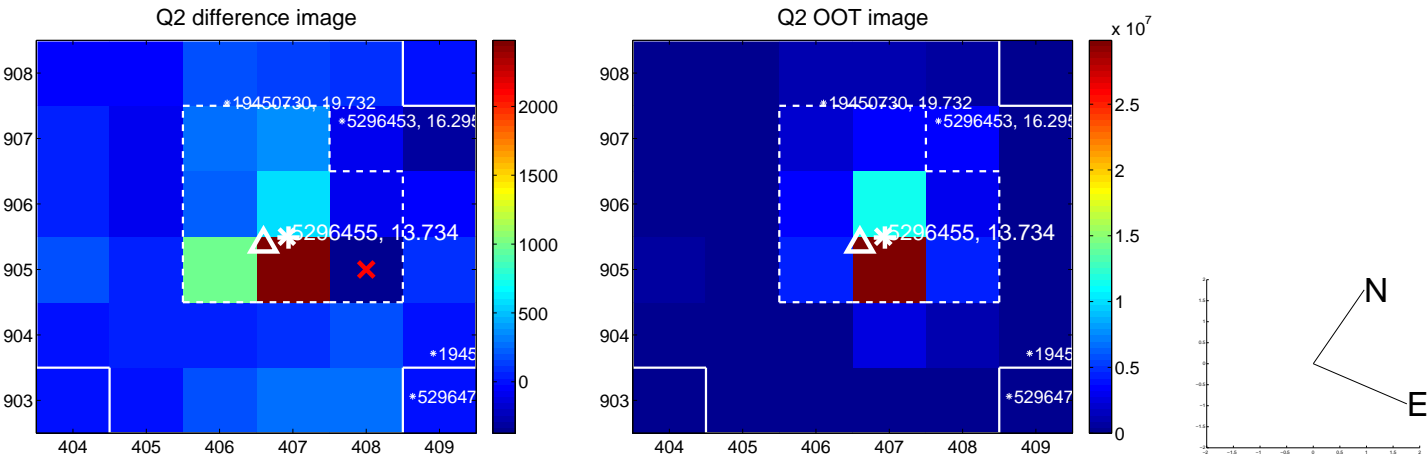
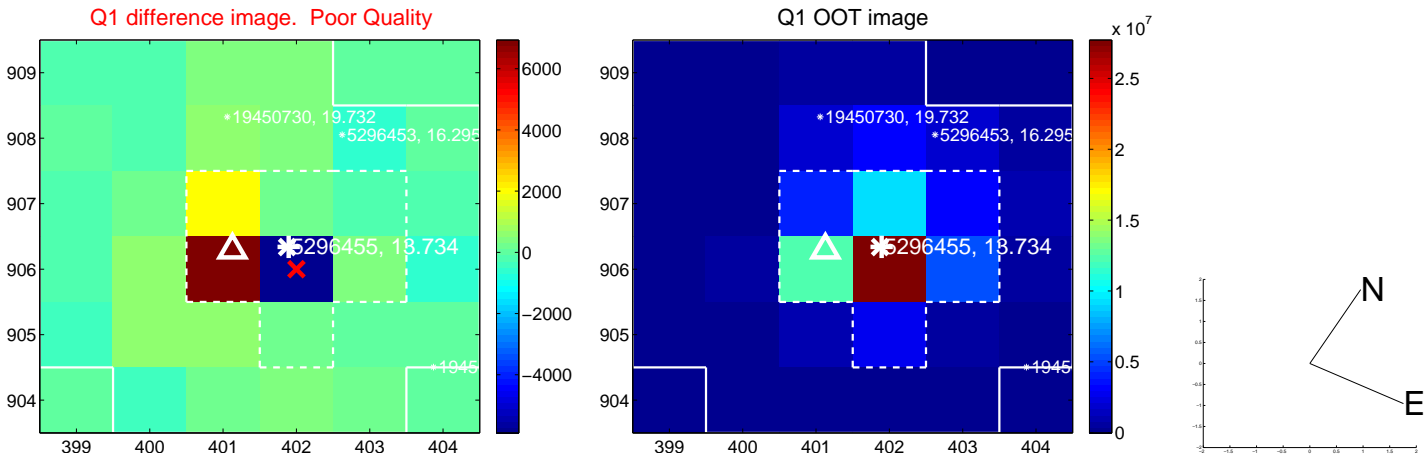
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.417 ± 0.188	2.22	-0.410 ± 0.195	0.077 ± 0.175
PRF-fit source offset from KIC position	0.346 ± 0.184	1.88	-0.313 ± 0.200	0.147 ± 0.157
photometric centroid source offset	1.35 ± 0.81	1.66	0.50 ± 0.81	-1.26 ± 0.81

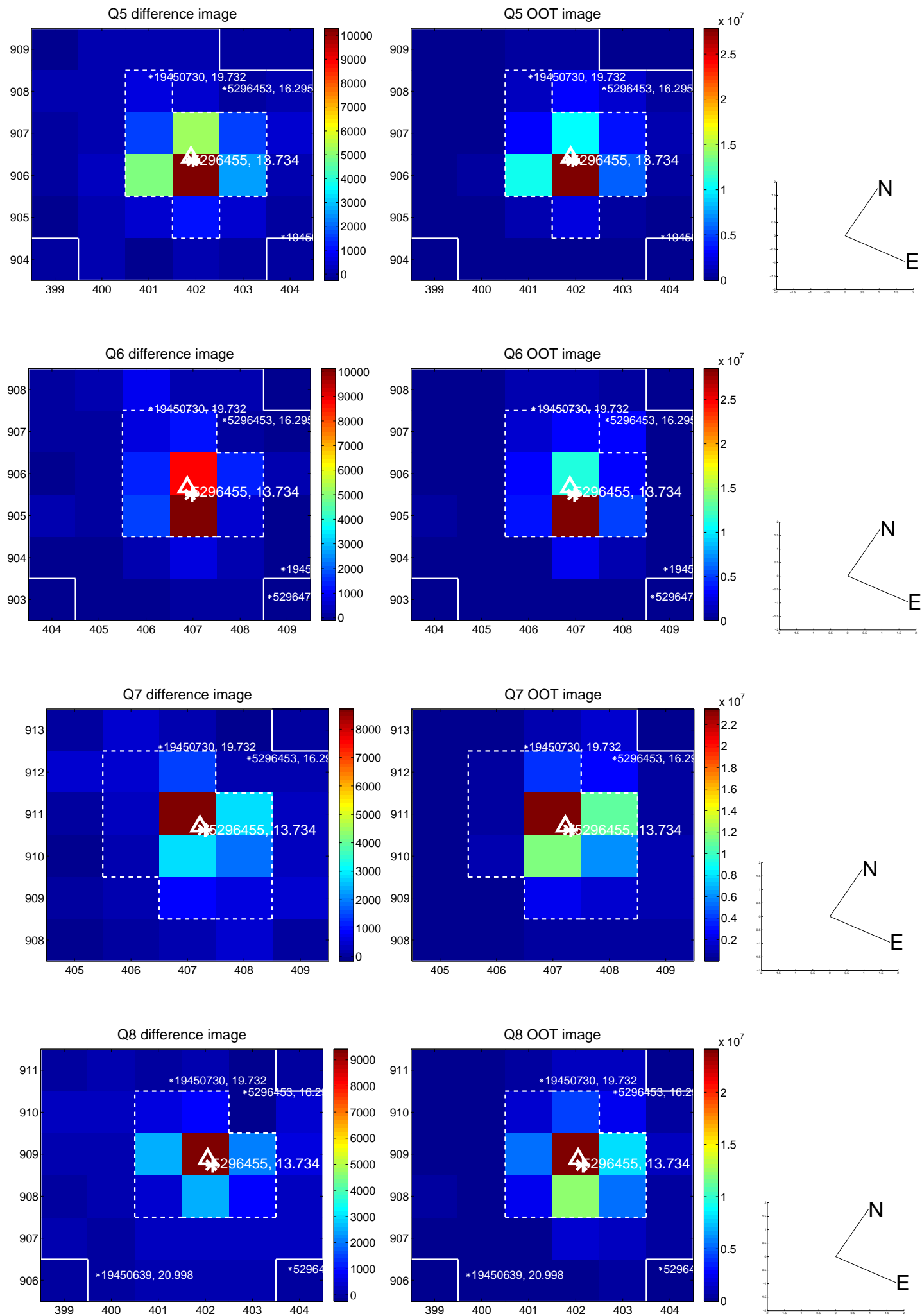


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

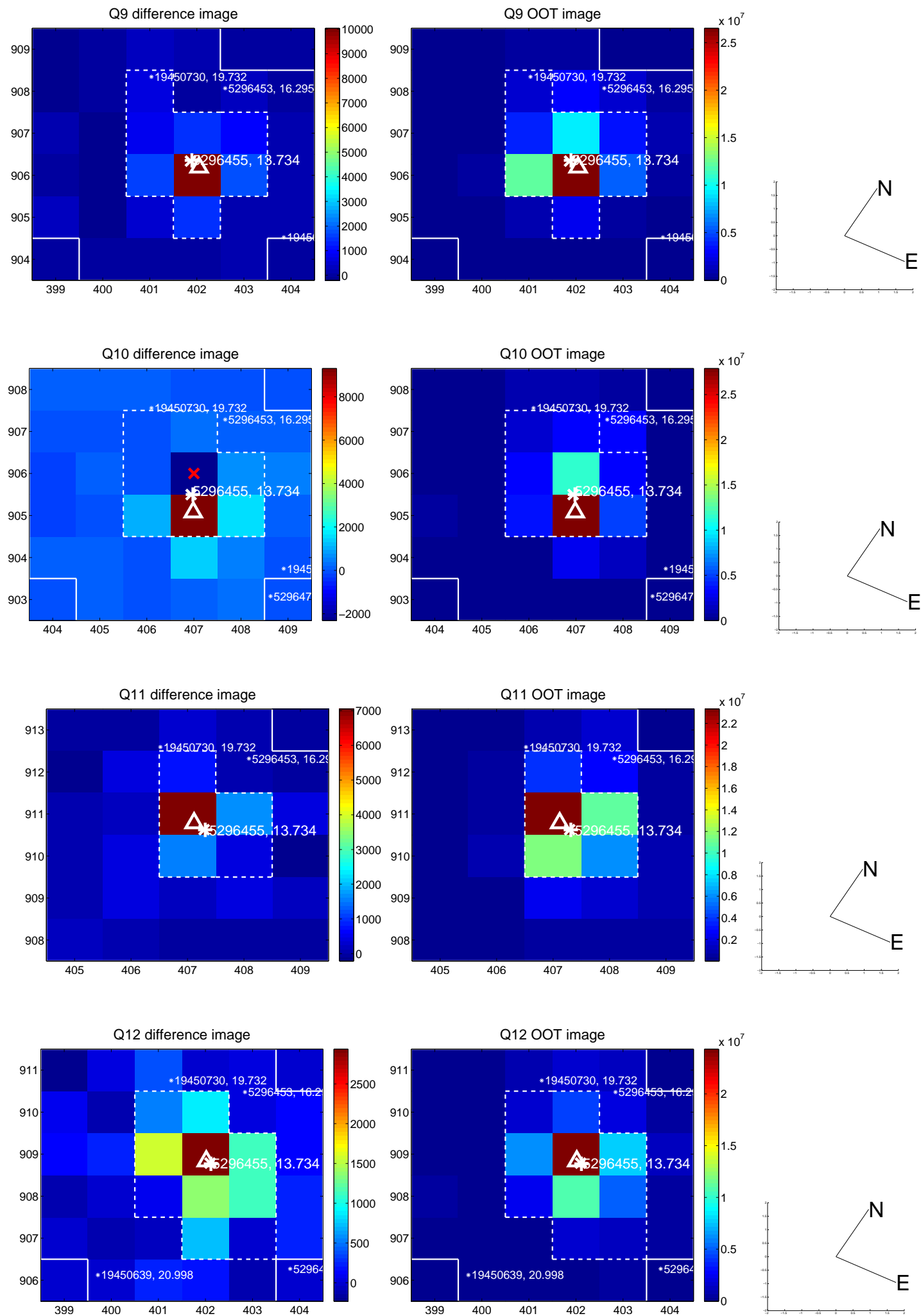
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



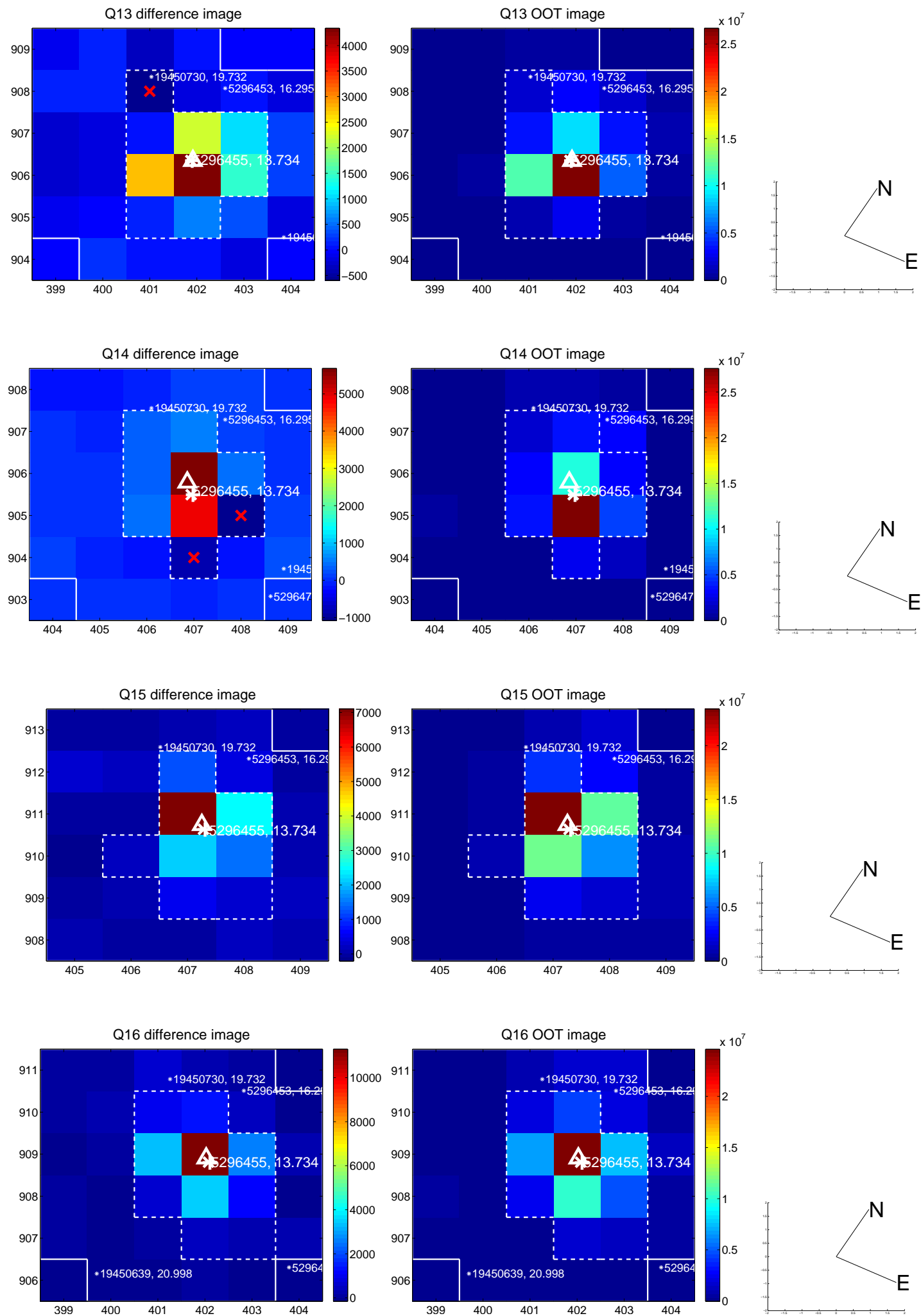
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



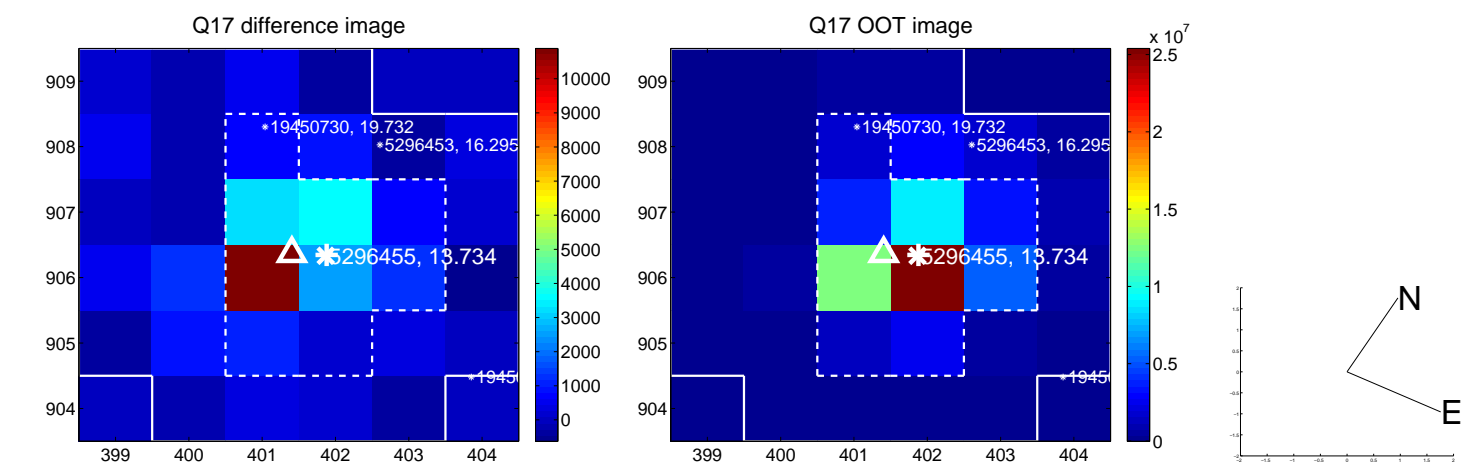
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



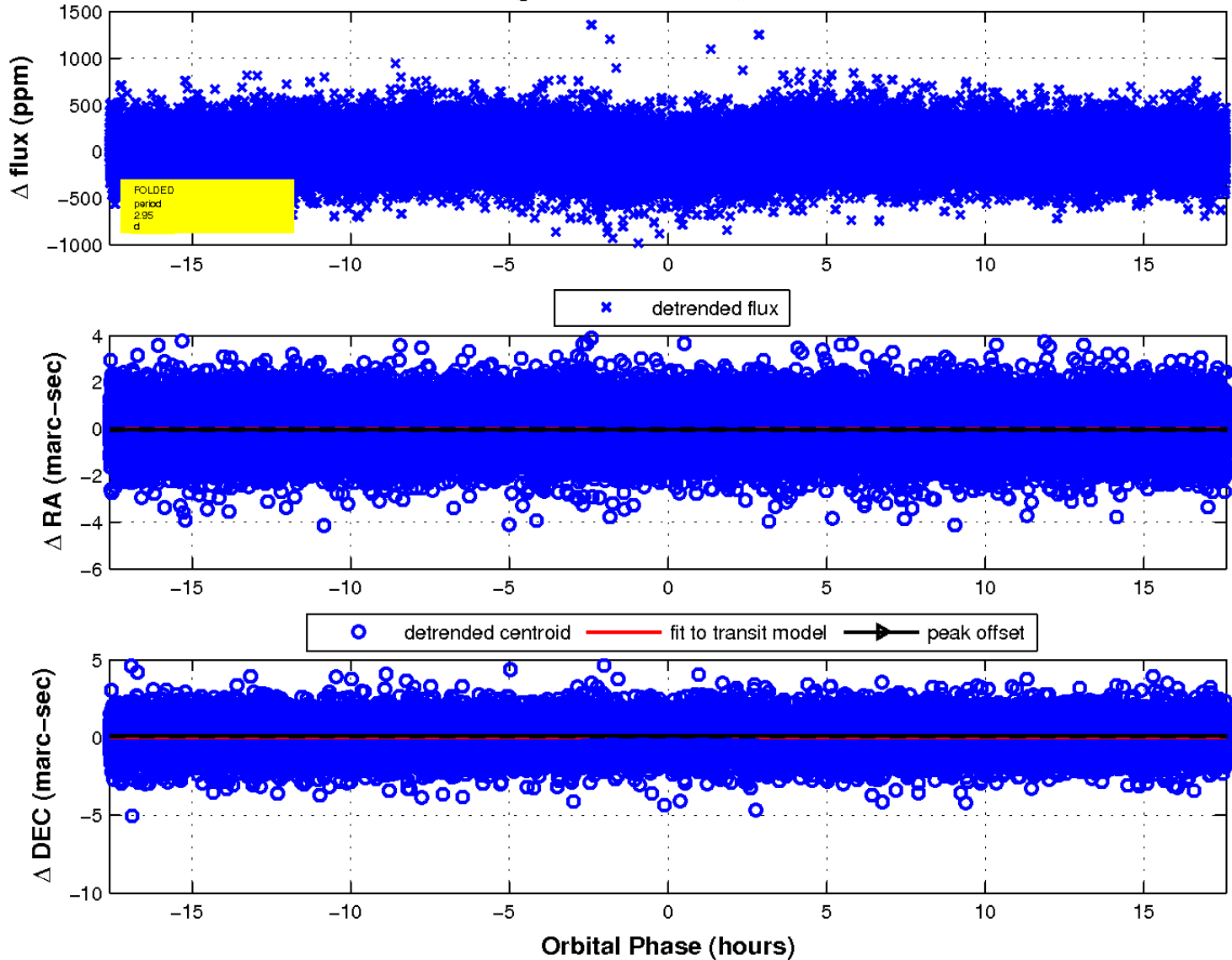
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

