

KIC 010586208

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})
010586208-01	OBS	1308.01	23.584493	145.956575	430.1	5.629	38.2	41.7	1.35	5655	3.11	67.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010586208-01	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.

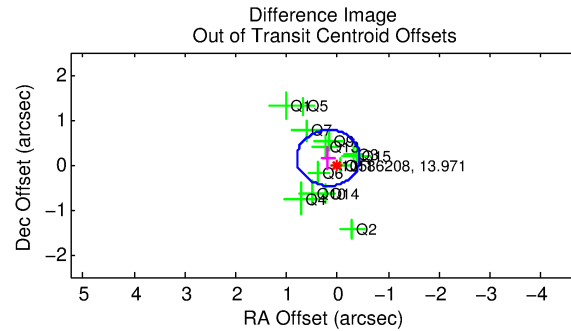
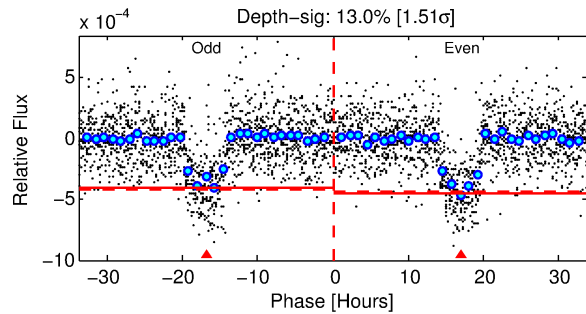
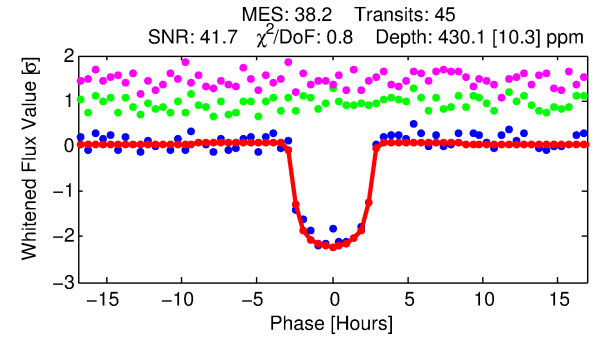
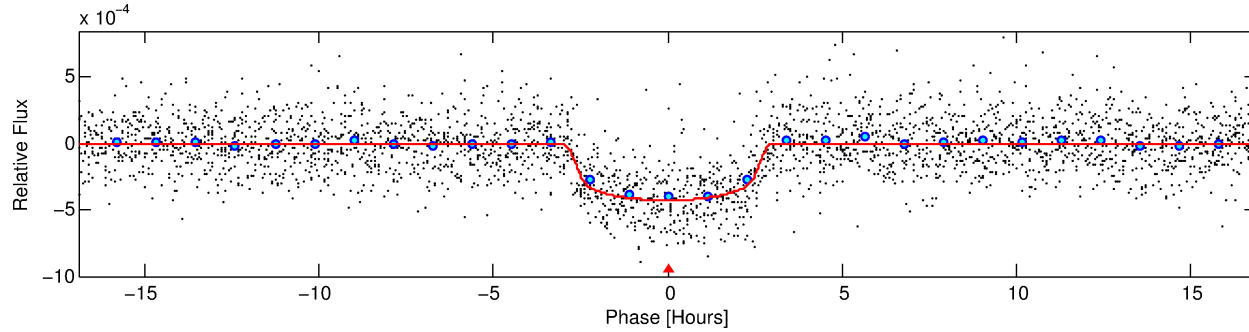
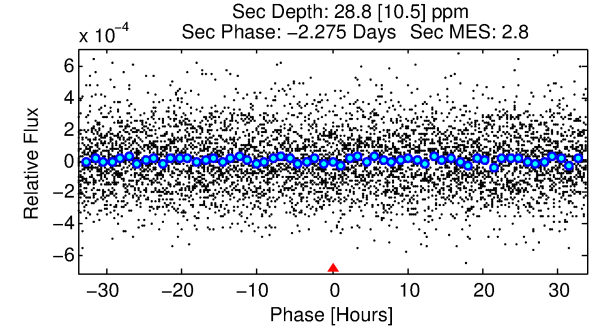
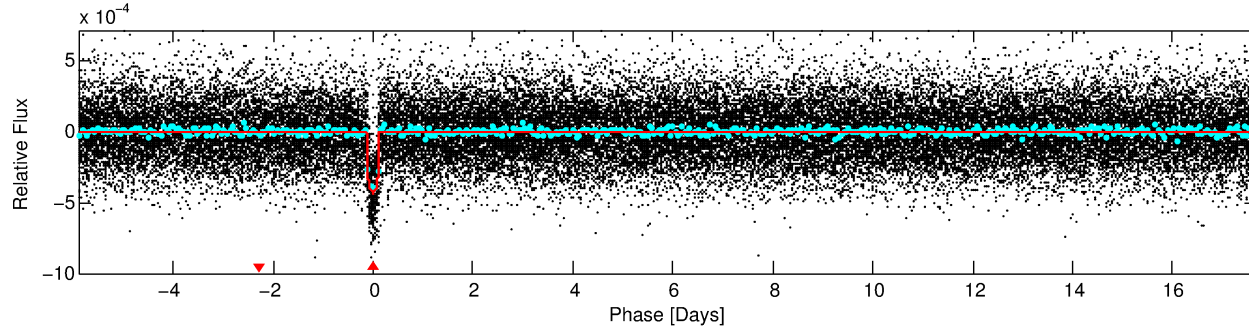
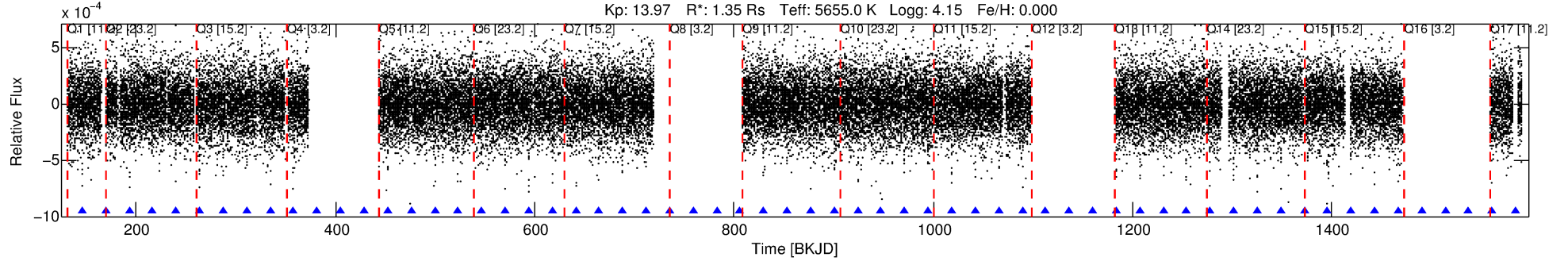
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010586208-01

No Significant Match Found

DV One-Page Summary

KIC: 10586208 Candidate: 1 of 1 Period: 23.584 d
KOI: K01308.01 Corr: 0.985



DV Fit Results:

Period = 23.58449 [0.00008] d
Epoch = 145.9566 [0.0028] BKJD
Rp/R* = 0.0210 [0.0030]
a/R* = 20.66 [12.84]
b = 0.79 [0.30]
Seff = 67.12 [25.27]
Teq = 730 [69] K
Rp = 3.11 [0.85] Re
a = 0.1582 [0.0361] AU
Ag = 41.03 [24.26] [1.65σ]
Teffp = 2856 [335] K [6.21σ]

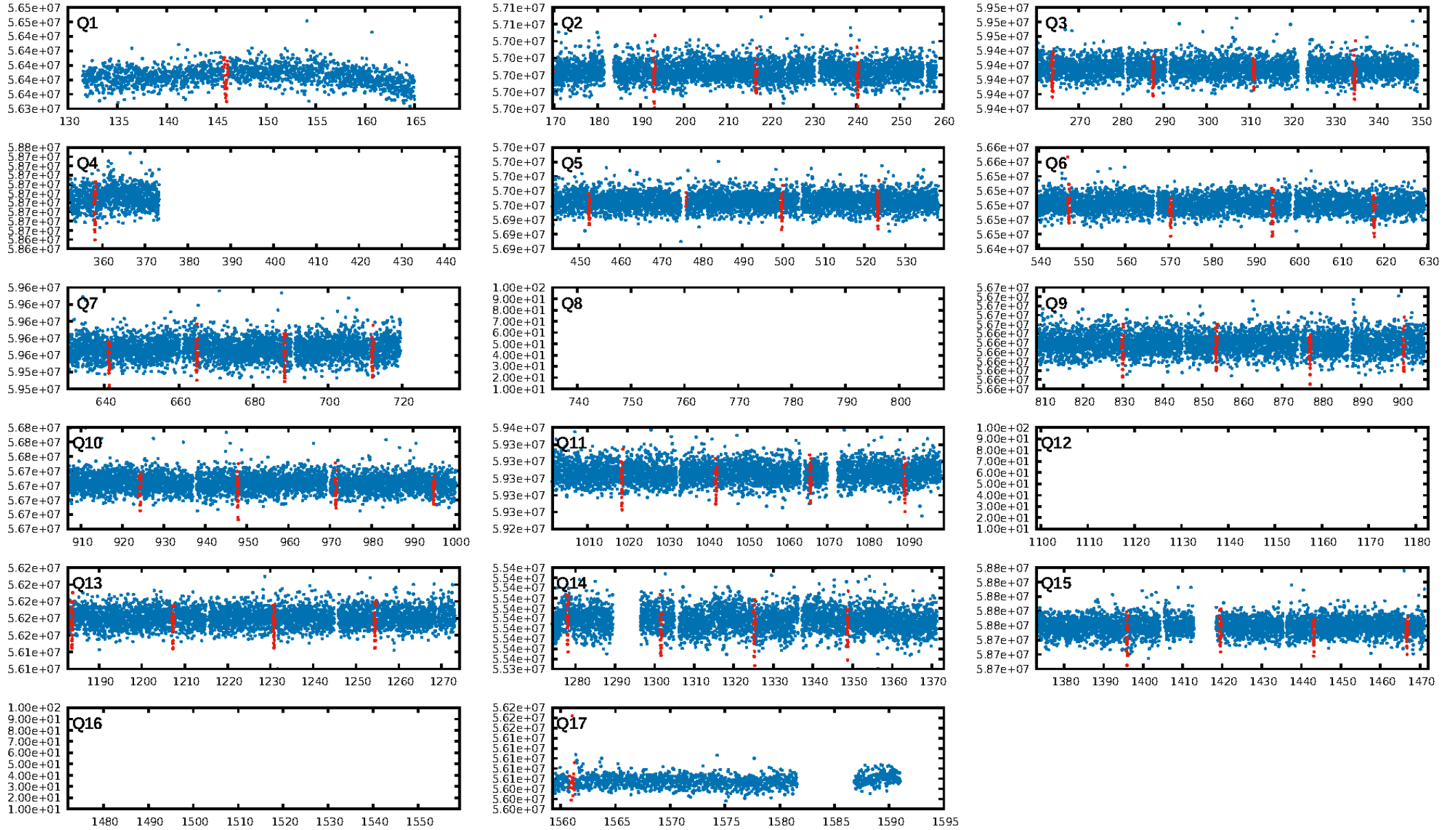
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [42/42]
GhostDiagnostic-chr: 19.75
Centroid-sig: 5.0%
Centroid-so: 0.156 arcsec [0.40σ]
OotOffset-rm: 0.233 arcsec [1.13σ]
KicOffset-rm: 0.134 arcsec [0.59σ]
OotOffset-st: 4/4/1/4 [13]
KicOffset-st: 4/4/1/4 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

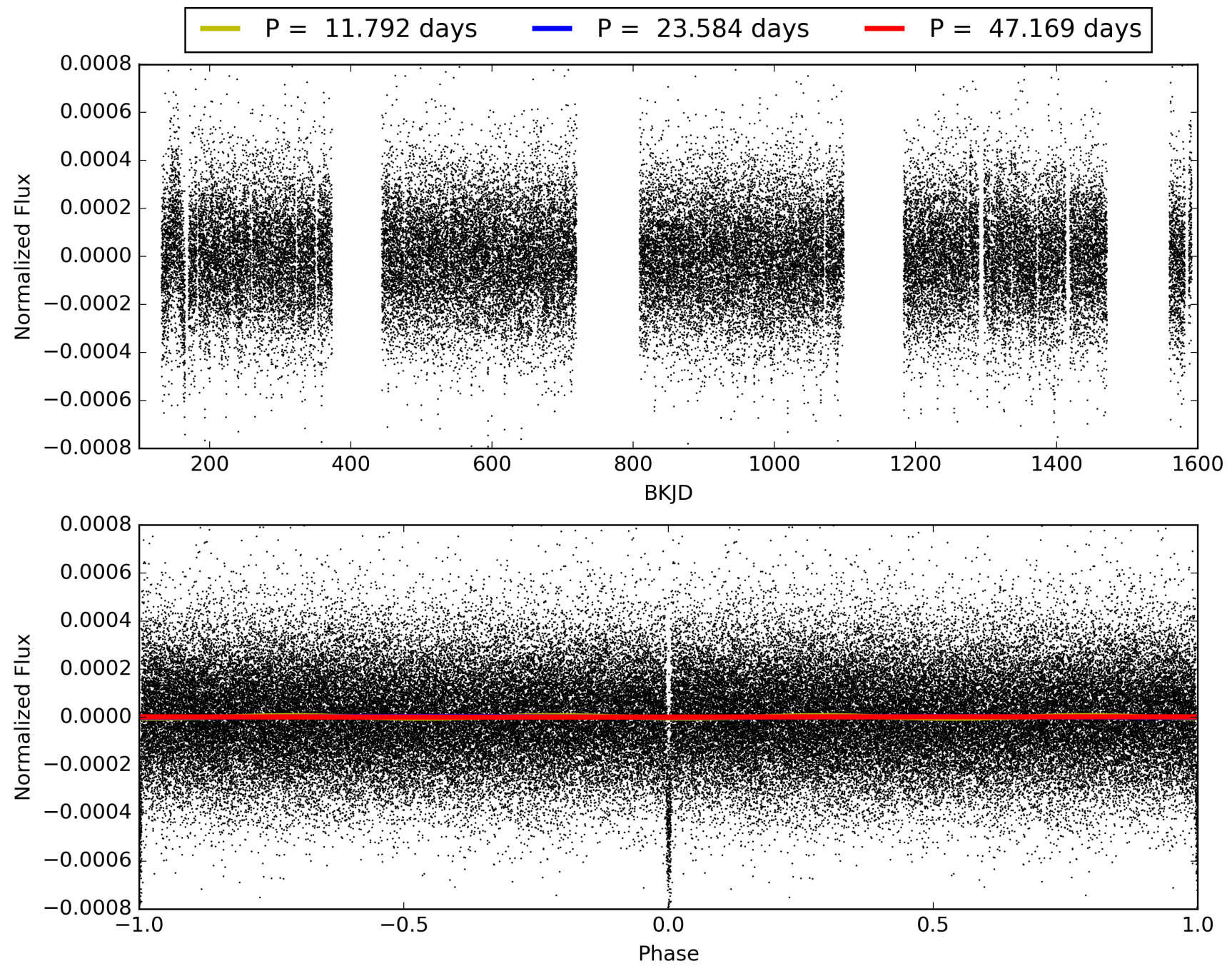
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:04:17 Z

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

TCE 010586208-01, PDC Light Curves

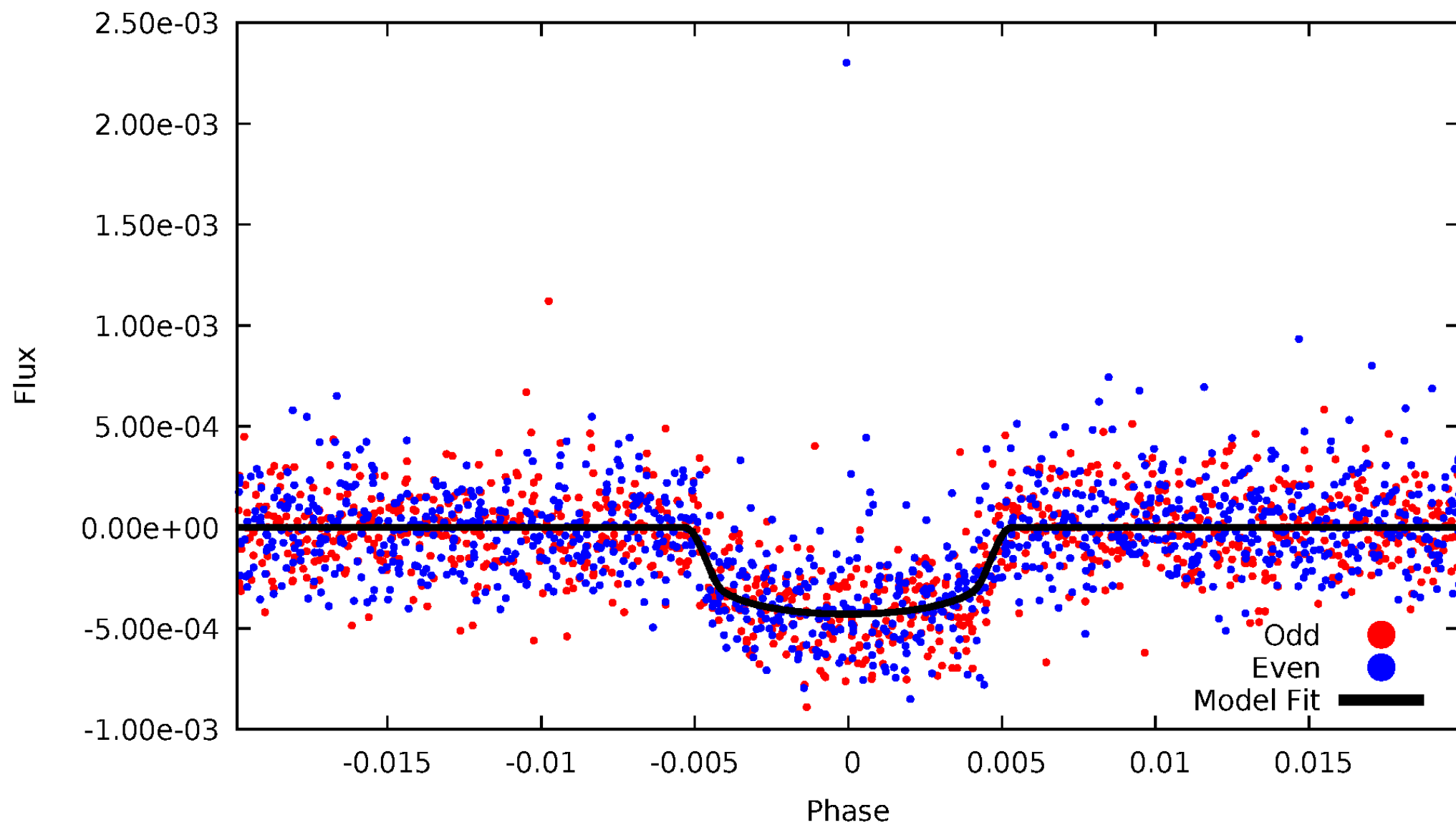


TCE 010586208-01



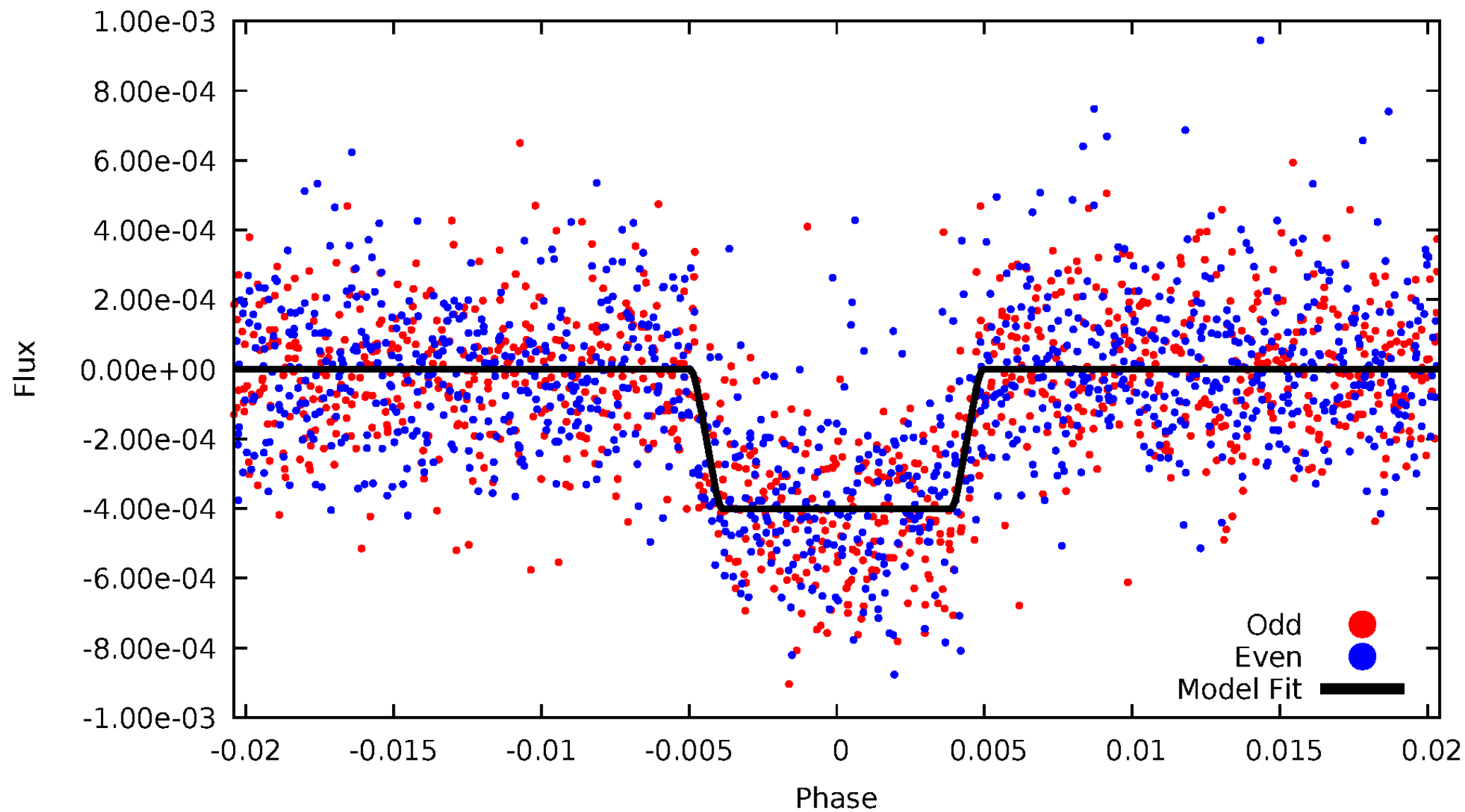
DV Odd/Even

TCE 010586208-01

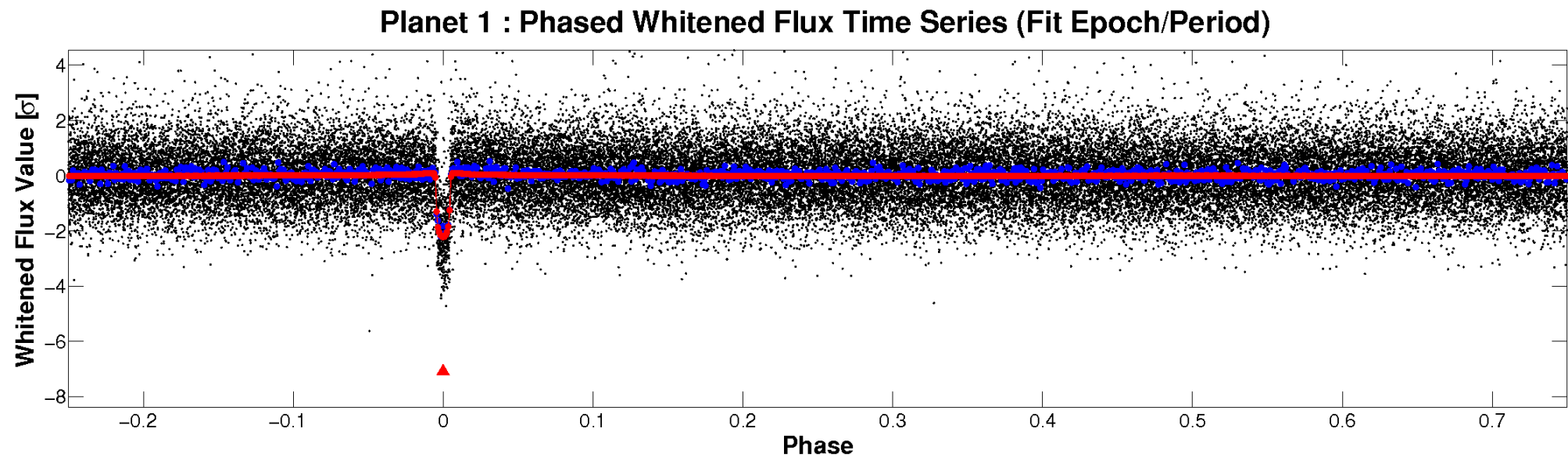
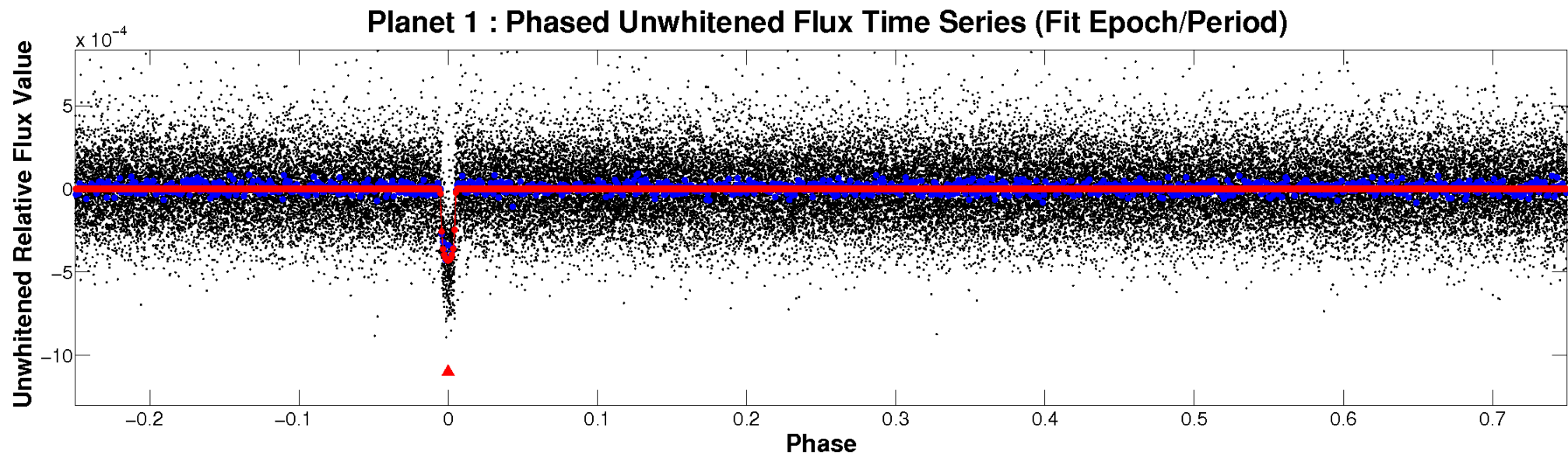


ALT Odd/Even

TCE 010586208-01

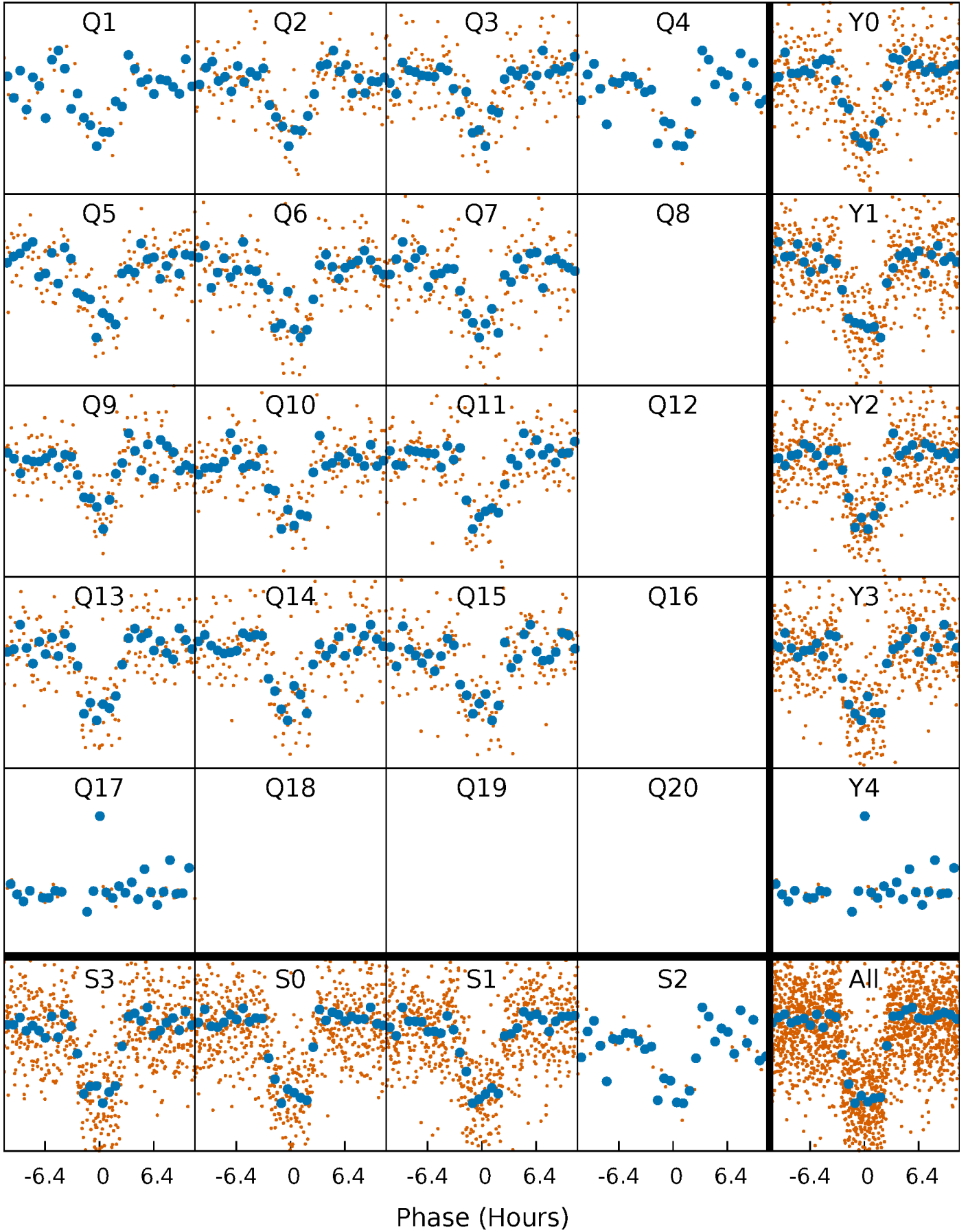


Non-Whitened Vs. Whitened Light Curve



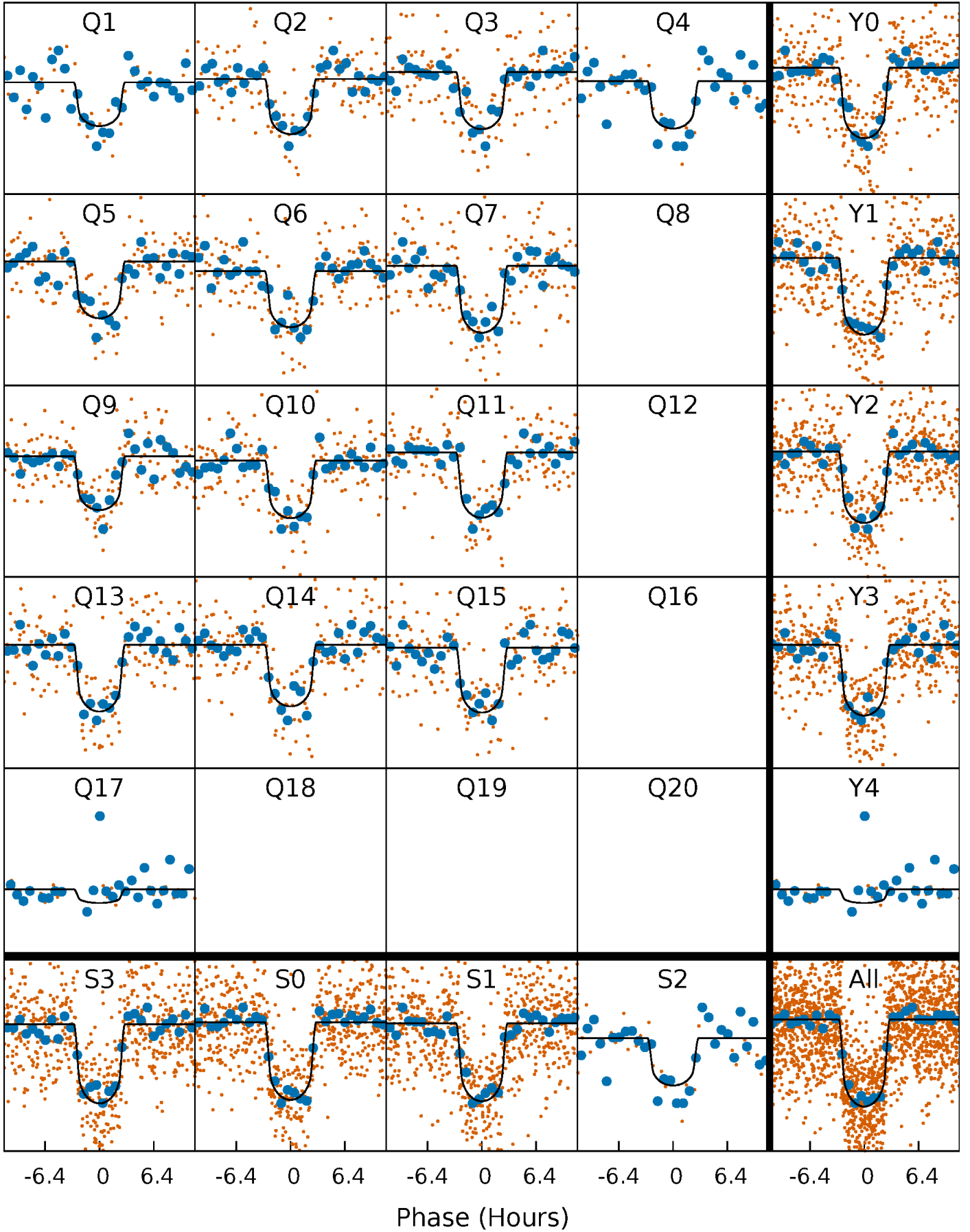
PDC Quarter-Phased Transit Curves

TCE 010586208-01 P= 23.584493 Days $T_0=145.956575$ (BKJD)



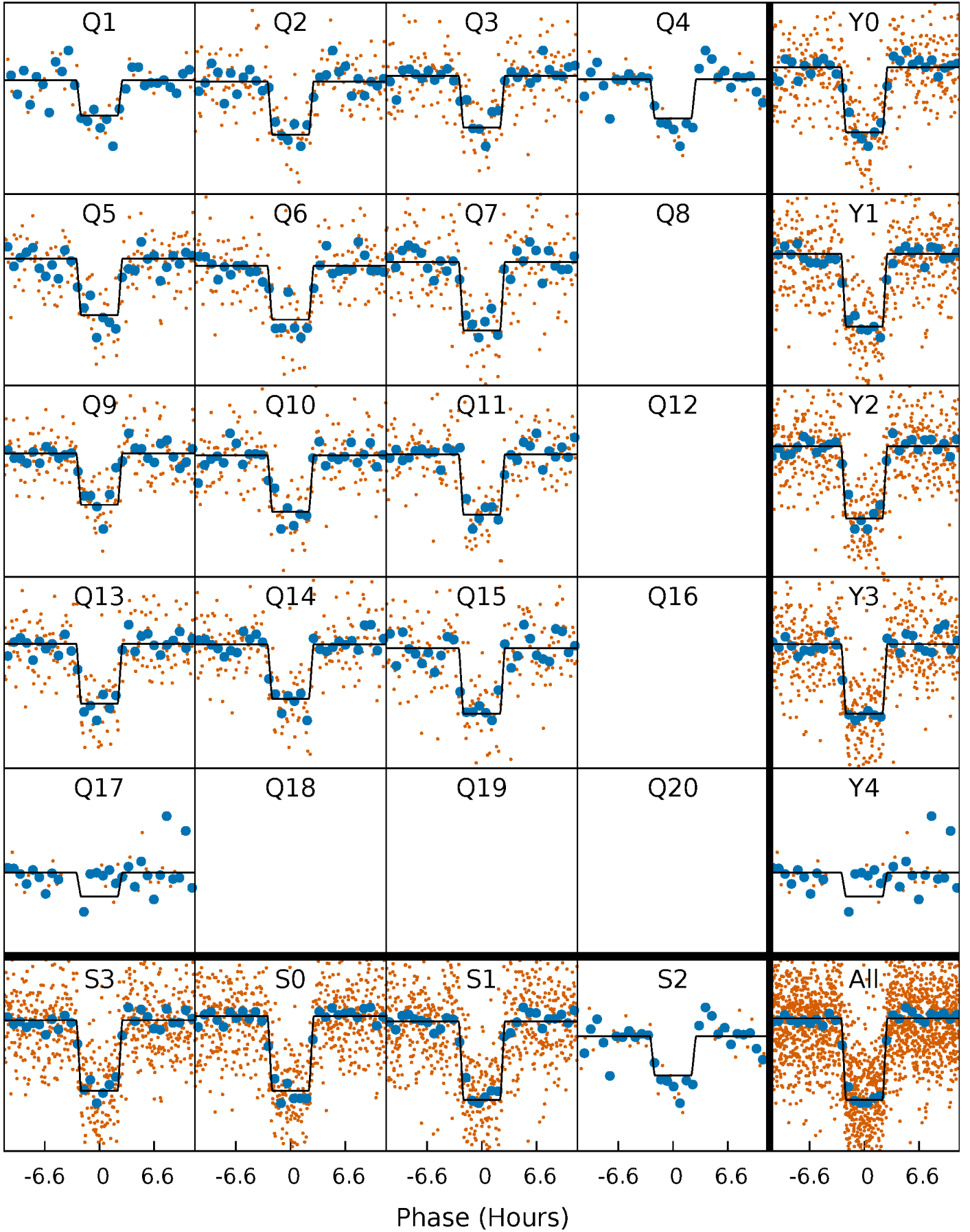
DV Quarter-Phased Transit Curves

TCE 010586208-01 P= 23.584493 Days $T_0=145.956575$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

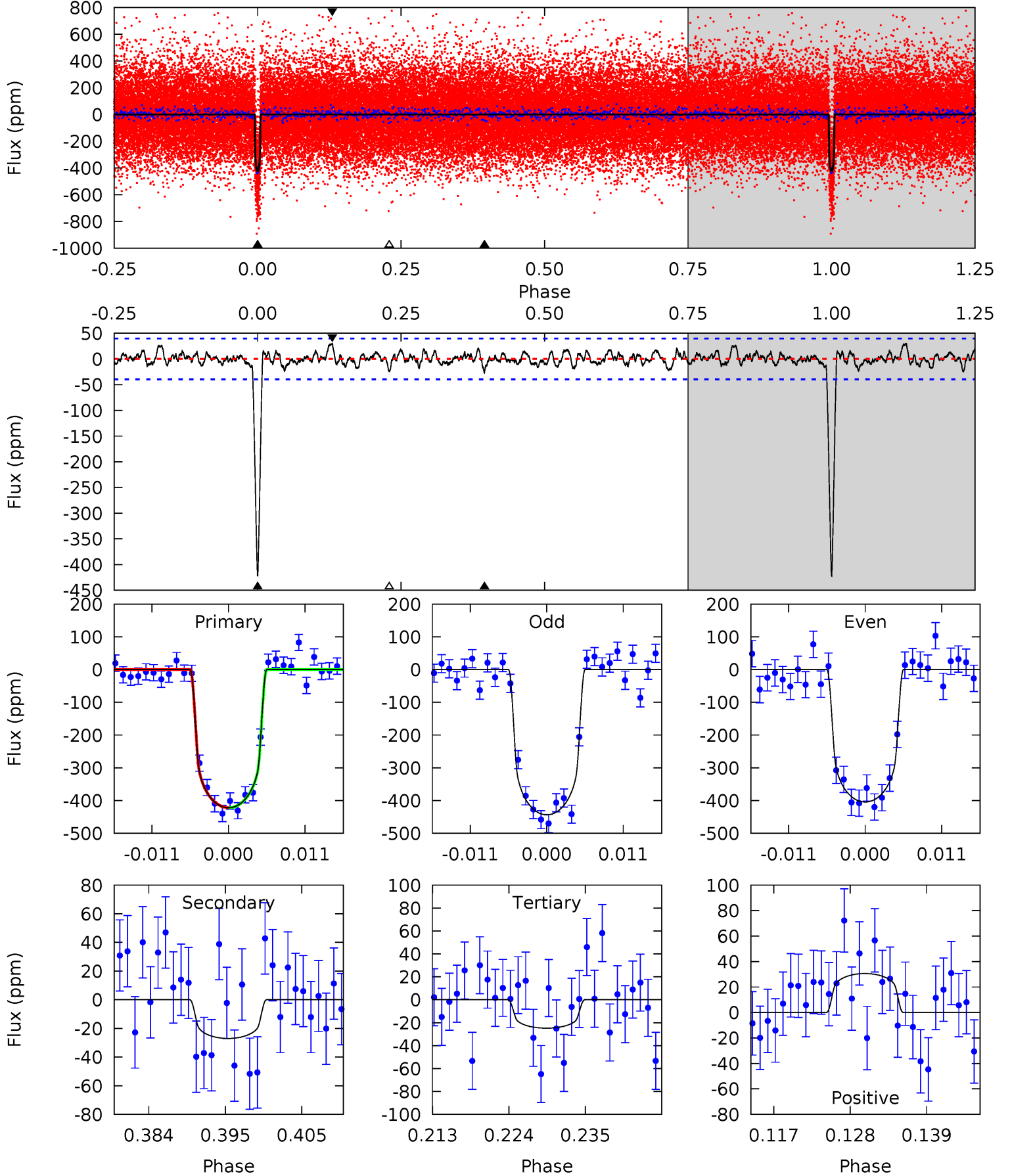
TCE 010586208-01 P= 23.584722 Days $T_0=145.950451$ (BKJD)



DV Model-Shift Uniqueness Test

010586208-01, $P = 23.584493$ Days, $E = 122.372082$ Days

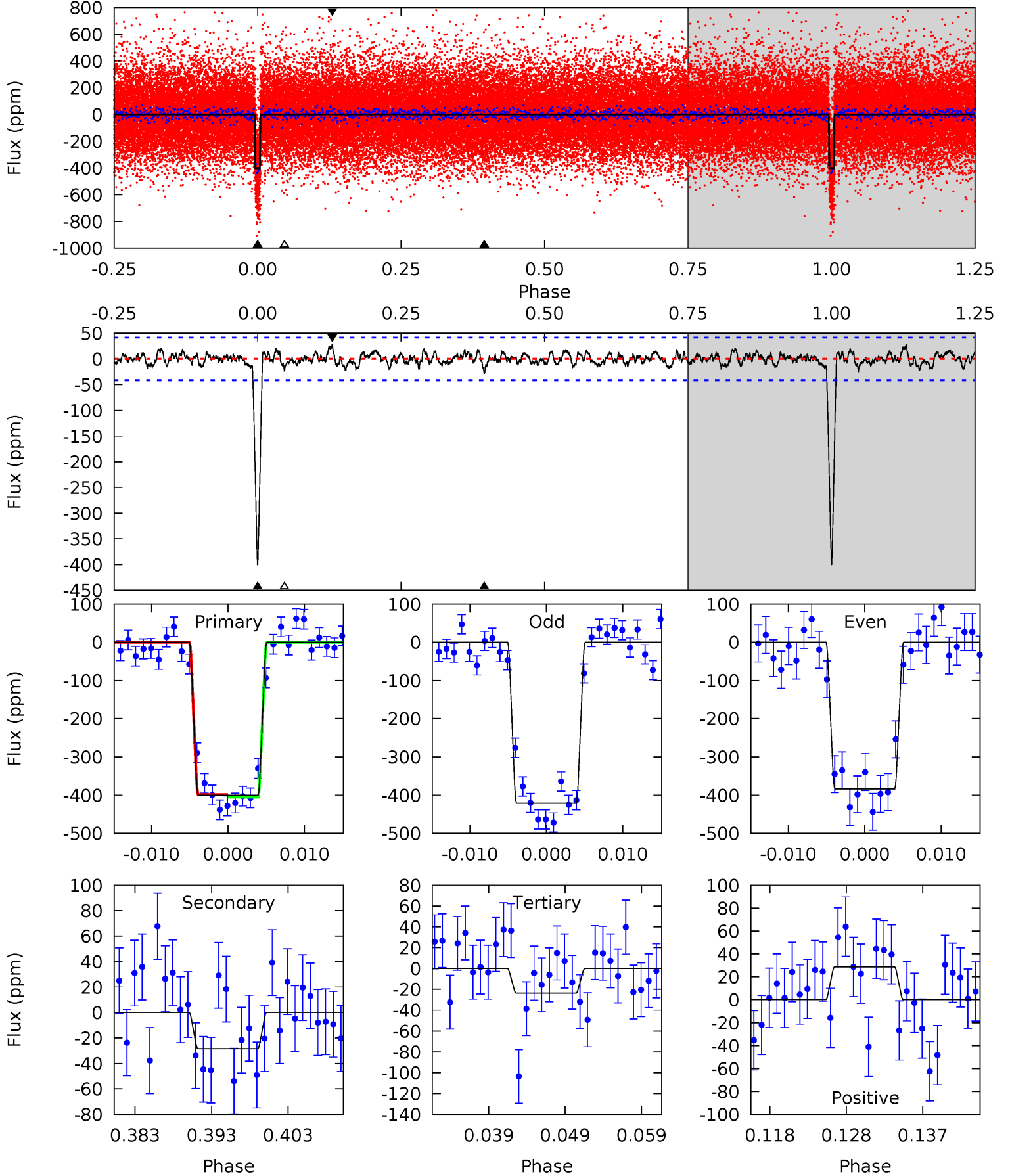
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.3	3.41	3.13	3.86	5.01	2.55	1.15	50.2	49.4	0.28	-0.45	2.47	0.97	0.07	0.05



Alt Model-Shift Uniqueness Test

010586208-01, P = 23.584722 Days, E = 122.365729 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.5	3.44	2.86	3.47	5.03	2.58	1.03	45.6	45.0	0.58	-0.03	2.26	0.98	0.07	0.43



Stellar Parameters For KIC 010586208

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5655^{+113}_{-101}	$4.152^{+0.217}_{-0.093}$	$0.000^{+0.150}_{-0.150}$	$1.354^{+0.211}_{-0.317}$	$0.947^{+0.077}_{-0.058}$	$0.538^{+0.580}_{-0.177}$
	+2%/-2%	+5%/-2%	+inf%/-inf%	+16%/-23%	+8%/-6%	+108%/-33%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 010586208-01 / KOI 1308.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-27 ± 8	$2.98^{+0.57}_{-0.49}$	1009^{+46}_{-66}	3337^{+229}_{-203}	41^{+24}_{-15}
Alt.	-28 ± 8	$2.83^{+0.57}_{-0.52}$	1010^{+47}_{-67}	3430^{+236}_{-249}	48^{+30}_{-19}

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

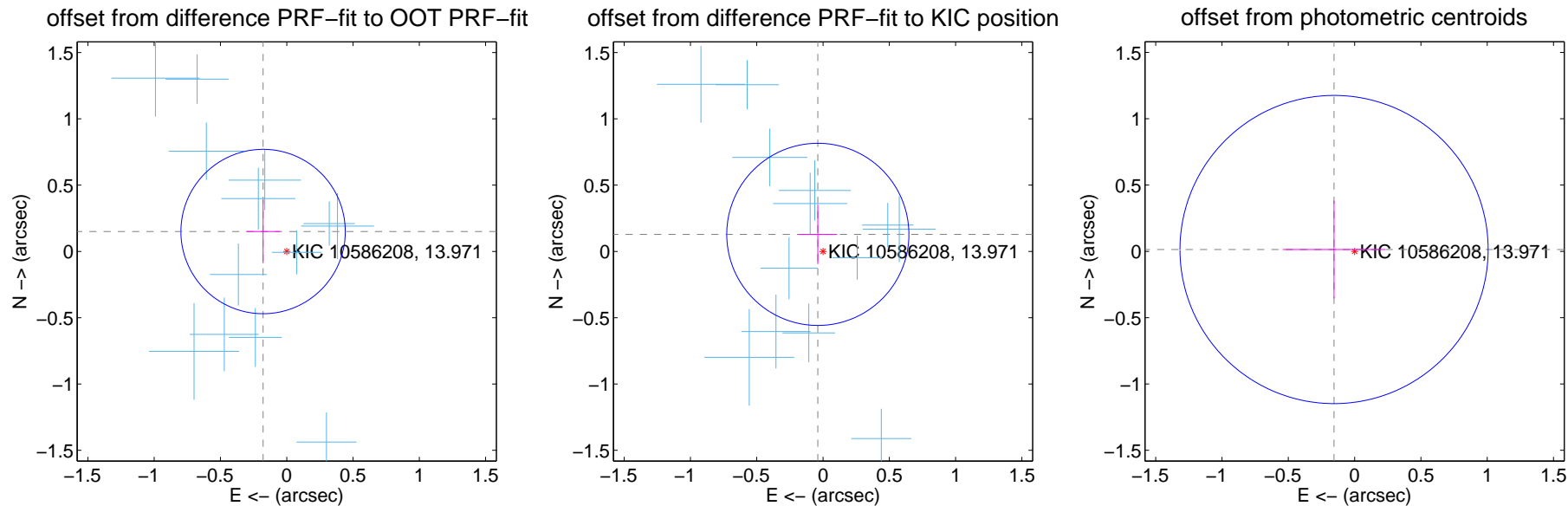
DV Centroid Data

Supplemental centroid analysis for 010586208-01. Kepler magnitude: 13.97. Transit SNR 41.73

There are 13 quarters with good PRF difference image offsets

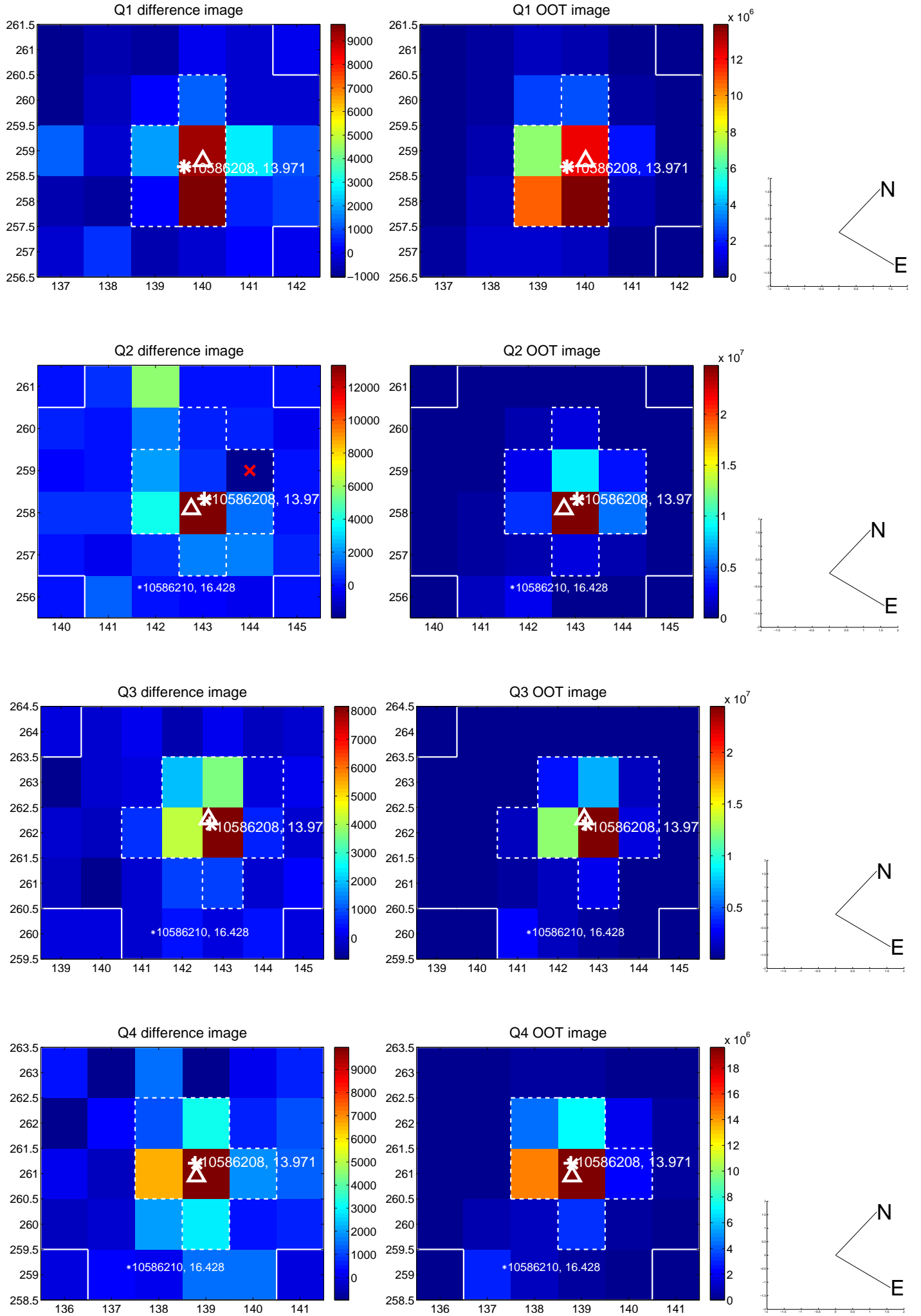
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.233 ± 0.207	1.13	0.178 ± 0.126	0.150 ± 0.239
PRF-fit source offset from KIC position	0.134 ± 0.229	0.59	0.039 ± 0.145	0.129 ± 0.224
photometric centroid source offset	0.16 ± 0.39	0.40	0.15 ± 0.39	0.01 ± 0.37

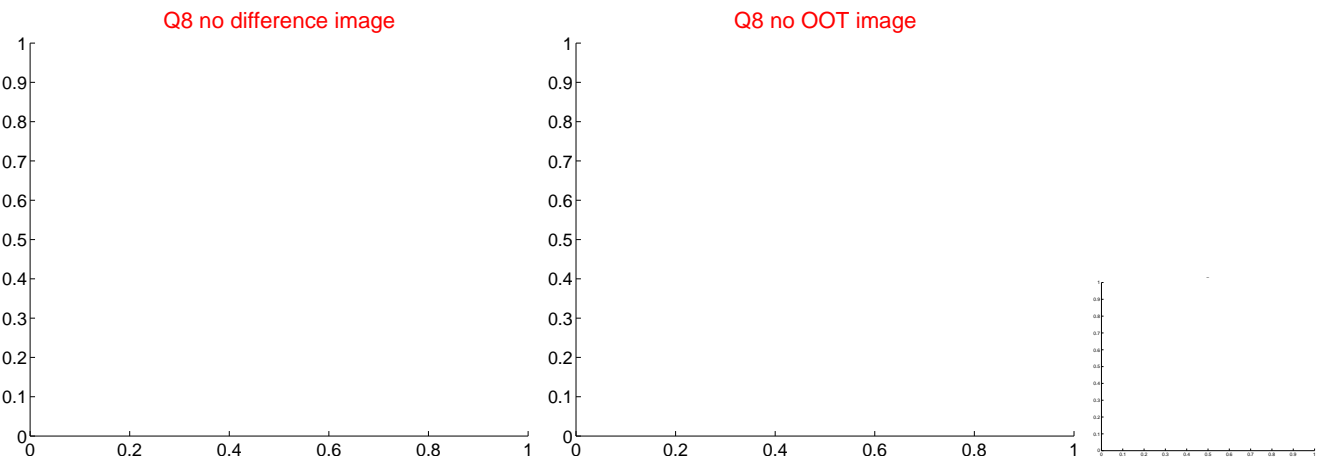
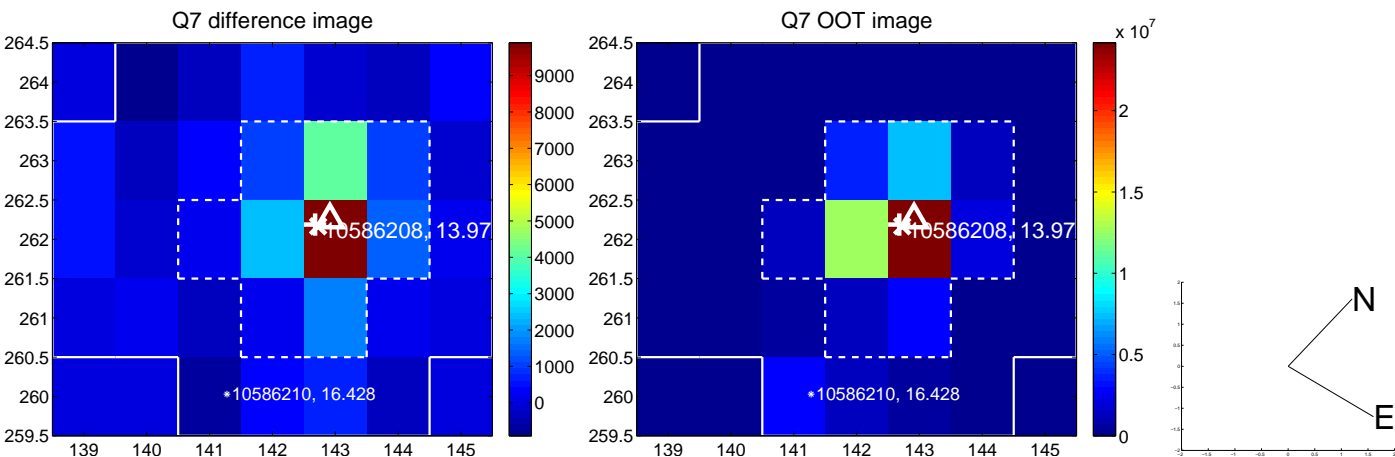
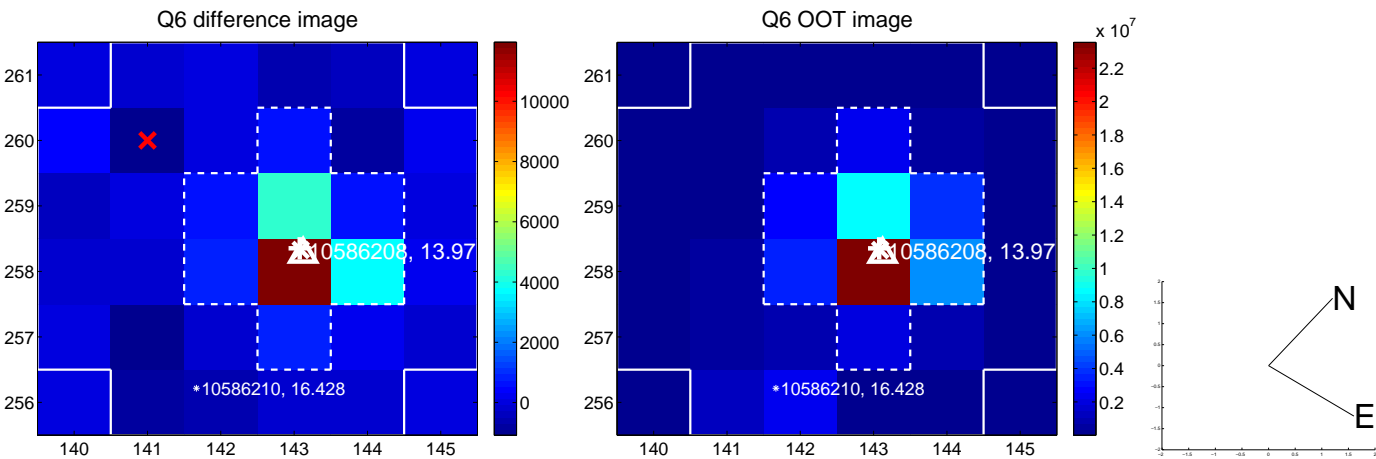
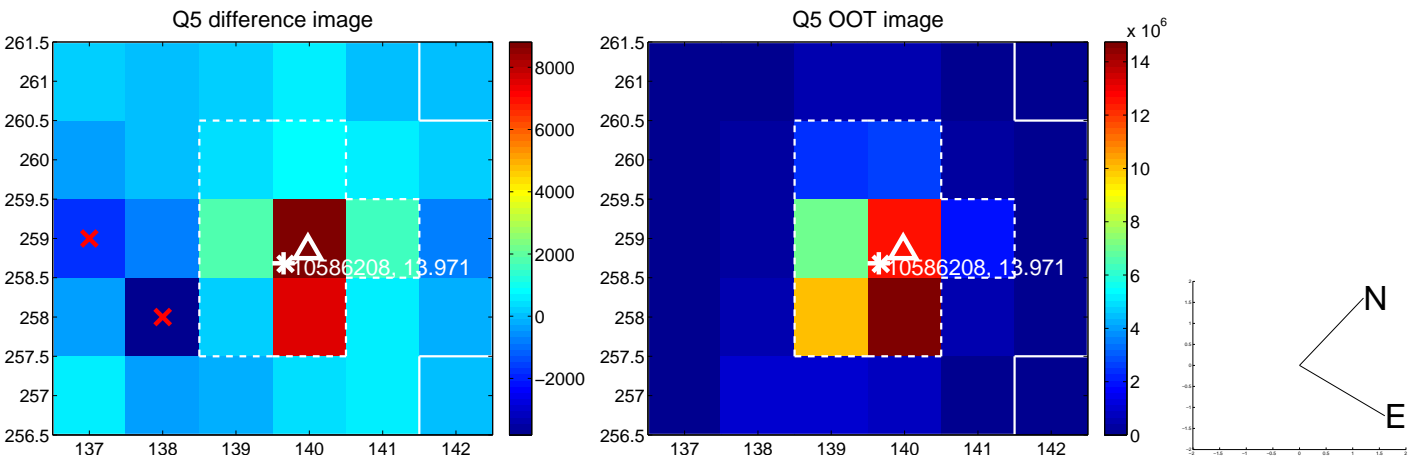


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

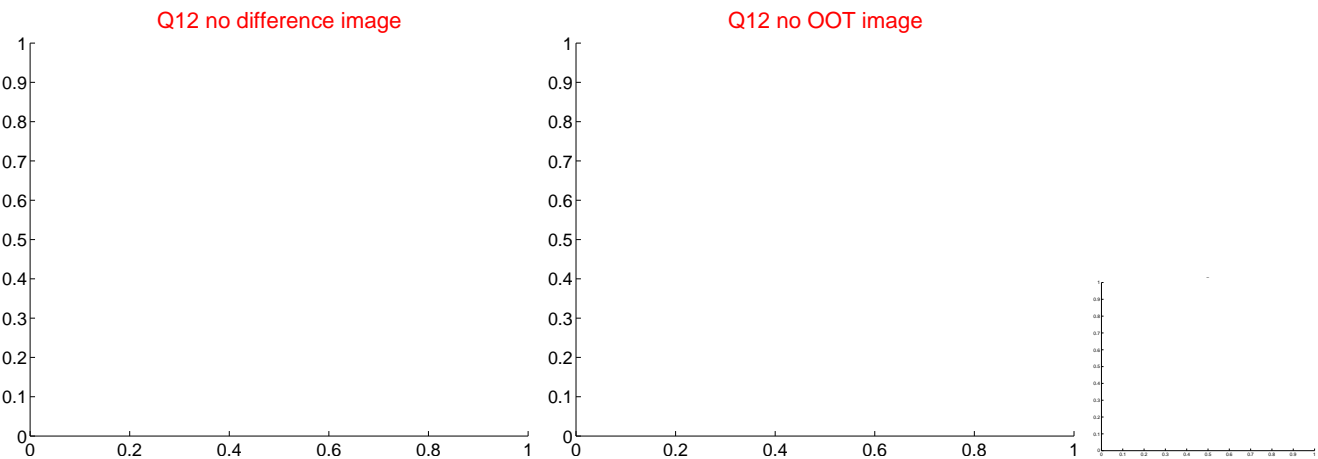
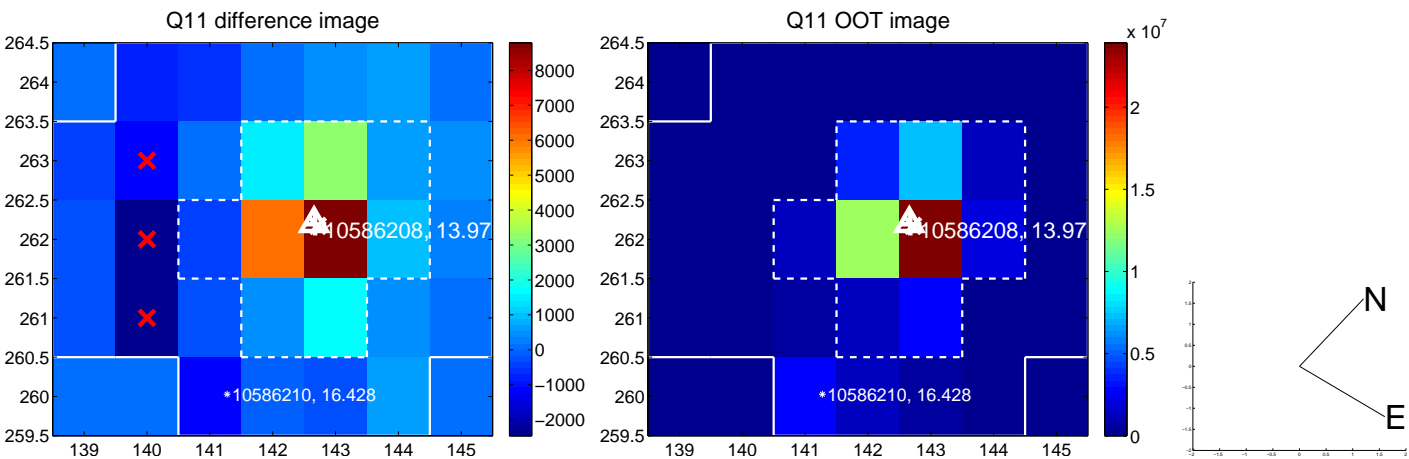
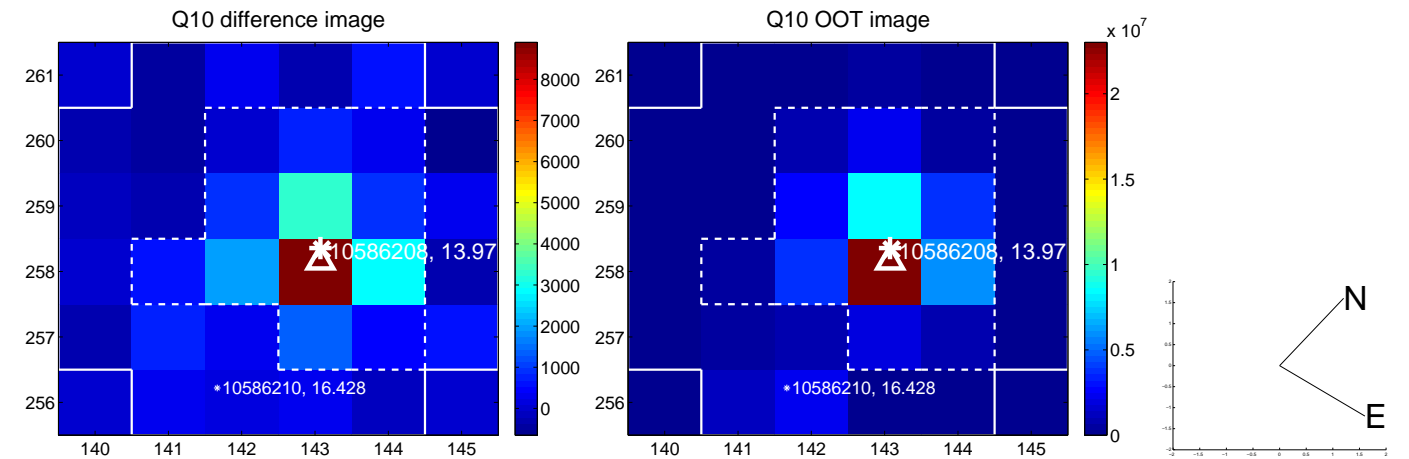
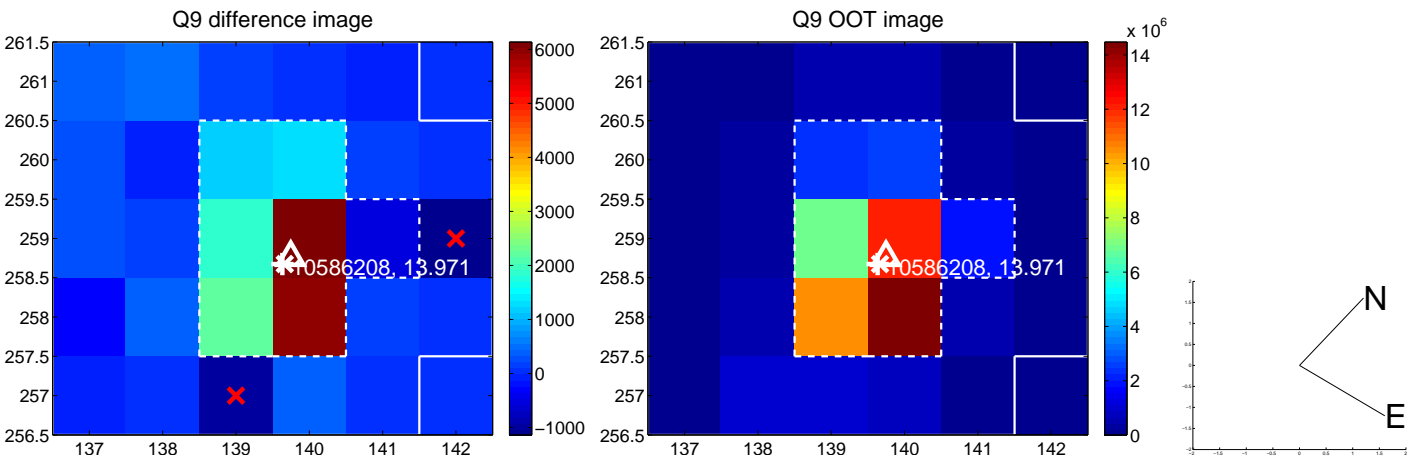
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



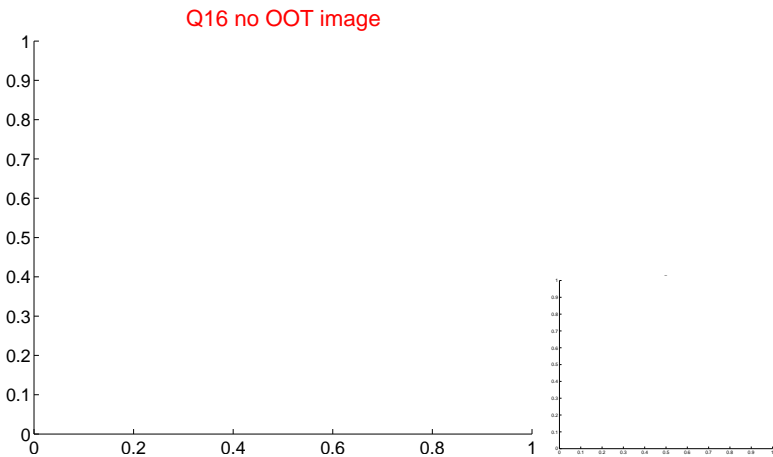
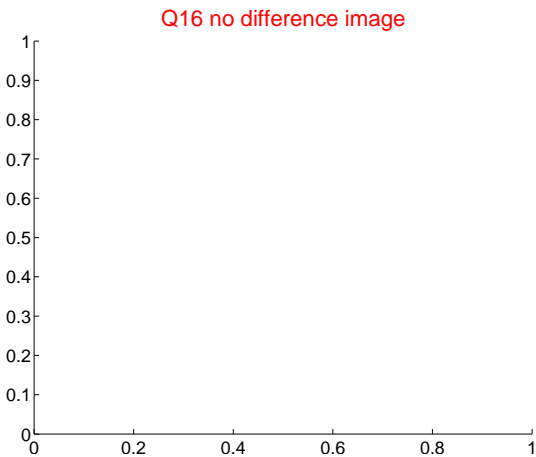
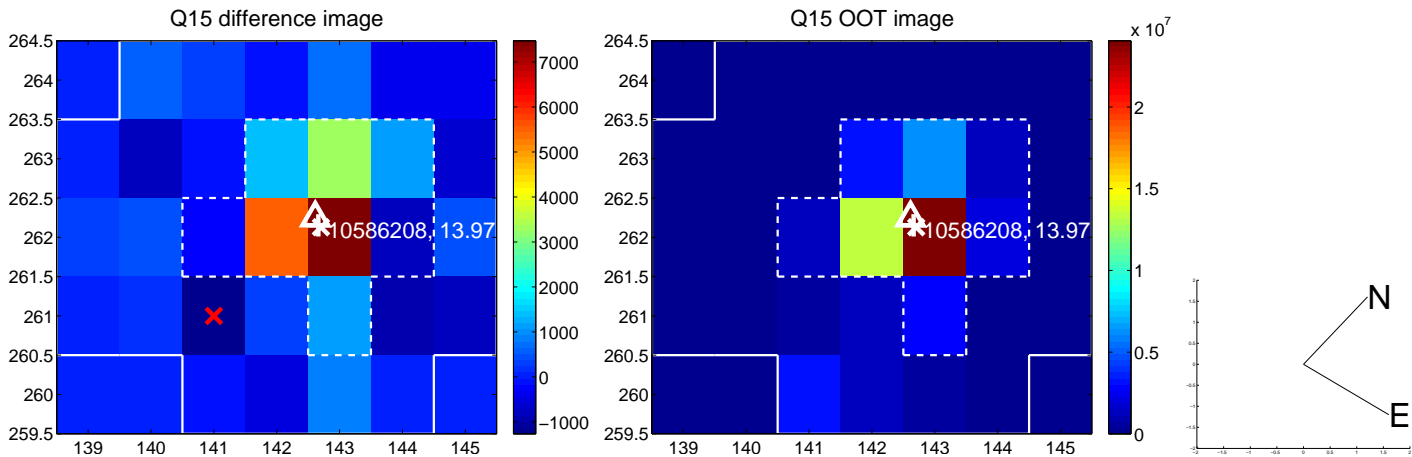
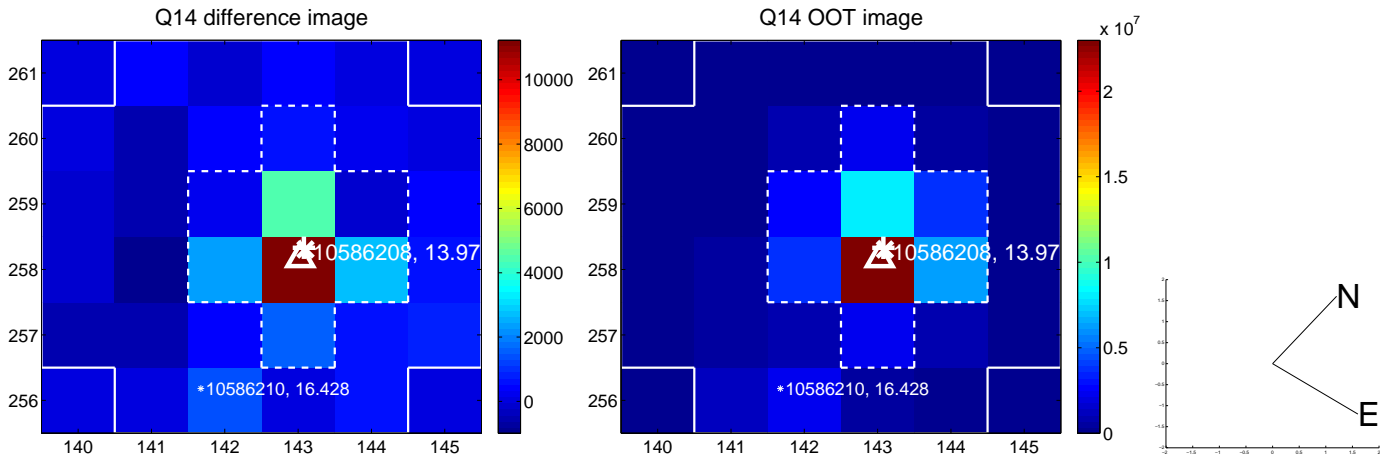
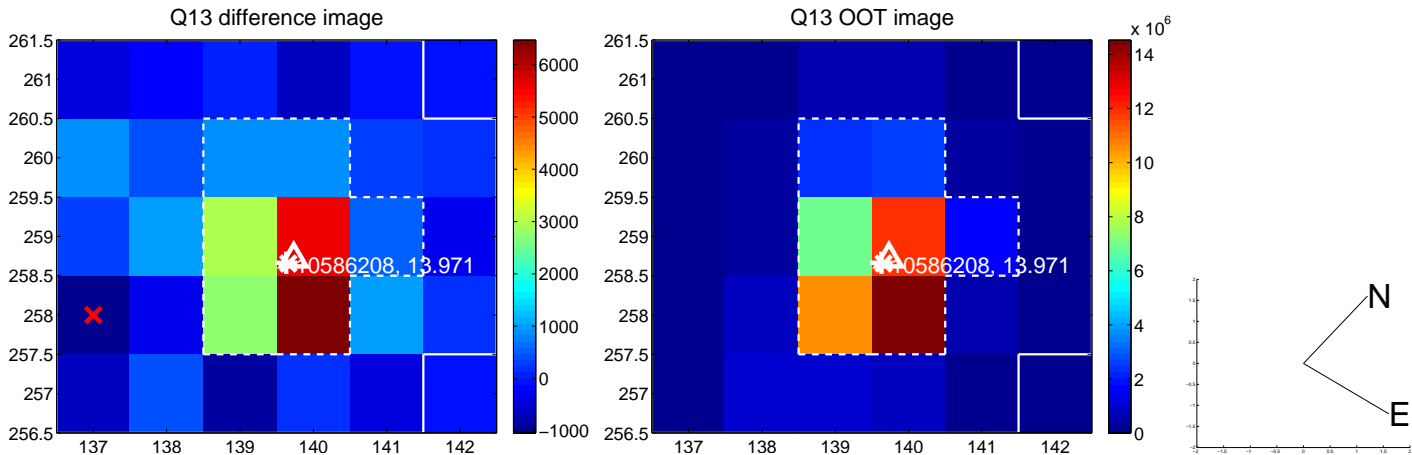
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



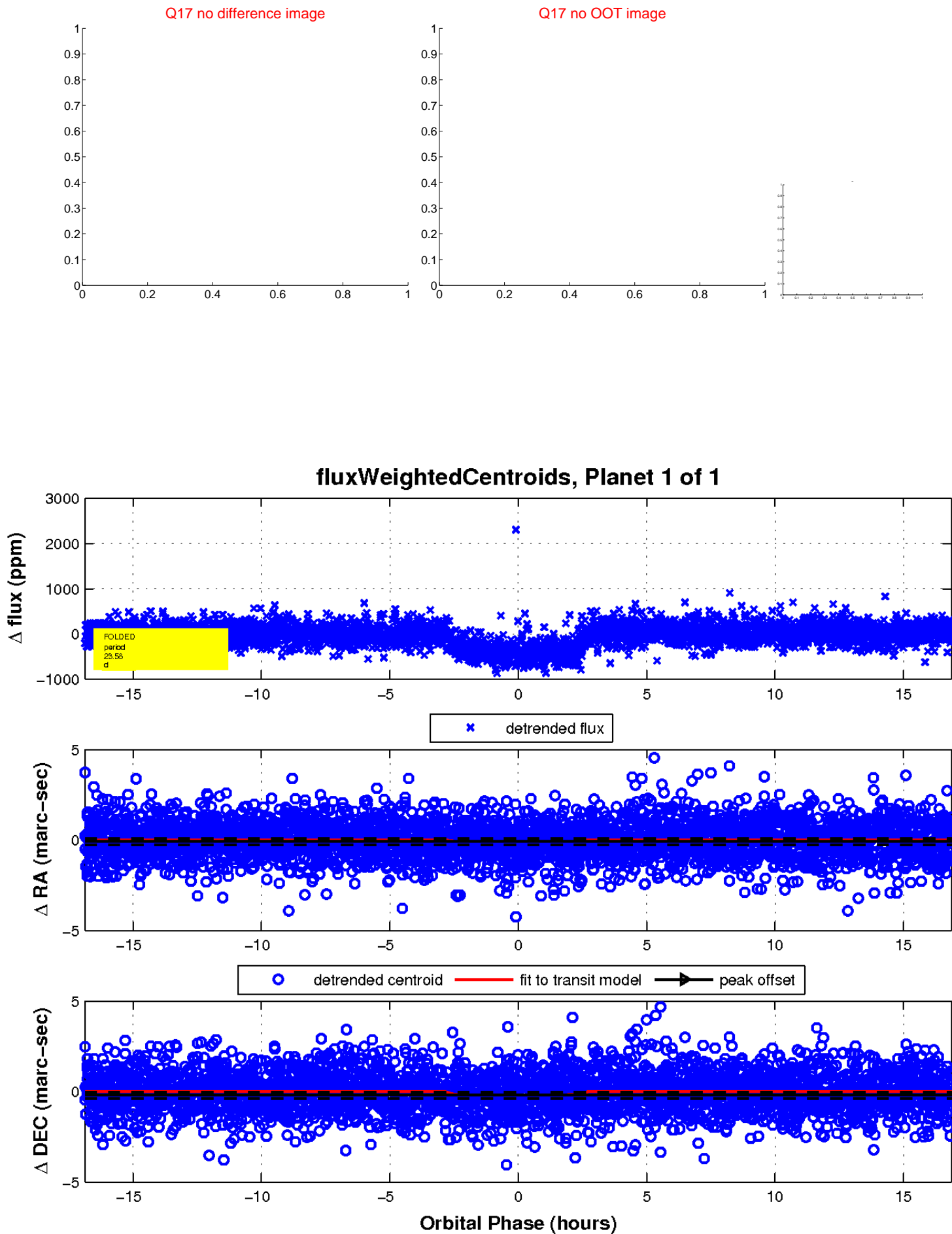
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

