

KIC 006774826

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})
006774826-01	OBS	1376.01	7.138943	134.273995	233.8	4.524	27.4	30.0	2.15	7131	6.33	1637.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006774826-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

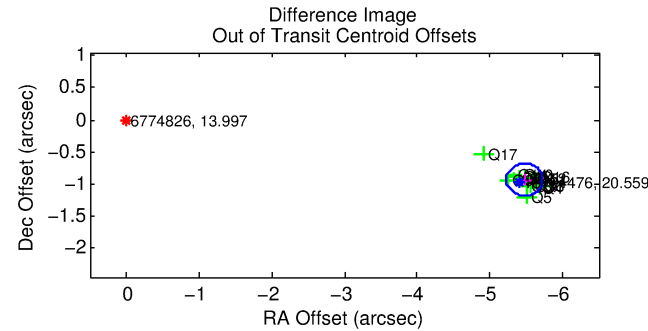
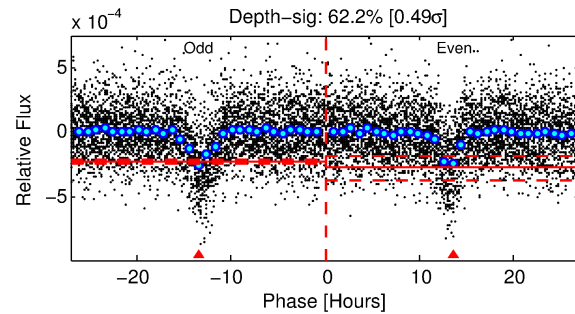
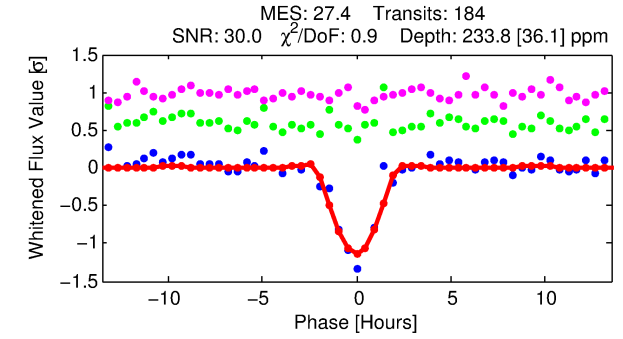
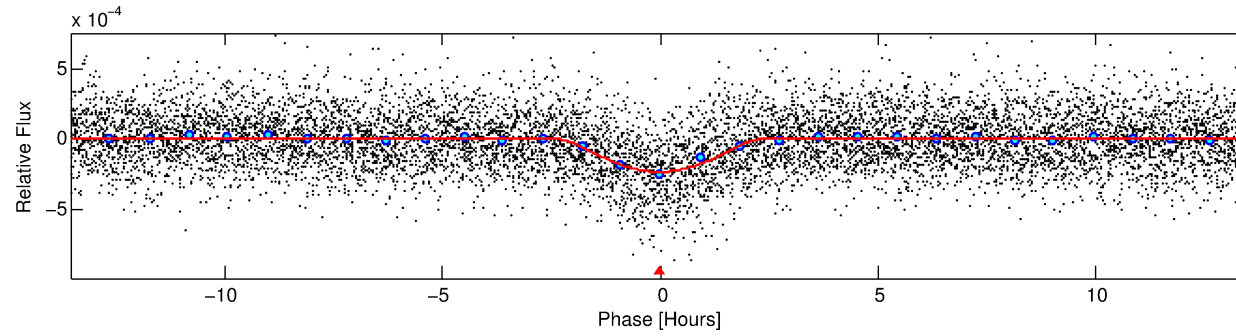
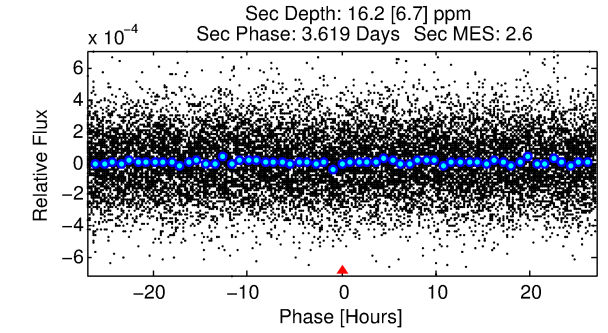
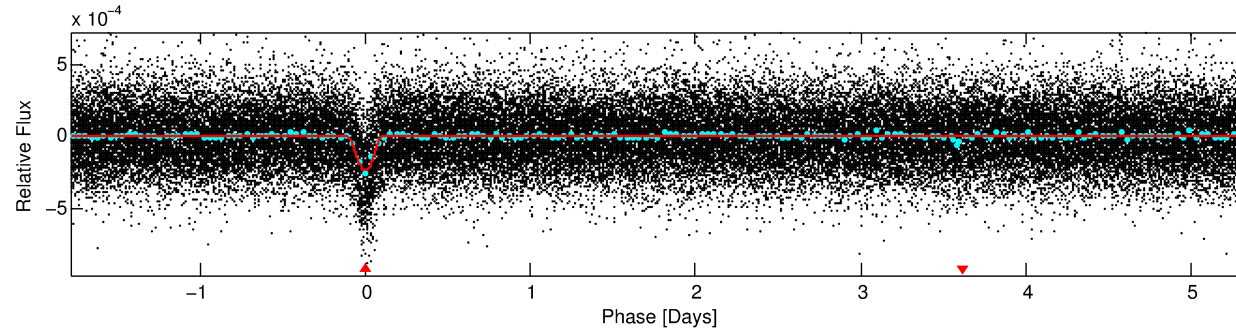
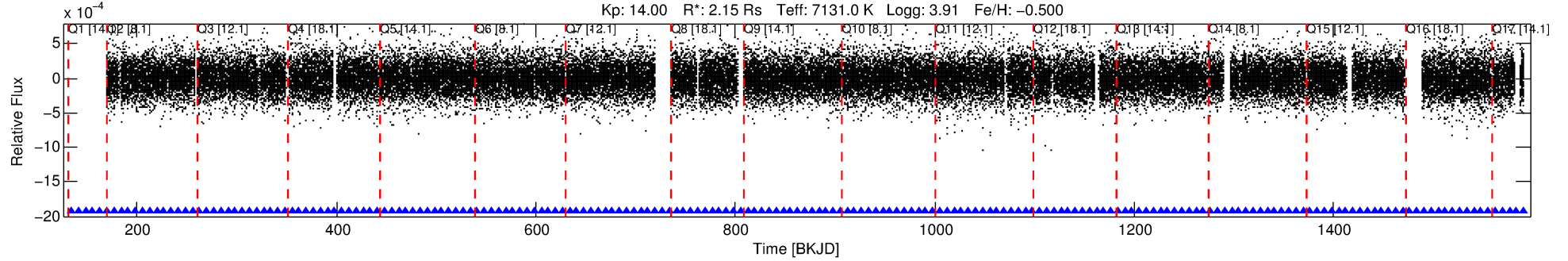
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006774826-01

No Significant Match Found

DV One-Page Summary

KIC: 6774826 Candidate: 1 of 1 Period: 7.139 d
KOI: K01376.01 Corr: 0.990



DV Fit Results:

Period = 7.13894 [0.00003] d
Epoch = 134.2740 [0.0037] BKJD
Rp/R* = 0.0271 [0.0330]
a/R* = 3.01 [0.87]
b = 1.00 [0.05]
Seff = 1637.83 [1064.01]
Teq = 1622 [263] K
Rp = 6.34 [8.16] Re
a = 0.0807 [0.0318] AU
Ag = 1.44 [3.68] [0.12σ]
Teffp = 2748 [1704] K [0.65σ]

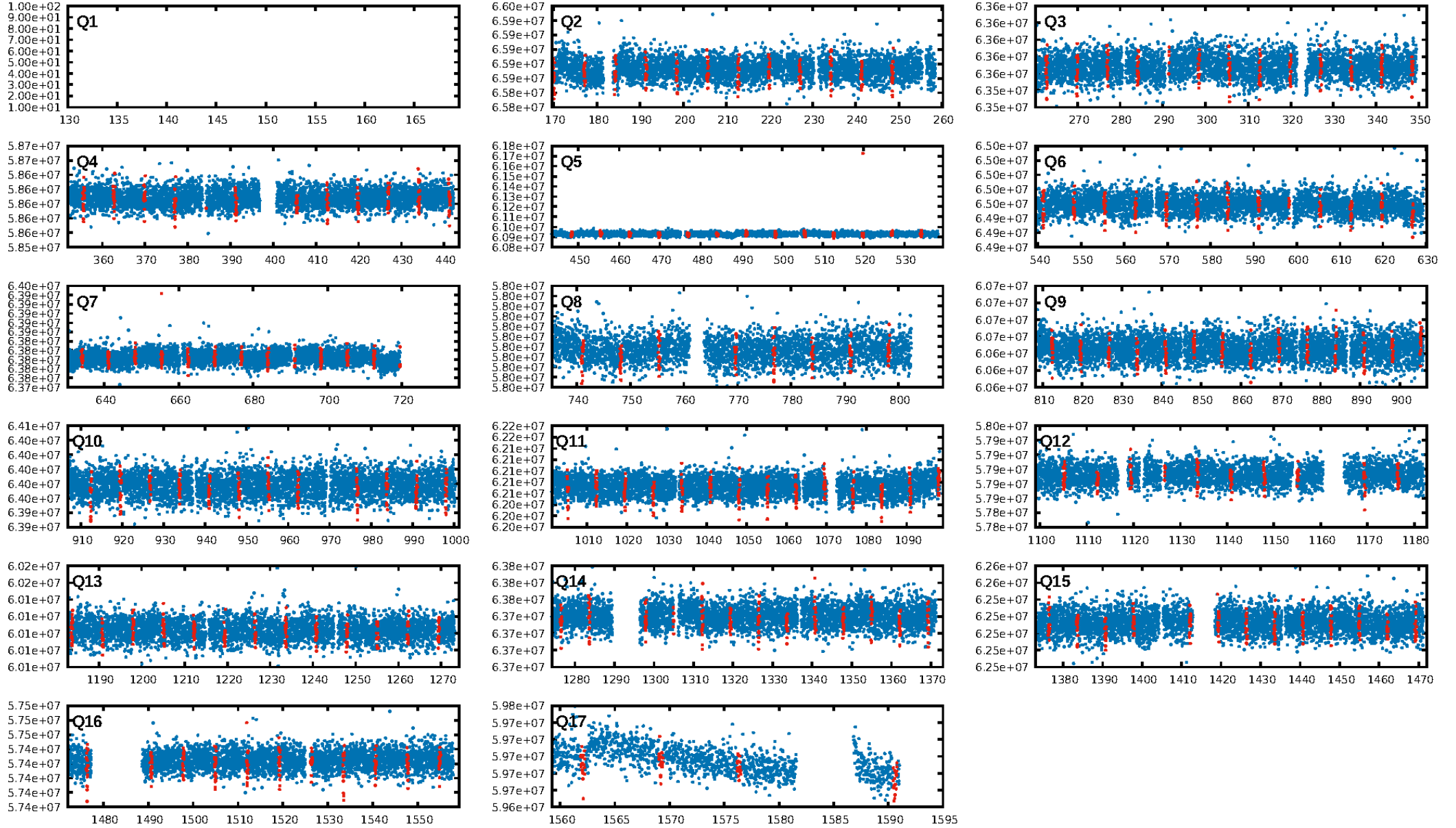
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.33e-155
RollingBand-fgt: 1.00 [180/180]
GhostDiagnostic-chr: 0.1633
Centroid-sig: 0.0%
Centroid-so: 11.418 arcsec [28.71σ]
OotOffset-rm: 5.552 arcsec [66.28σ]
KicOffset-rm: 5.556 arcsec [69.73σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

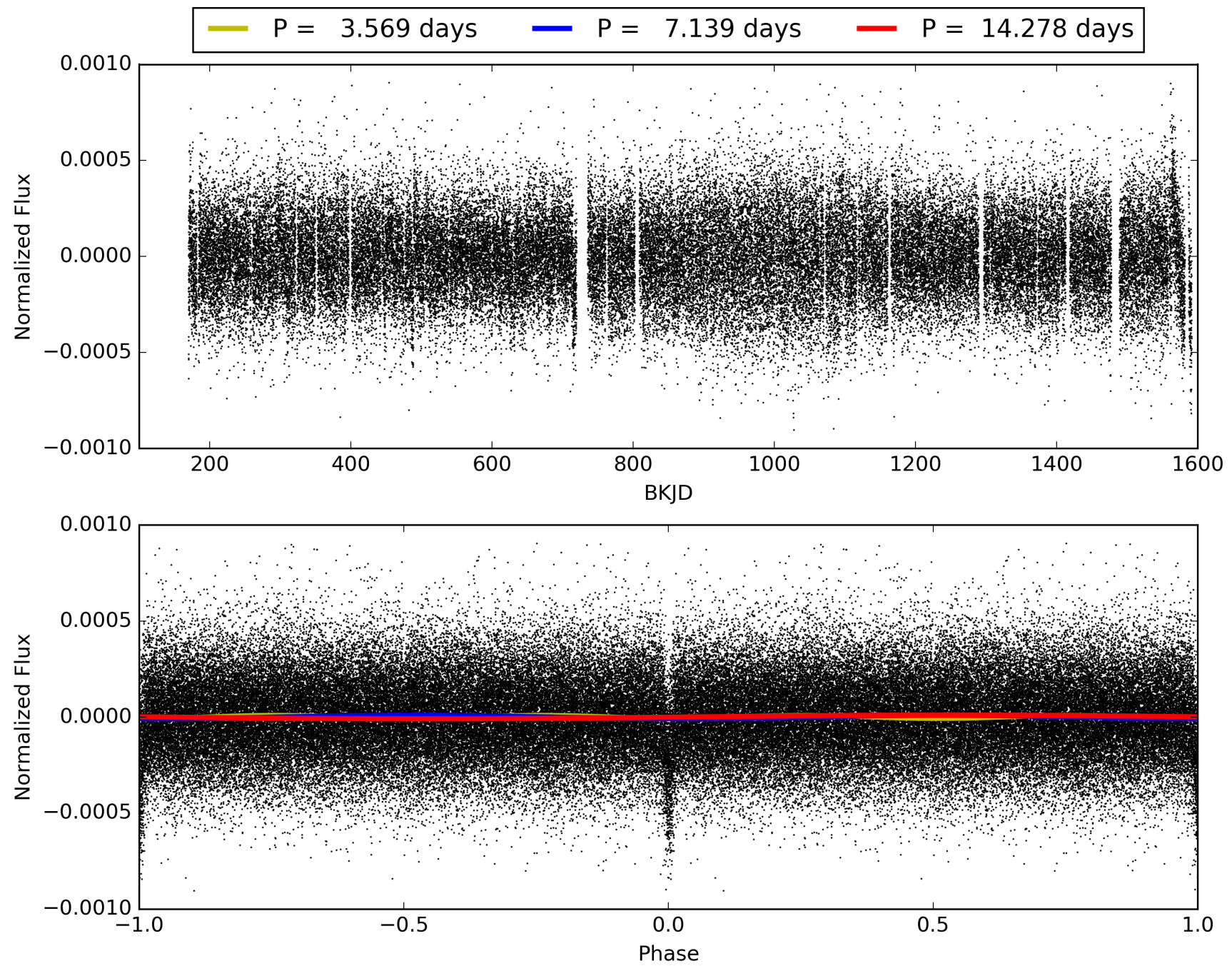
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:48:13 Z

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

TCE 006774826-01, PDC Light Curves

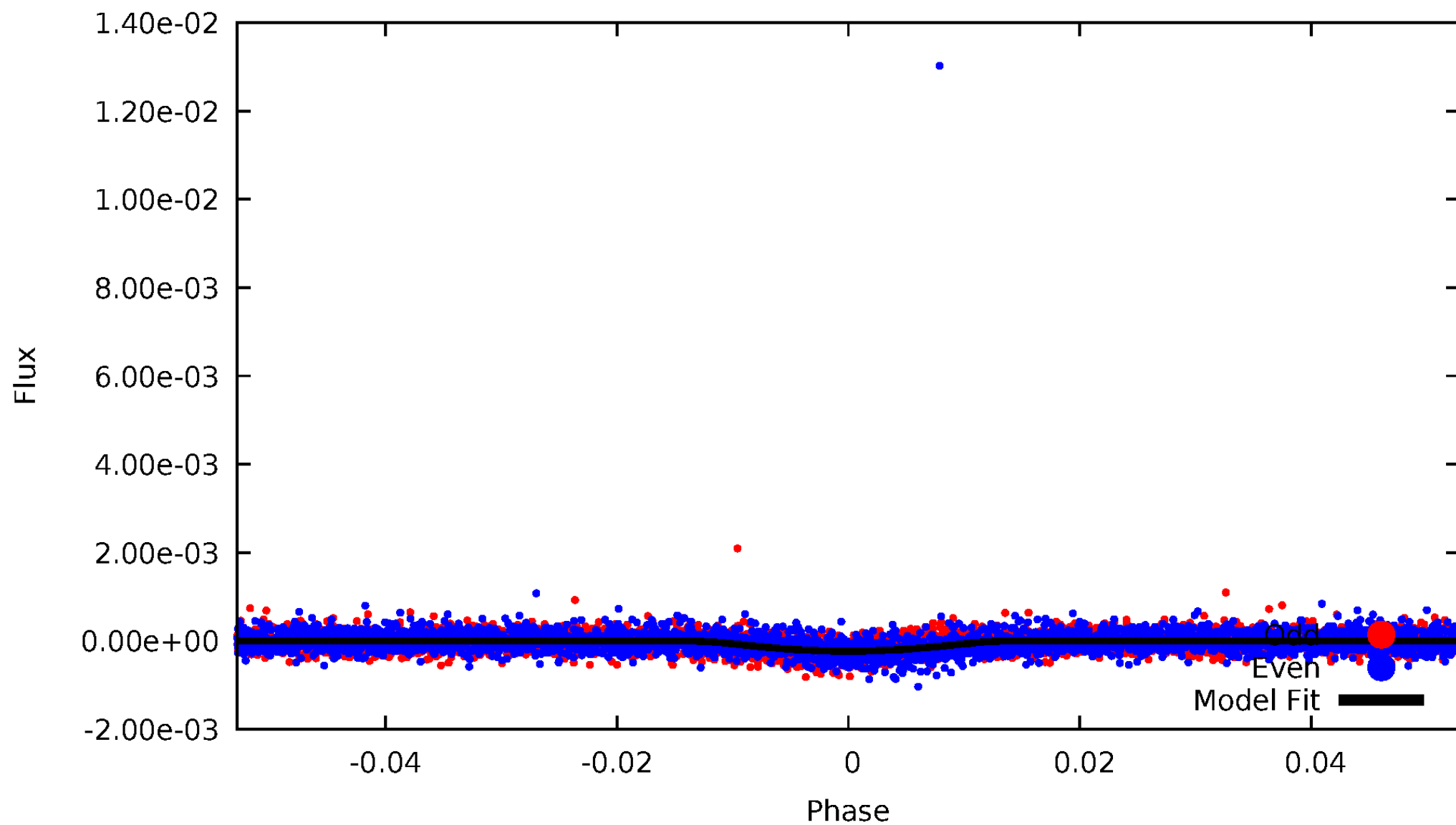


TCE 006774826-01



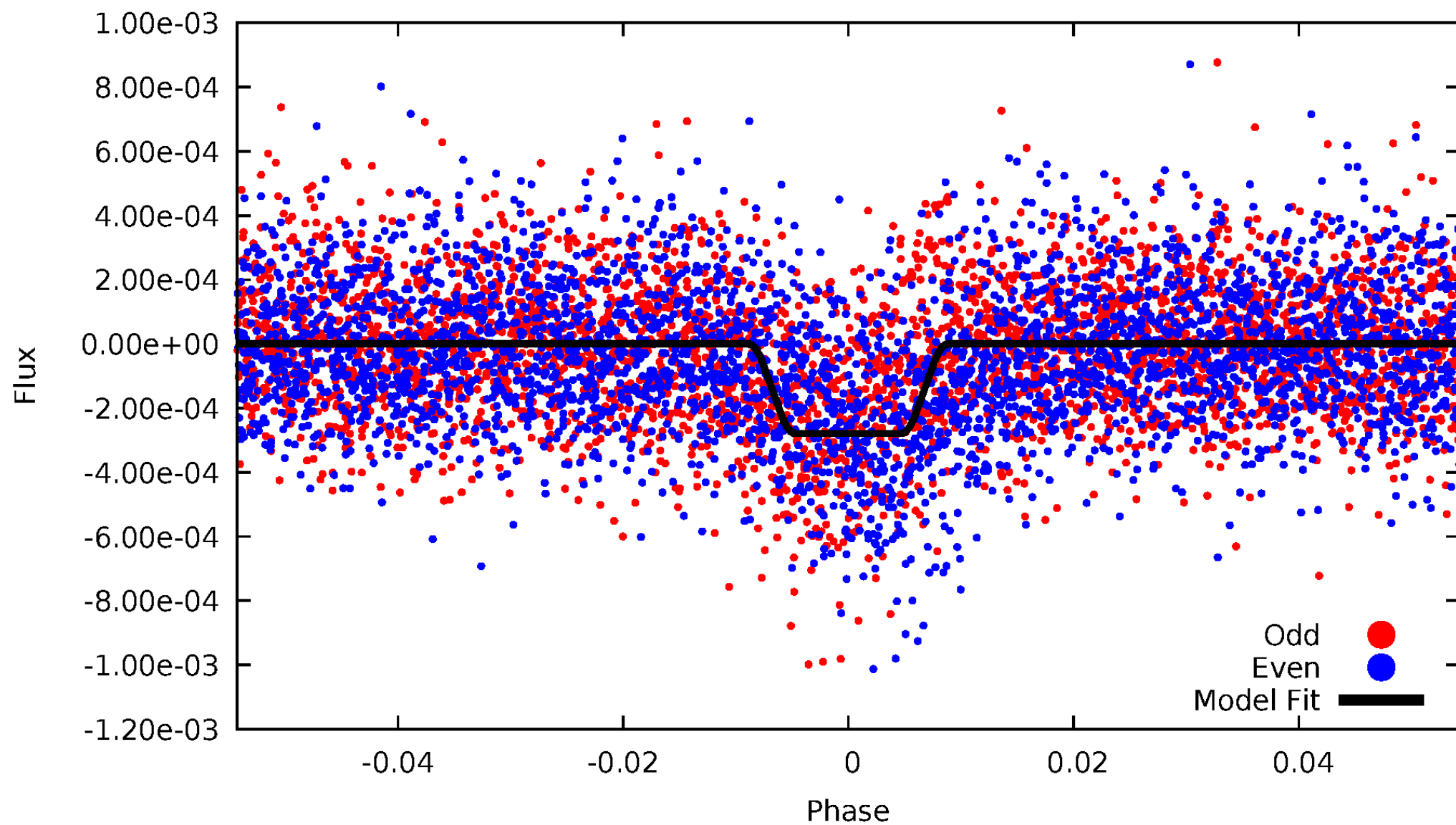
DV Odd/Even

TCE 006774826-01

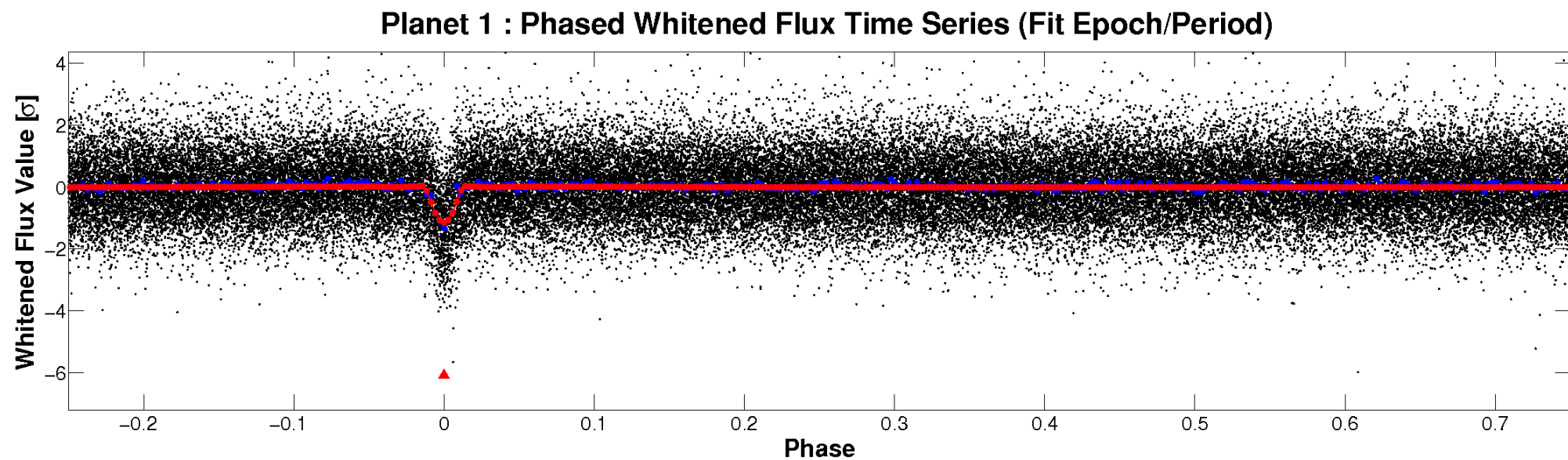
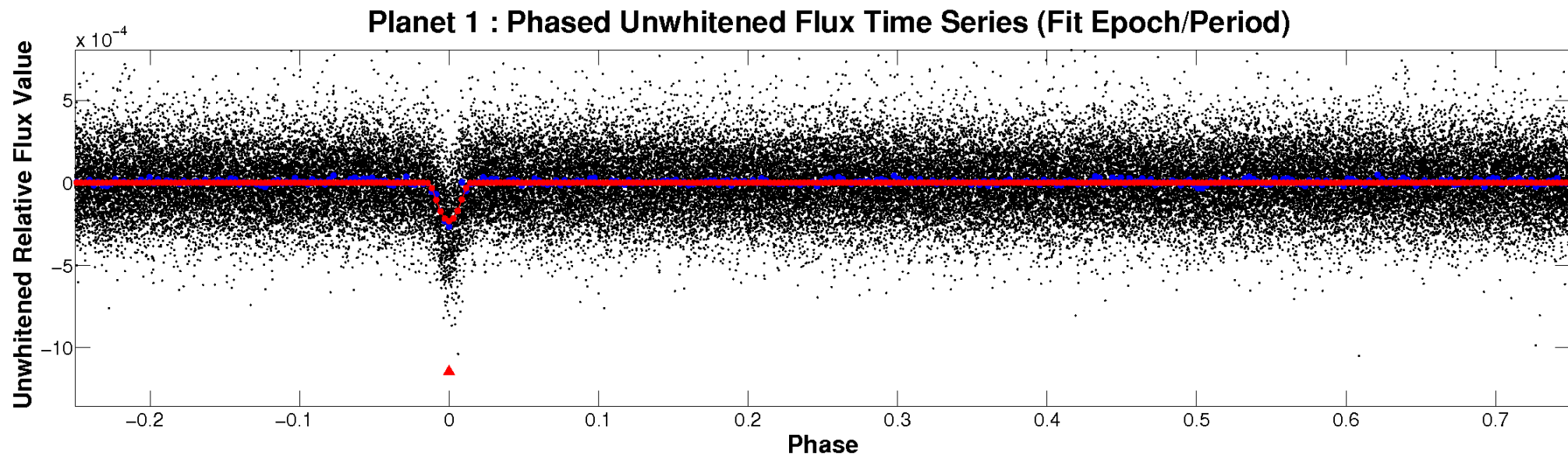


ALT Odd/Even

TCE 006774826-01

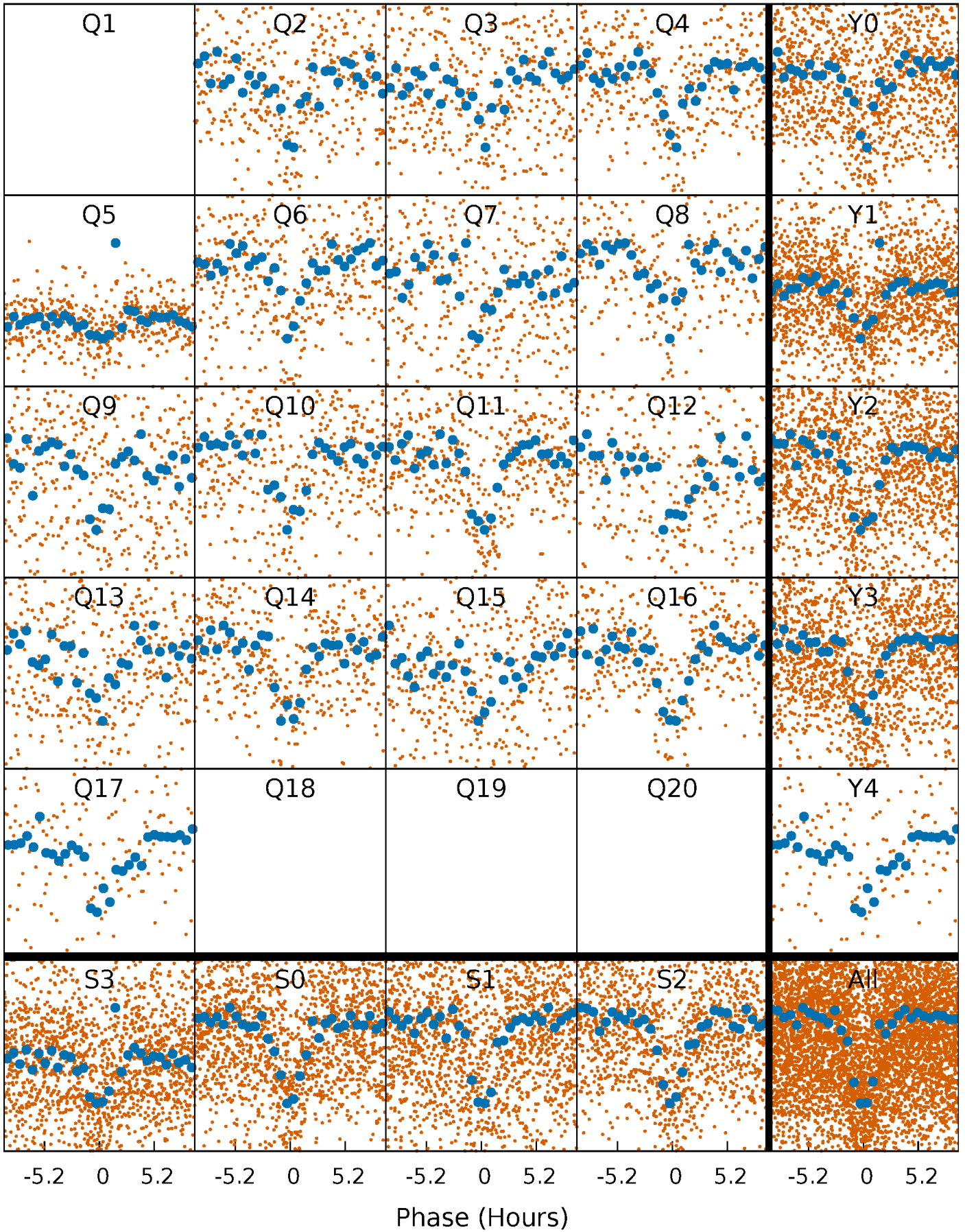


Non-Whitened Vs. Whitened Light Curve



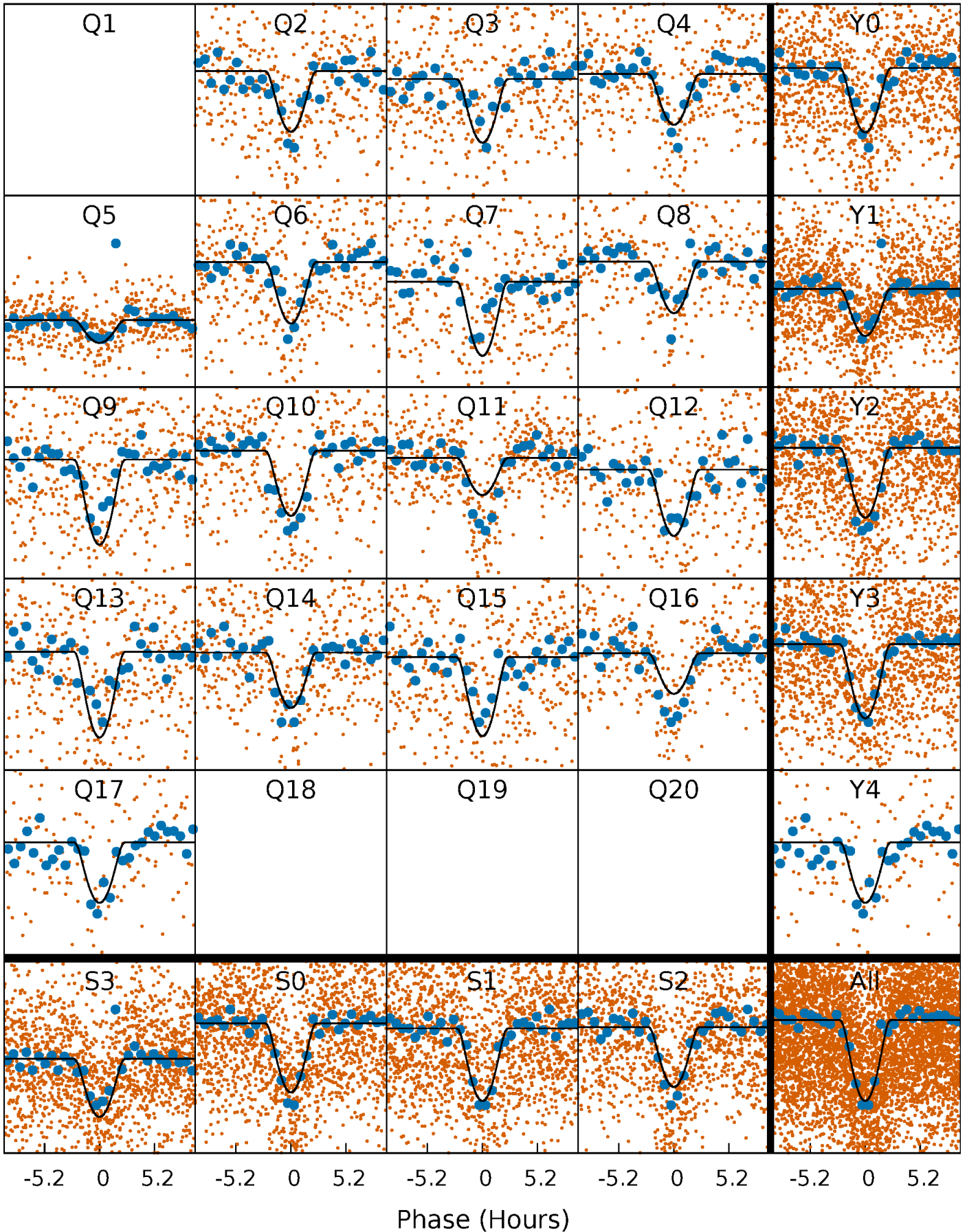
PDC Quarter-Phased Transit Curves

TCE 006774826-01 P= 7.138943 Days $T_0=134.273995$ (BKJD)



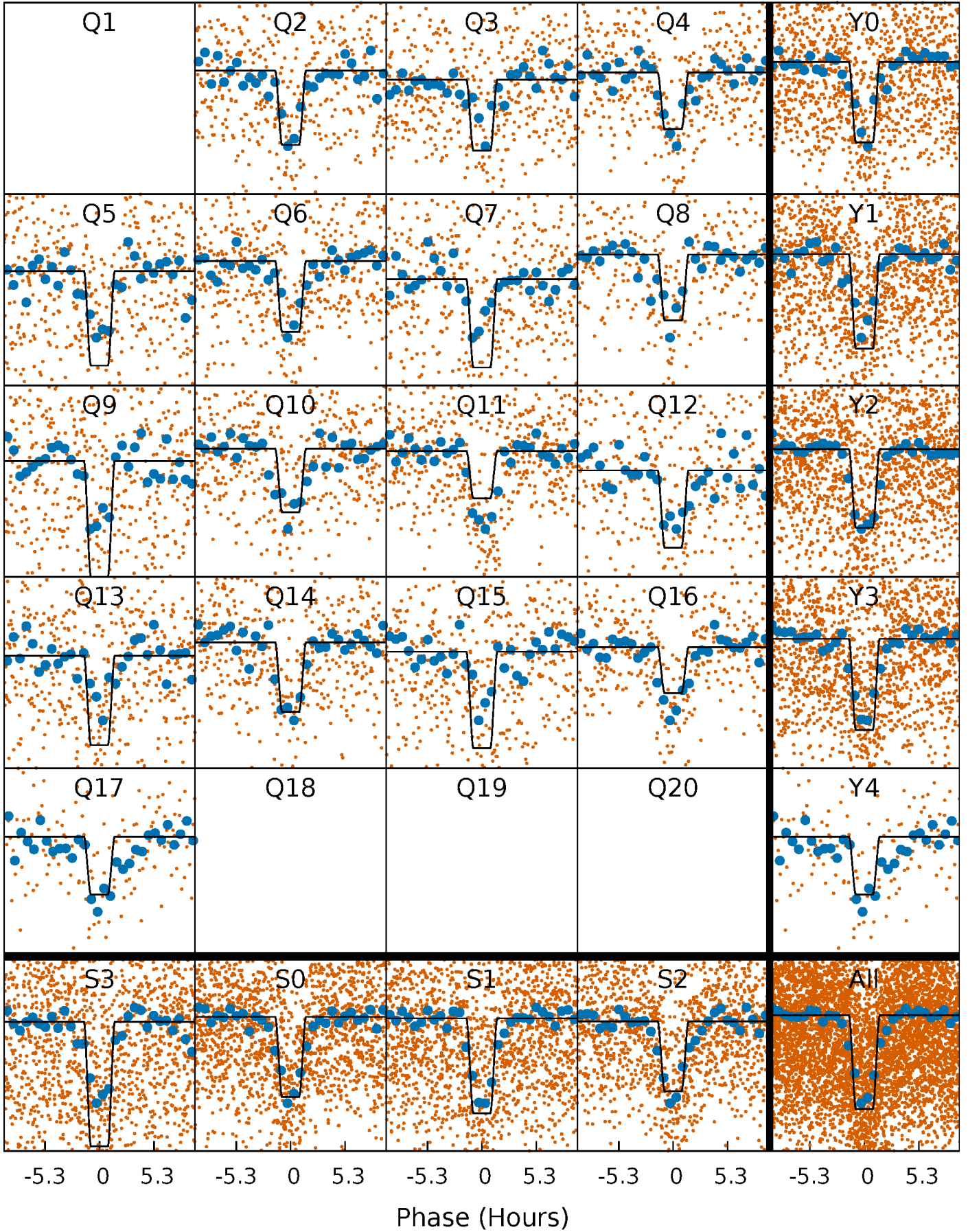
DV Quarter-Phased Transit Curves

TCE 006774826-01 P= 7.138943 Days $T_0=134.273995$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

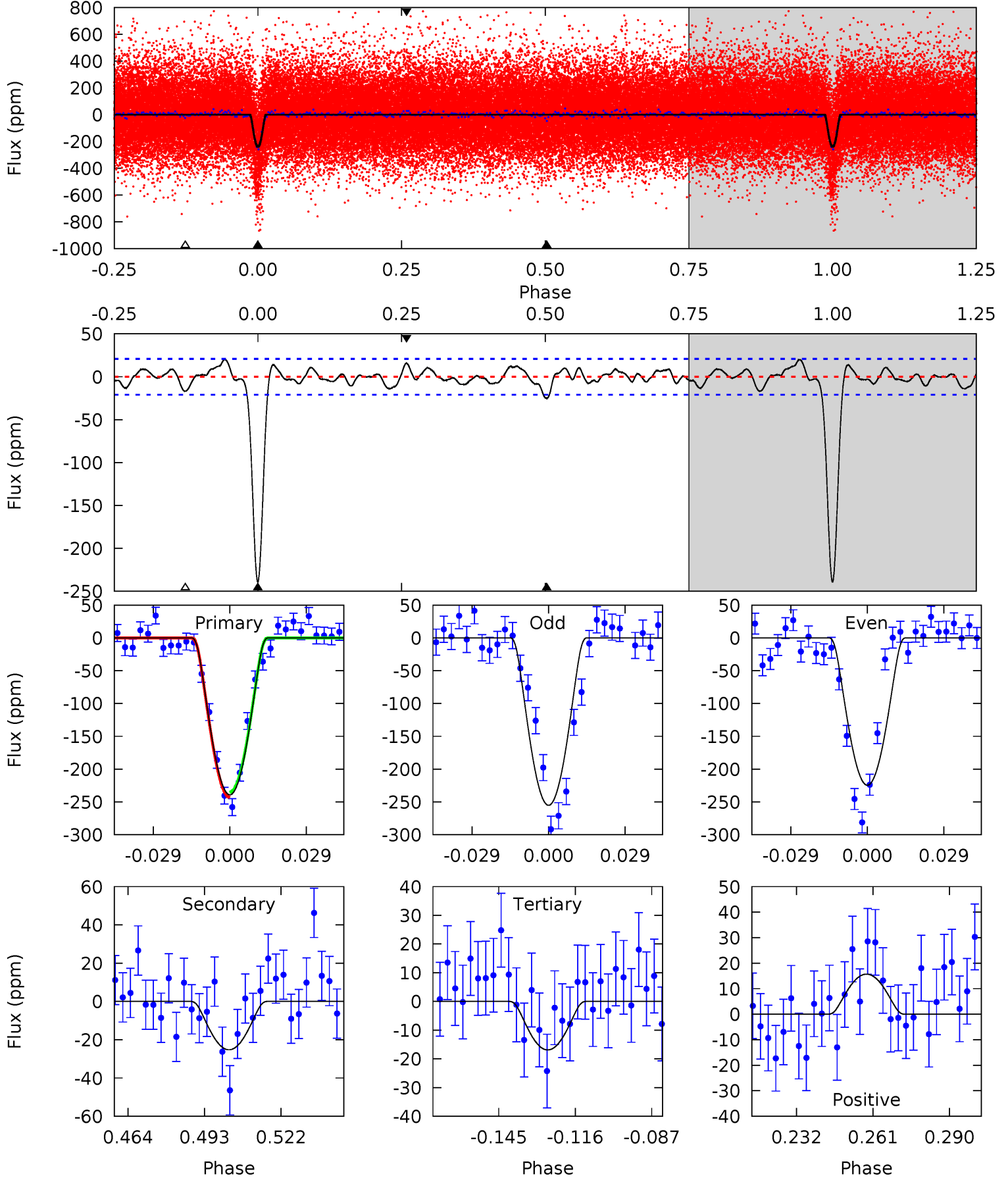
TCE 006774826-01 P= 7.138916 Days $T_0=134.276533$ (BKJD)



DV Model-Shift Uniqueness Test

006774826-01, P = 7.138943 Days, E = 134.273995 Days

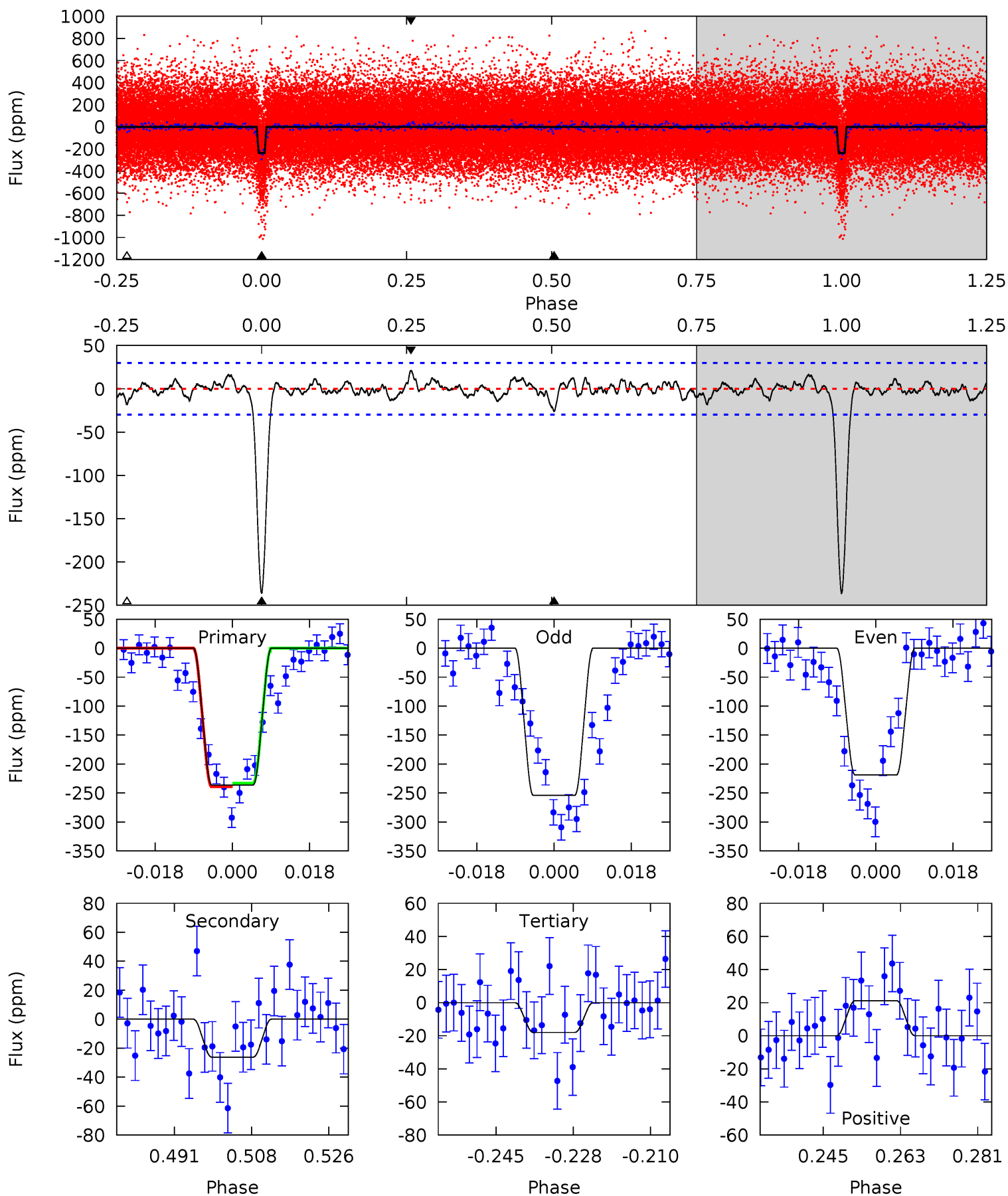
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.2	5.83	3.90	3.62	4.82	2.18	1.57	51.3	51.6	1.93	2.20	3.54	1.03	0.08	0.89



Alt Model-Shift Uniqueness Test

006774826-01, P = 7.138916 Days, E = 134.276533 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.9	4.31	2.97	3.48	4.92	2.38	1.05	35.9	35.4	1.34	0.82	2.90	1.08	0.08	0.49



Stellar Parameters For KIC 006774826

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7131^{+225}_{-300}	$3.913^{+0.367}_{-0.122}$	$-0.500^{+0.250}_{-0.300}$	$2.145^{+0.479}_{-0.889}$	$1.373^{+0.193}_{-0.265}$	$0.196^{+0.587}_{-0.073}$
	+3%/-4%	+9%/-3%	+50%/-60%	+22%/-41%	+14%/-19%	+299%/-37%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006774826-01 / KOI 1376.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-25 ± 4	$7.63^{+6.49}_{-5.13}$	2214^{+172}_{-222}	3121^{+1655}_{-793}	$1.550^{+12.580}_{-1.122}$
Alt.	-26 ± 6	$6.35^{+6.32}_{-4.37}$	2213^{+161}_{-220}	3370^{+1812}_{-870}	$2.408^{+20.649}_{-1.886}$

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 $A_{obs} \gg 1.0$

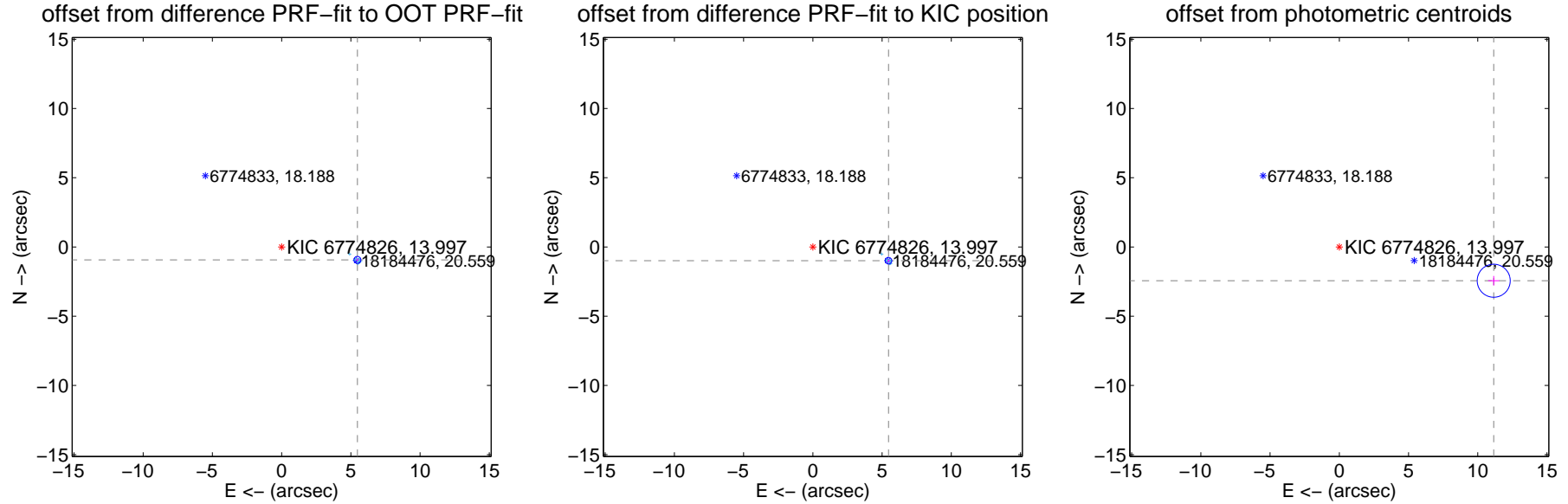
DV Centroid Data

Supplemental centroid analysis for 006774826-01. Kepler magnitude: 14.00. Transit SNR 29.97

There are 16 quarters with good PRF difference image offsets

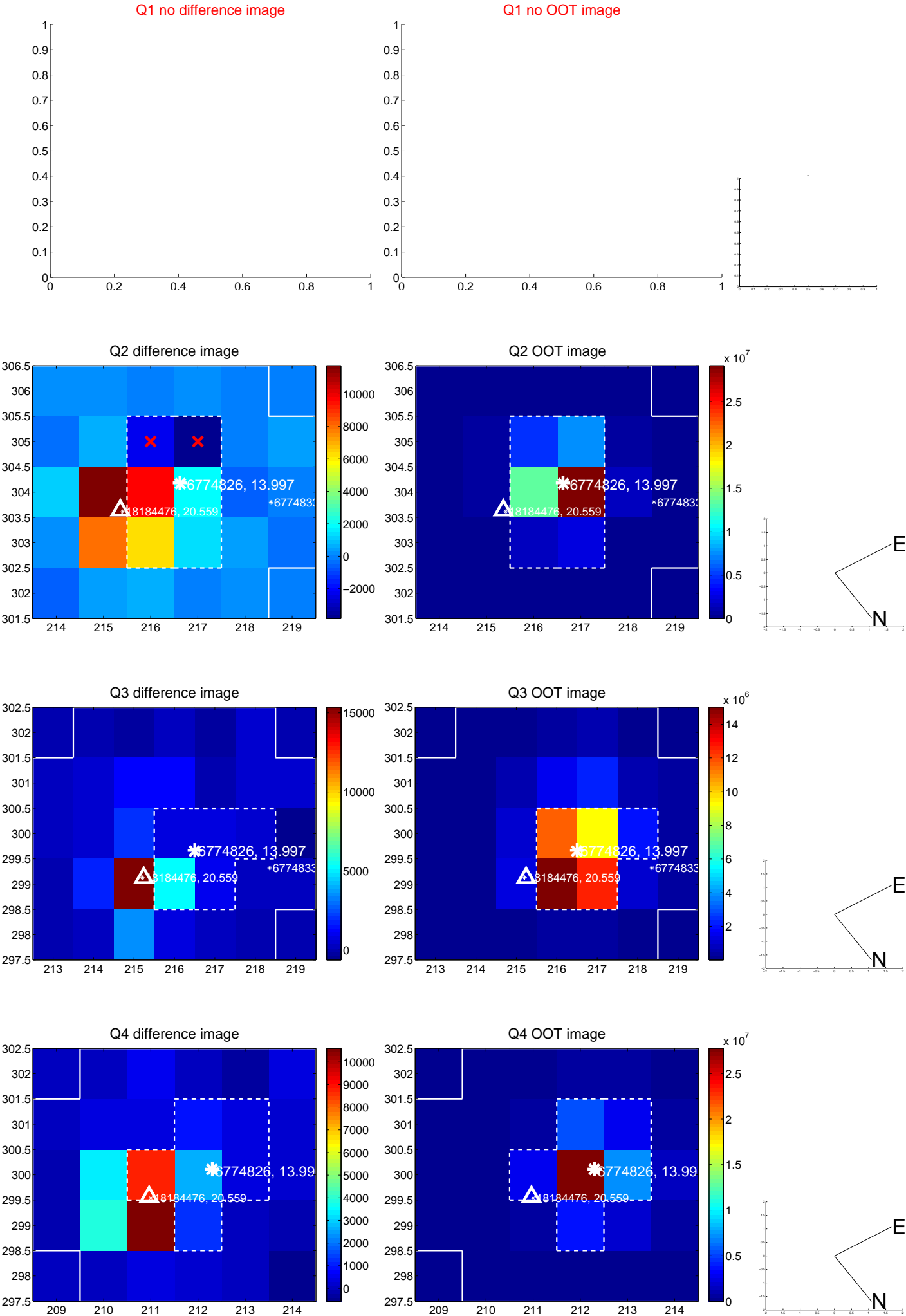
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.552 ± 0.084	66.28	-5.473 ± 0.081	-0.934 ± 0.076
PRF-fit source offset from KIC position	5.556 ± 0.080	69.73	-5.467 ± 0.077	-0.992 ± 0.075
photometric centroid source offset	11.42 ± 0.40	28.71	-11.16 ± 0.40	-2.44 ± 0.34

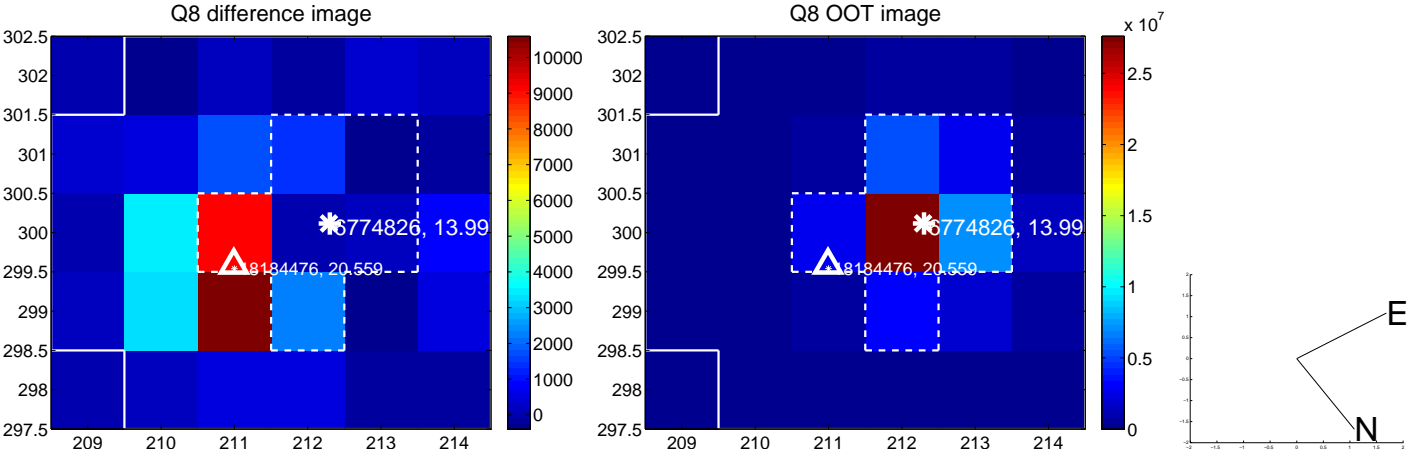
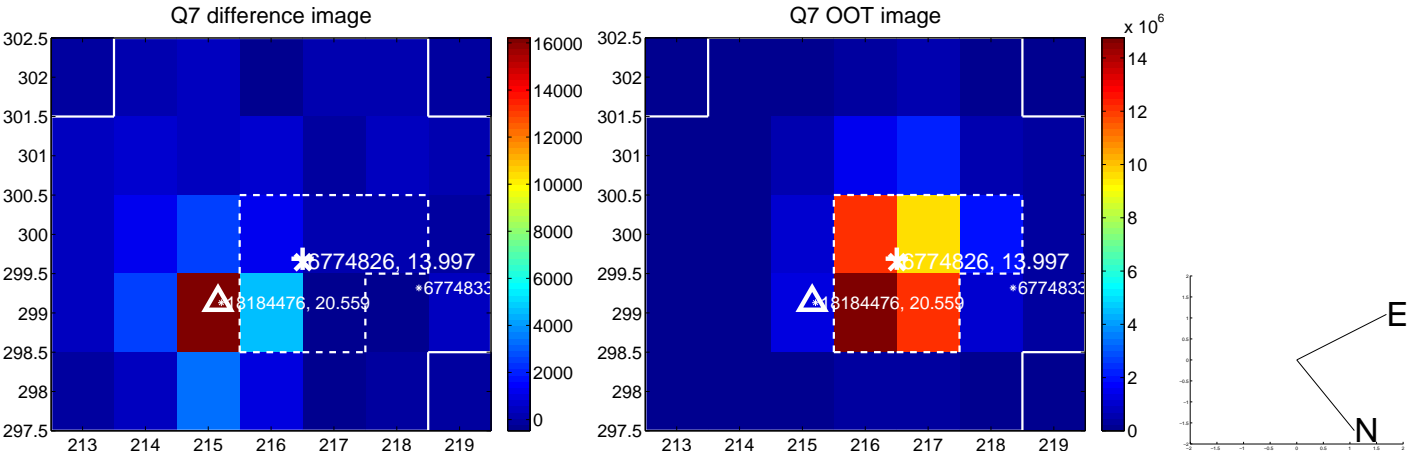
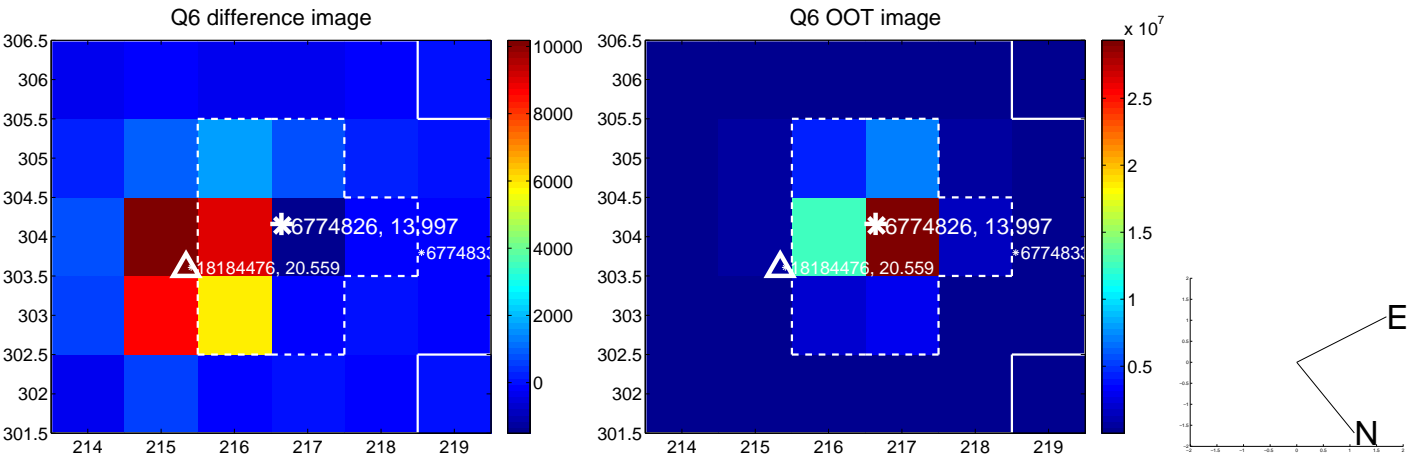
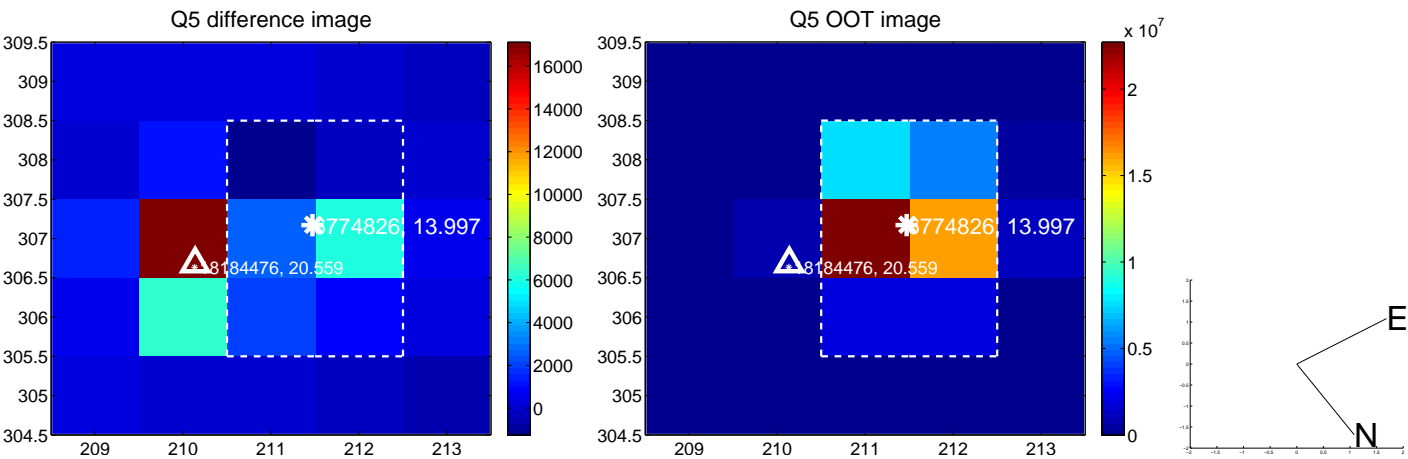


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

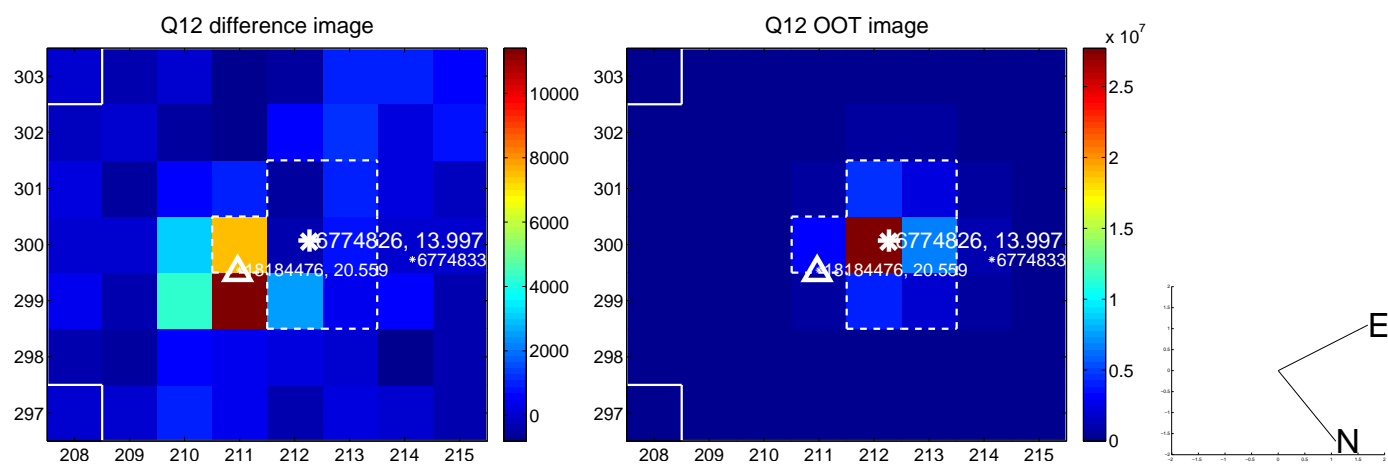
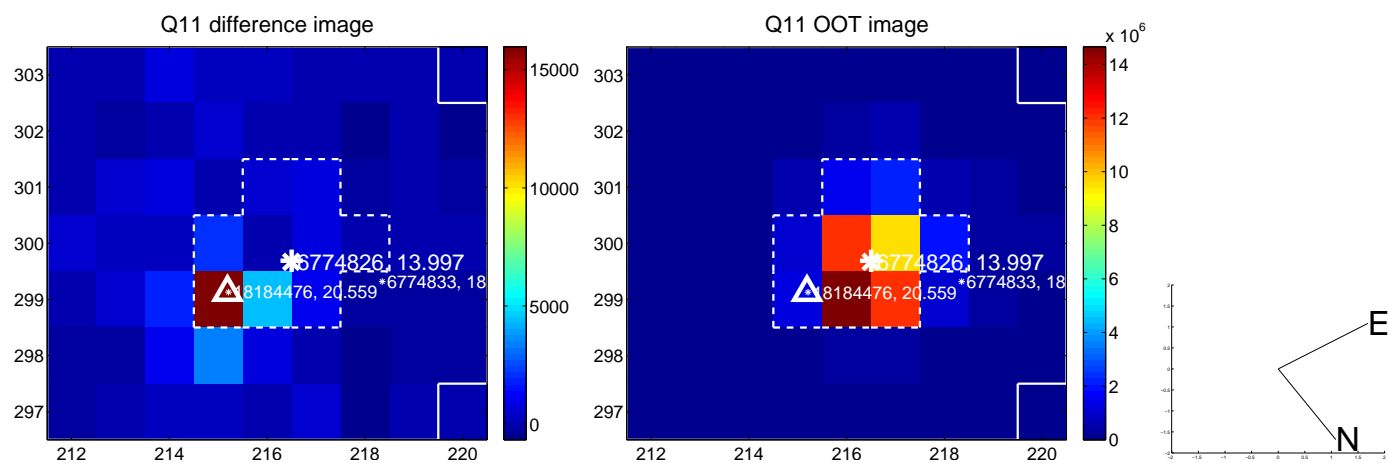
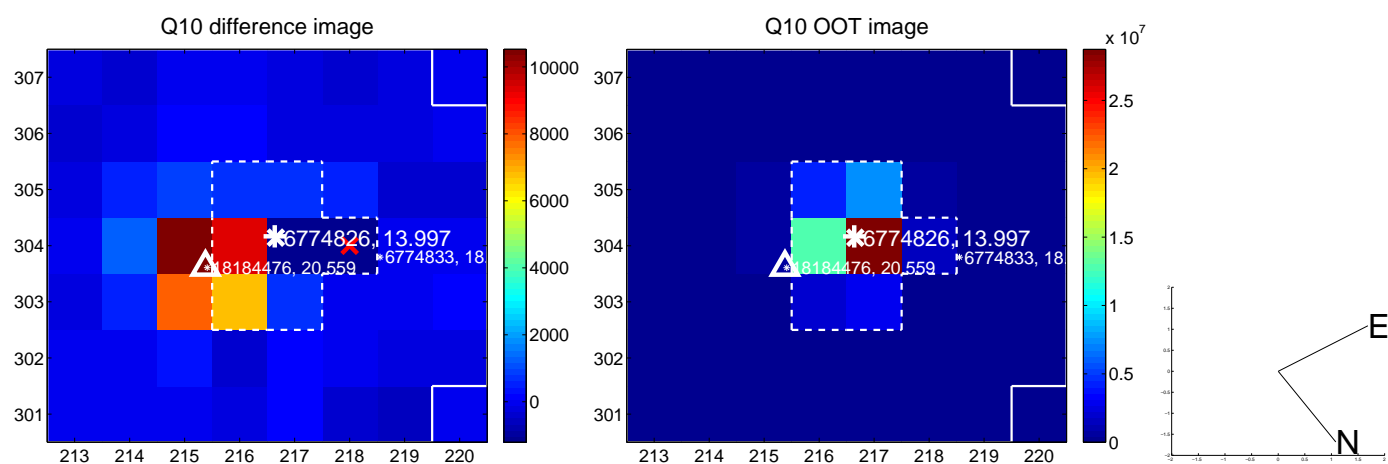
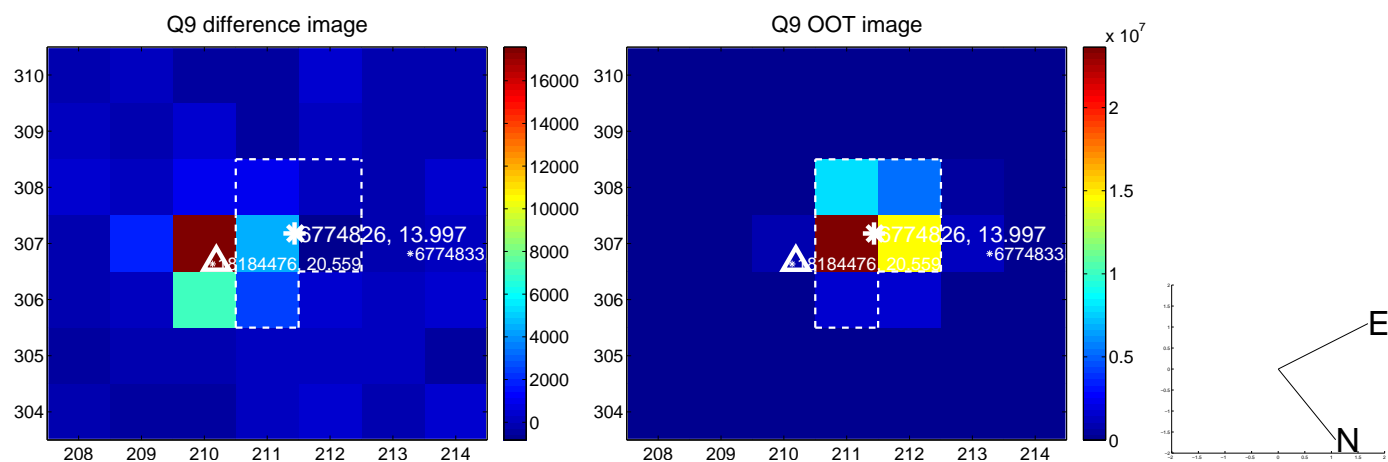
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



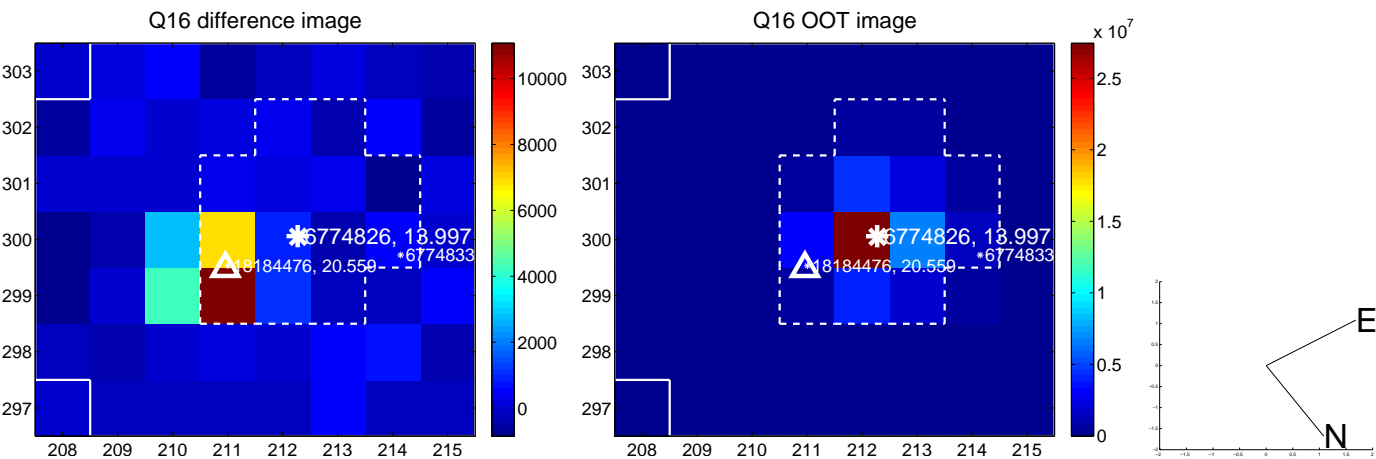
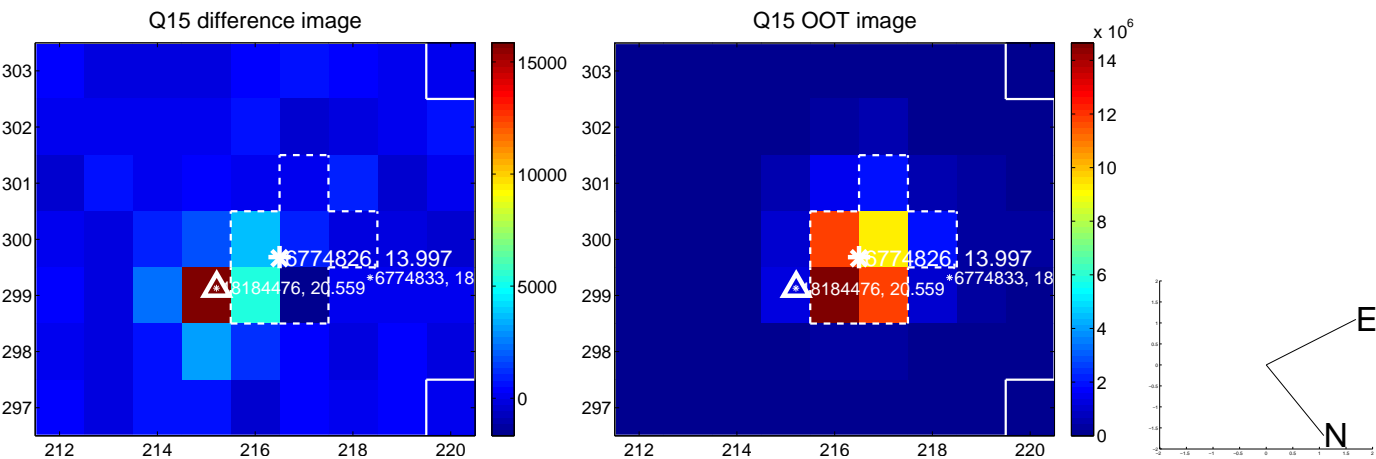
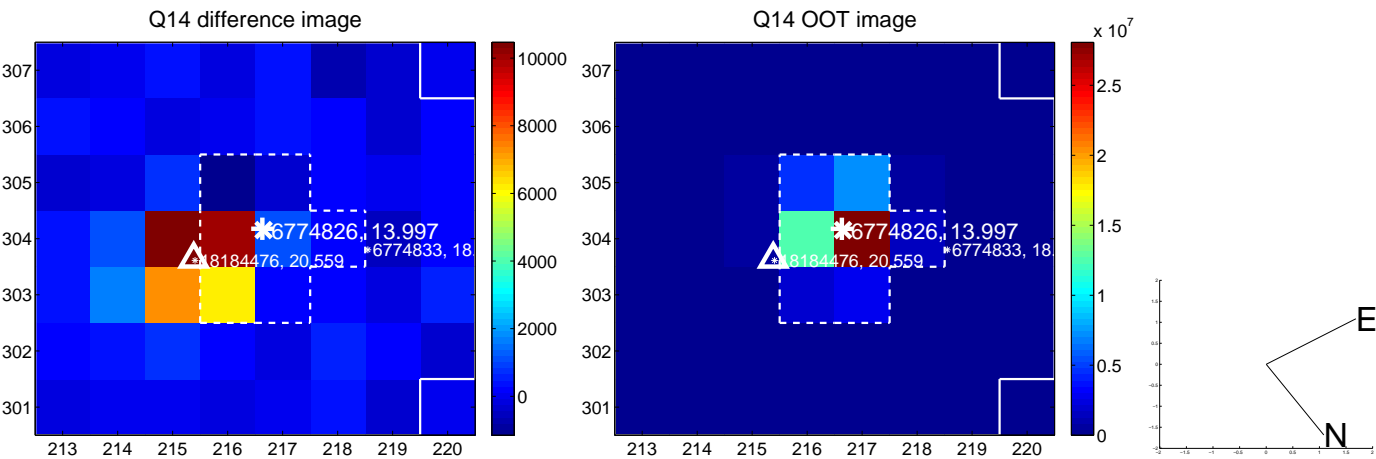
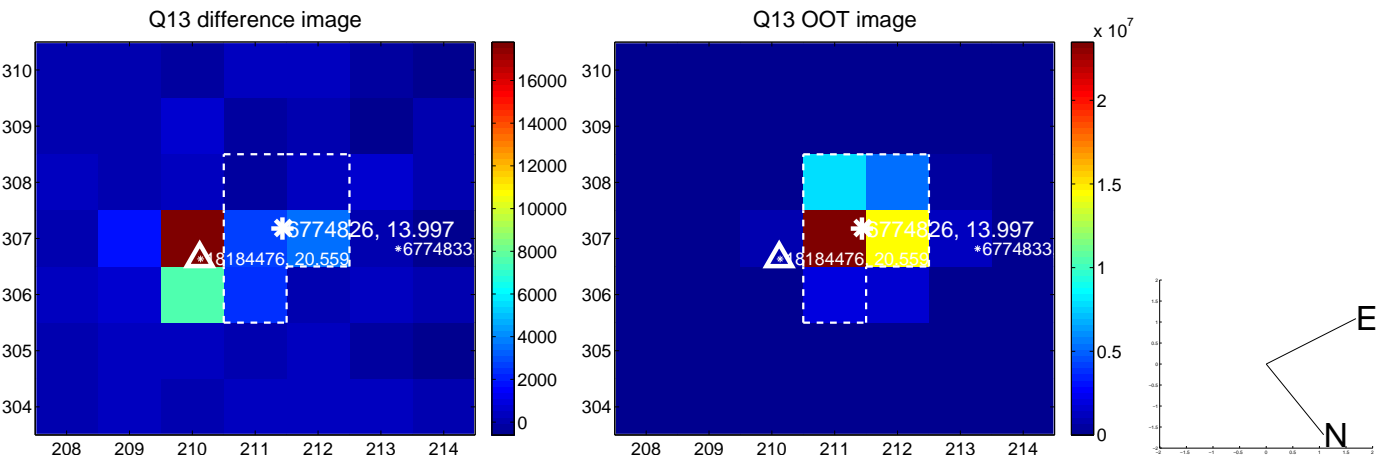
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



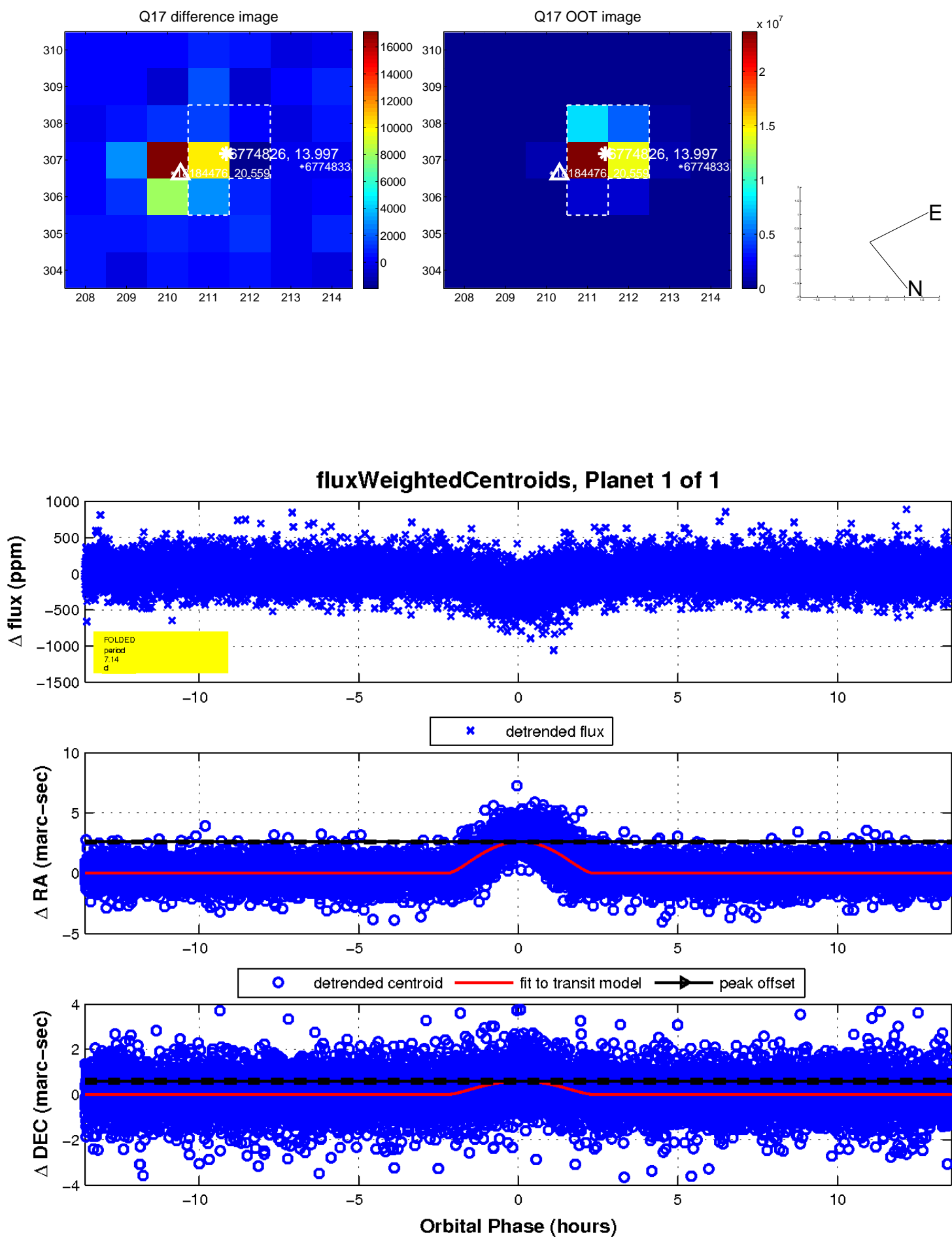
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

