

KIC 006461219

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})
006461219-01	OBS	No	1.367042	131.750726	20.0	2.578	7.7	7.7	1.78	6573	0.91	7399.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006461219-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_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.

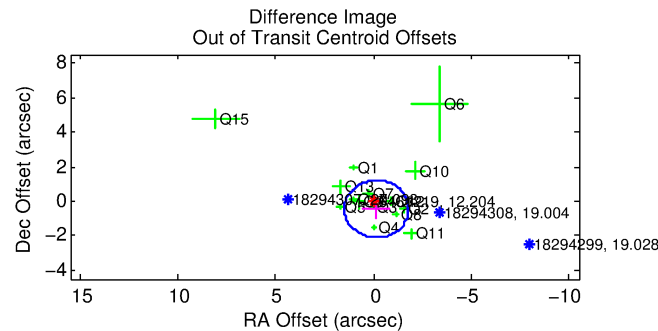
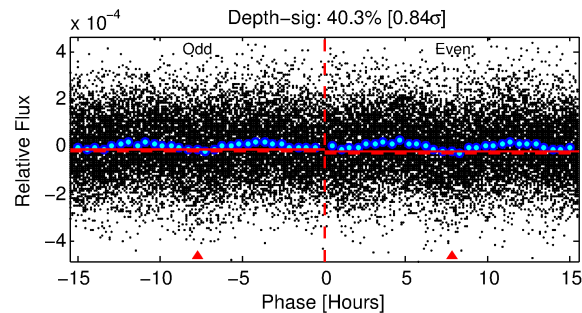
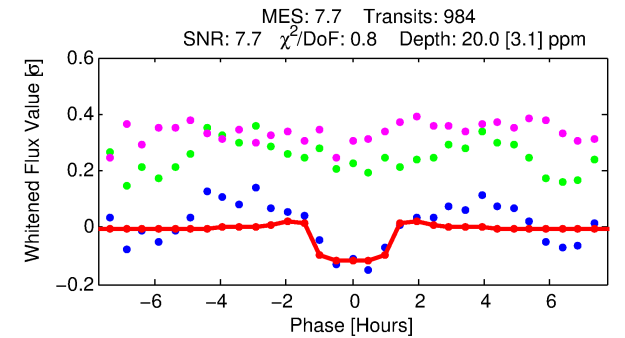
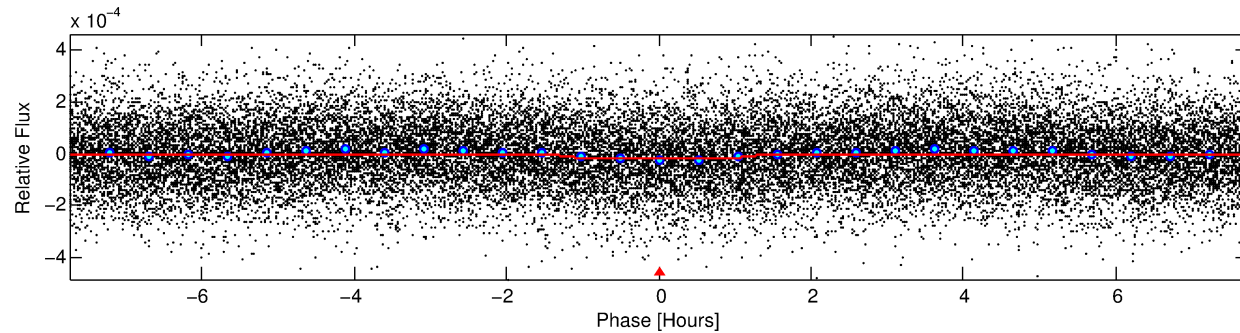
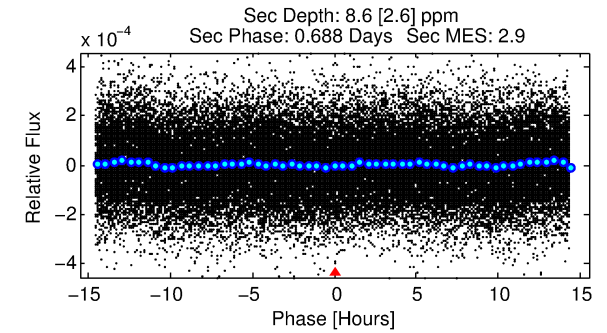
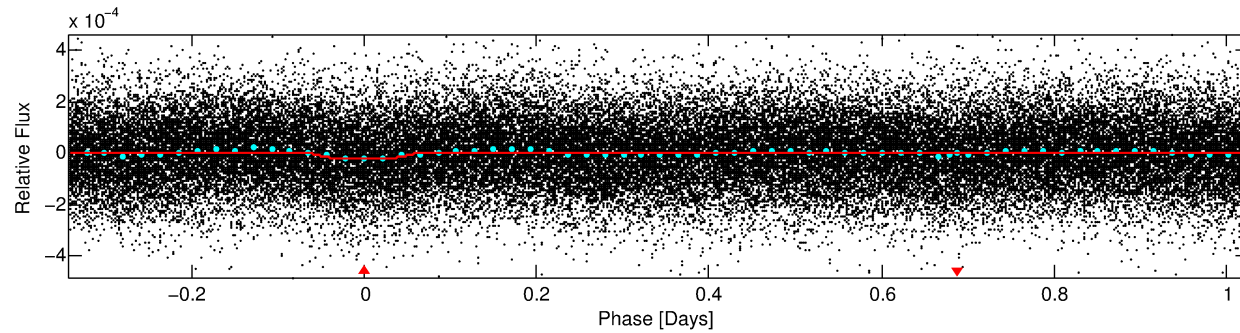
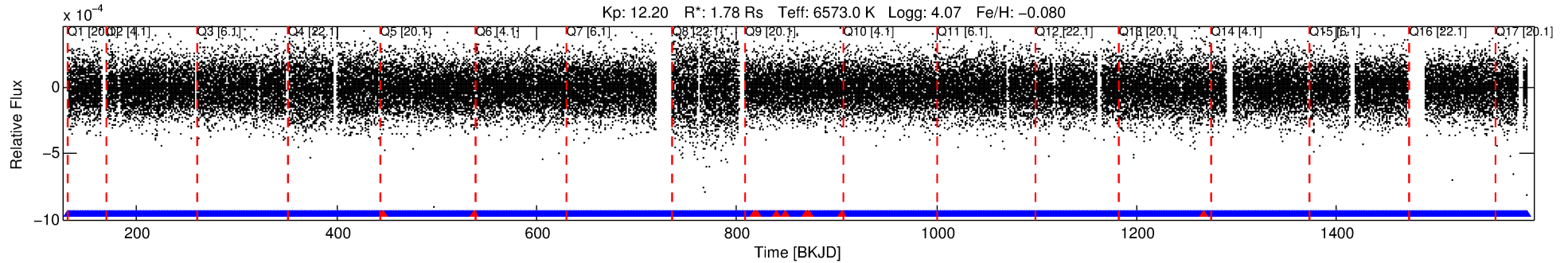
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006461219-01

No Significant Match Found

DV One-Page Summary

KIC: 6461219 Candidate: 1 of 1 Period: 1.367 d



DV Fit Results:

Period = 1.36704 [0.00001] d
Epoch = 131.7507 [0.0033] BKJD
Rp/R* = 0.0047 [0.0015]
a/R* = 2.18 [3.05]
b = 0.88 [0.47]
Seff = 7399.49 [3476.02]
Teq = 2365 [278] K
Rp = 0.91 [0.41] Re
a = 0.0267 [0.0078] AU
Ag = 4.07 [3.37] [0.91σ]
Teffp = 5194 [926] K [2.93σ]

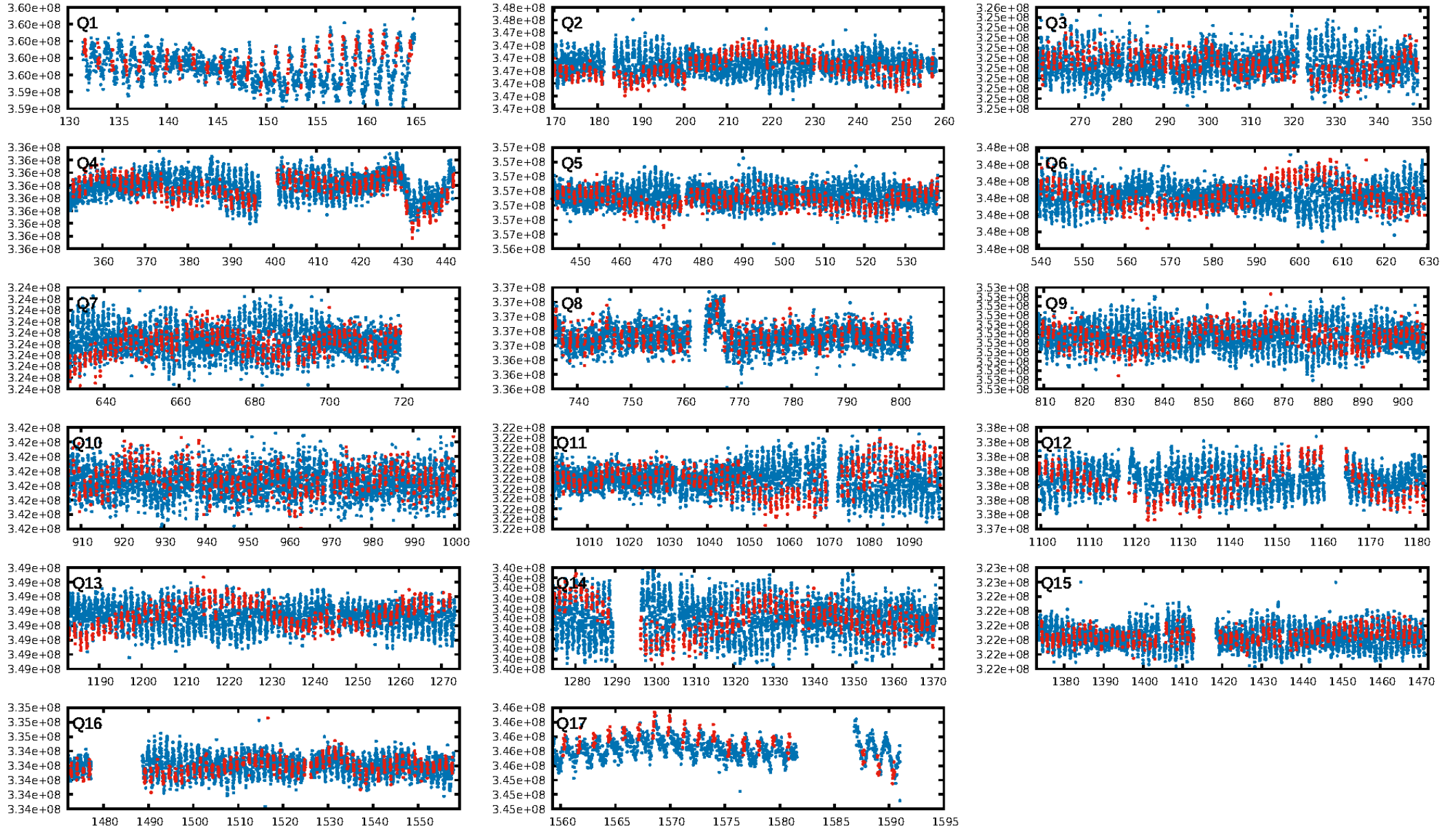
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.71e-13
RollingBand-fgt: 0.99 [929/940]
GhostDiagnostic-chr: 6.263
Centroid-sig: 53.7%
Centroid-so: 0.305 arcsec [0.41σ]
OotOffset-rm: 0.468 arcsec [0.85σ]
KicOffset-rm: 0.448 arcsec [0.74σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.73 [11/15]
DiffImageOverlap-fno: 1.00 [17/17]

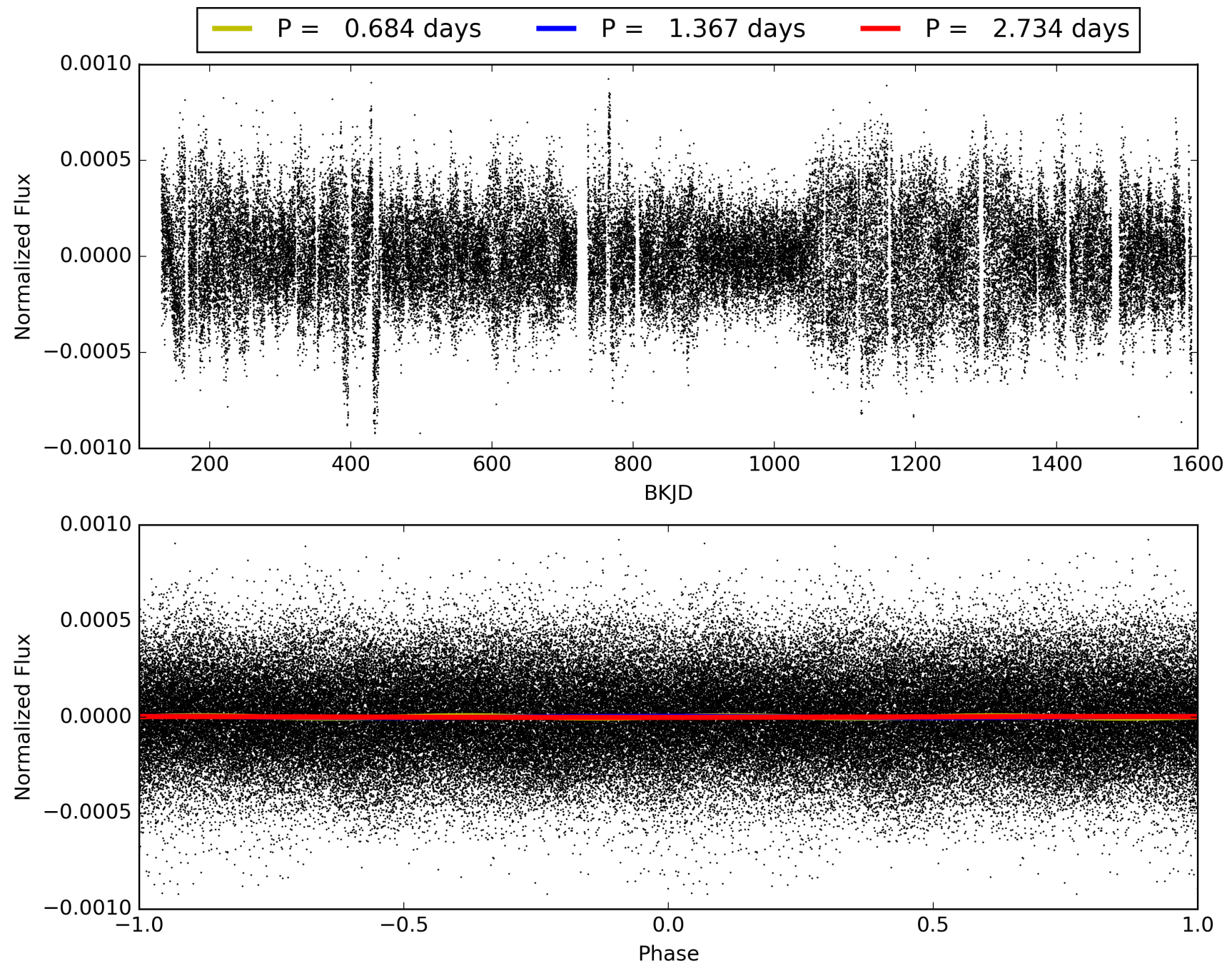
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:42:06 Z

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

TCE 006461219-01, PDC Light Curves

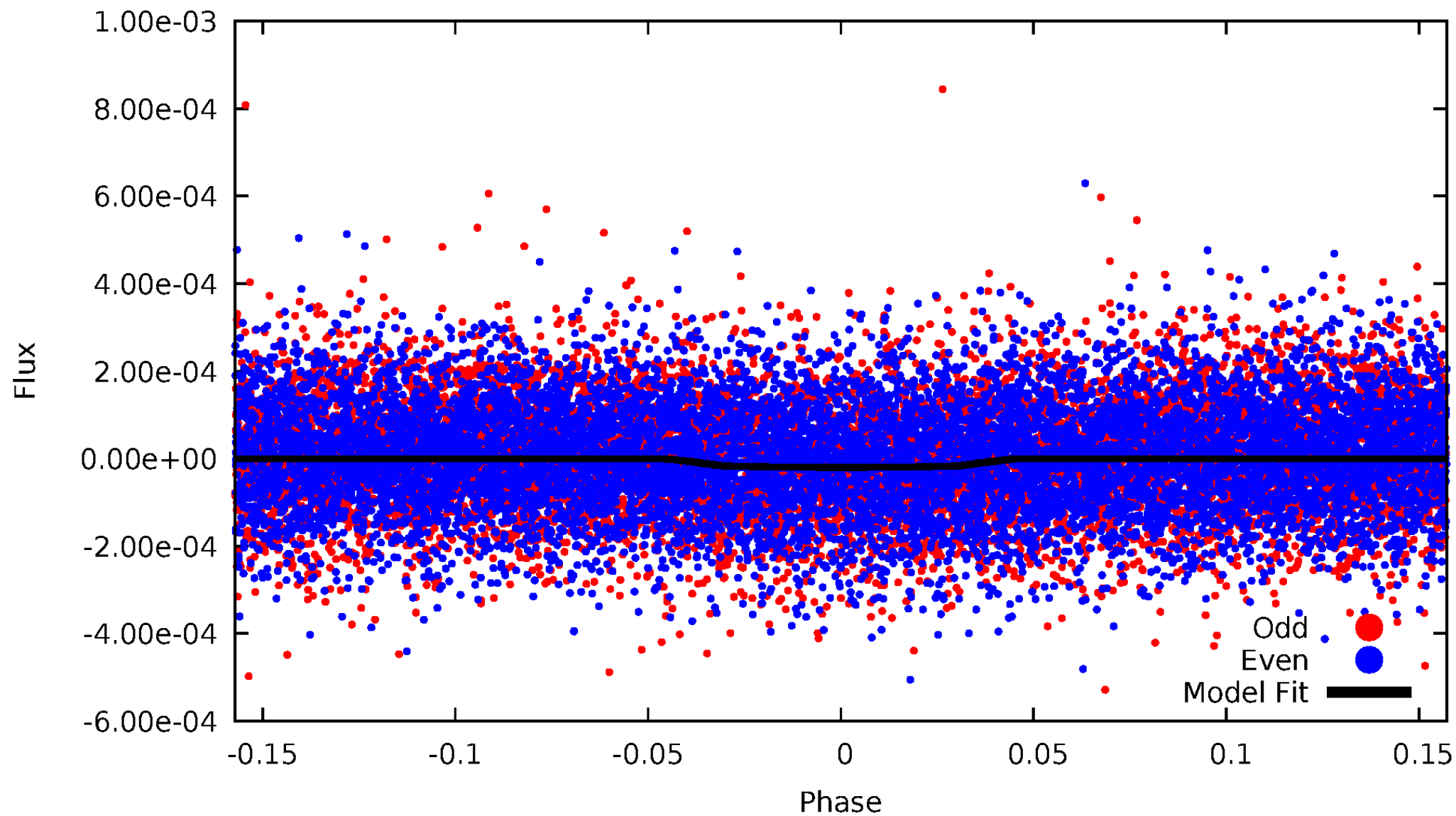


TCE 006461219-01



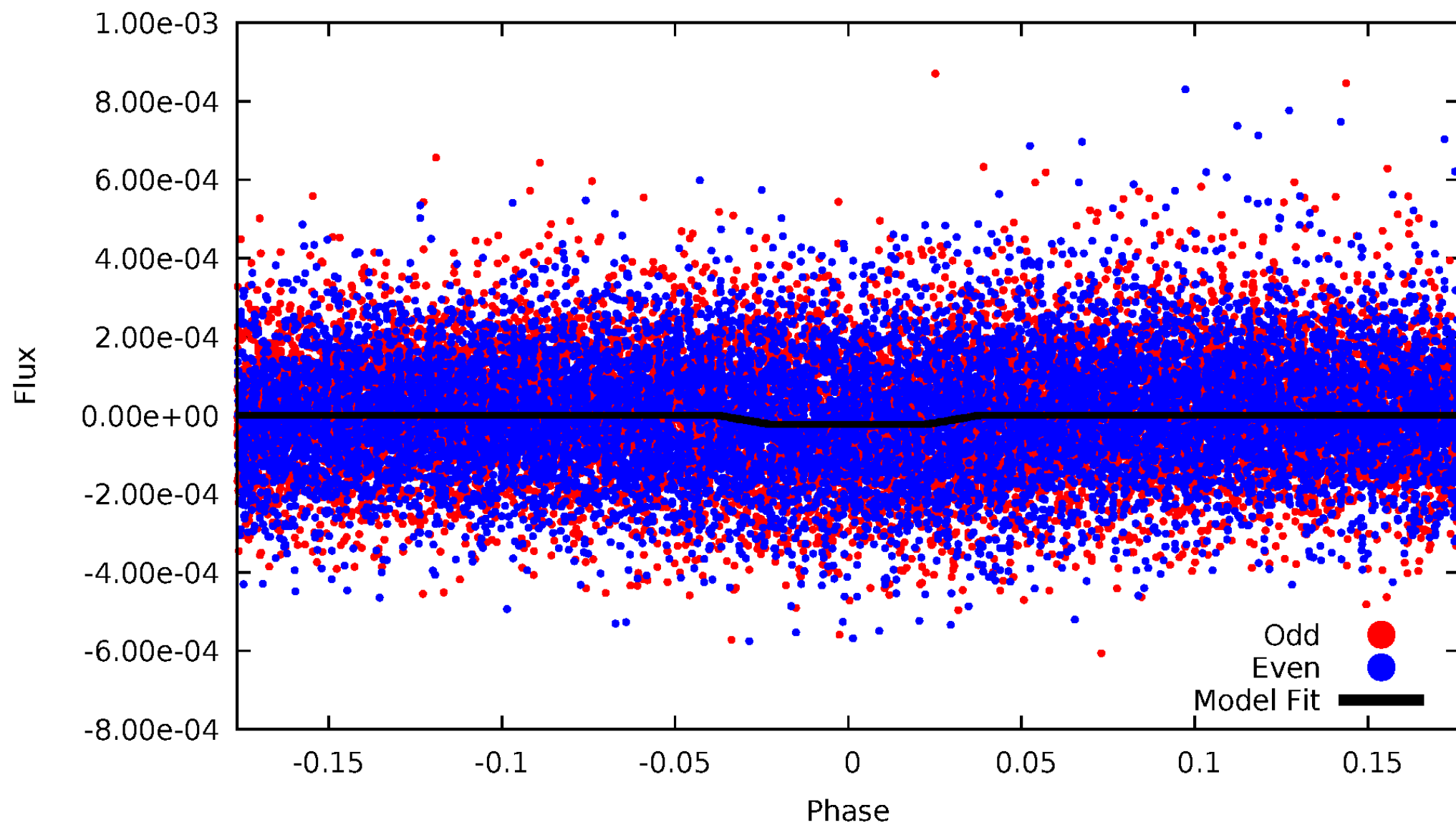
DV Odd/Even

TCE 006461219-01

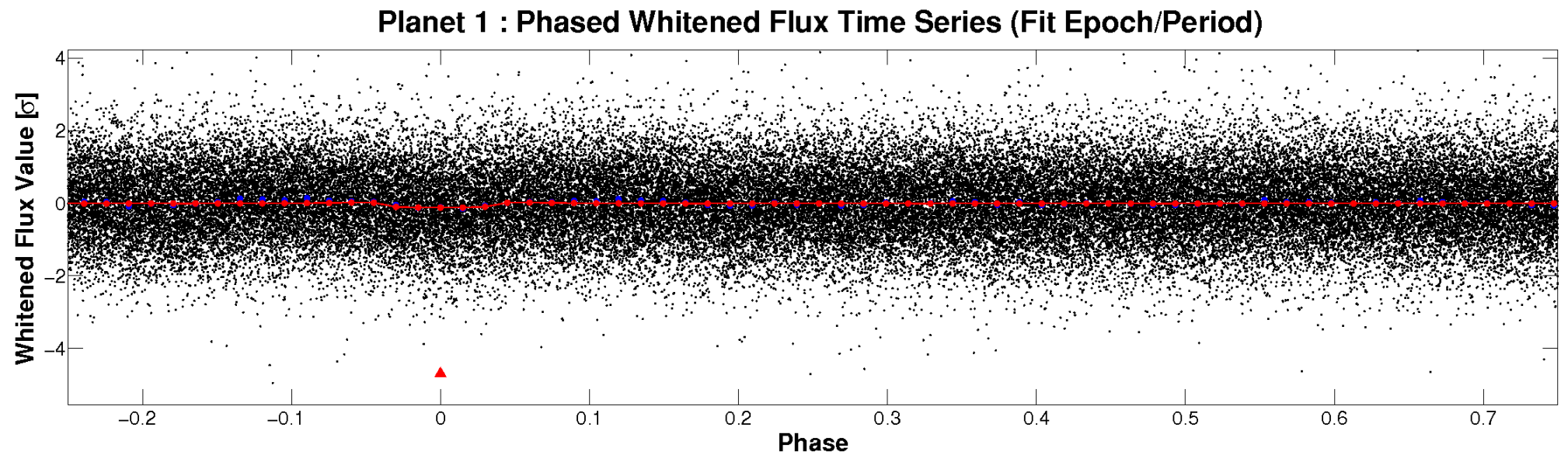
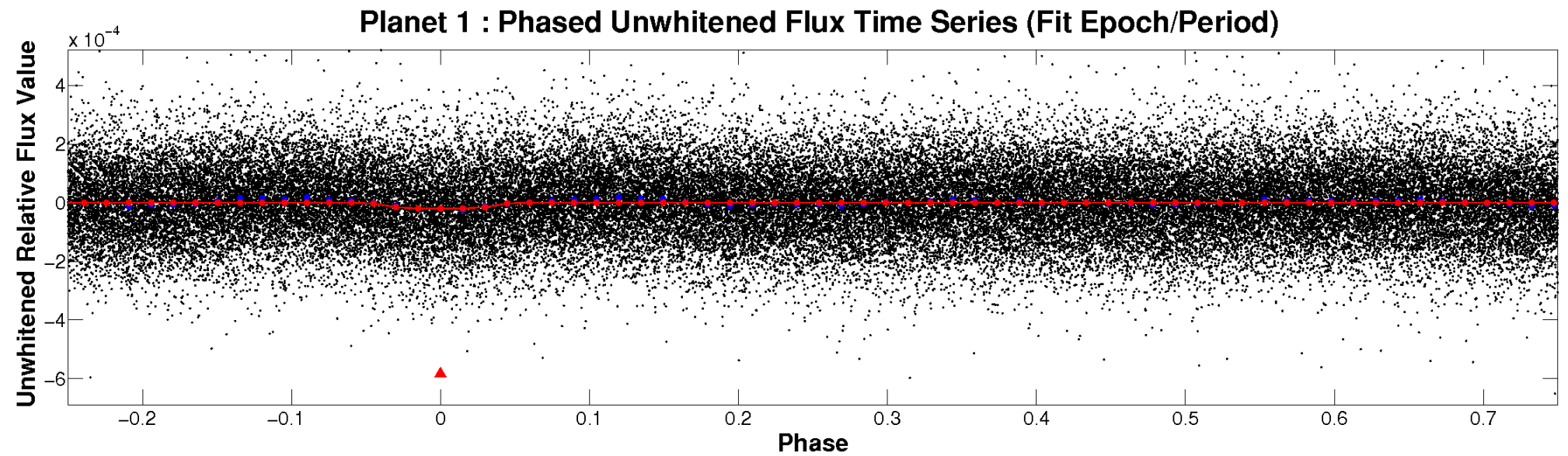


ALT Odd/Even

TCE 006461219-01

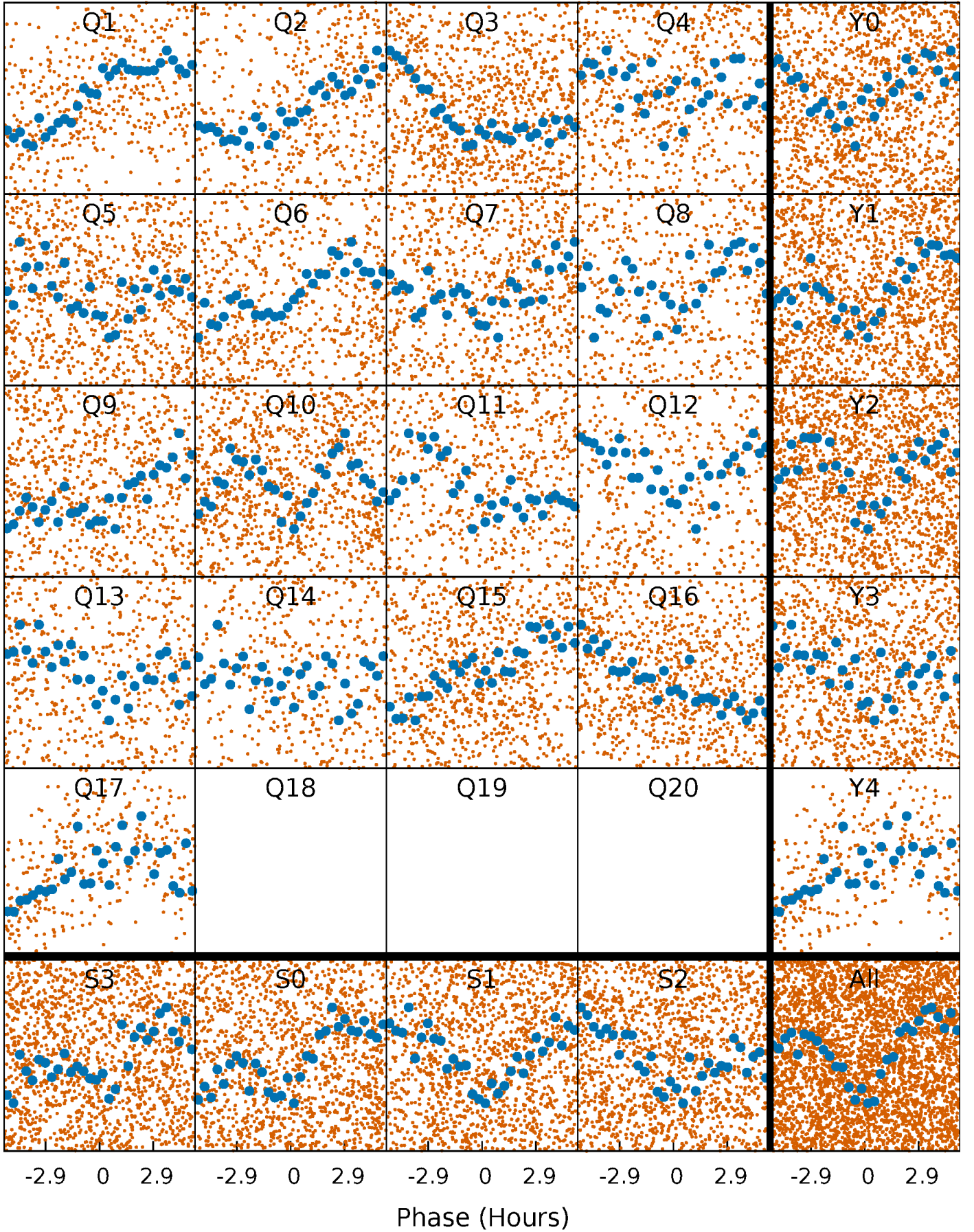


Non-Whitened Vs. Whitened Light Curve



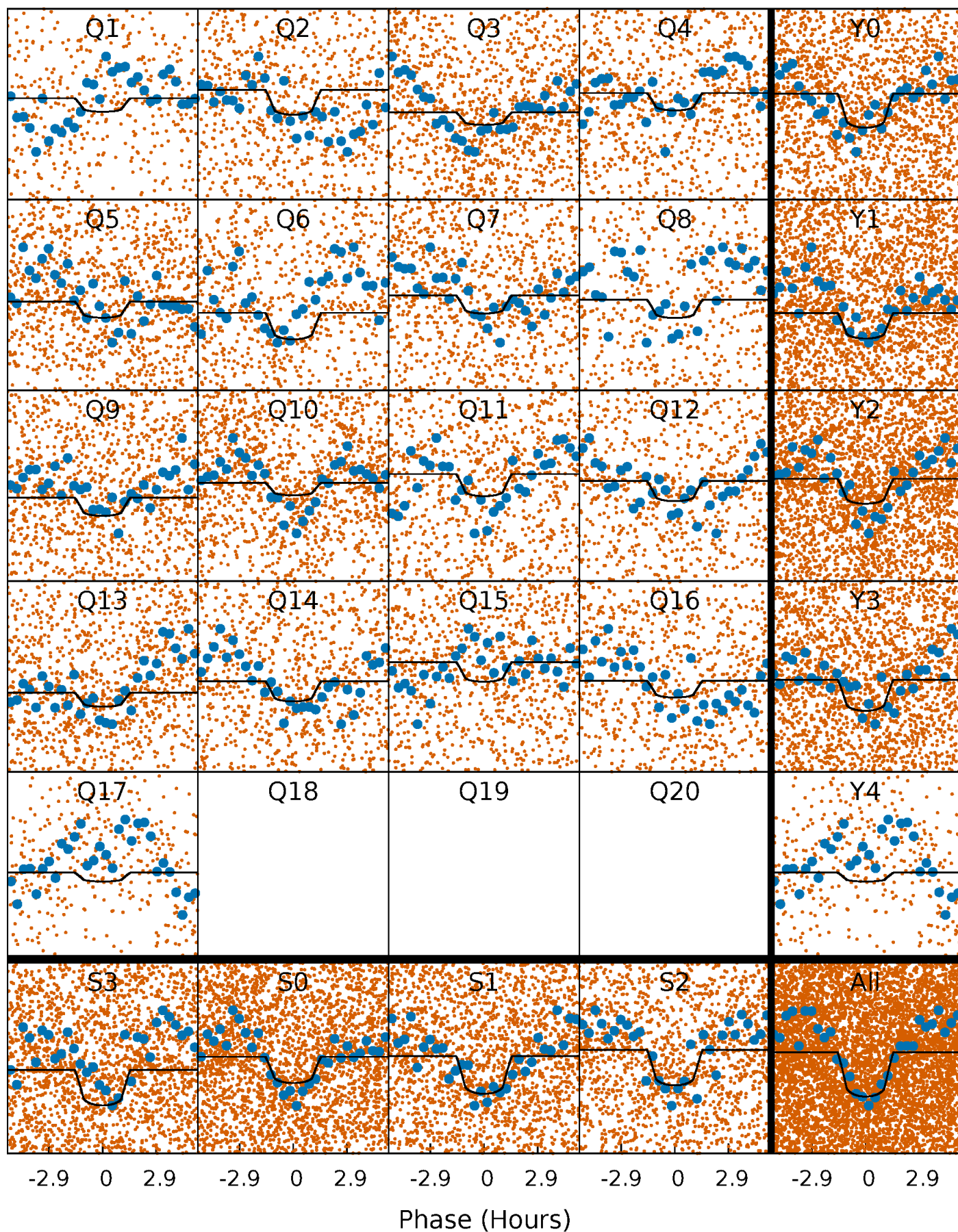
PDC Quarter-Phased Transit Curves

TCE 006461219-01 P= 1.367042 Days $T_0=131.750726$ (BKJD)



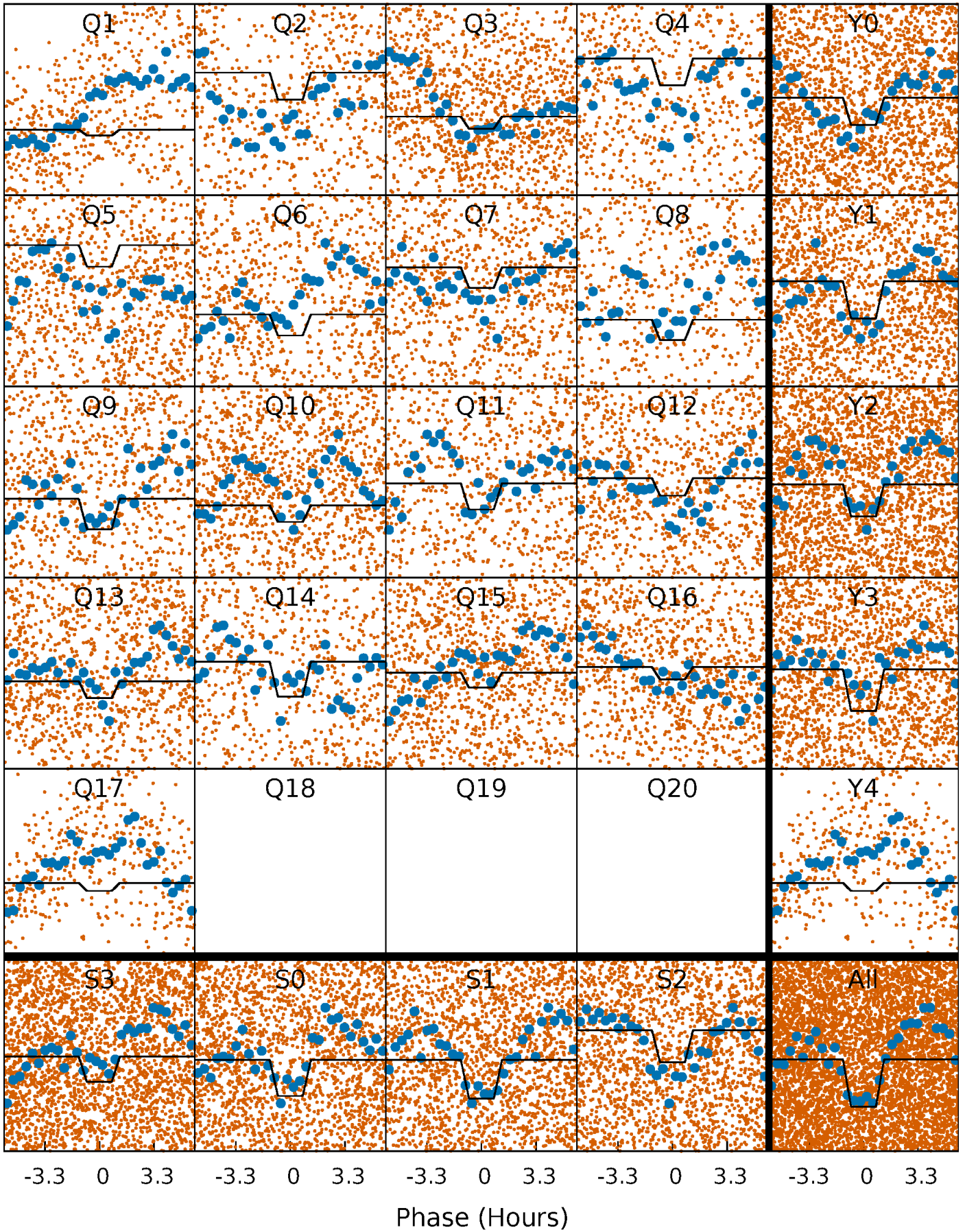
DV Quarter-Phased Transit Curves

TCE 006461219-01 P= 1.367042 Days $T_0=131.750726$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

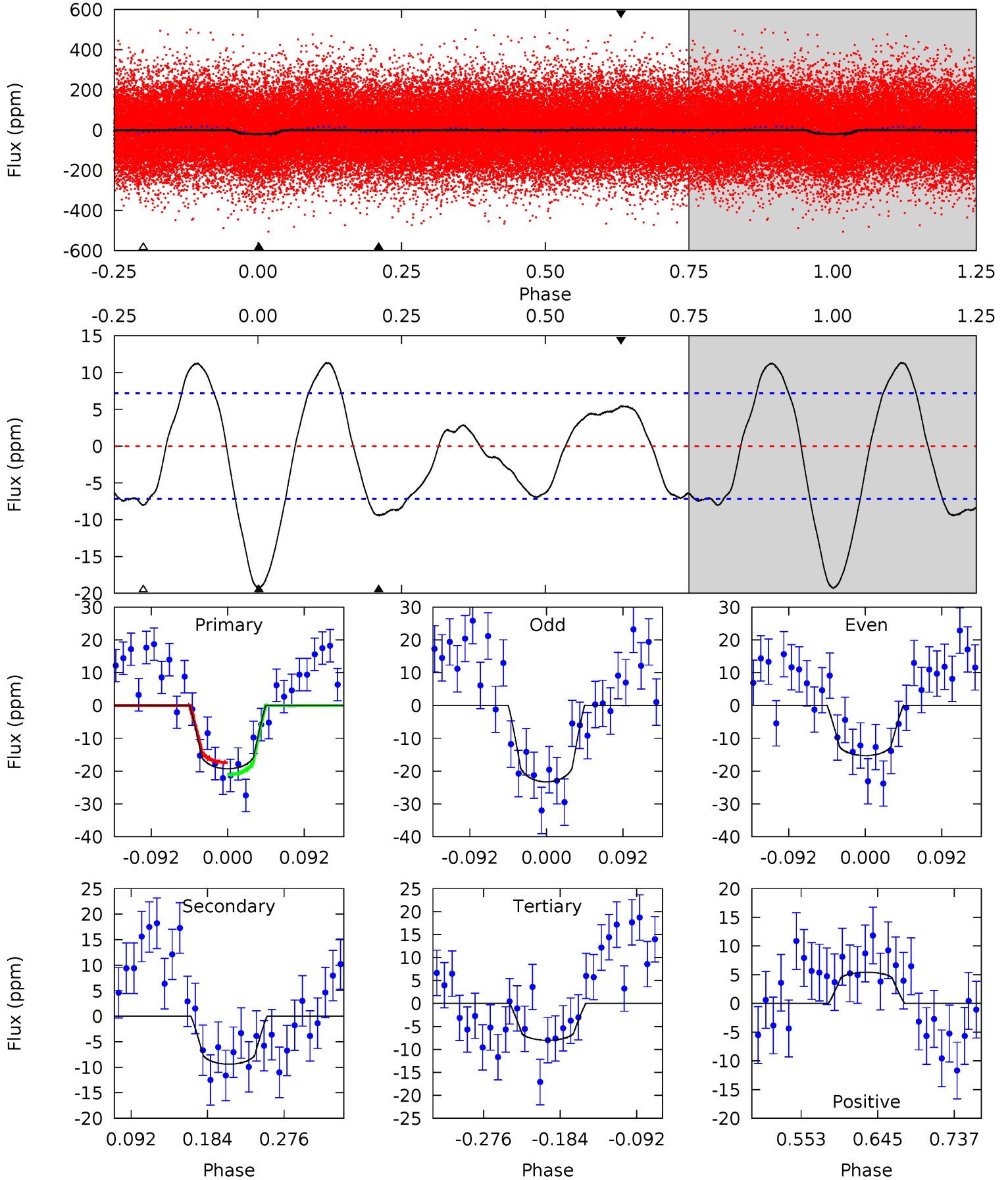
TCE 006461219-01 P= 1.367051 Days $T_0=131.743096$ (BKJD)



DV Model-Shift Uniqueness Test

006461219-01, P = 1.367042 Days, E = 130.383684 Days

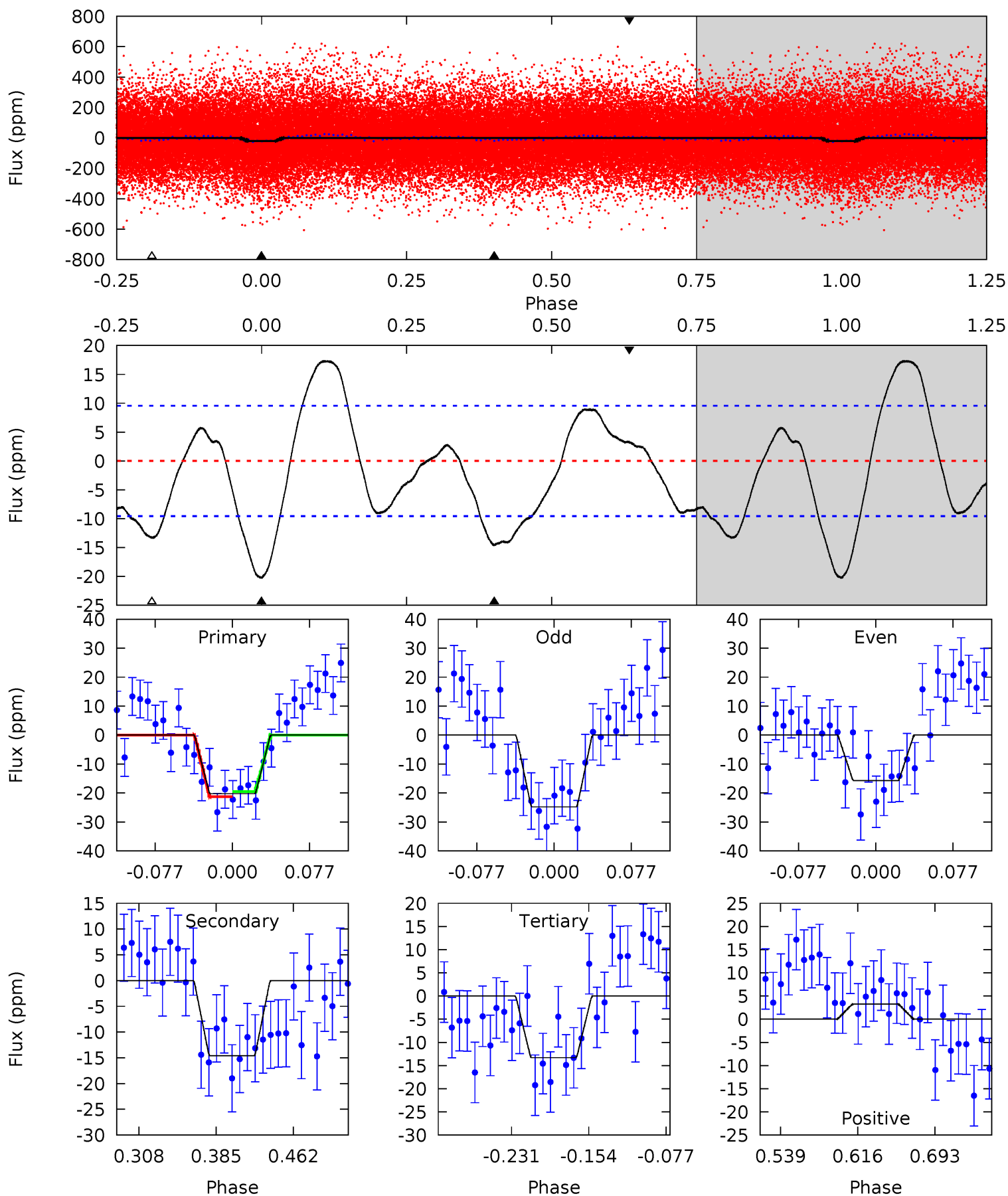
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	5.99	5.11	3.47	4.58	1.68	3.50	7.19	8.83	0.88	2.53	2.56	0.94	0.37	1.17



Alt Model-Shift Uniqueness Test

006461219-01, P = 1.367051 Days, E = 130.376045 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.78	7.05	6.43	1.58	4.62	1.77	3.81	3.35	8.20	0.62	5.47	2.20	0.79	0.46	0.43



Stellar Parameters For KIC 006461219

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6573^{+181}_{-250}	$4.072^{+0.252}_{-0.168}$	$-0.080^{+0.250}_{-0.300}$	$1.776^{+0.530}_{-0.583}$	$1.365^{+0.182}_{-0.273}$	$0.343^{+0.527}_{-0.157}$
	+3%/-4%	+6%/-4%	+312%/-375%	+30%/-33%	+13%/-20%	+154%/-46%
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 006461219-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9 ± 2	$0.88^{+0.35}_{-0.30}$	3273^{+273}_{-301}	5237^{+1085}_{-666}	$4.814^{+5.791}_{-2.476}$
Alt.	-15 ± 2	$0.90^{+0.36}_{-0.32}$	3270^{+266}_{-275}	5748^{+1333}_{-743}	$6.705^{+9.329}_{-3.082}$

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

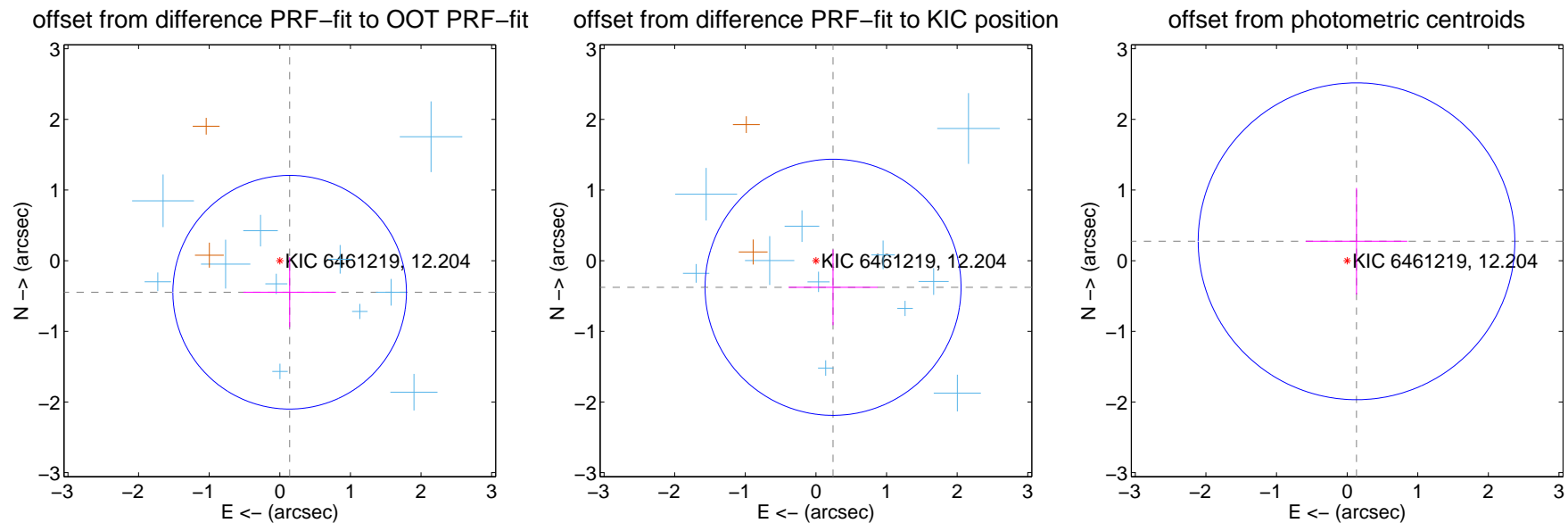
DV Centroid Data

Supplemental centroid analysis for 006461219-01. Kepler magnitude: 12.20. Transit SNR 7.69

There are 11 quarters with good PRF difference image offsets

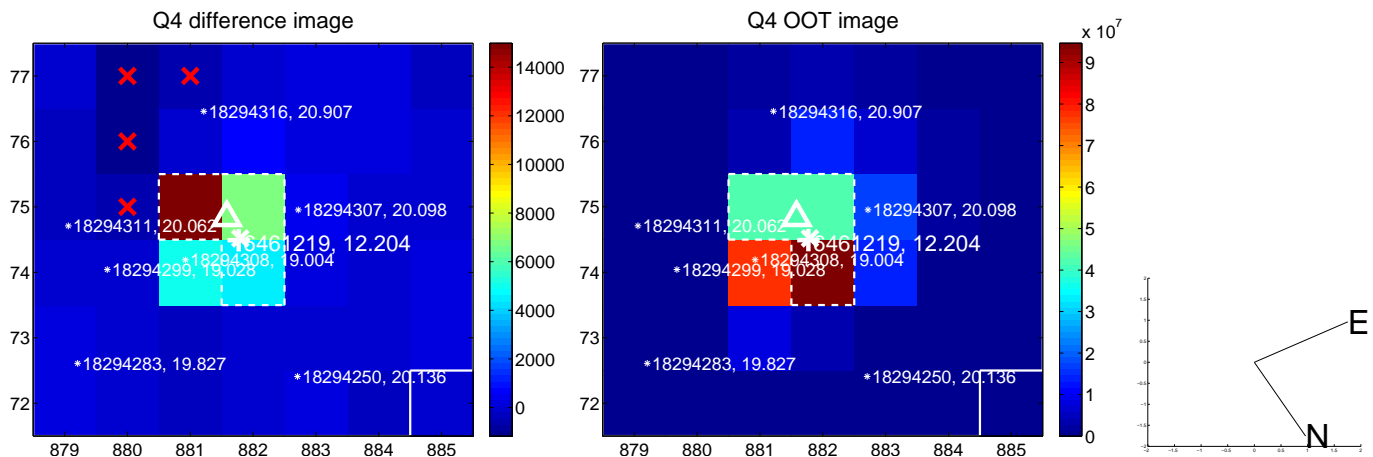
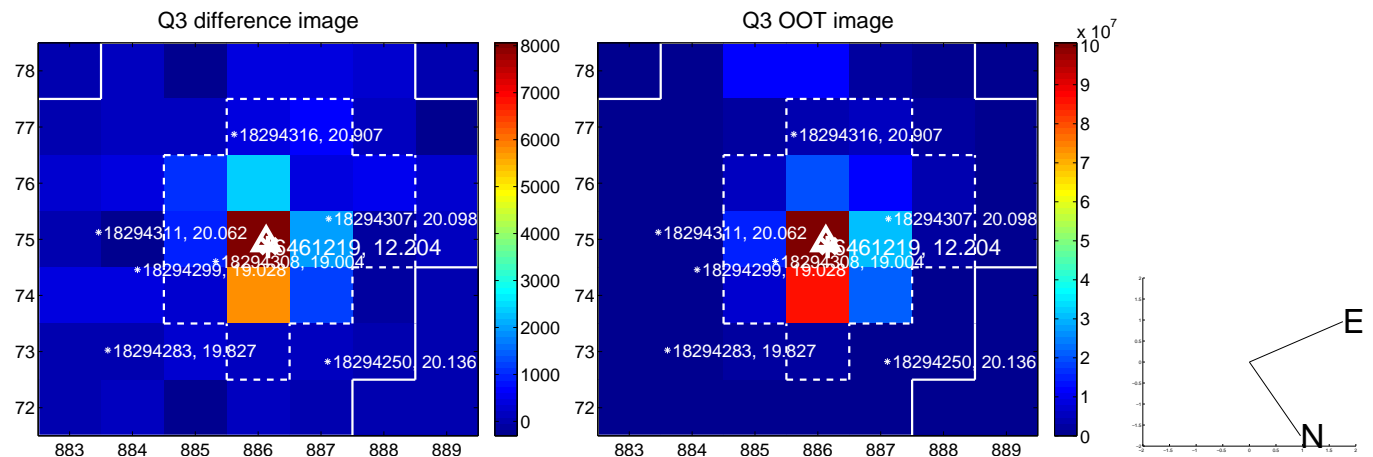
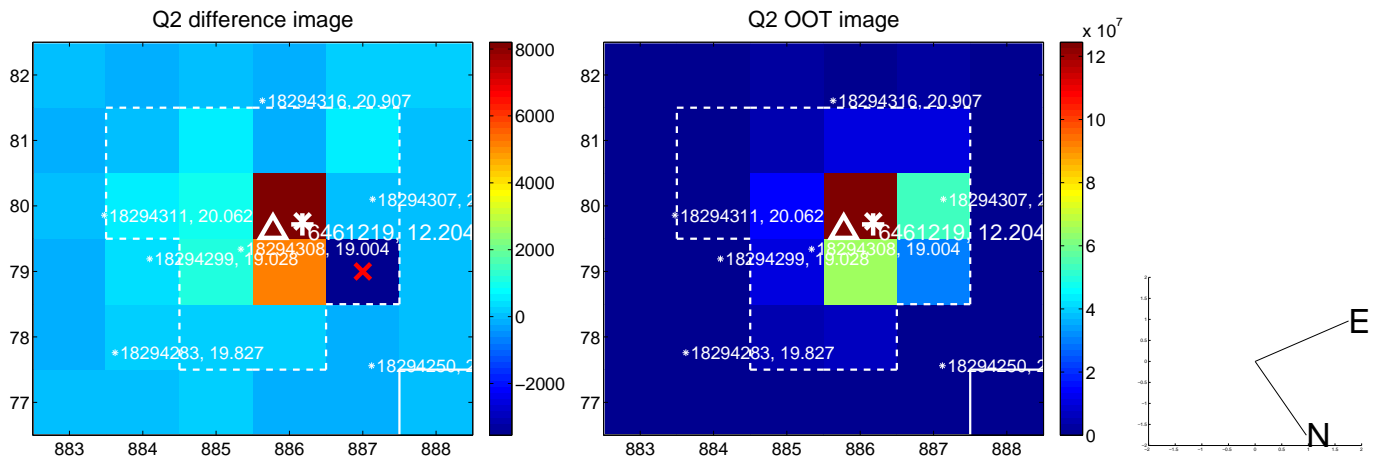
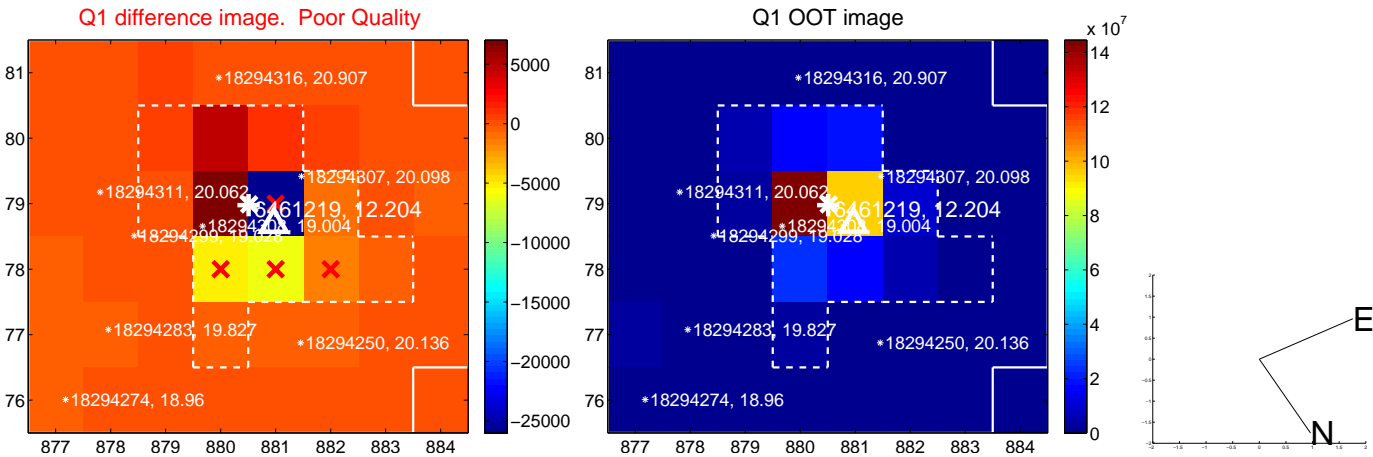
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.468 ± 0.551	0.85	-0.140 ± 0.655	-0.446 ± 0.495
PRF-fit source offset from KIC position	0.448 ± 0.604	0.74	-0.243 ± 0.631	-0.376 ± 0.535
photometric centroid source offset	0.31 ± 0.75	0.41	-0.13 ± 0.72	0.27 ± 0.75

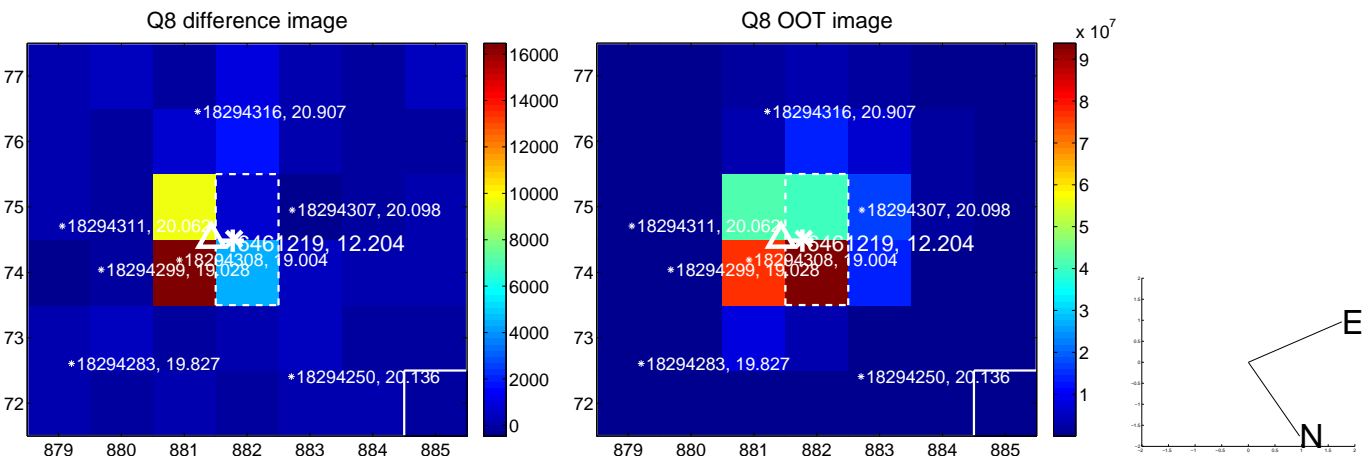
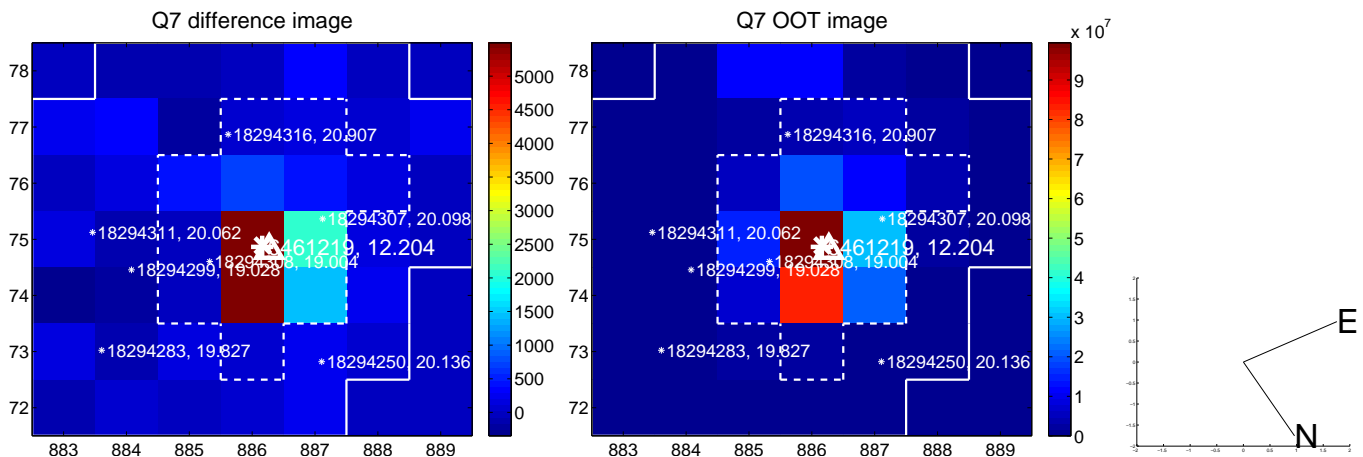
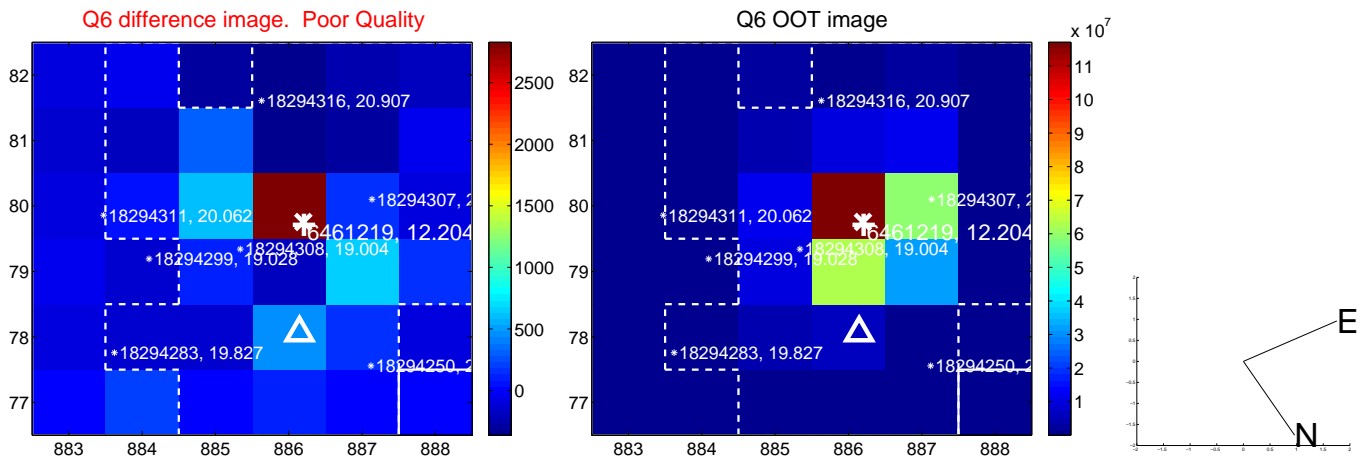
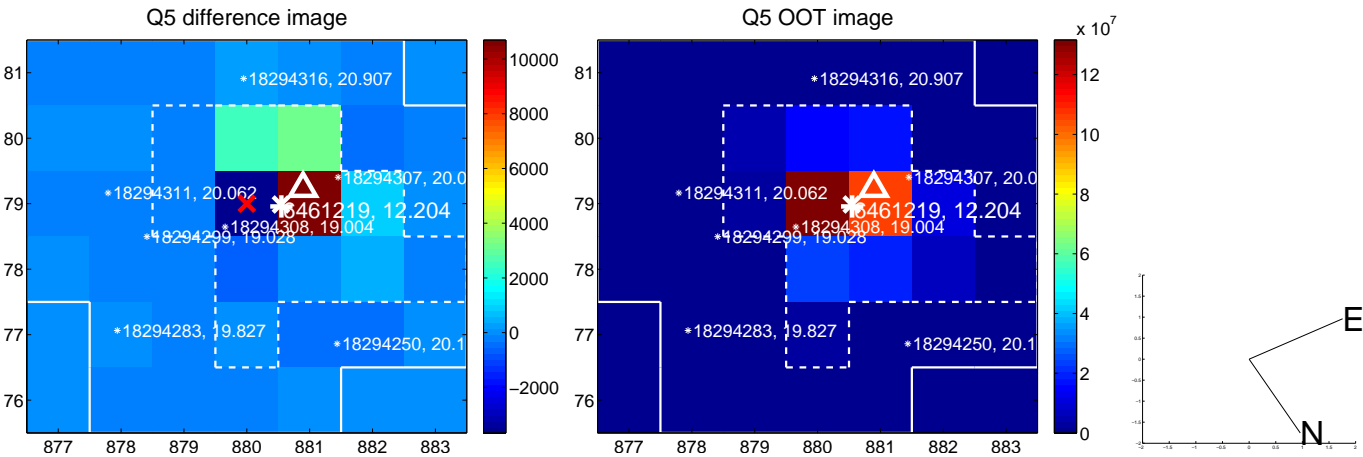


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

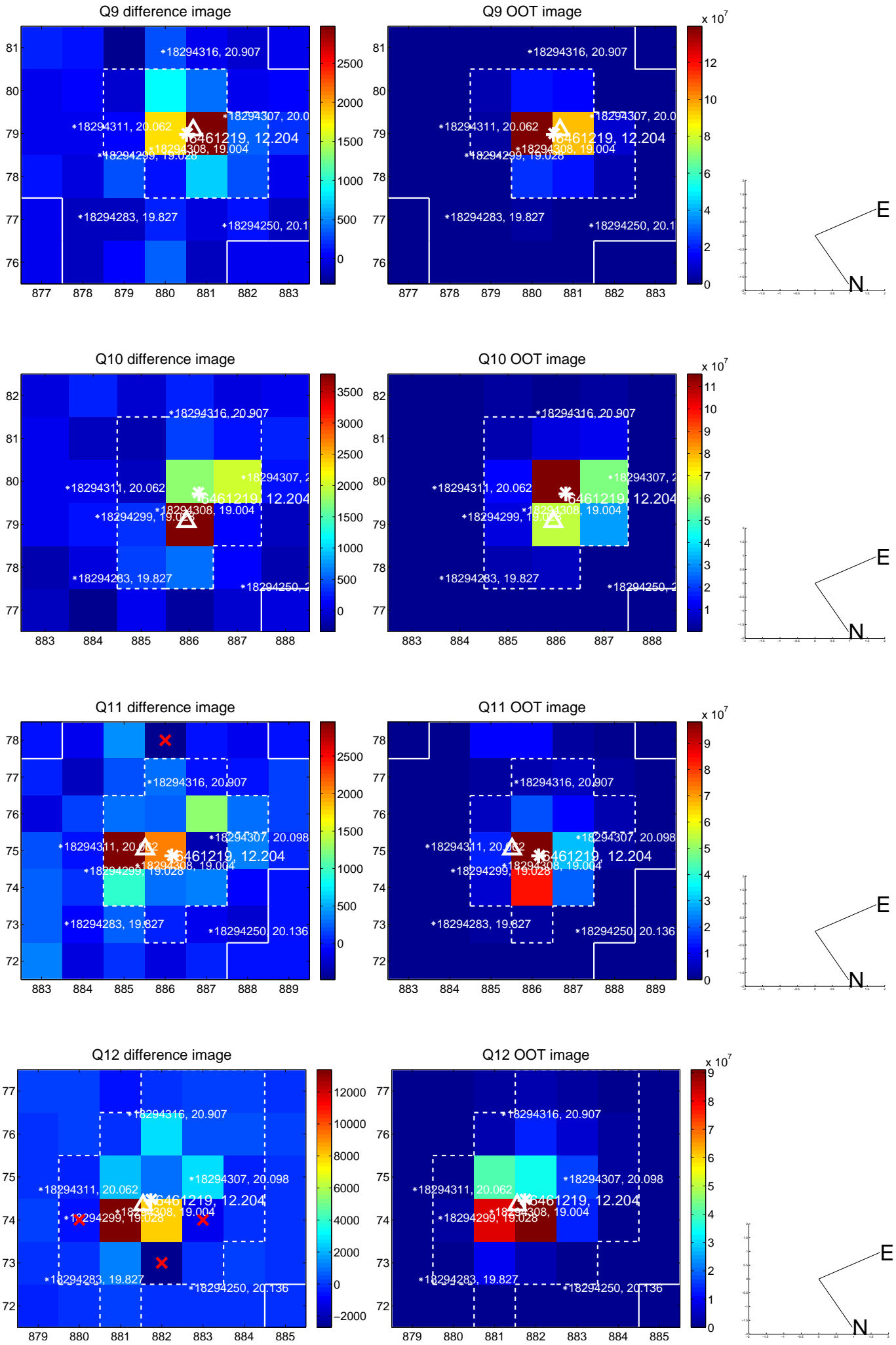
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



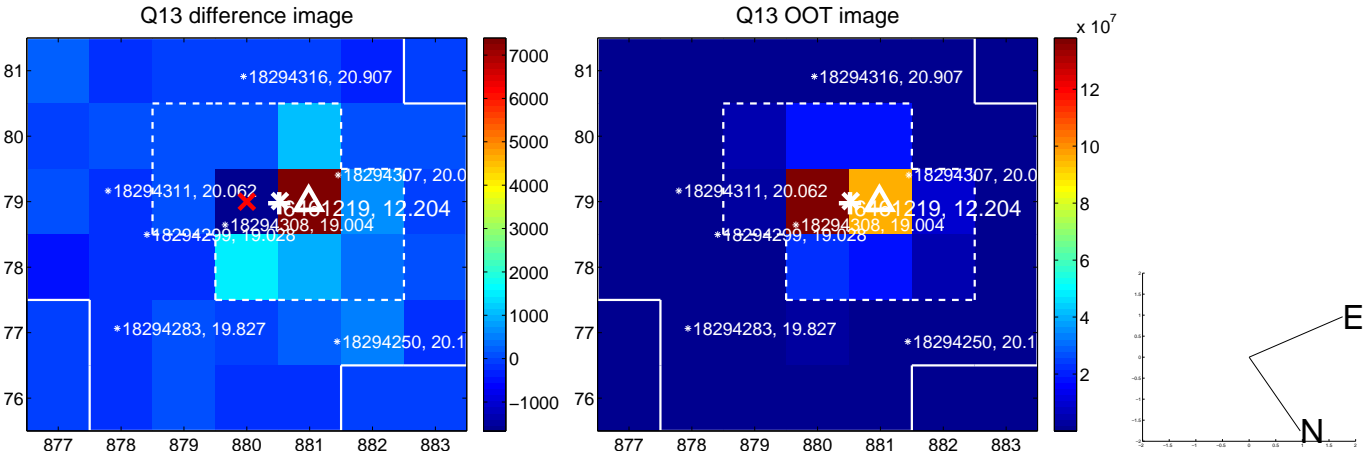
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



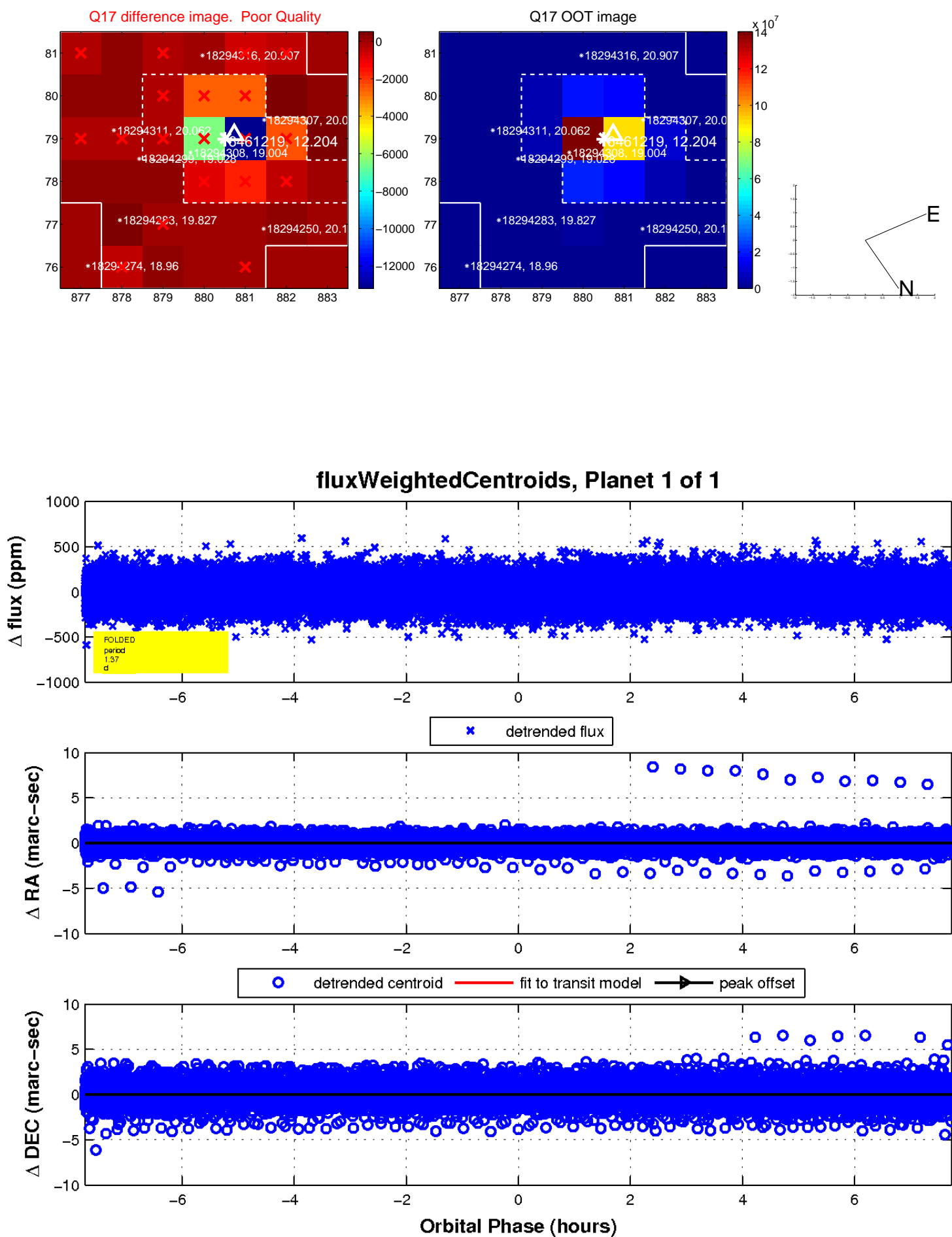
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

