

KIC 006922244

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})
006922244-01	OBS	0010.01	3.522498	131.686957	9139.9	3.271	1725.6	1687.0	1.45	6225	14.89	1268.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006922244-01	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.

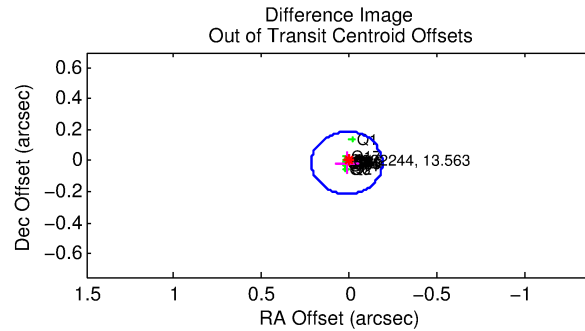
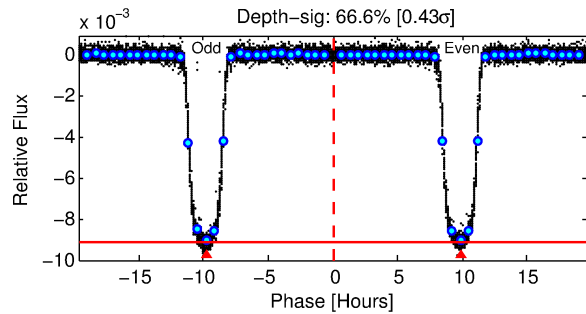
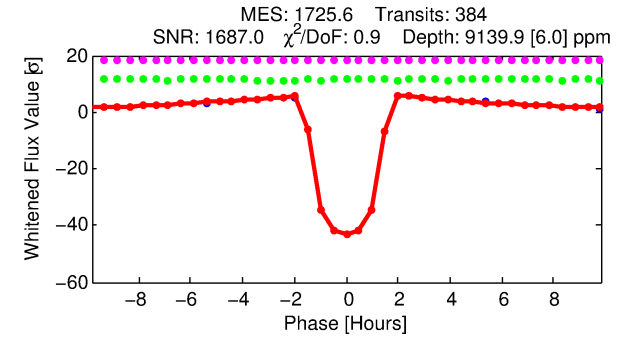
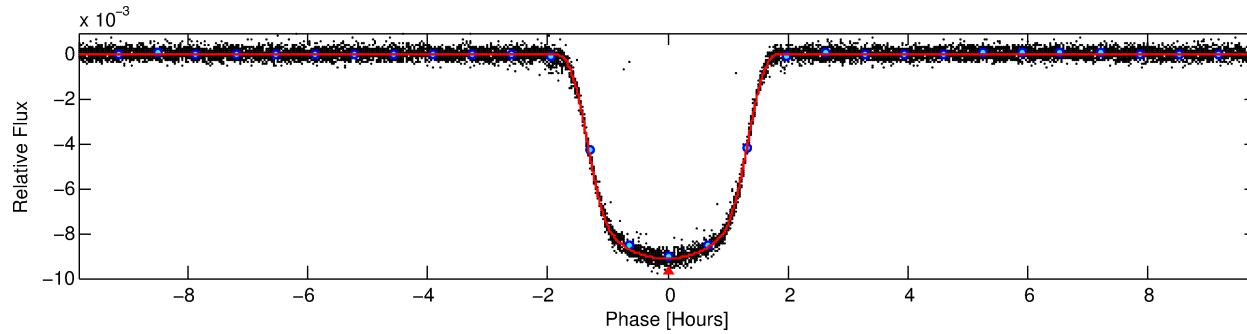
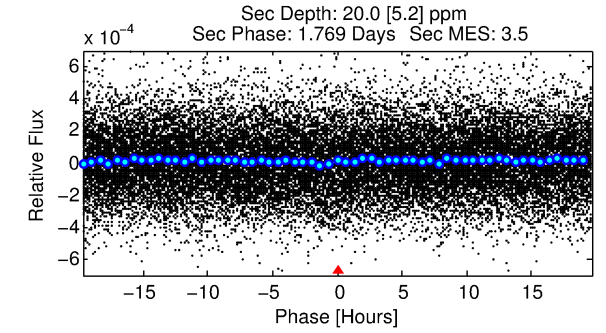
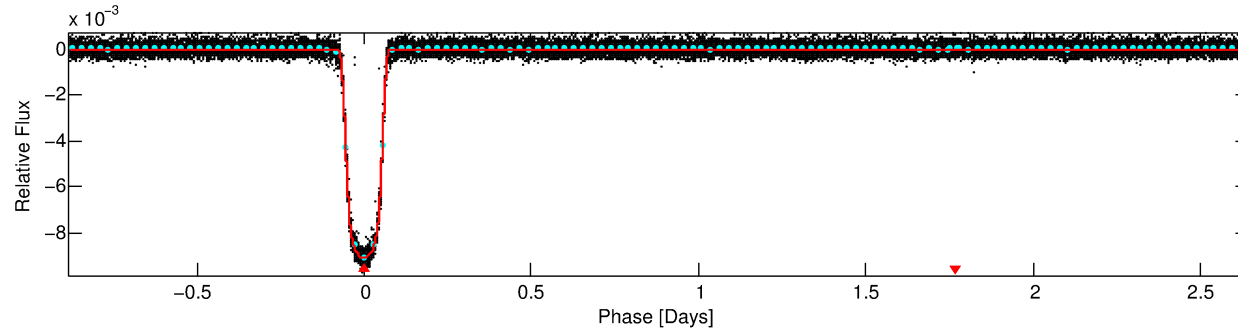
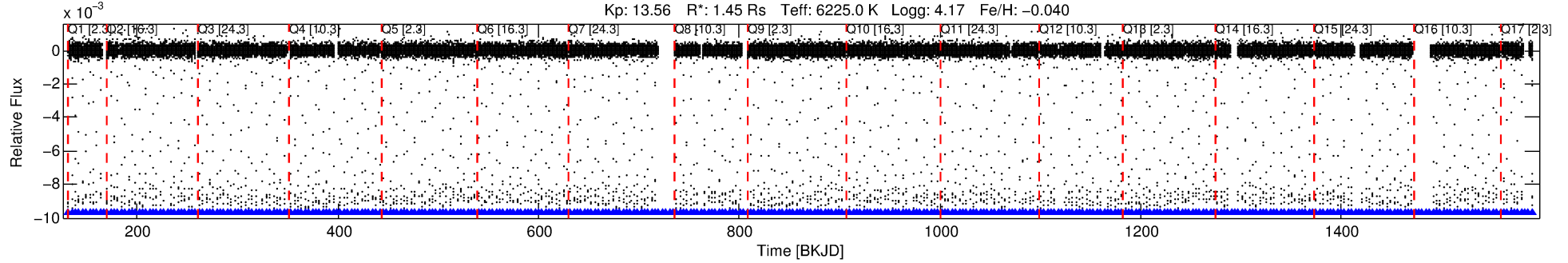
Ephemeris Match Information For 006922244-01

No Significant Match Found

DV One-Page Summary

KIC: 6922244 Candidate: 1 of 1 Period: 3.522 d
KOI: K00010.01 Name: Kepler-8b Corr: 0.988

Kp: 13.56 R*: 1.45 Rs Teff: 6225.0 K Logg: 4.17 Fe/H: -0.040



DV Fit Results:

Period = 3.52250 [0.00000] d
Epoch = 131.6870 [0.0000] BKJD
Rp/R* = 0.0941 [0.0001]
a/R* = 6.93 [0.03]
b = 0.71 [0.00]
Seff = 1268.90 [167.53]
Teq = 1522 [50] K
Rp = 14.89 [1.13] Re
a = 0.0472 [0.0031] AU
Ag = 0.11 [0.03] [-28.98σ]
Teffp = 1357 [93] K [-1.56σ]

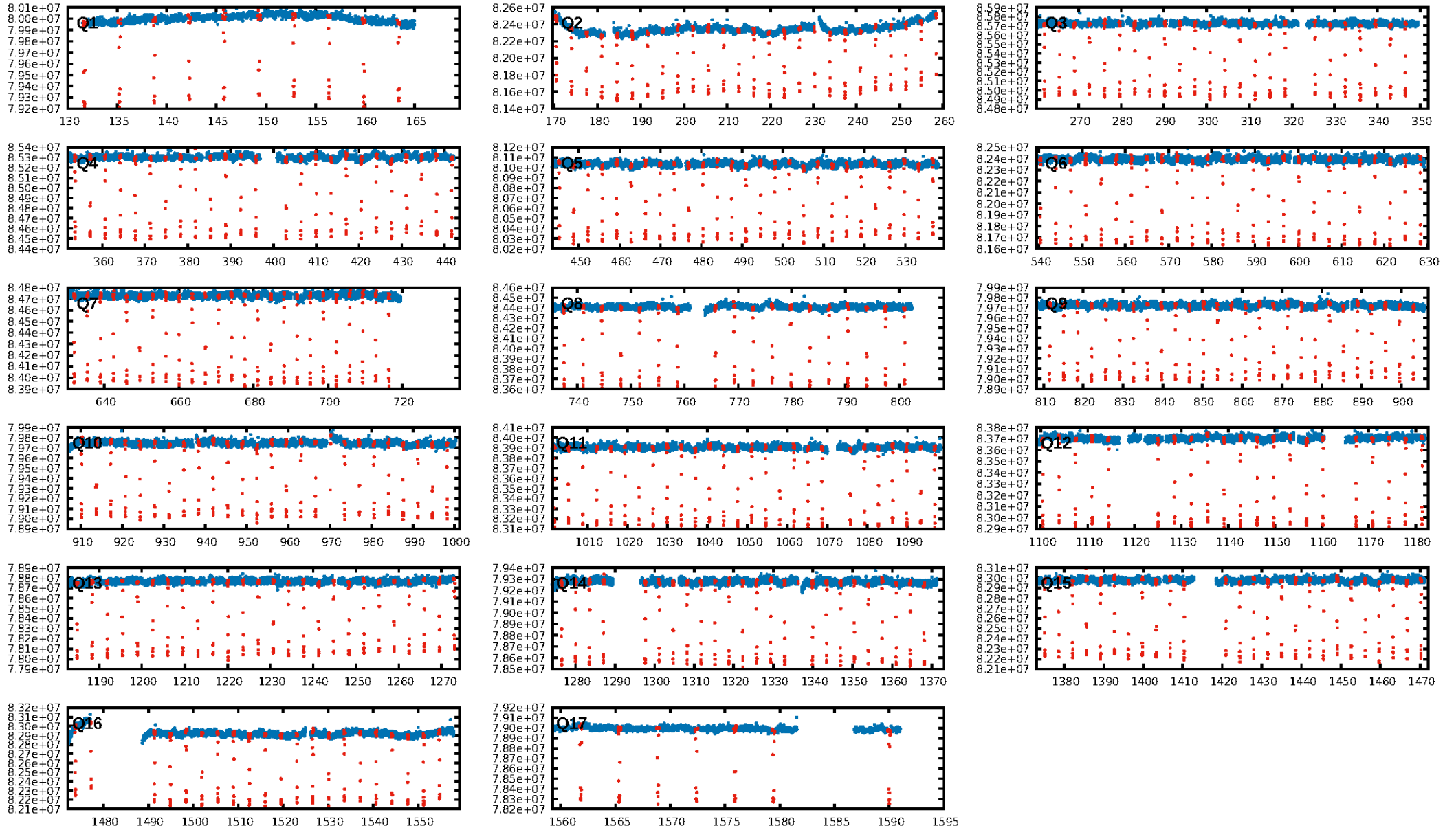
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [367/367]
GhostDiagnostic-chr: 4.36
Centroid-sig: 0.0%
Centroid-so: 0.555 arcsec [64.12σ]
OotOffset-rm: 0.020 arcsec [0.29σ]
KicOffset-rm: 0.178 arcsec [2.62σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

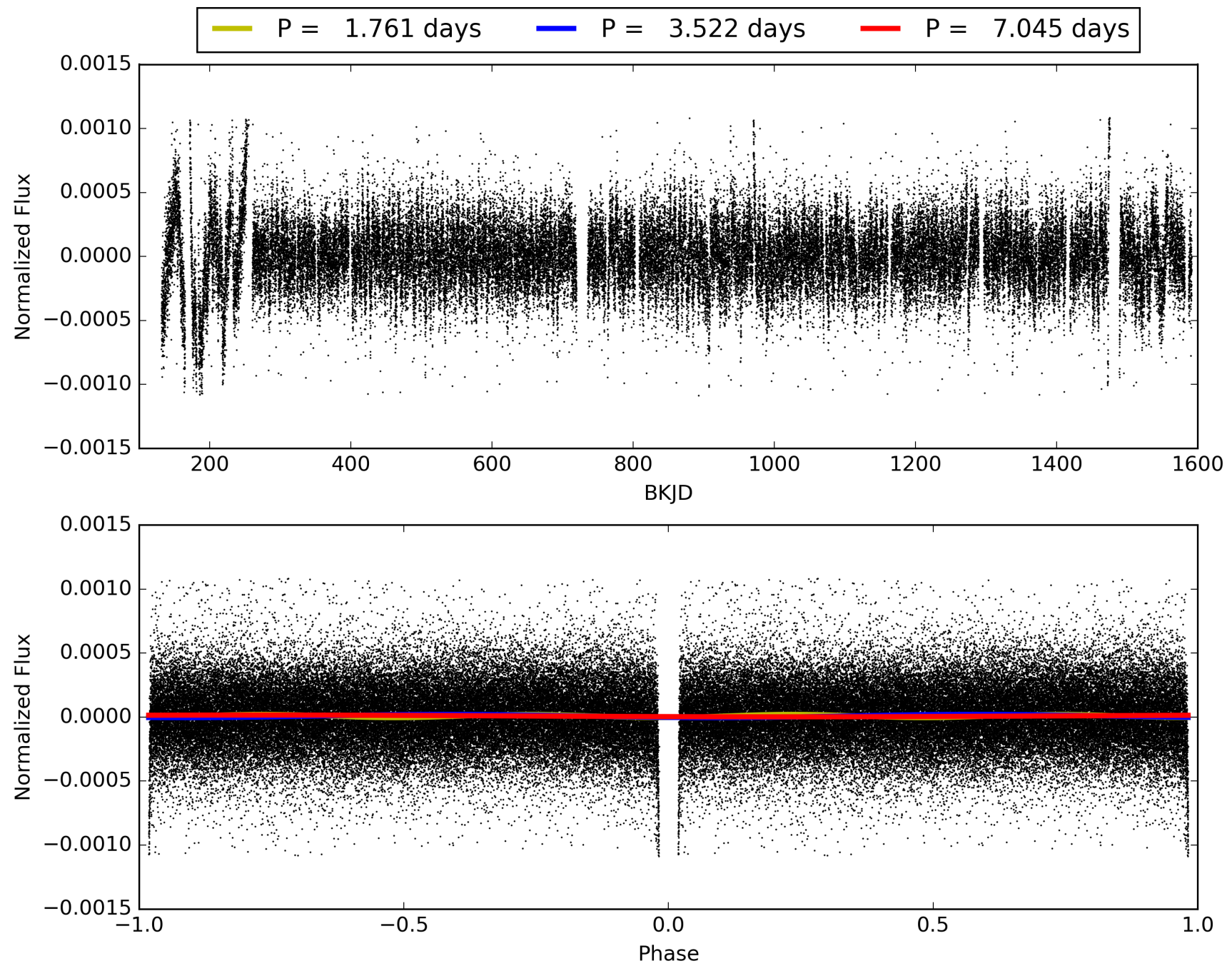
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:24:24 Z

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

TCE 006922244-01, PDC Light Curves

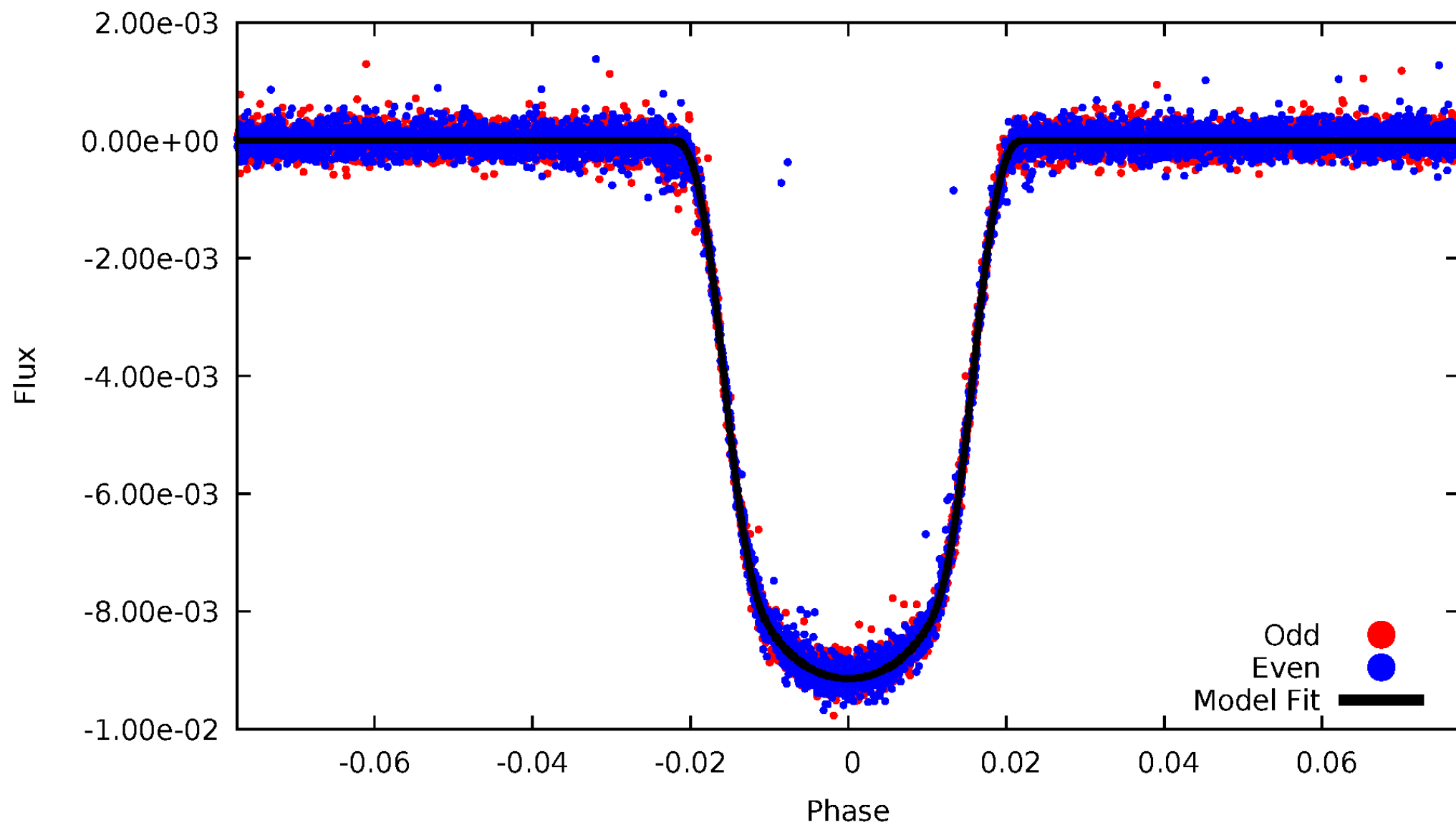


TCE 006922244-01



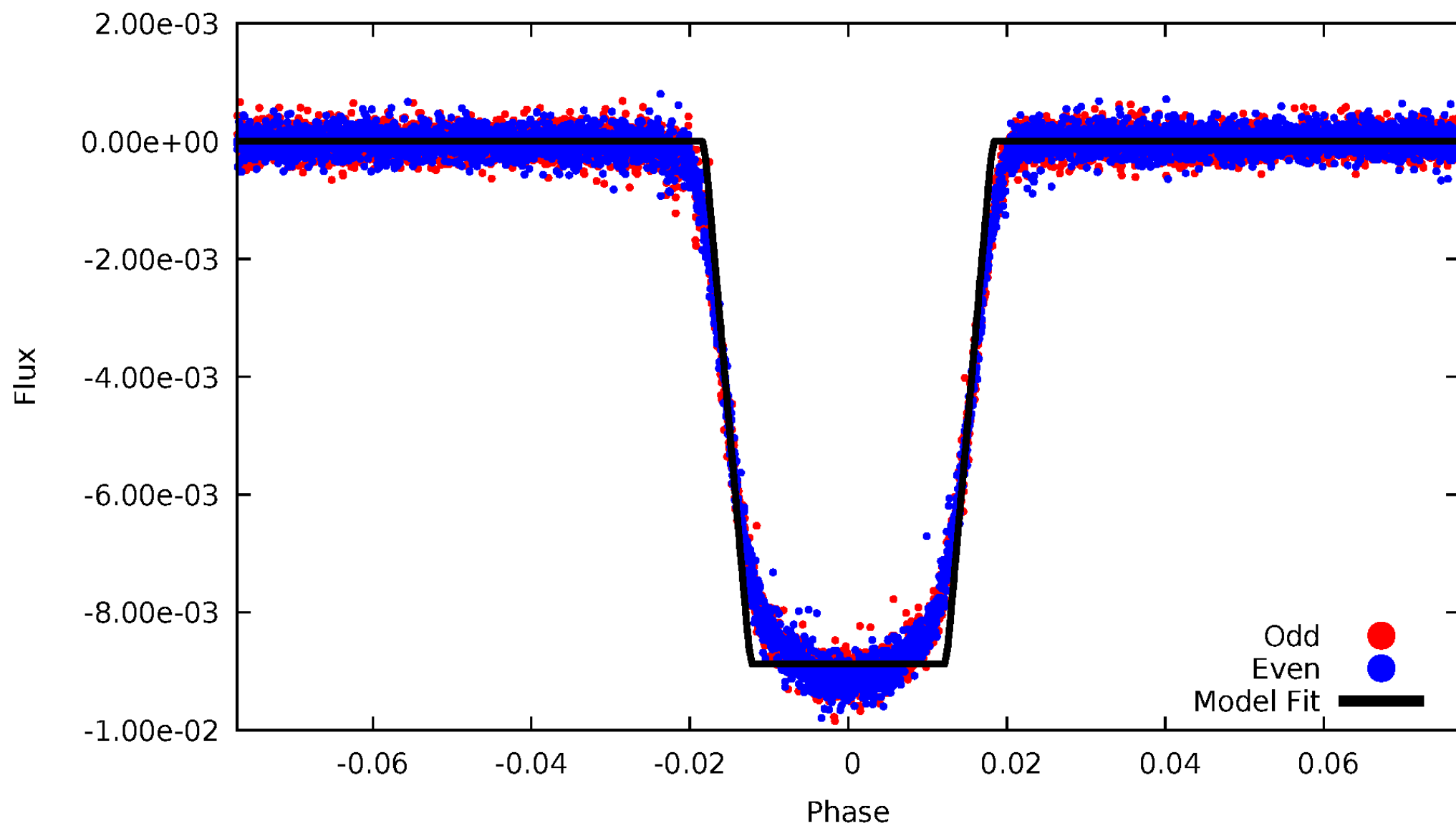
DV Odd/Even

TCE 006922244-01



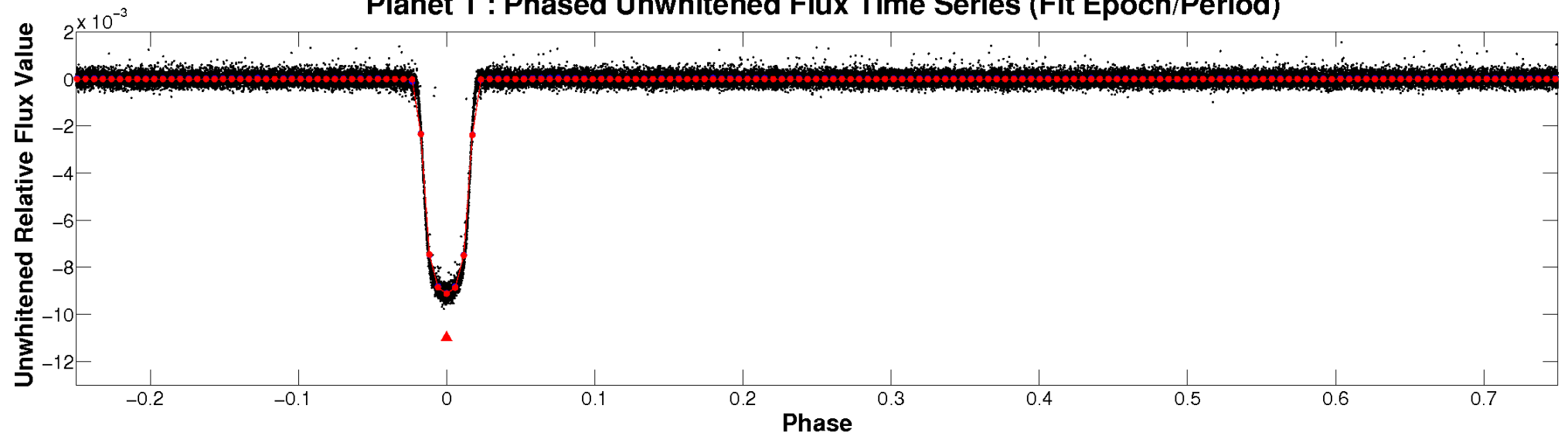
ALT Odd/Even

TCE 006922244-01

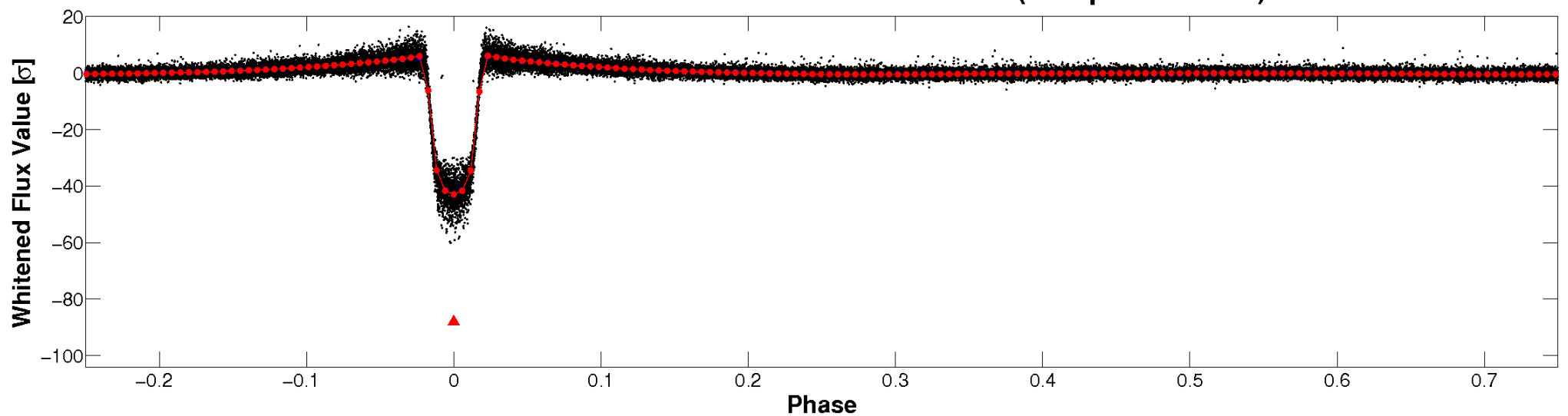


Non-Whitened Vs. Whitened Light Curve

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

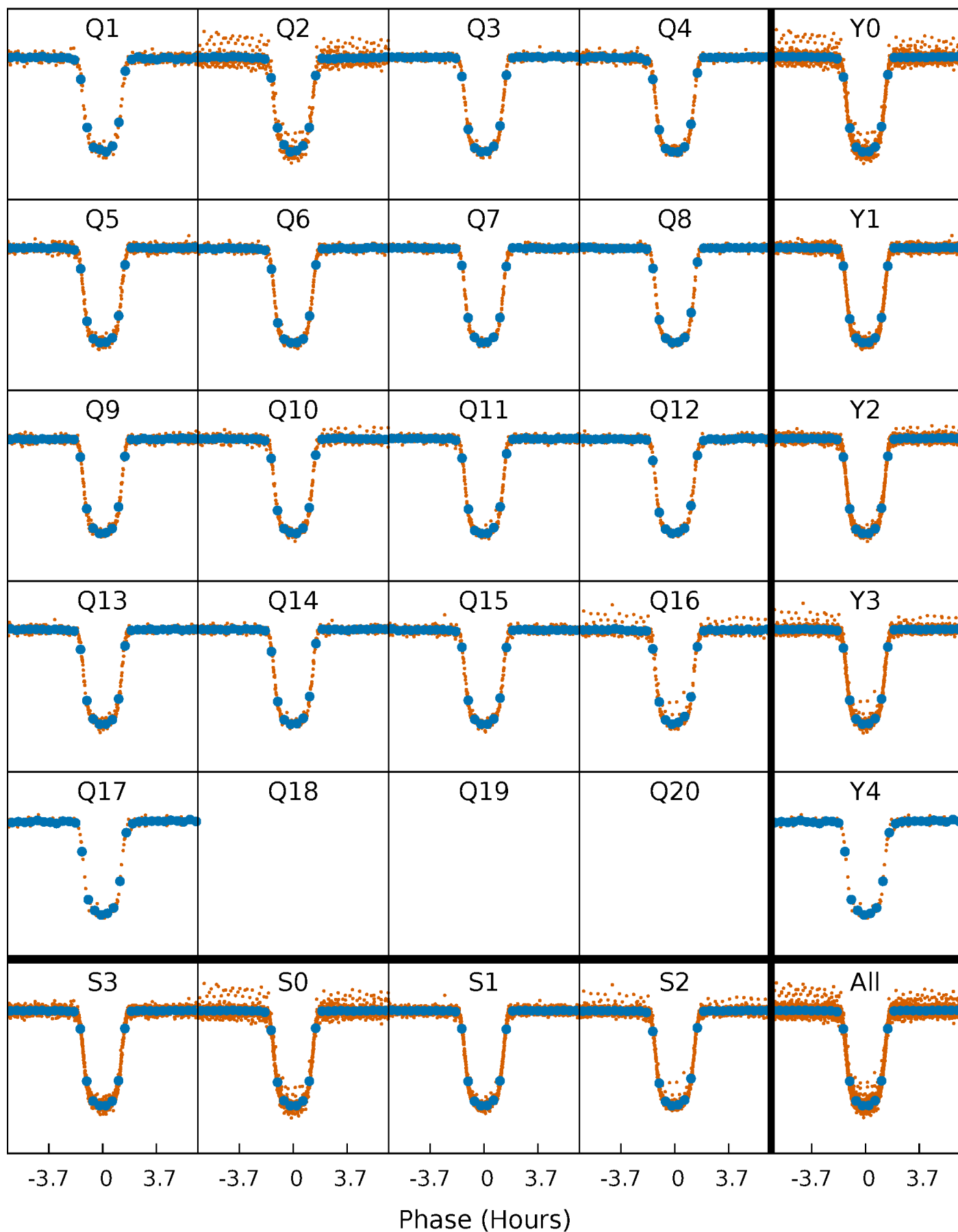


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



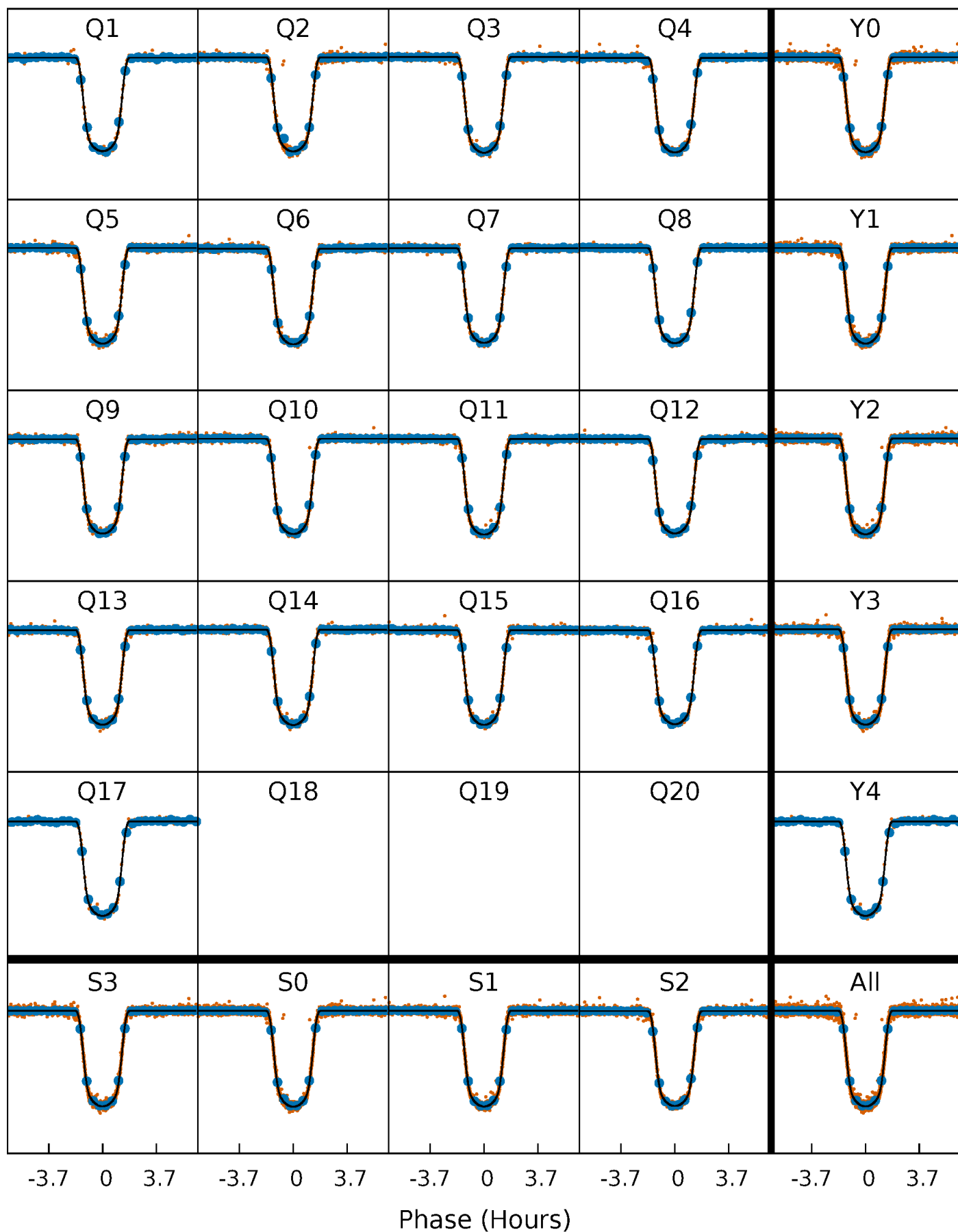
PDC Quarter-Phased Transit Curves

TCE 006922244-01 P= 3.522498 Days $T_0=131.686957$ (BKJD)



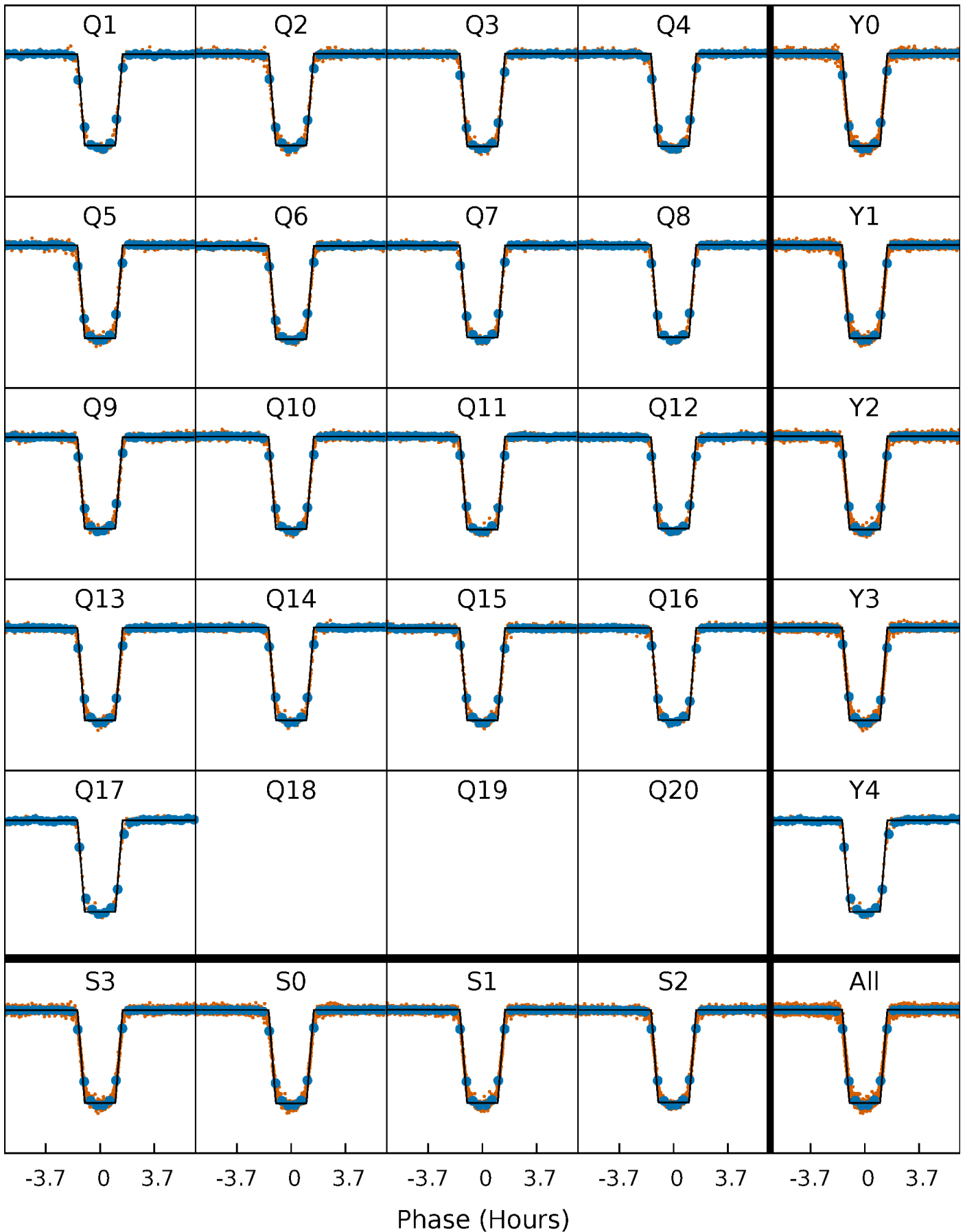
DV Quarter-Phased Transit Curves

TCE 006922244-01 P= 3.522498 Days $T_0=131.686957$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

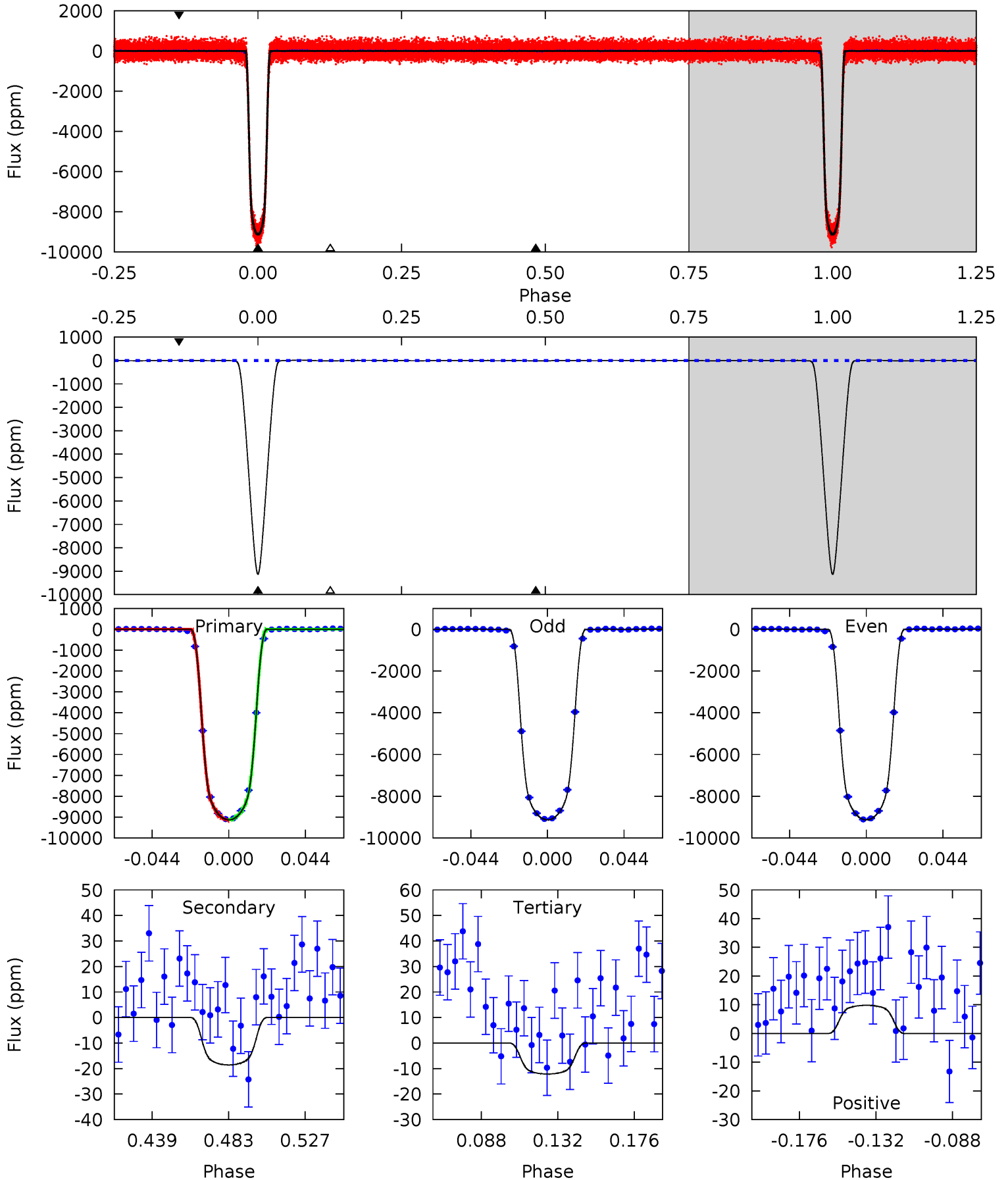
TCE 006922244-01 P= 3.522493 Days $T_0=131.687936$ (BKJD)



DV Model-Shift Uniqueness Test

006922244-01, P = 3.522498 Days, E = 128.164459 Days

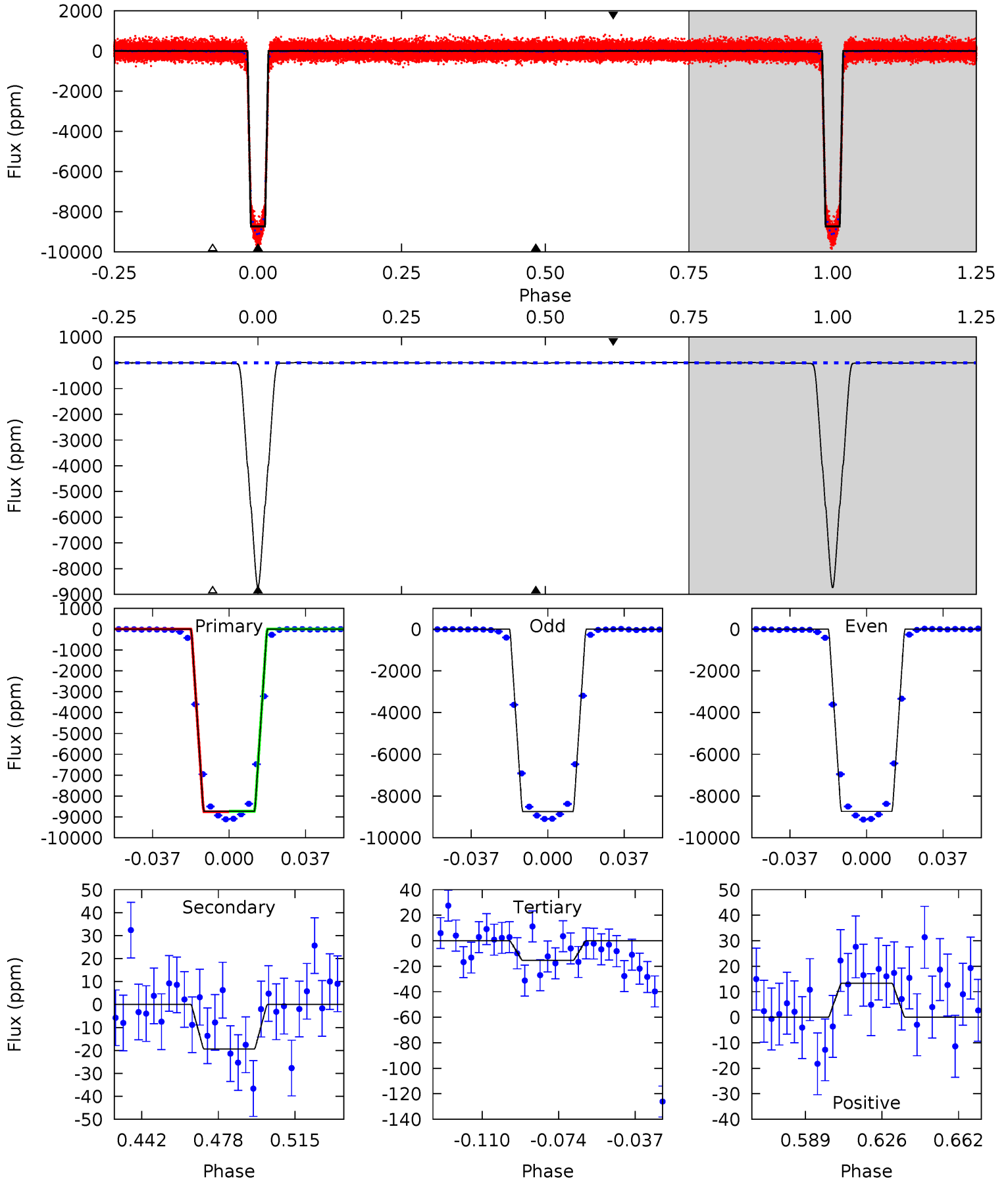
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2662	5.42	3.54	2.86	4.73	2.01	1.60	2658	2659	1.88	2.55	0.09	0.99	0.00	2.41



Alt Model-Shift Uniqueness Test

006922244-01, P = 3.522493 Days, E = 128.165443 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2128	4.72	3.78	3.26	4.77	2.09	1.74	2124	2124	0.95	1.46	0.41	1.00	0.00	2.90



Stellar Parameters For KIC 006922244

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	6225^{+112}_{-137}	$4.169^{+0.055}_{-0.045}$	$-0.040^{+0.150}_{-0.150}$	$1.451^{+0.110}_{-0.110}$	$1.132^{+0.108}_{-0.078}$	$0.522^{+0.118}_{-0.080}$
	+2%/-2%	+1%/-1%	+375%/-375%	+8%/-8%	+10%/-7%	+23%/-15%
Source	SPE23	TRA23	SPE23	DSEP		

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

Secondary Eclipse Parameters for KIC 006922244-01 / KOI 0010.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-19 ± 3	$14.94^{+0.67}_{-0.73}$	2126^{+58}_{-60}	-2442^{+53}_{-51}	$0.103^{+0.022}_{-0.021}$
Alt.	-19 ± 4	$14.97^{+0.67}_{-0.72}$	2119^{+57}_{-58}	-2433^{+56}_{-49}	$0.108^{+0.024}_{-0.023}$

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 $A_{obs} \gg 1.0$

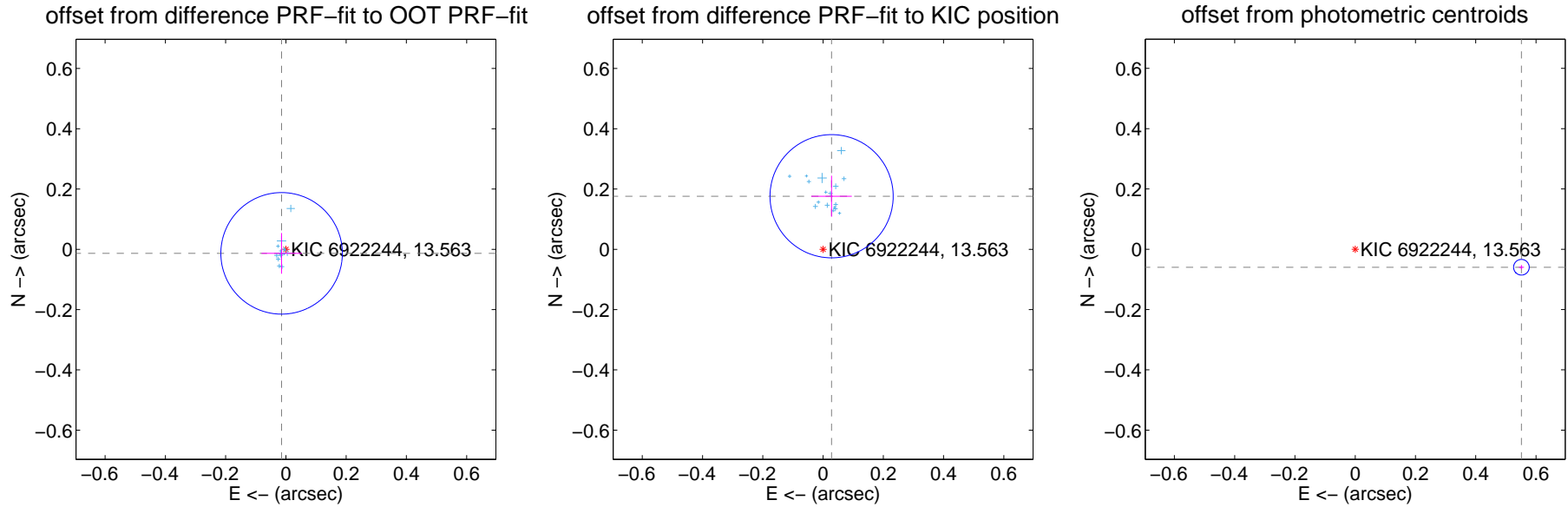
DV Centroid Data

Supplemental centroid analysis for 006922244-01. Kepler magnitude: 13.56. Transit SNR 1687.05

There are 17 quarters with good PRF difference image offsets

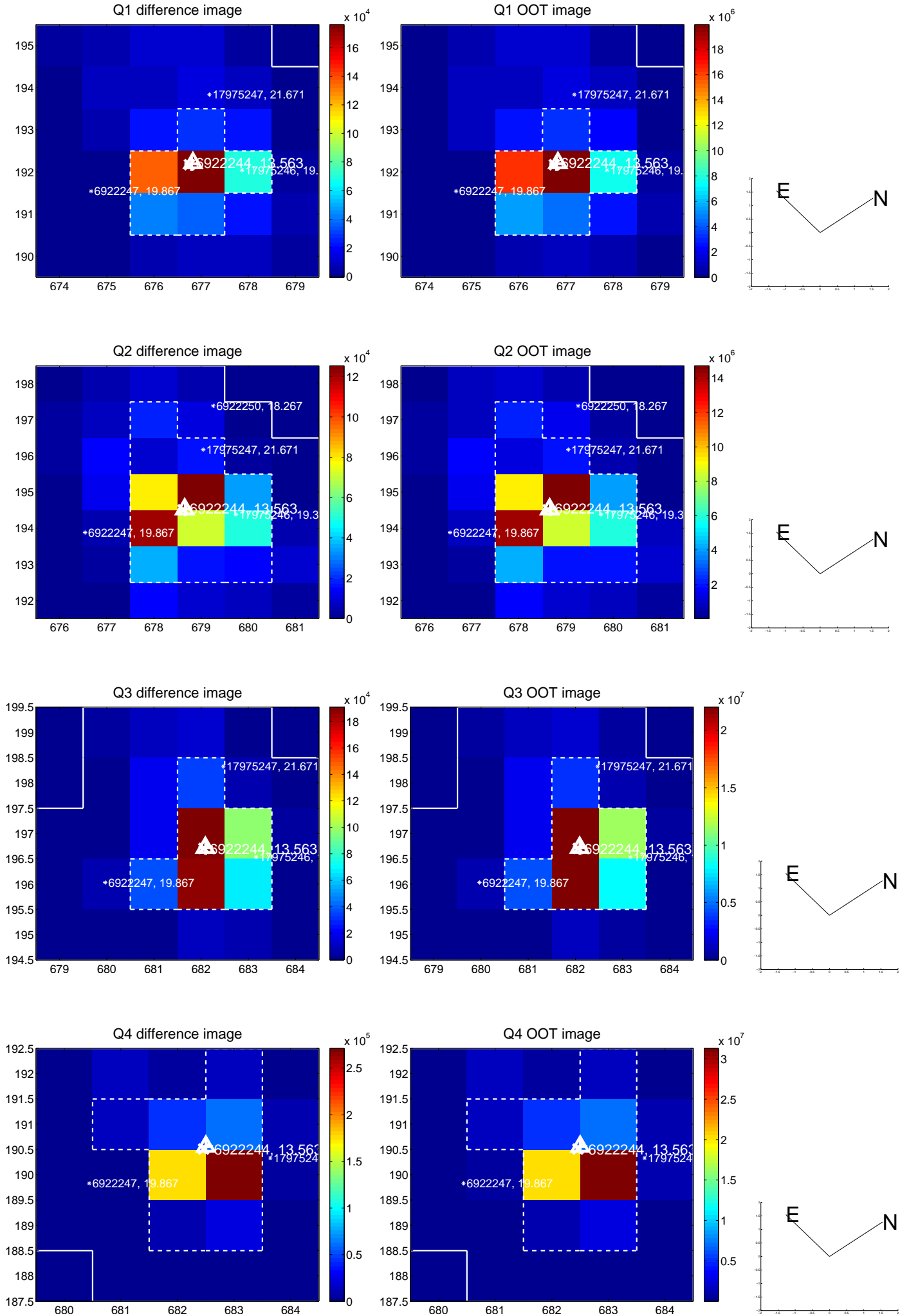
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.020 ± 0.067	0.29	0.014 ± 0.067	-0.013 ± 0.067
PRF-fit source offset from KIC position	0.178 ± 0.068	2.62	-0.028 ± 0.067	0.176 ± 0.068
photometric centroid source offset	0.55 ± 0.01	64.12	-0.55 ± 0.01	-0.06 ± 0.01

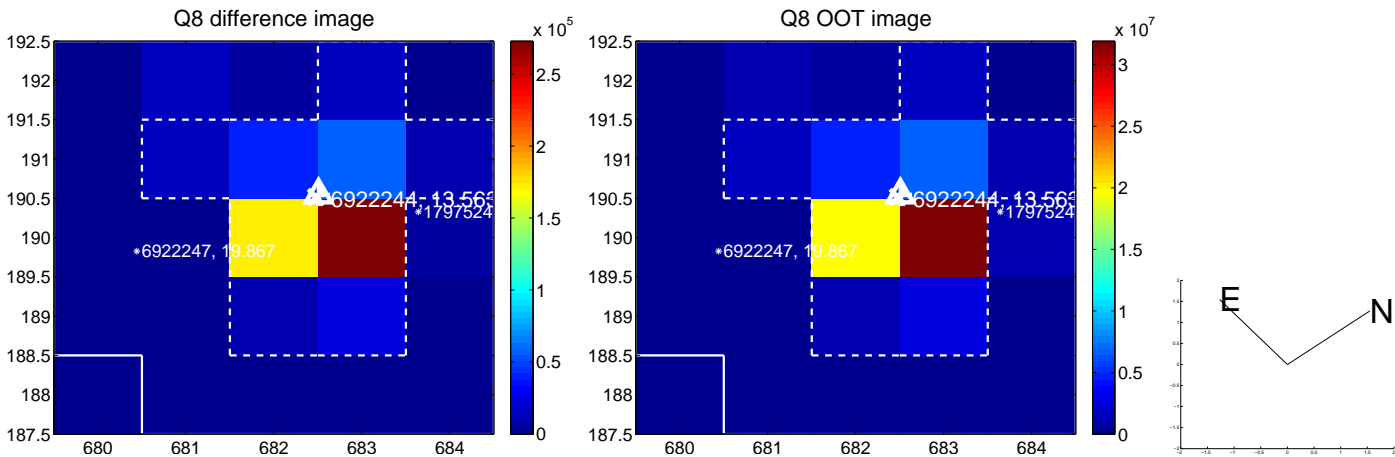
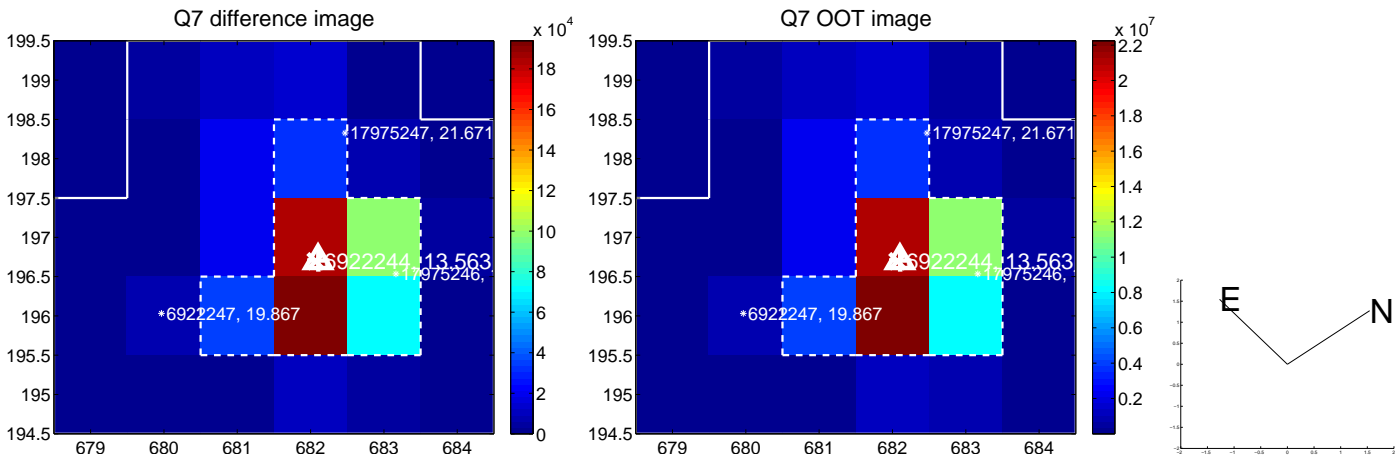
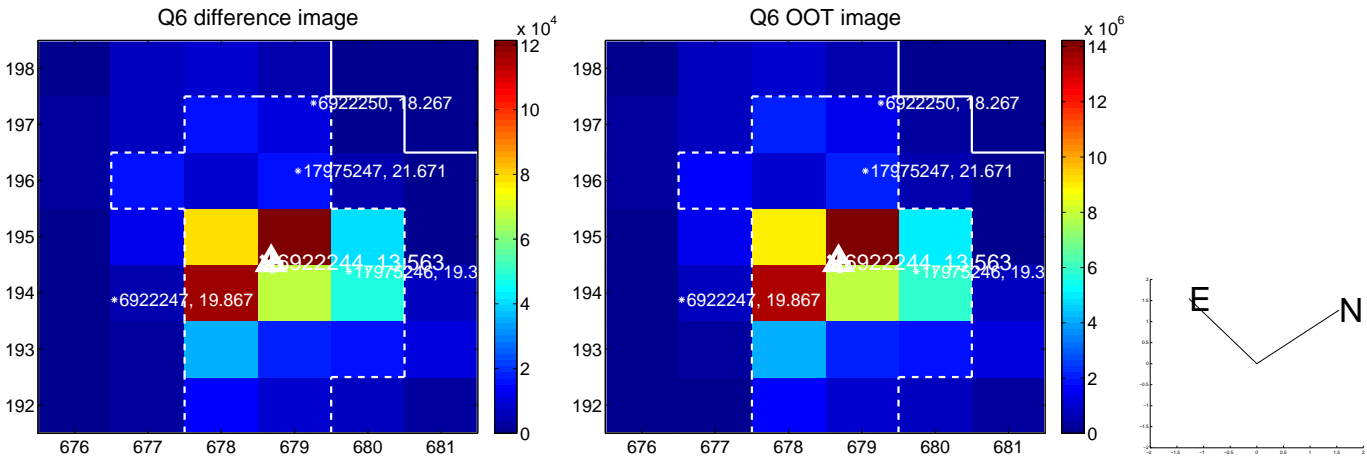
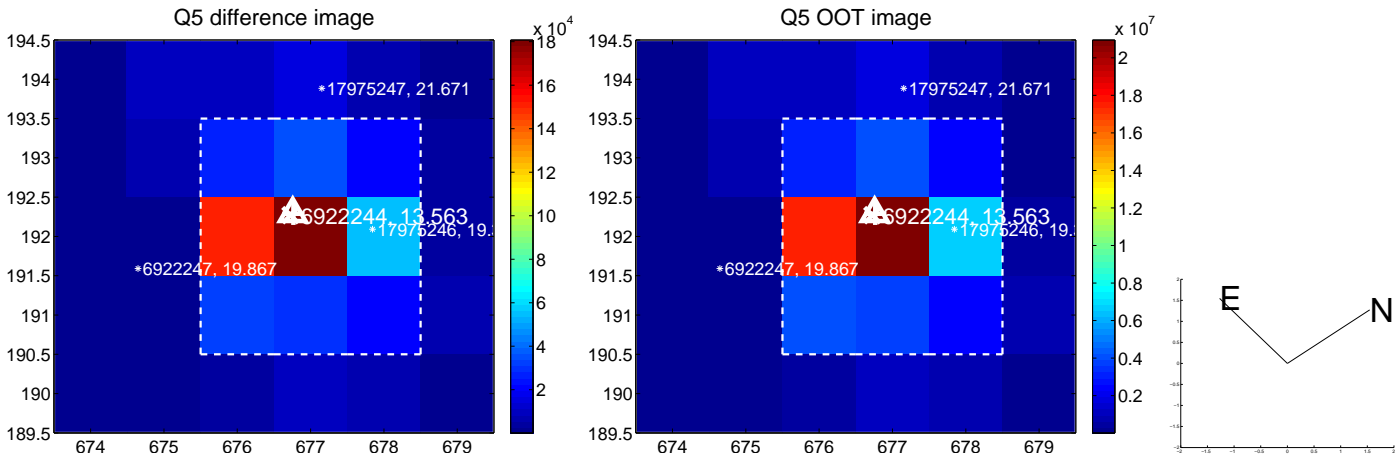


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

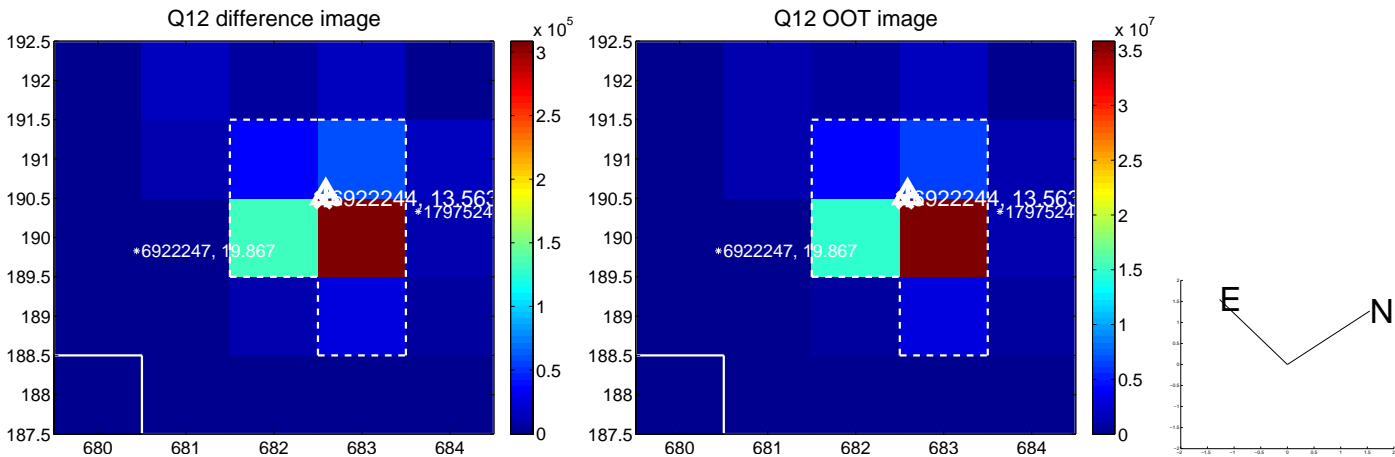
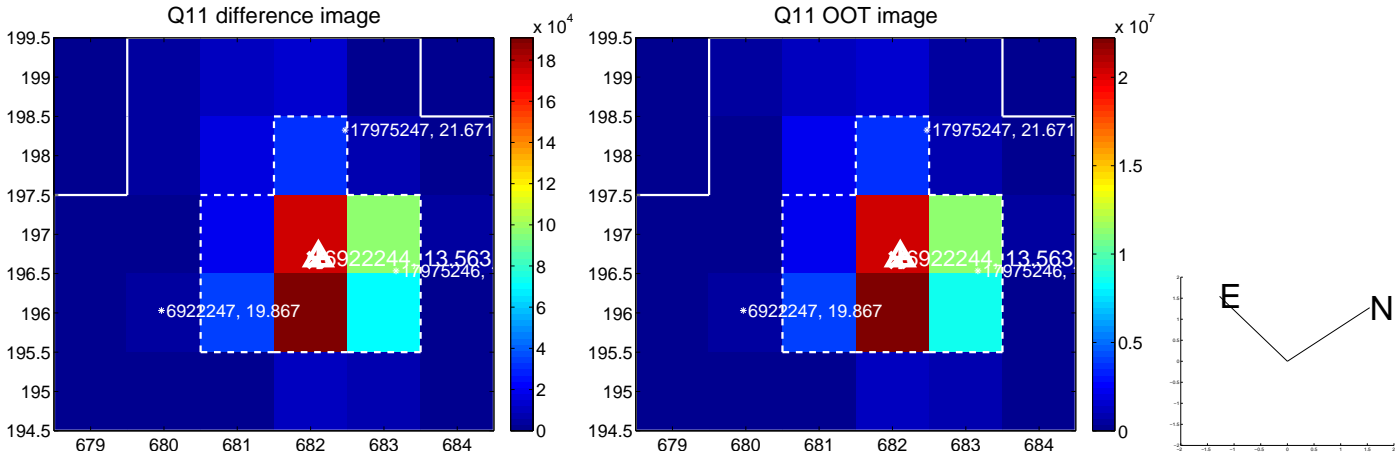
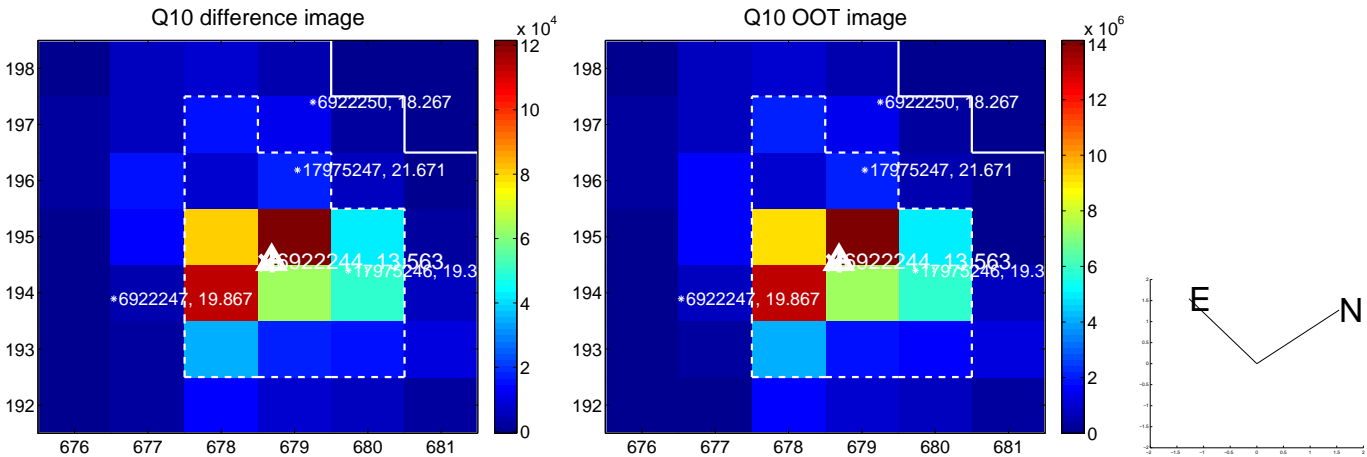
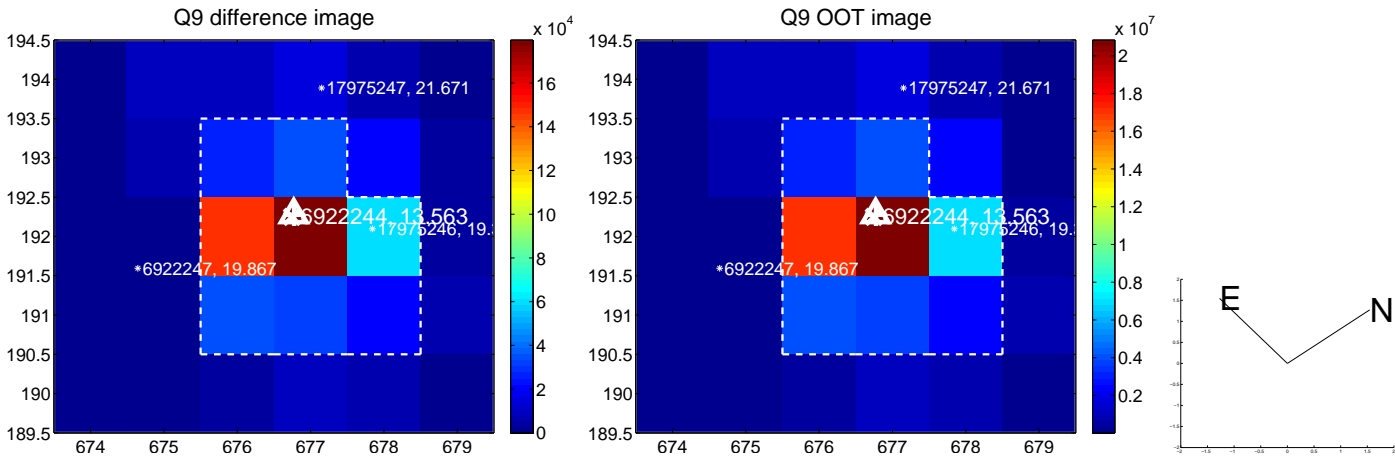
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



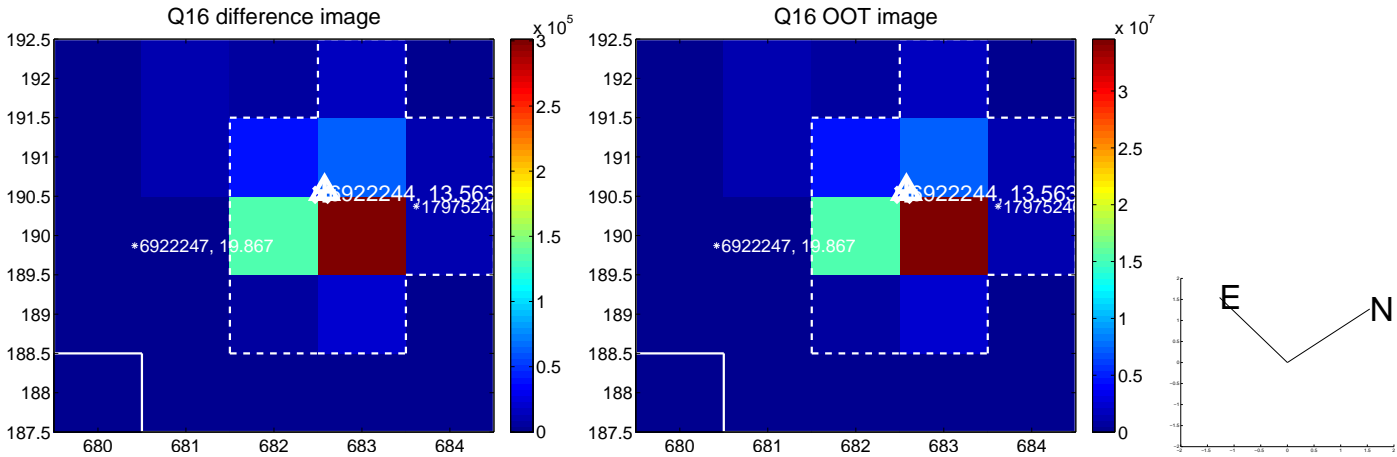
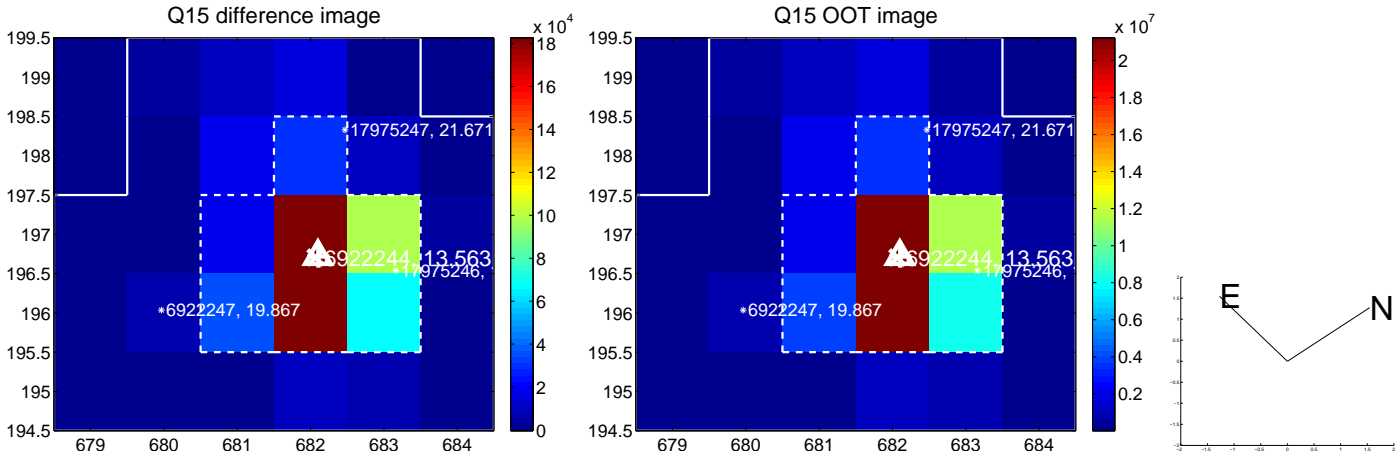
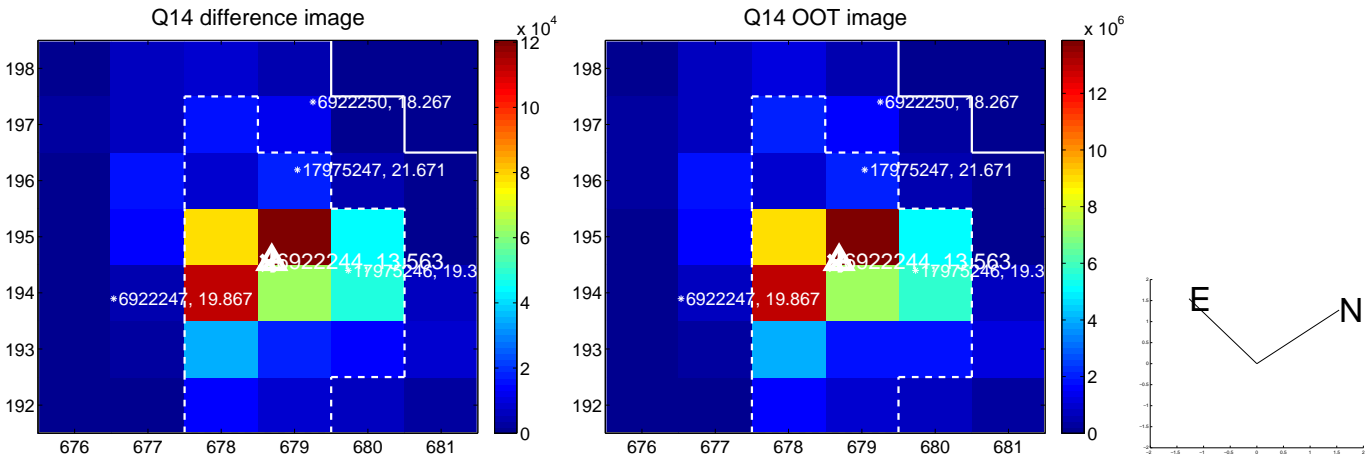
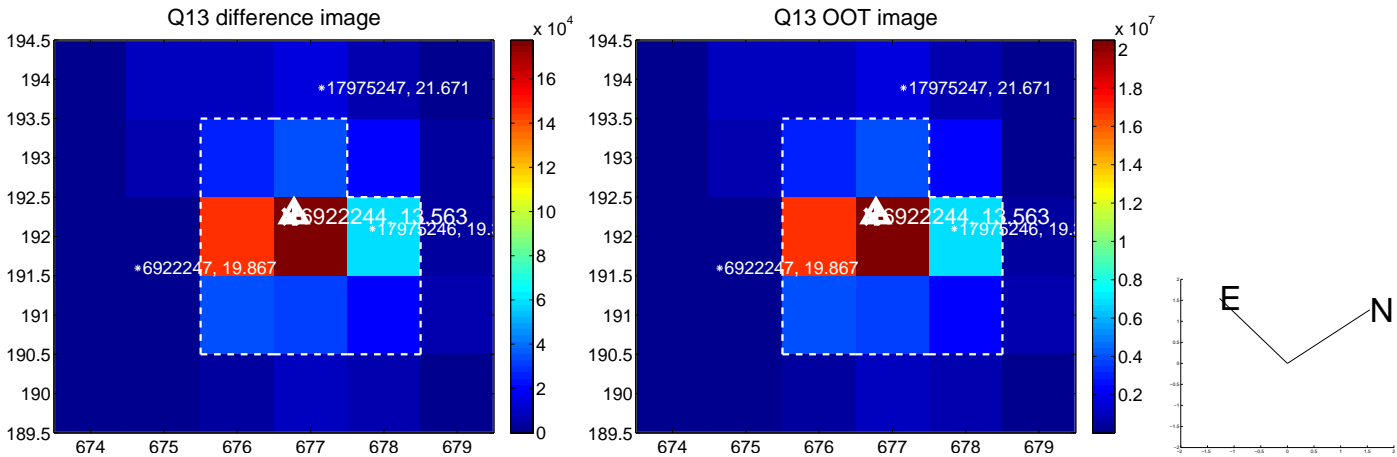
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



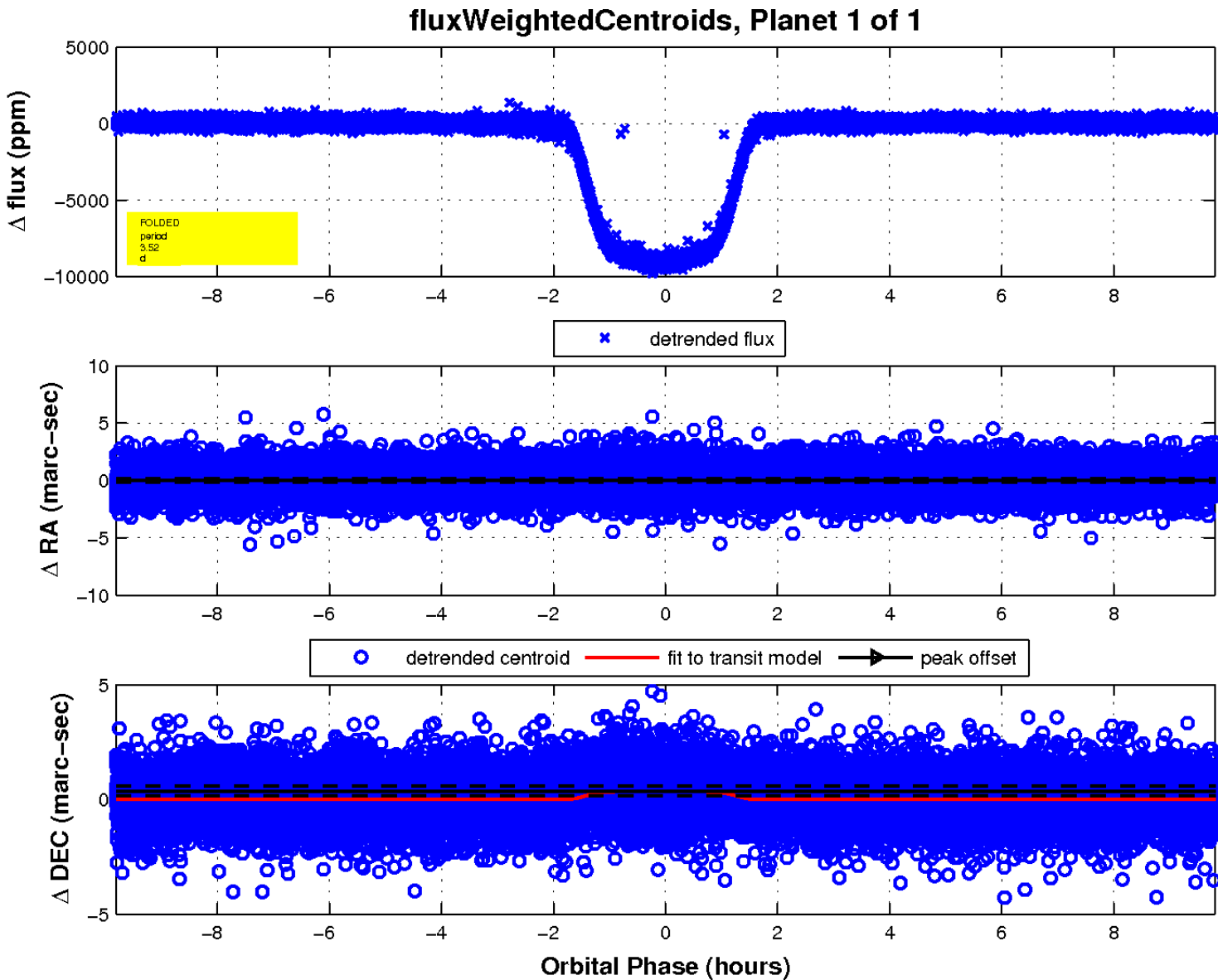
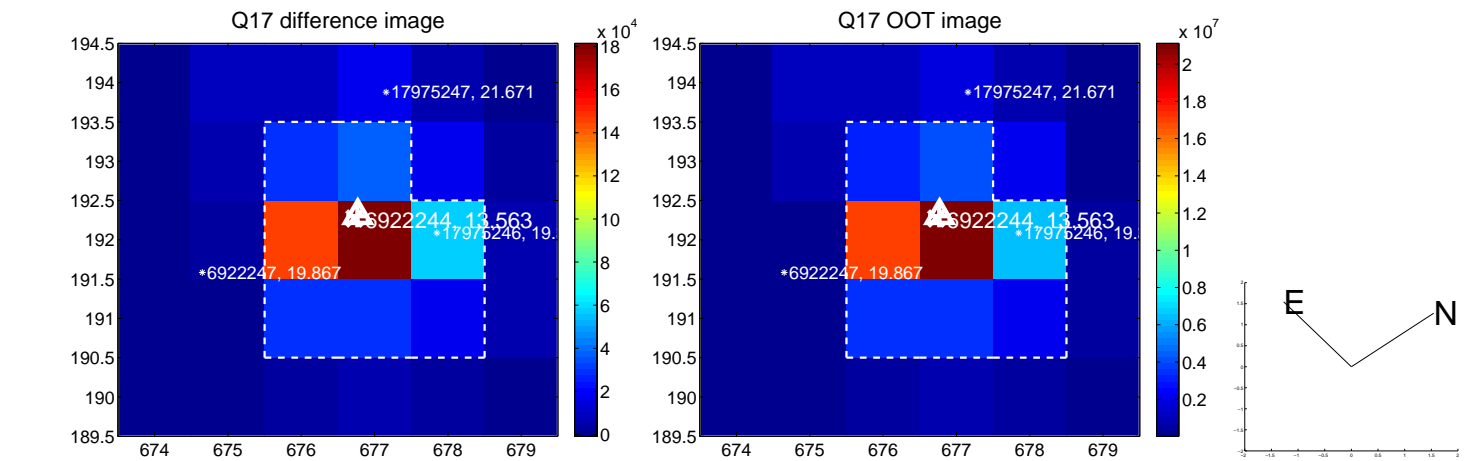
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

