

KIC 005211922

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})
005211922-01	OBS	3273.01	27.685350	132.704191	1524.6	4.872	51.6	44.1	0.64	5216	3.04	10.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005211922-01	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 005211922-01

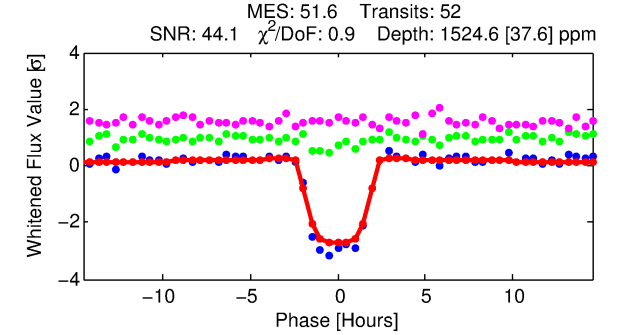
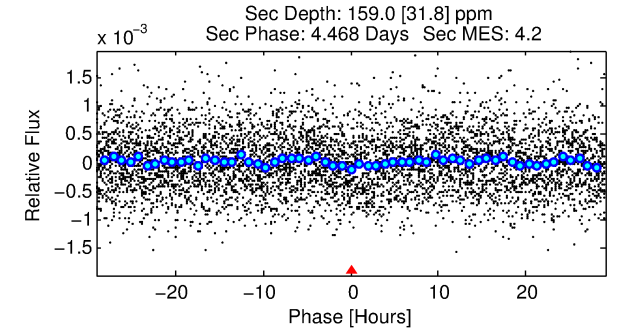
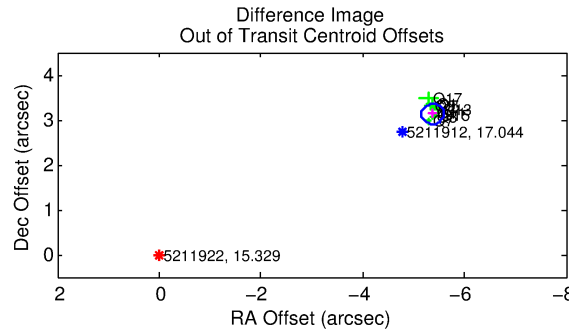
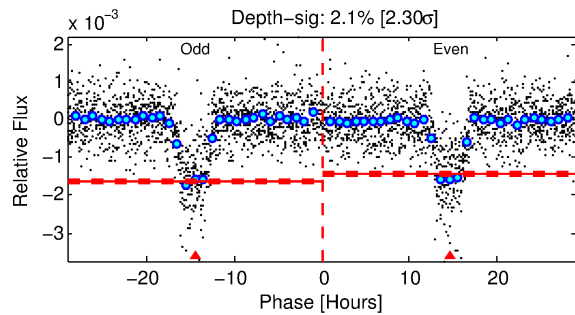
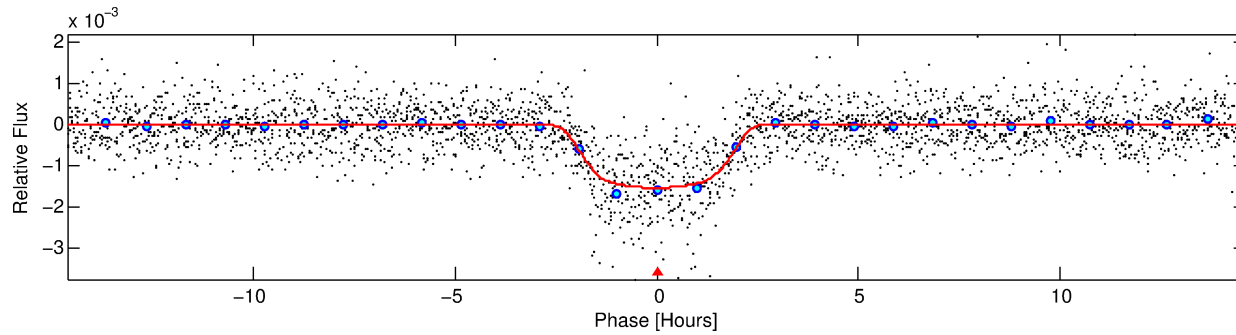
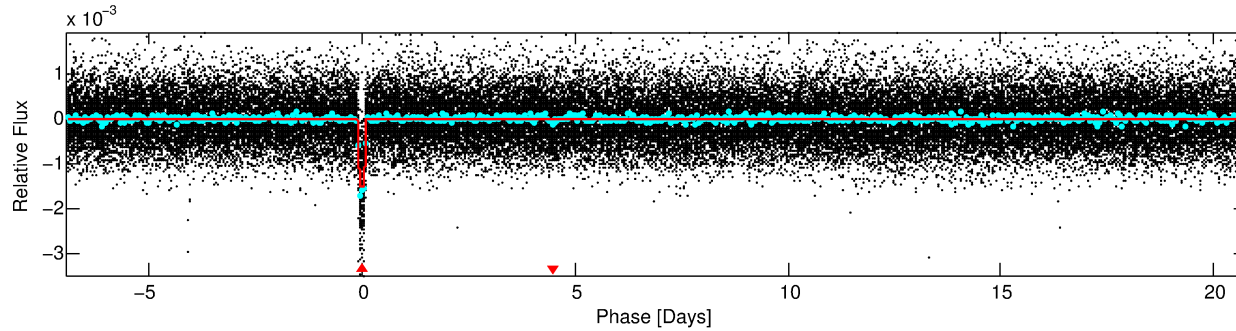
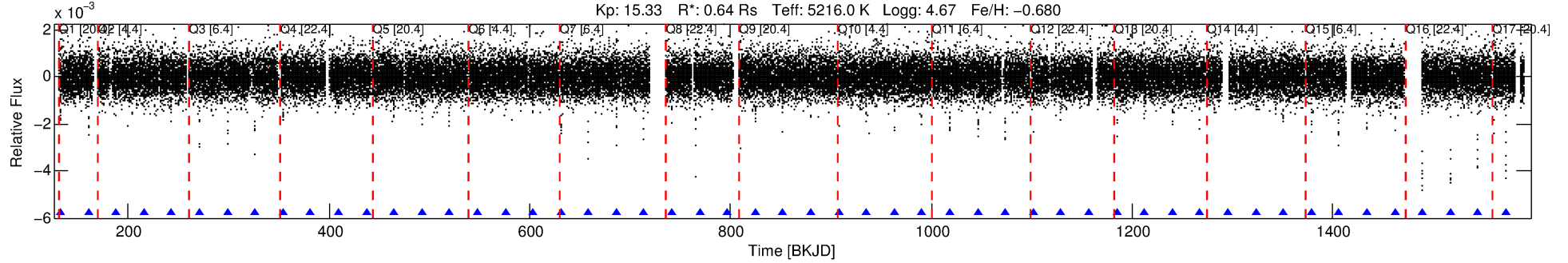
No Significant Match Found

DV One-Page Summary

KIC: 5211922 Candidate: 1 of 1 Period: 27.685 d

KOI: K03273.01 Corr: 0.979

Kp: 15.33 R*: 0.64 Rs Teff: 5216.0 K Logg: 4.67 Fe/H: -0.680



DV Fit Results:

Period = 27.68535 [0.00008] d
Epoch = 132.7042 [0.0023] BKJD
Rp/R* = 0.0436 [0.0011]
a/R* = 21.91 [1.79]
b = 0.91 [0.02]
Seff = 10.69 [1.99]
Teq = 461 [21] K
Rp = 3.04 [0.39] Re
a = 0.1592 [0.0161] AU
Ag = 239.89 [60.20] [3.97σ]
Teffp = 2805 [168] K [13.88σ]

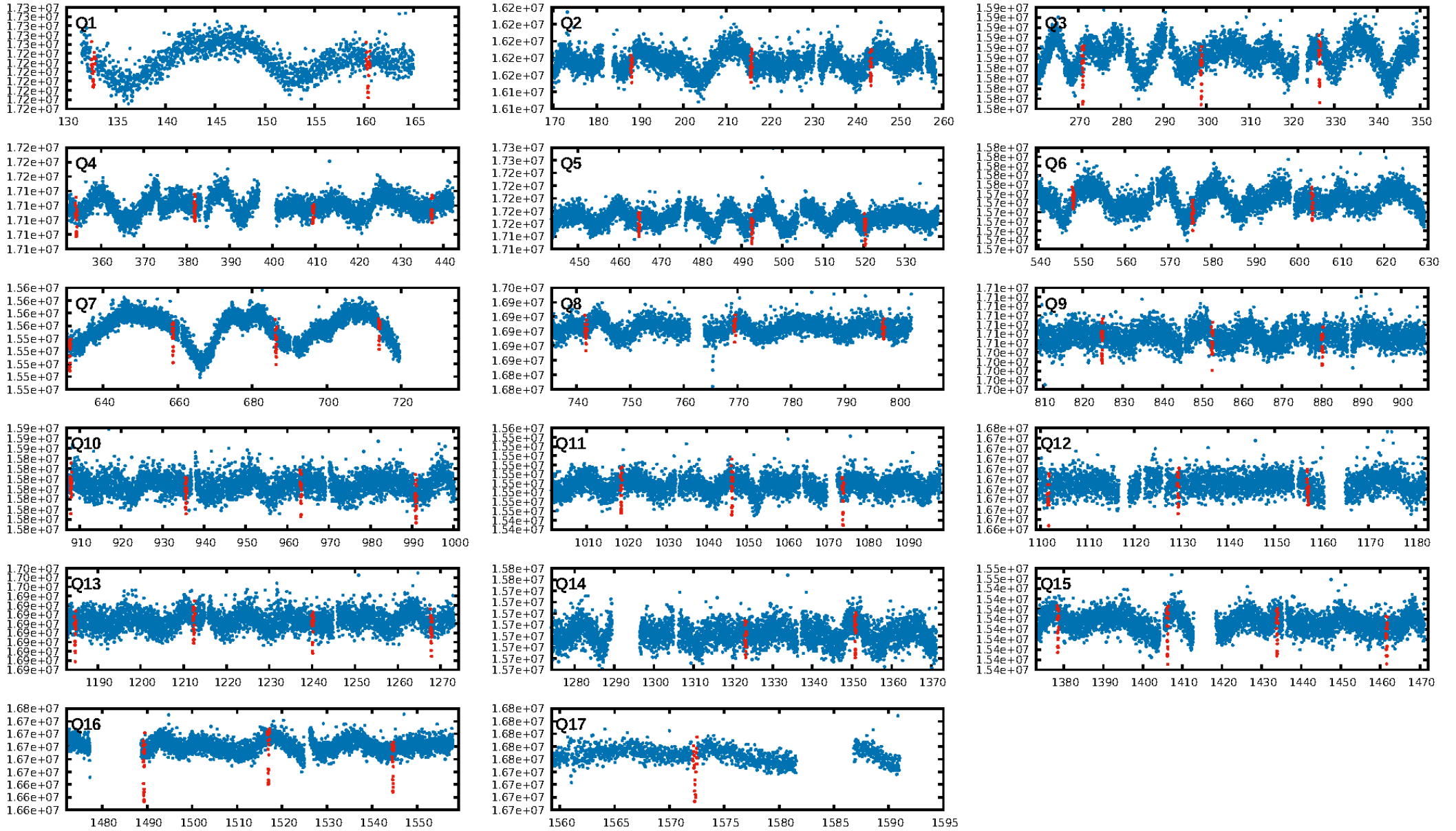
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [49/49]
GhostDiagnostic-chr: -0.1549
Centroid-sig: 0.0%
Centroid-so: 15.563 arcsec [51.61σ]
OotOffset-rm: 6.213 arcsec [84.16σ]
KicOffset-rm: 6.164 arcsec [84.46σ]
OotOffset-st: 0/4/0/5 [9]
KicOffset-st: 0/4/0/5 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [17/17]

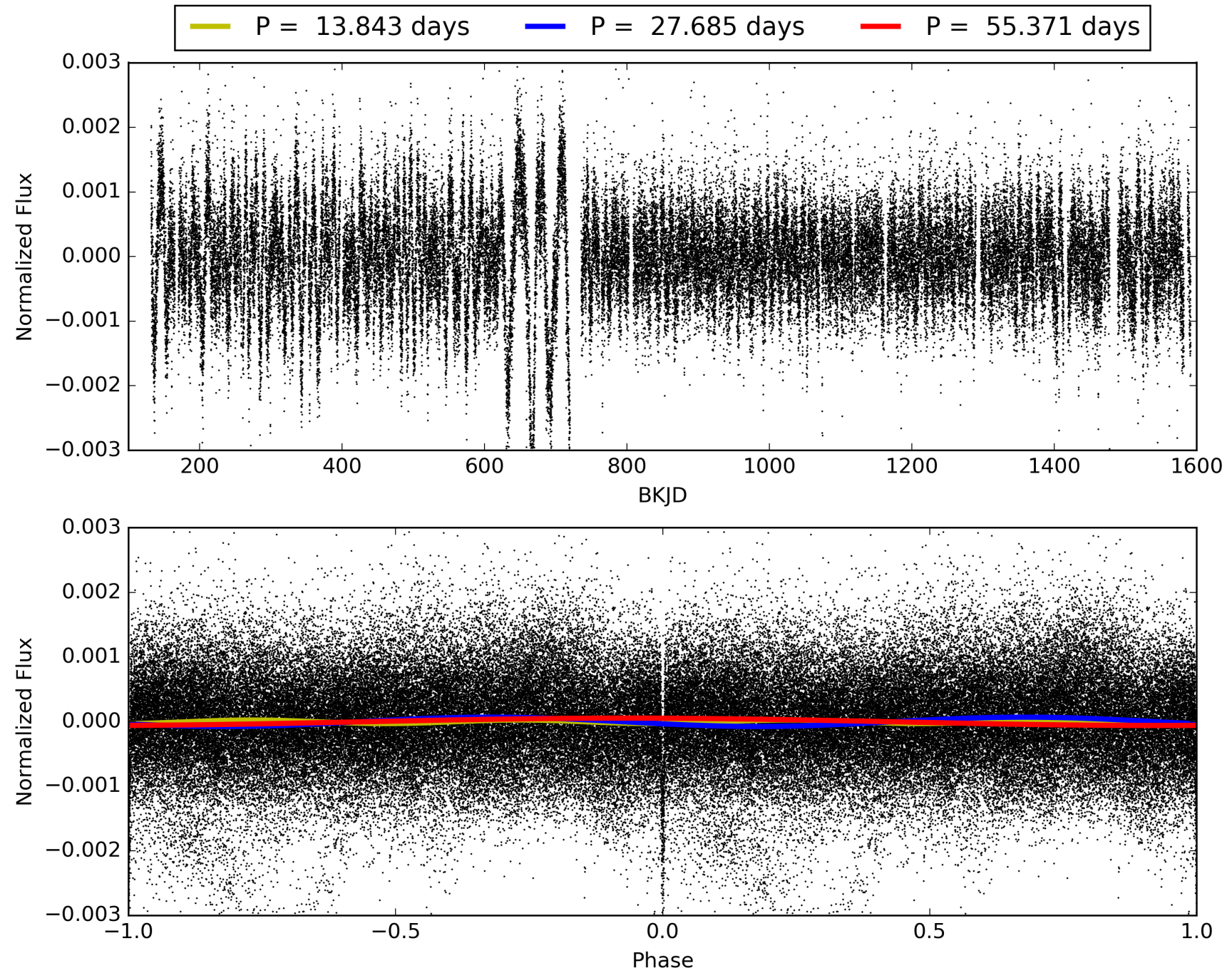
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:24:40 Z

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

TCE 005211922-01, PDC Light Curves

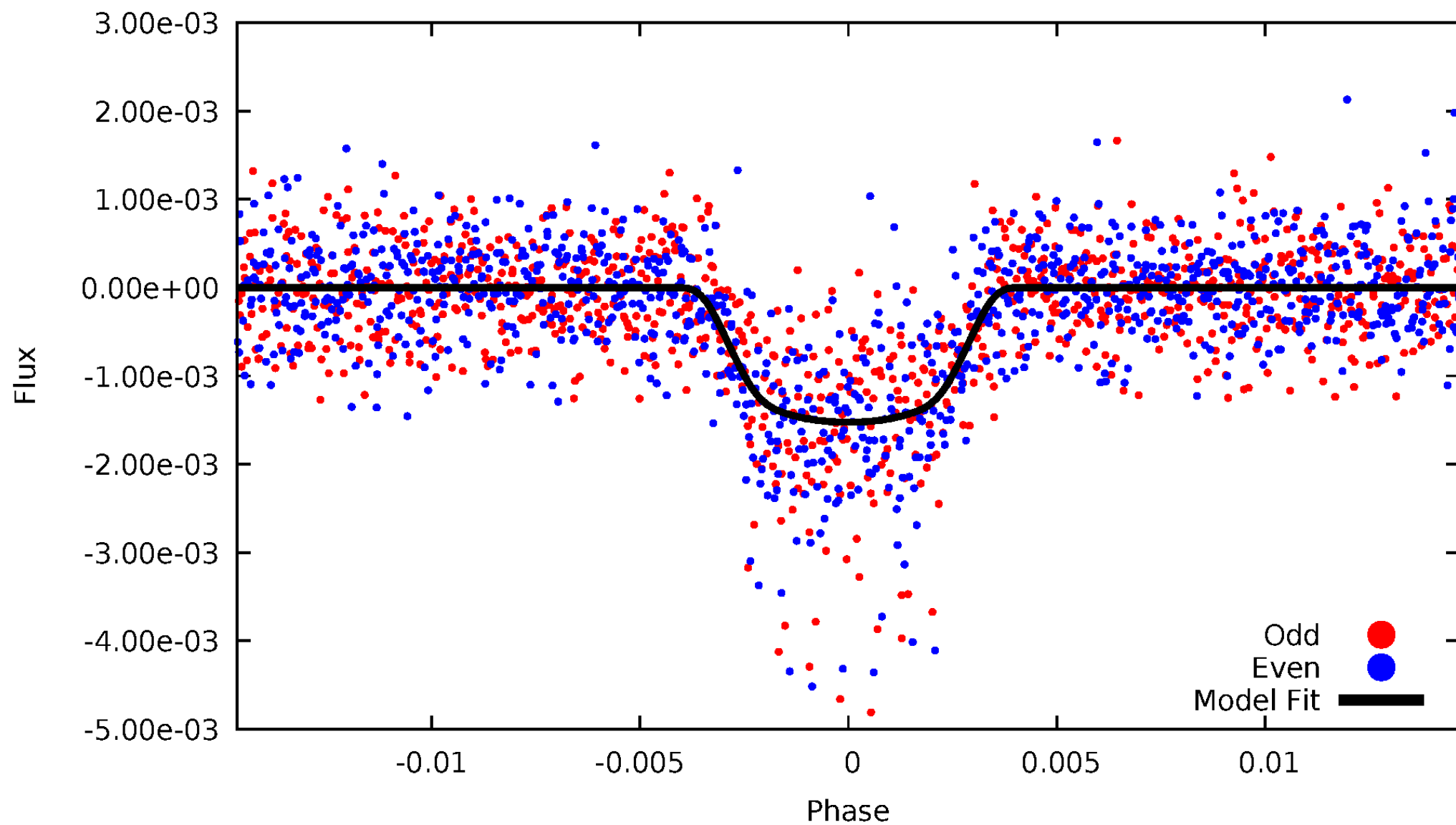


TCE 005211922-01



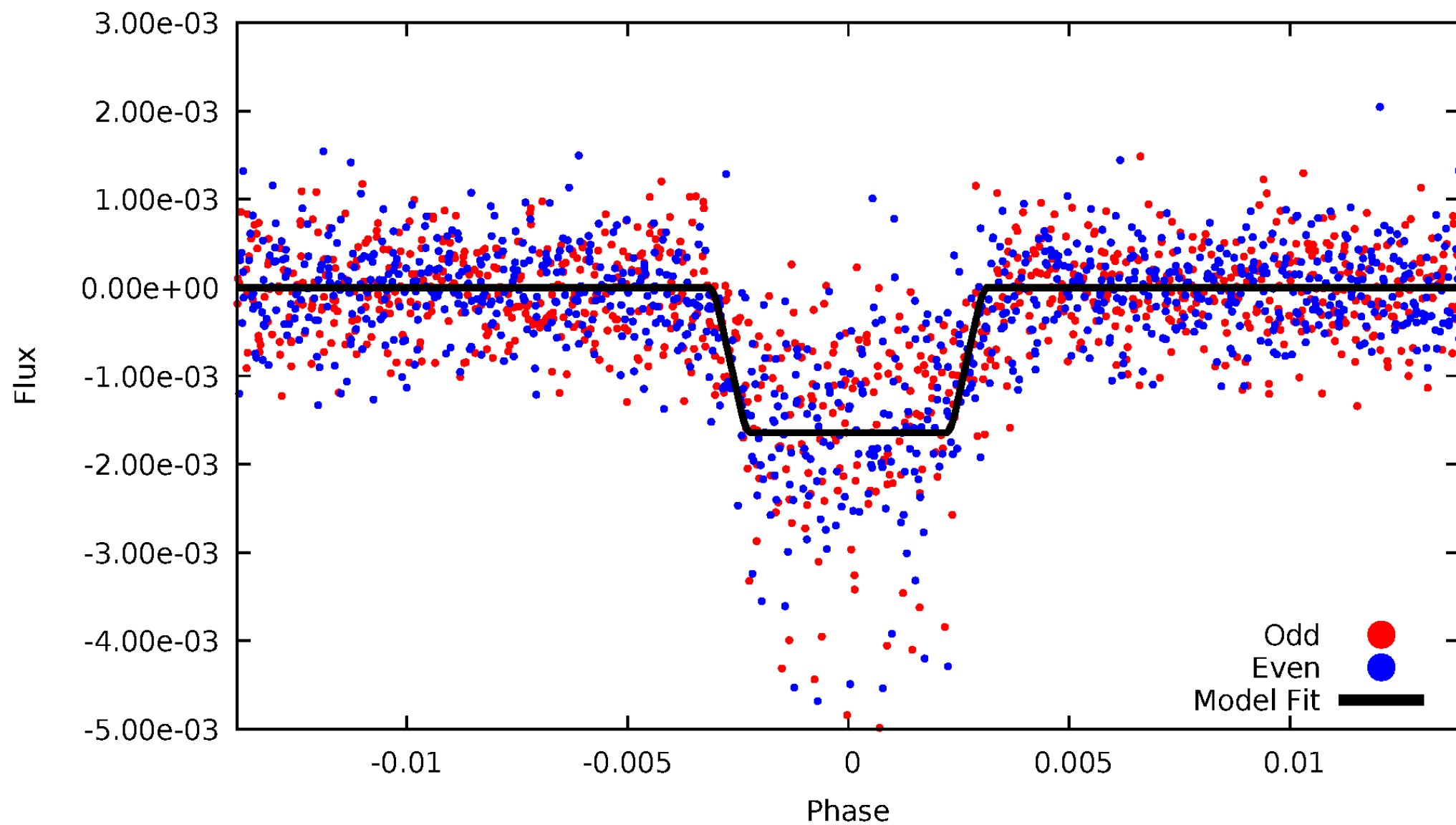
DV Odd/Even

TCE 005211922-01



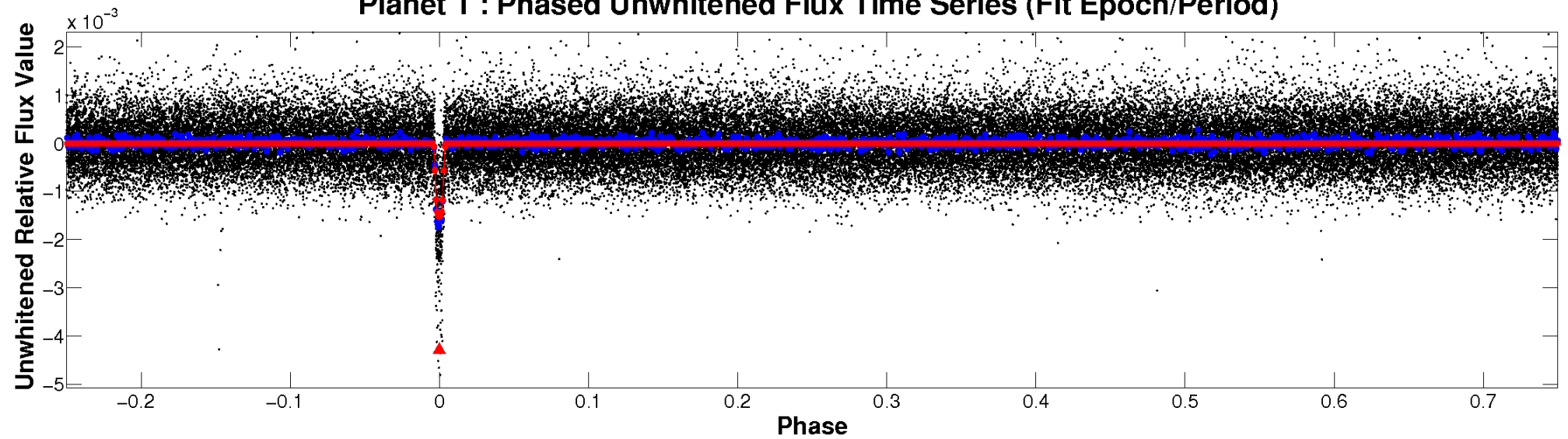
ALT Odd/Even

TCE 005211922-01

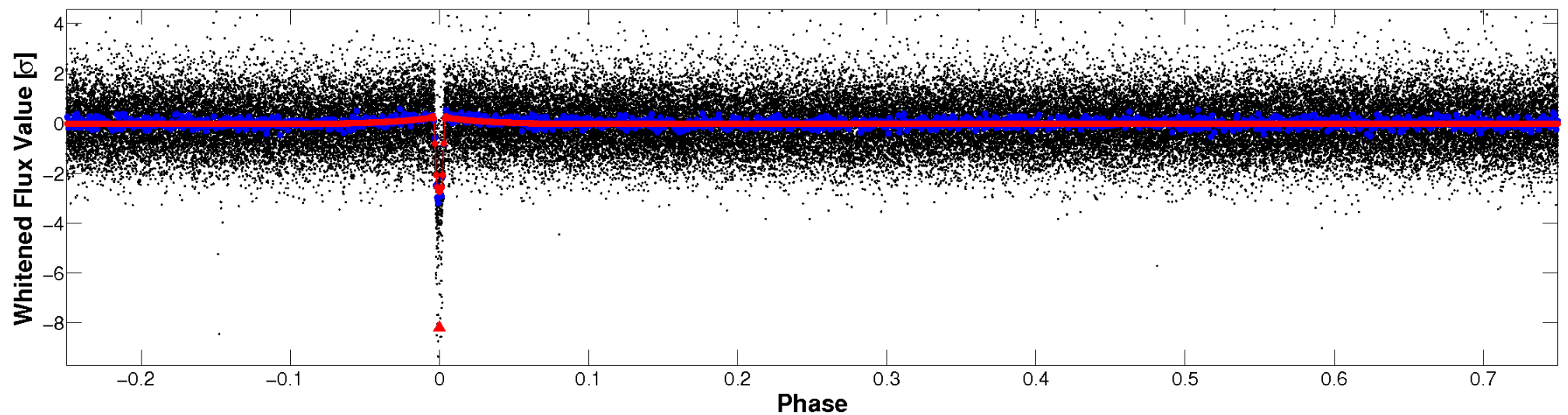


Non-Whitened Vs. Whitened Light Curve

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

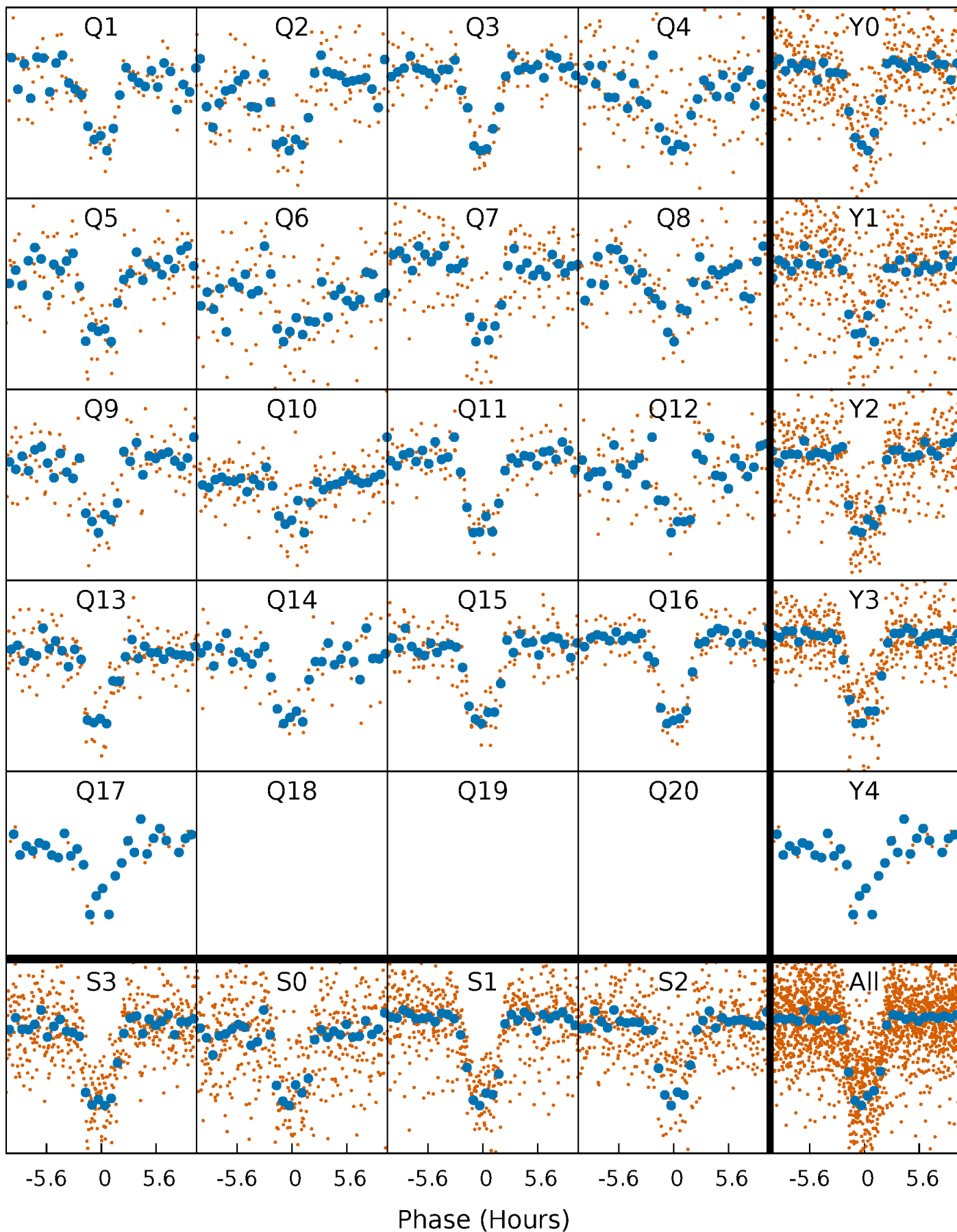


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



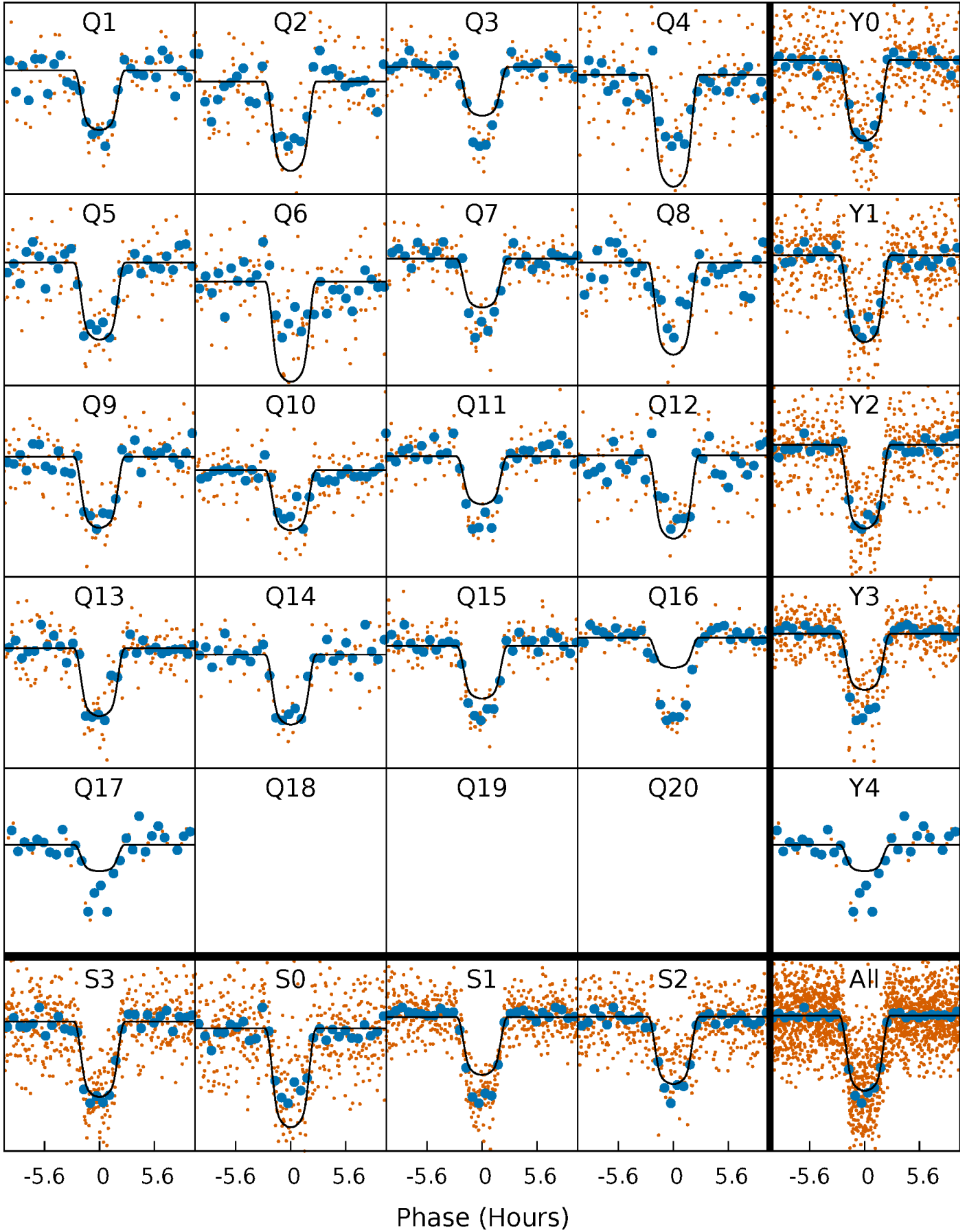
PDC Quarter-Phased Transit Curves

TCE 005211922-01 P= 27.685350 Days $T_0=132.704191$ (BKJD)



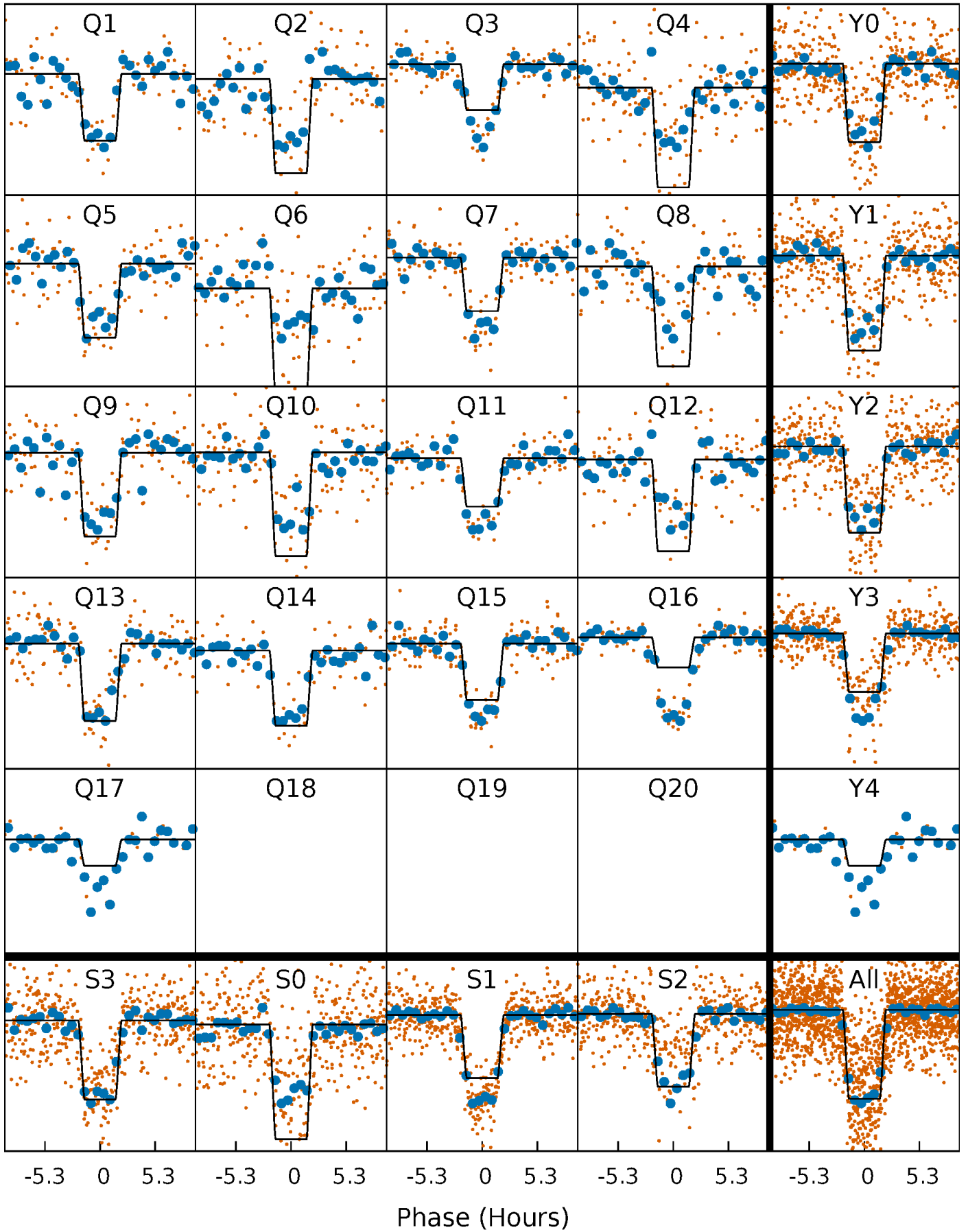
DV Quarter-Phased Transit Curves

TCE 005211922-01 P= 27.685350 Days $T_0=132.704191$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

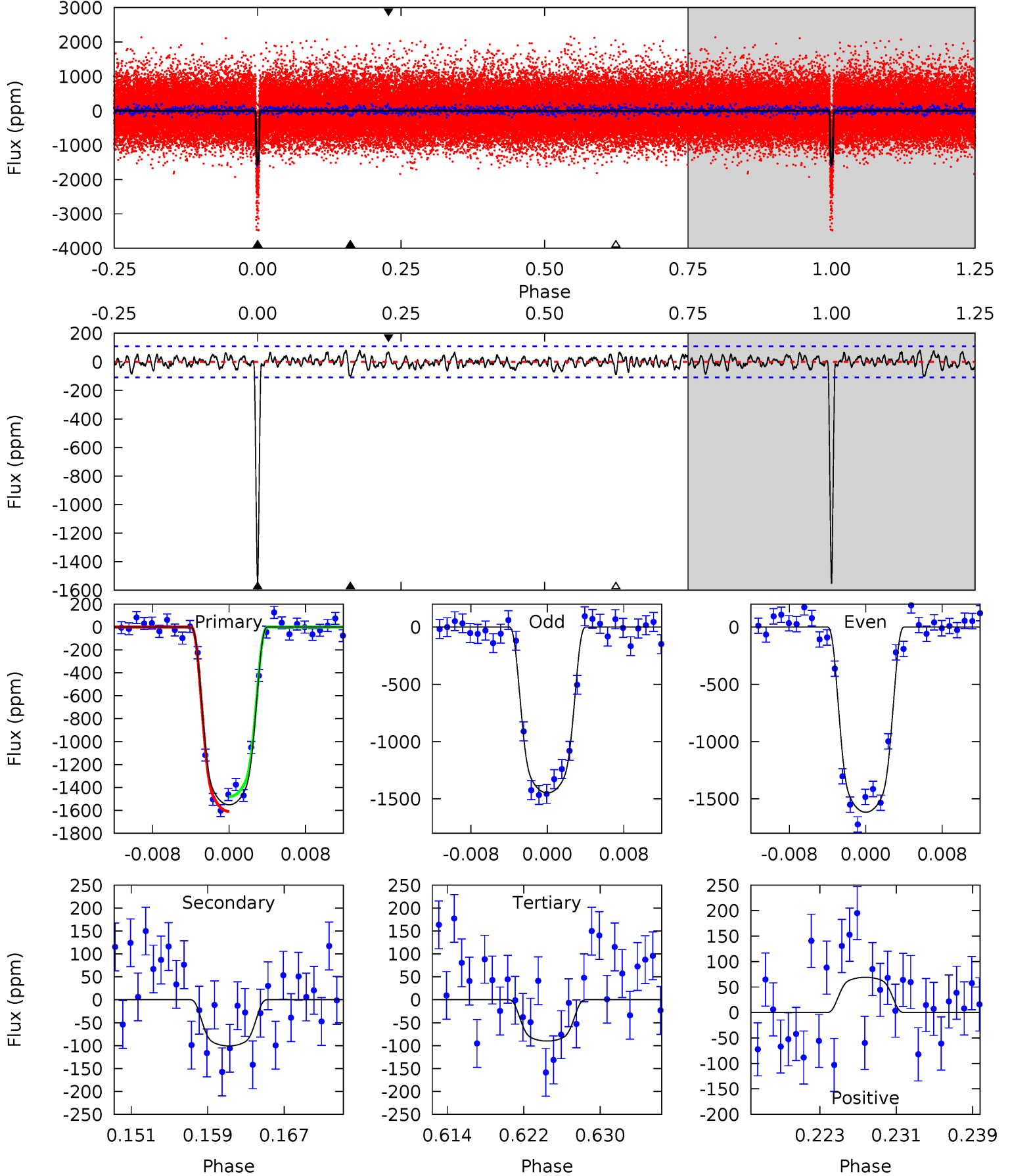
TCE 005211922-01 P= 27.685162 Days $T_0=132.708858$ (BKJD)



DV Model-Shift Uniqueness Test

005211922-01, $P = 27.685350$ Days, $E = 105.018841$ Days

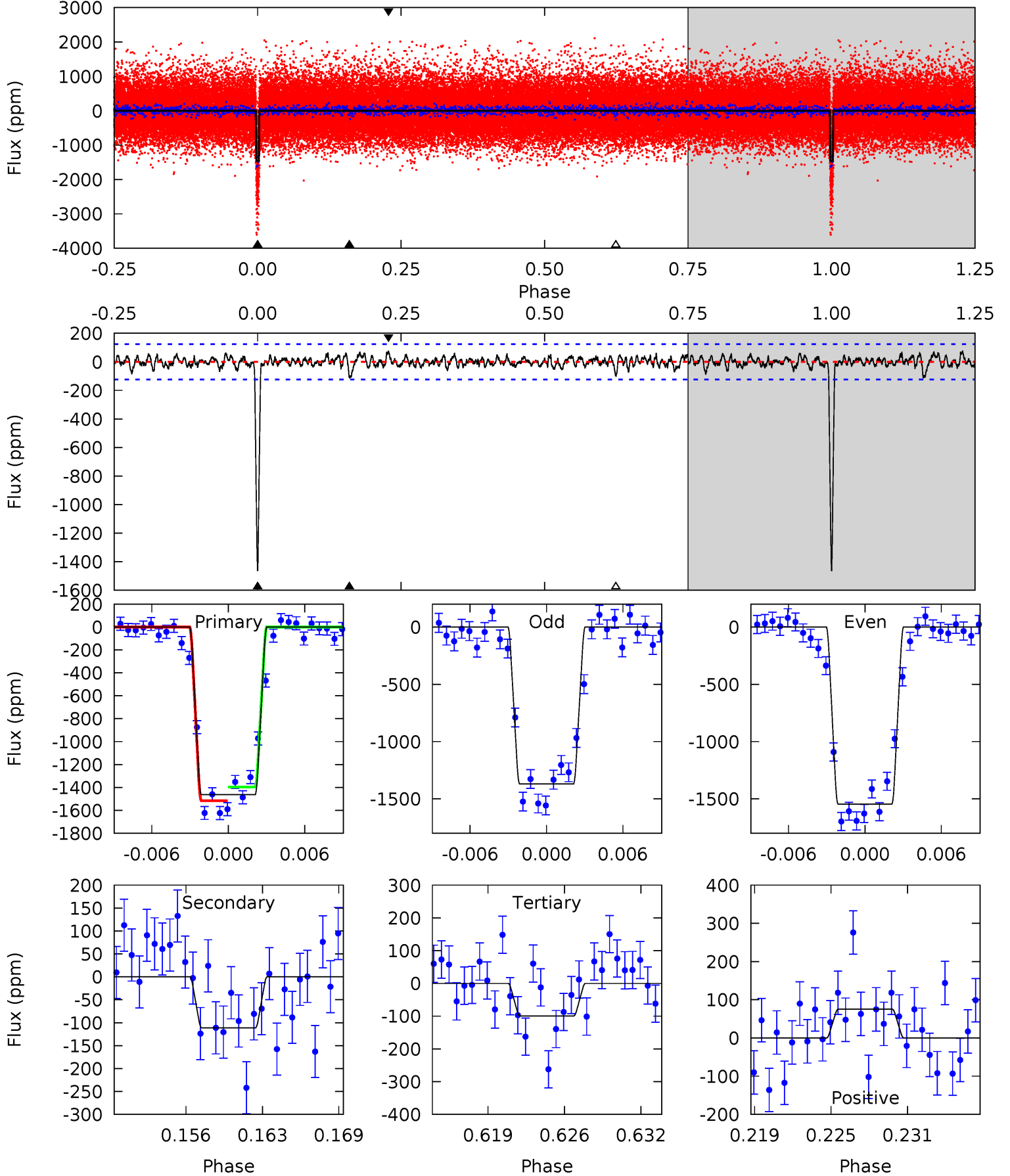
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
72.1	4.68	4.18	3.21	5.07	2.65	1.32	67.9	68.9	0.50	1.47	3.91	1.14	0.05	2.99



Alt Model-Shift Uniqueness Test

005211922-01, $P = 27.685162$ Days, $E = 105.023696$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.6	4.60	4.11	3.13	5.12	2.73	1.07	56.4	57.4	0.49	1.47	3.61	1.16	0.05	0



Stellar Parameters For KIC 005211922

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5216^{+156}_{-156}	$4.673^{+0.030}_{-0.075}$	$-0.680^{+0.300}_{-0.300}$	$0.639^{+0.080}_{-0.040}$	$0.704^{+0.060}_{-0.060}$	$3.803^{+0.503}_{-0.958}$
	+3%/-3%	+1%/-2%	+44%/-44%	+13%/-6%	+9%/-9%	+13%/-25%
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 005211922-01 / KOI 3273.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-101 ± 22	$3.07^{+0.23}_{-0.15}$	650^{+25}_{-23}	3104^{+112}_{-119}	146^{+35}_{-33}
Alt.	-111 ± 24	$2.85^{+0.20}_{-0.16}$	649^{+26}_{-22}	3206^{+128}_{-131}	184^{+48}_{-46}

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

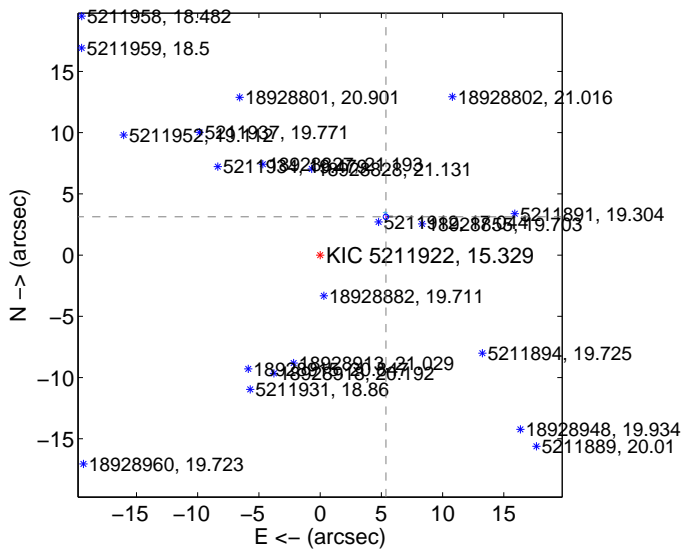
Supplemental centroid analysis for 005211922-01. Kepler magnitude: 15.33. Transit SNR 44.13

There are 9 quarters with good PRF difference image offsets

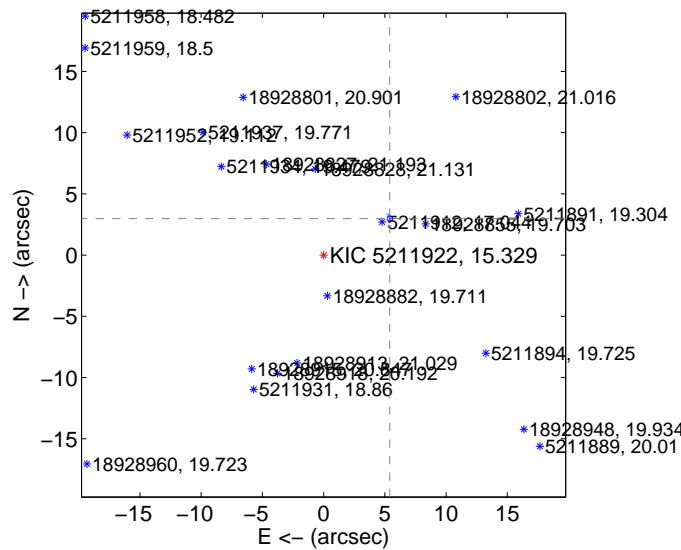
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.213 ± 0.074	84.16	-5.369 ± 0.069	3.127 ± 0.084
PRF-fit source offset from KIC position	6.164 ± 0.073	84.46	-5.399 ± 0.074	2.974 ± 0.071
photometric centroid source offset	15.56 ± 0.30	51.61	-14.01 ± 0.30	6.77 ± 0.29

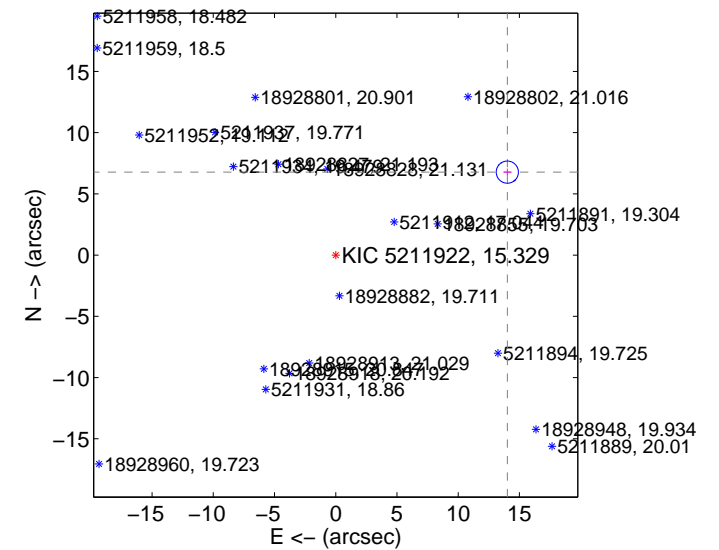
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

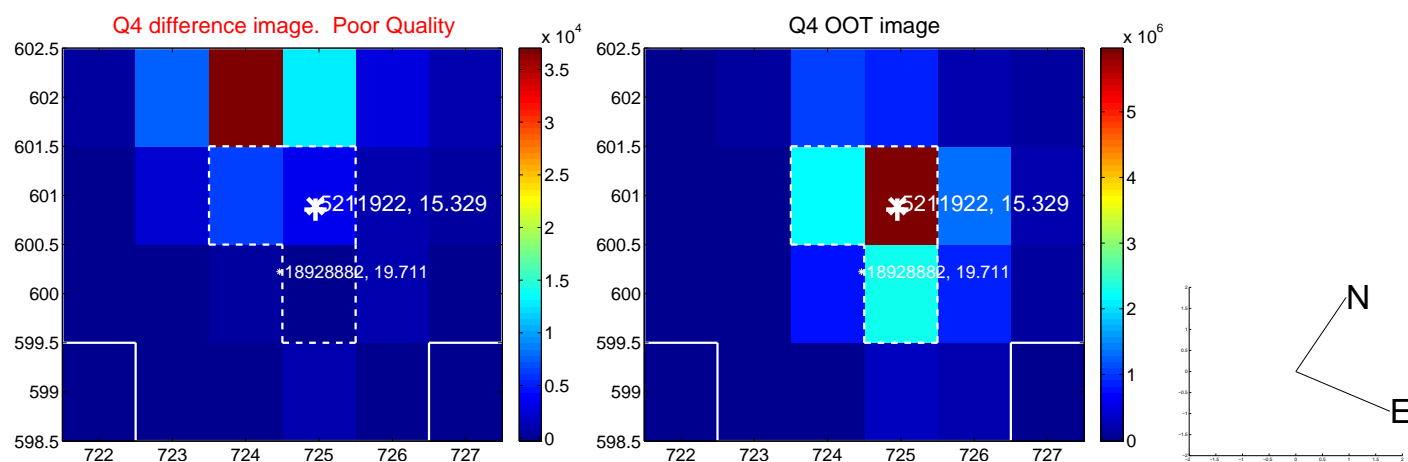
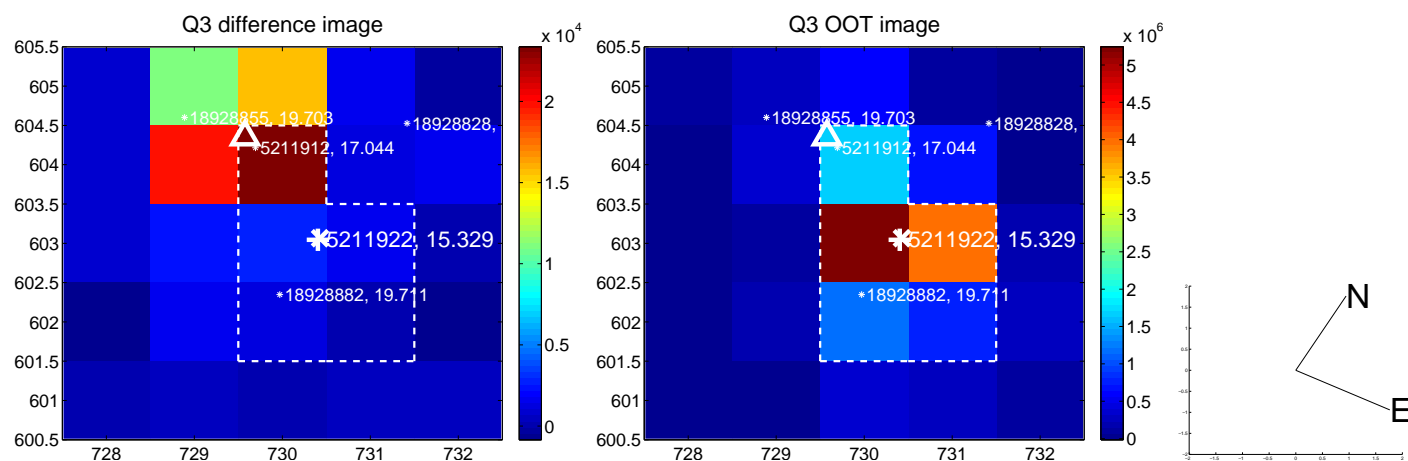
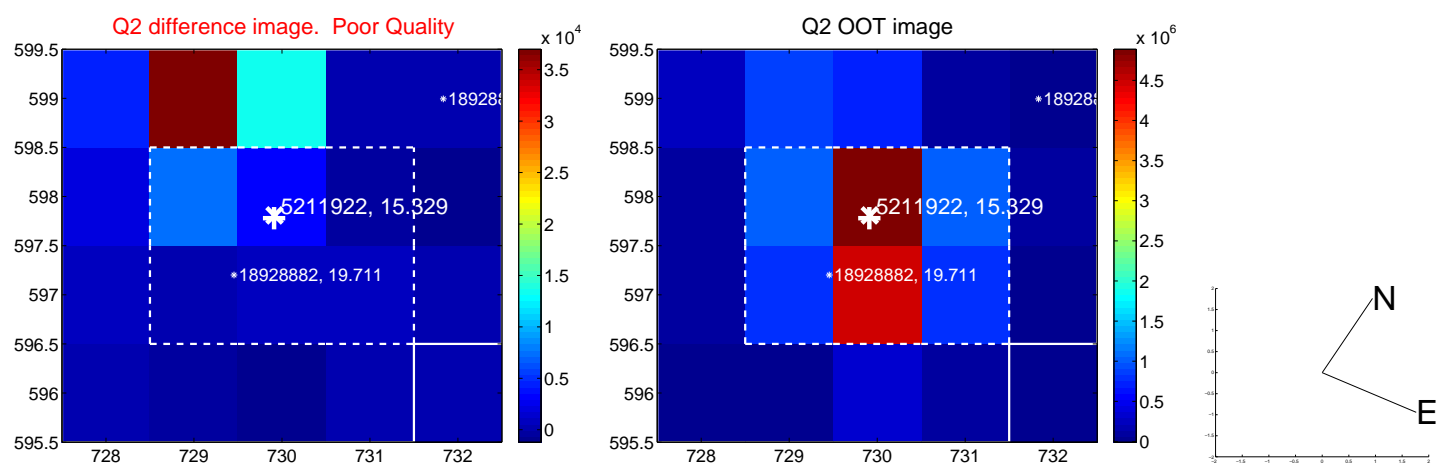
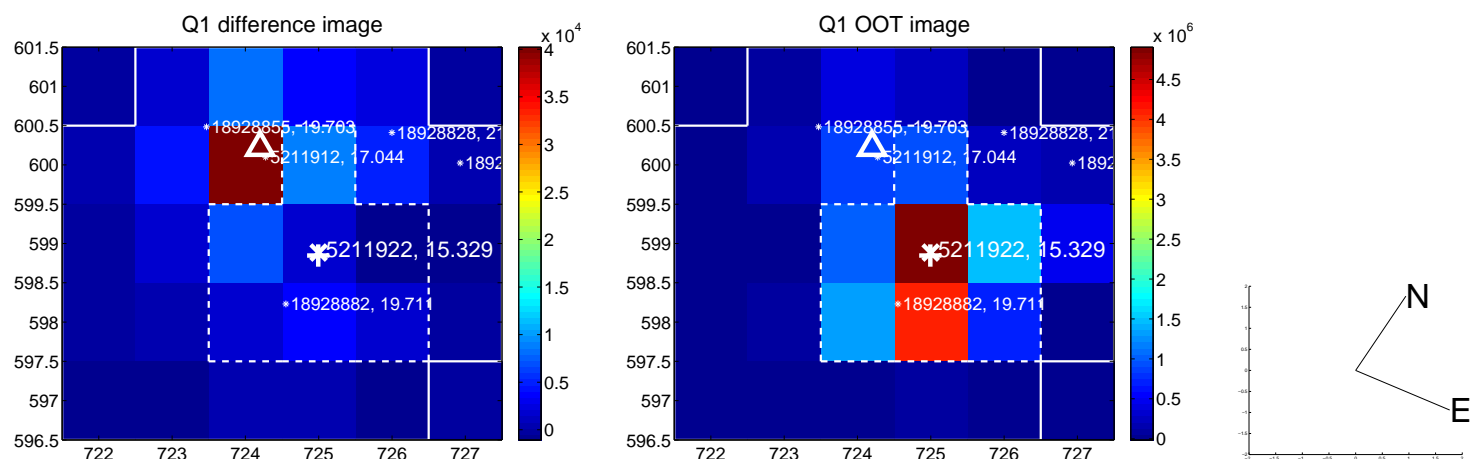


offset from photometric centroids

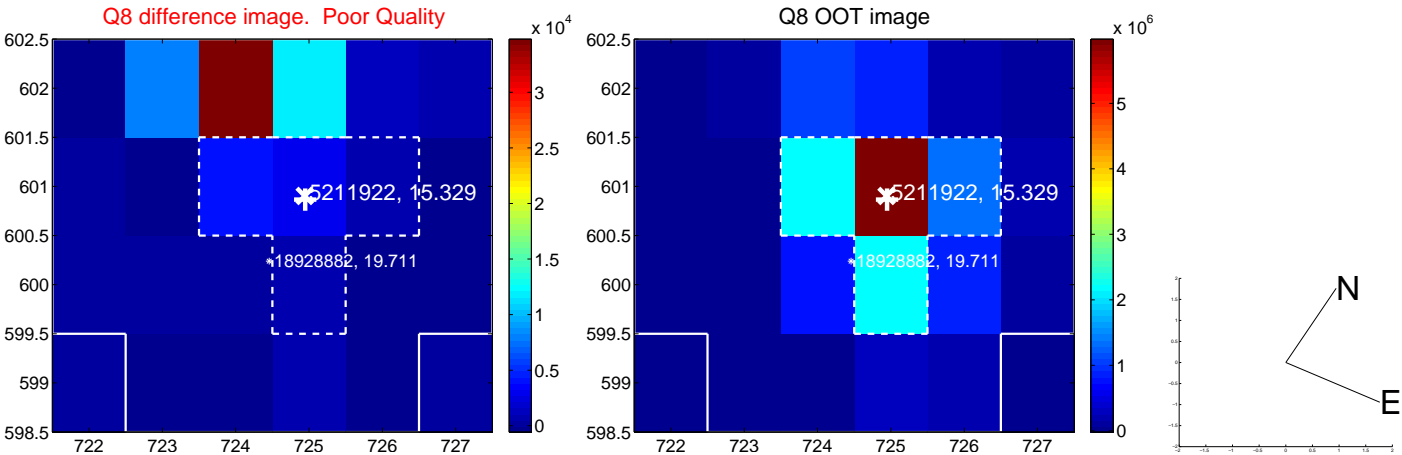
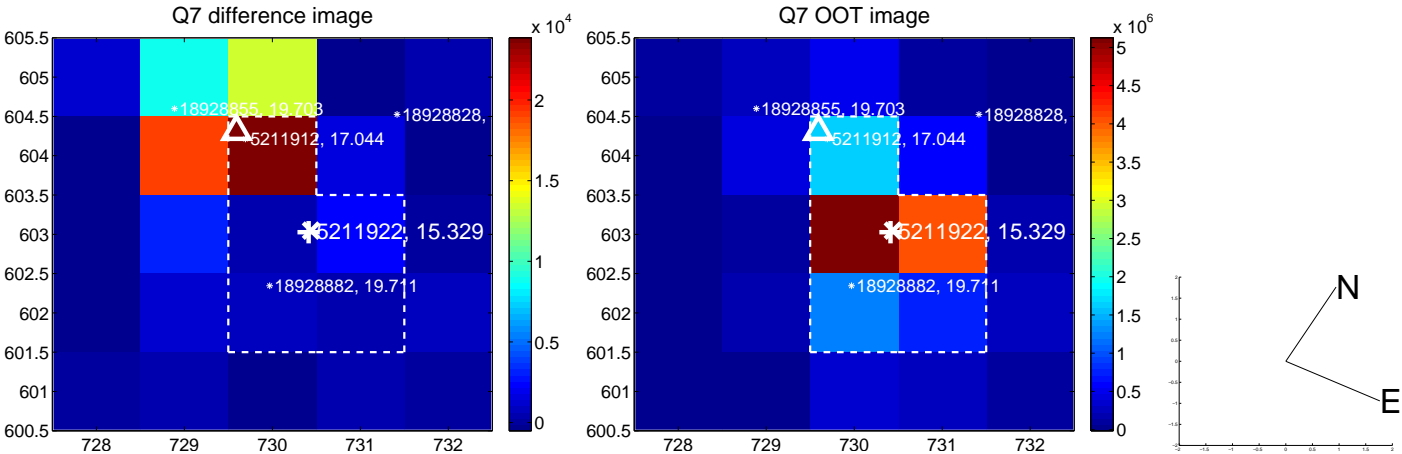
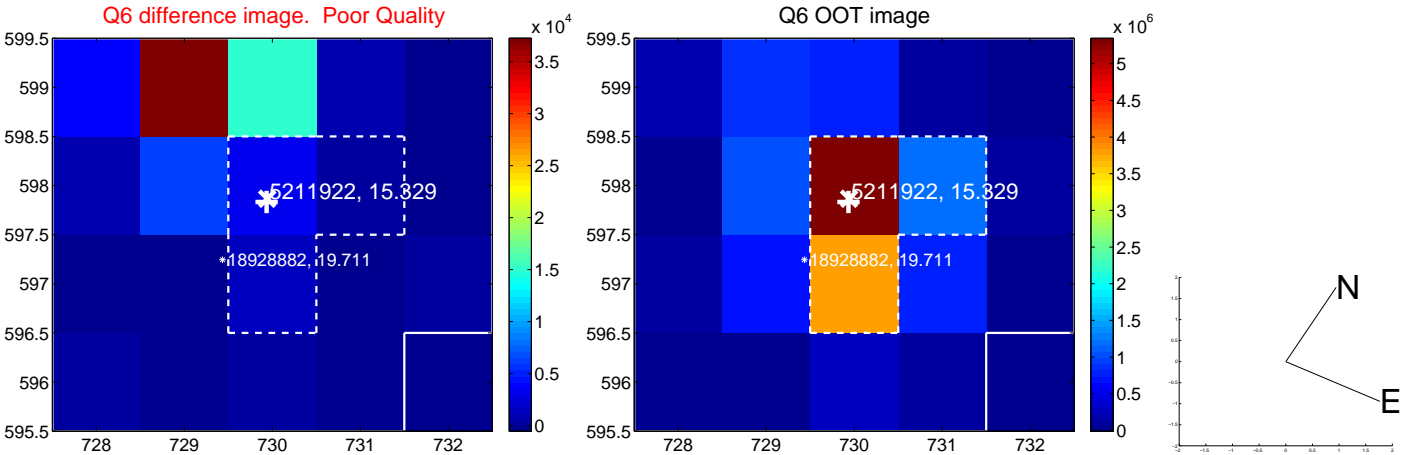
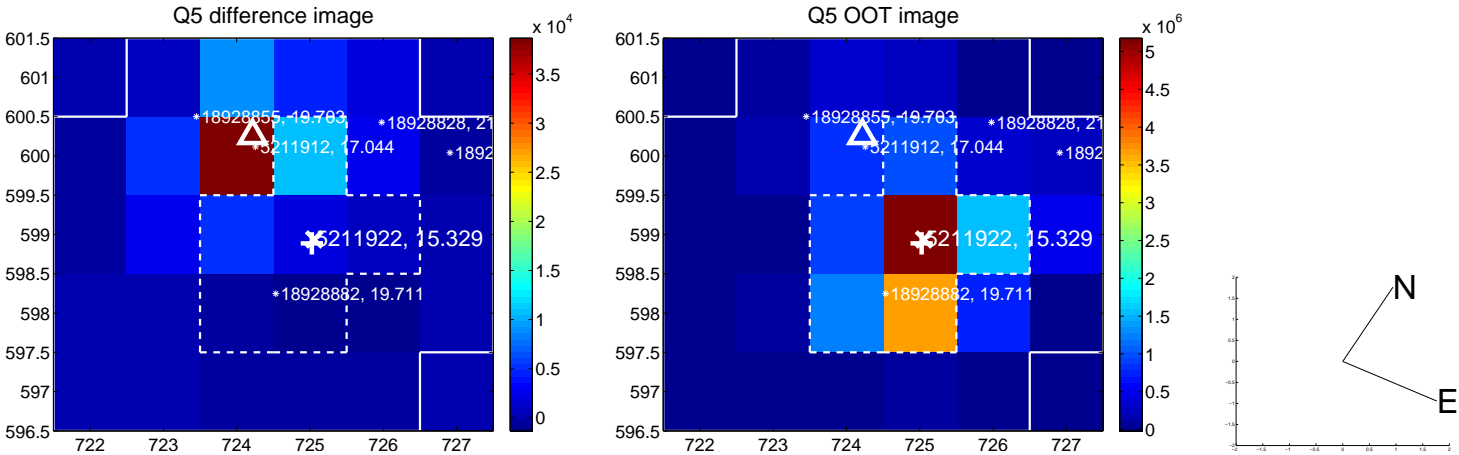


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

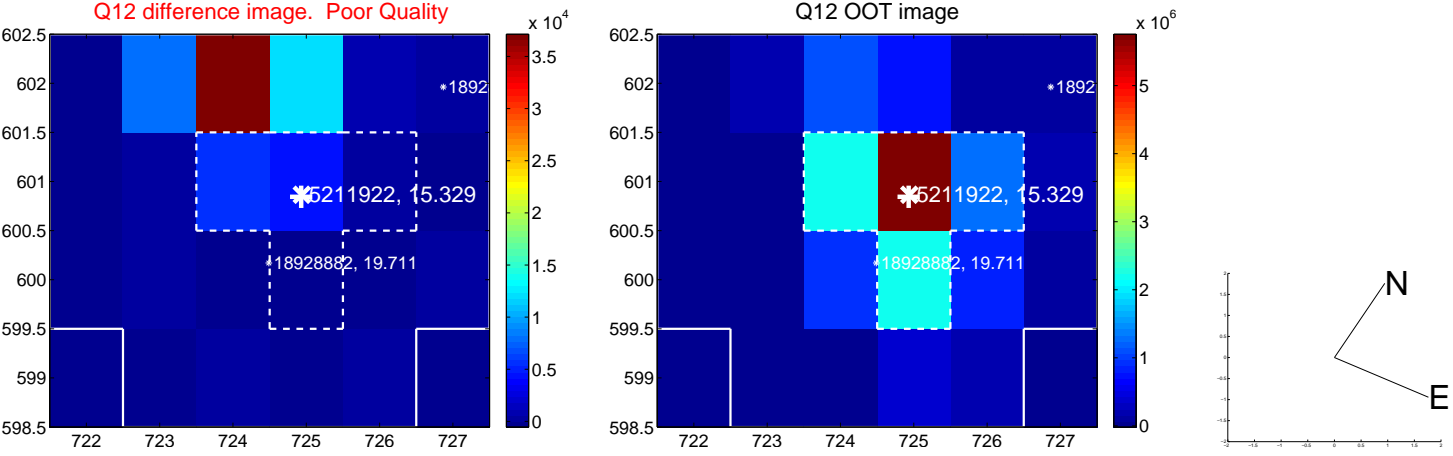
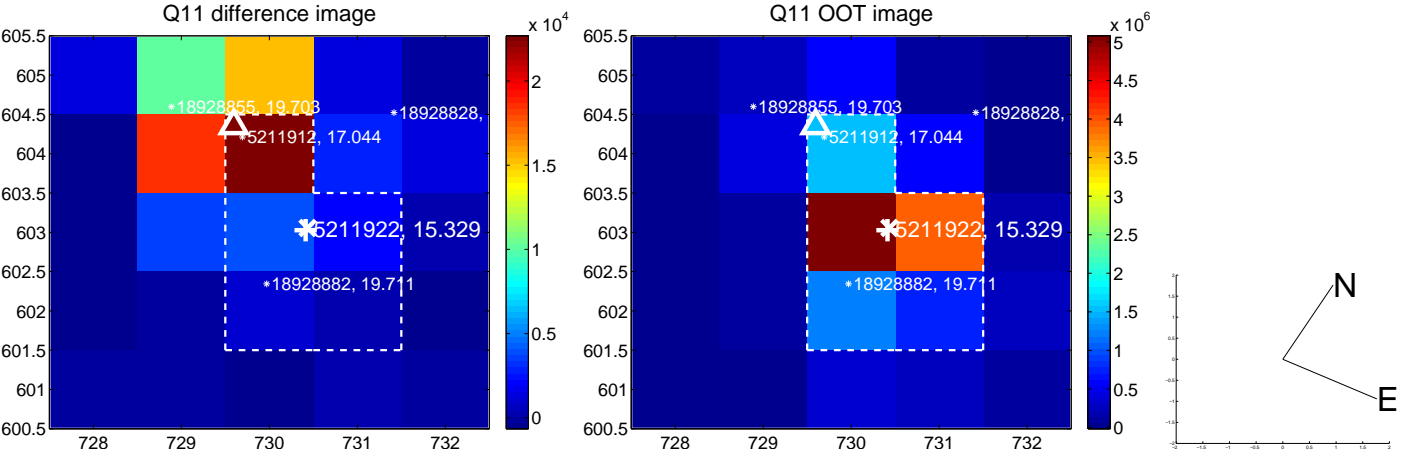
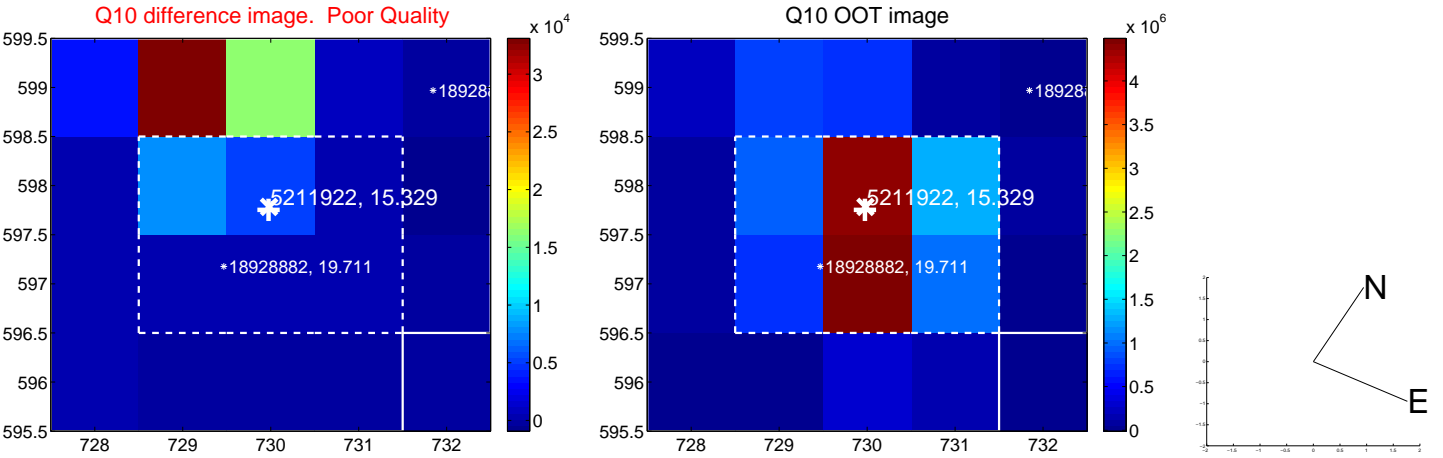
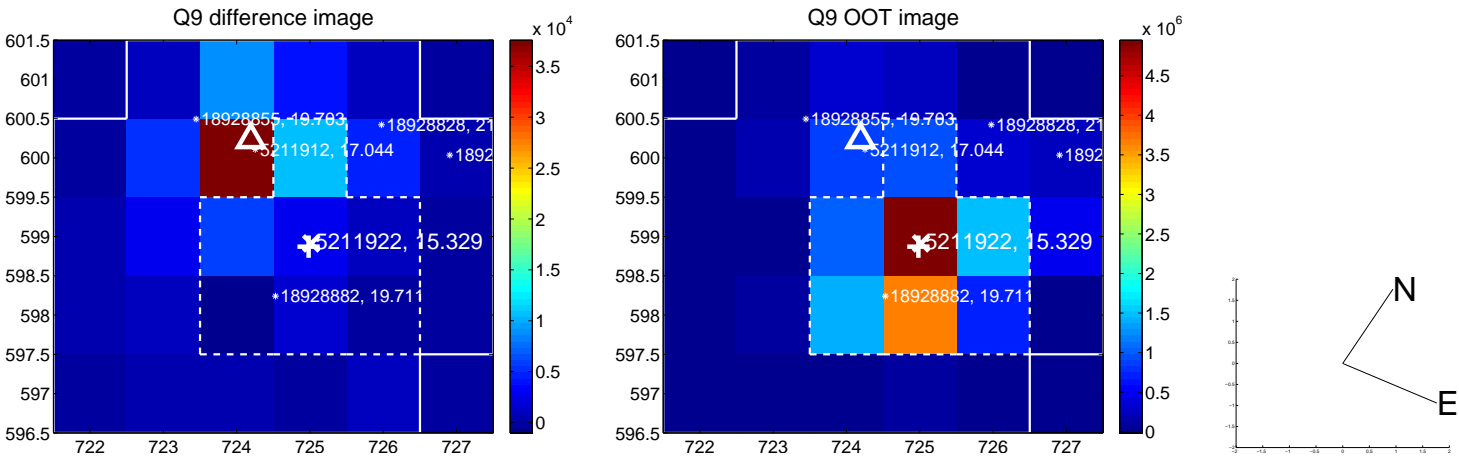
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



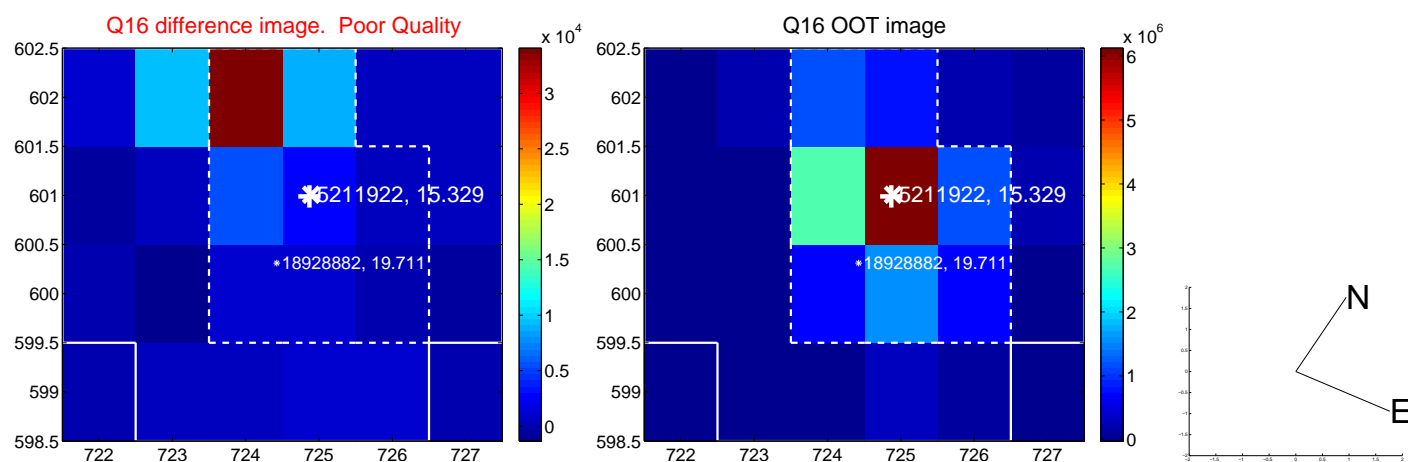
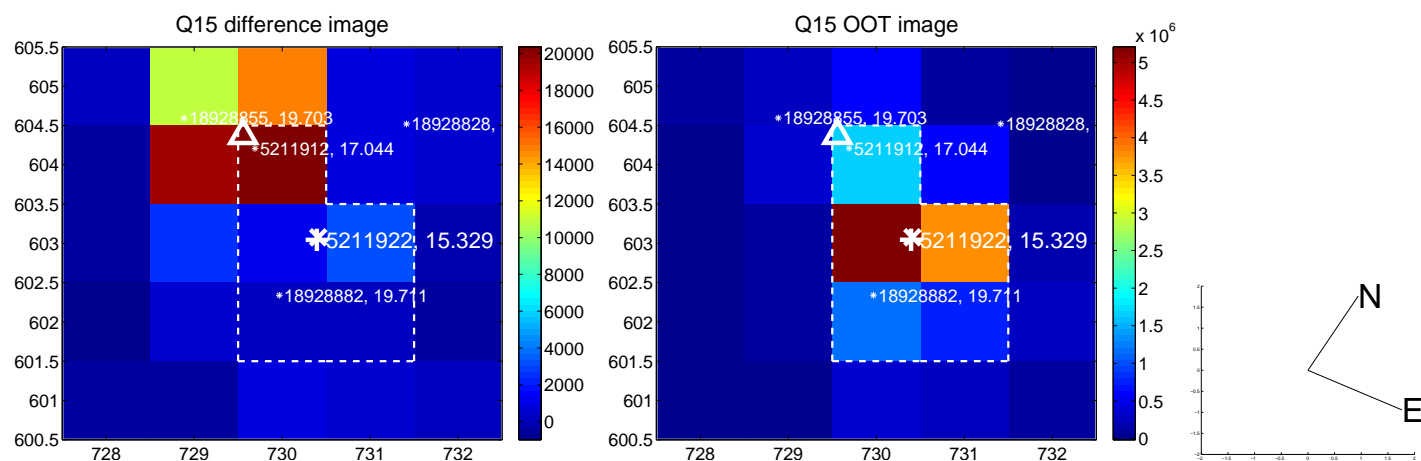
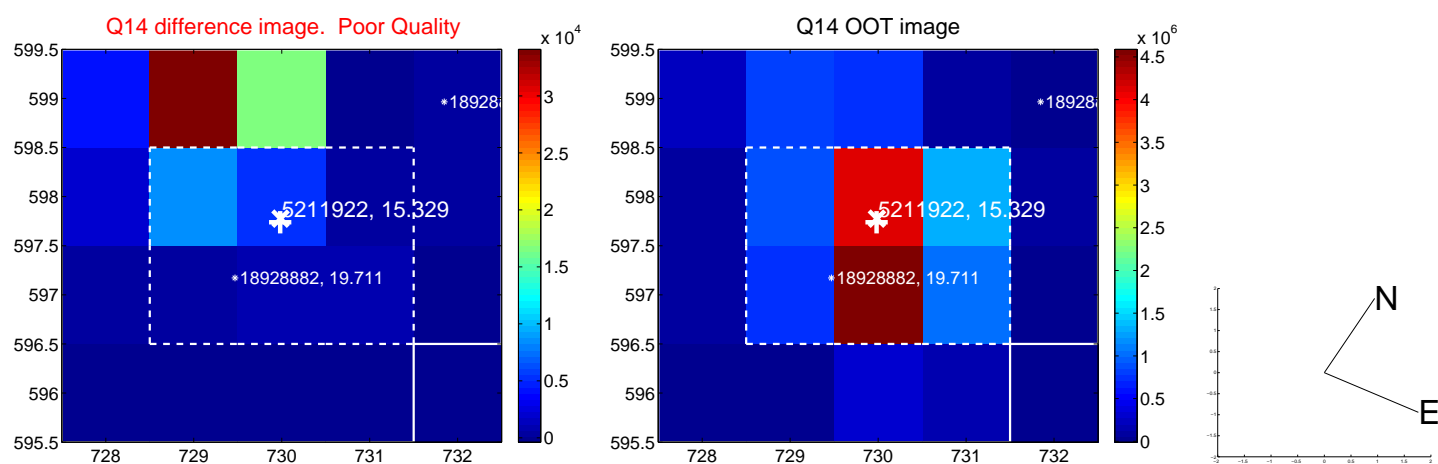
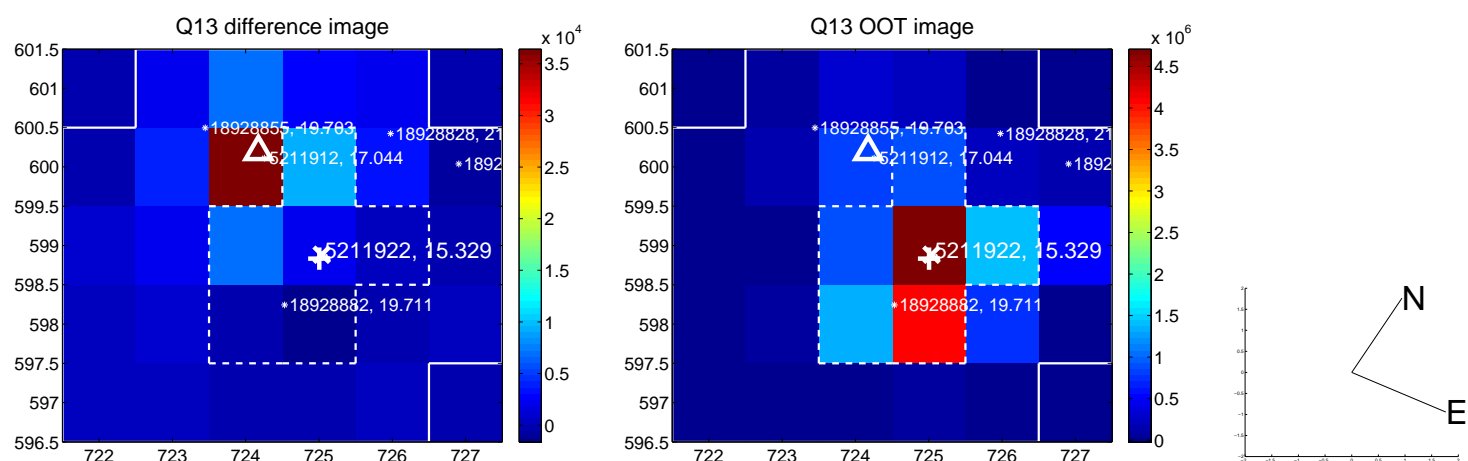
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



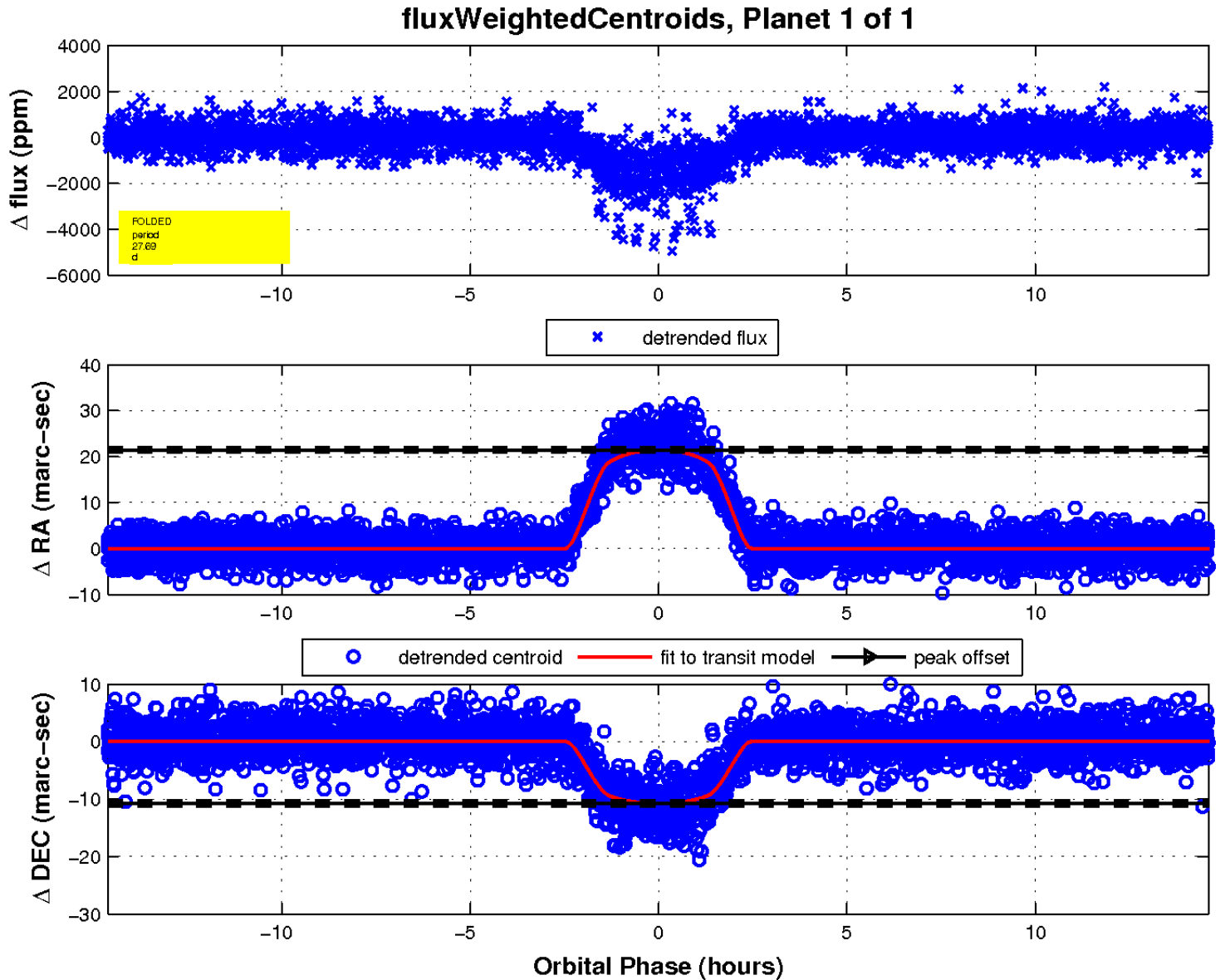
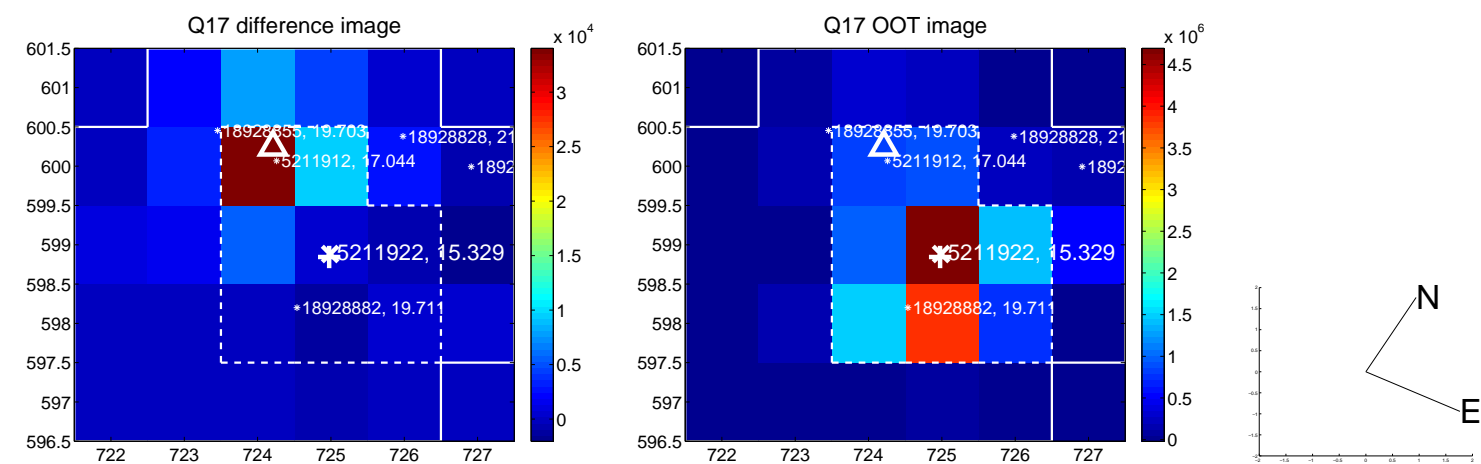
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

