

KIC 006062929

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})
006062929-01	OBS	2315.01	22.133438	152.183635	698.4	2.179	14.5	17.4	0.70	5165	2.21	15.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006062929-01	OBS	PC	0.99	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 006062929-01

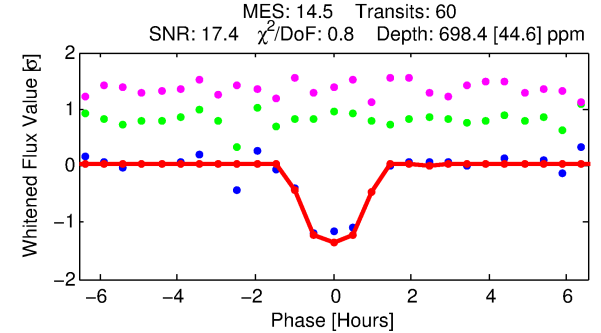
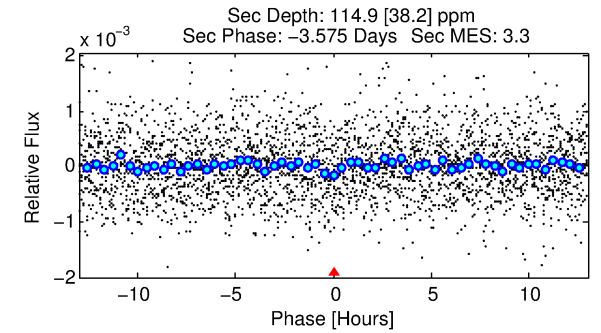
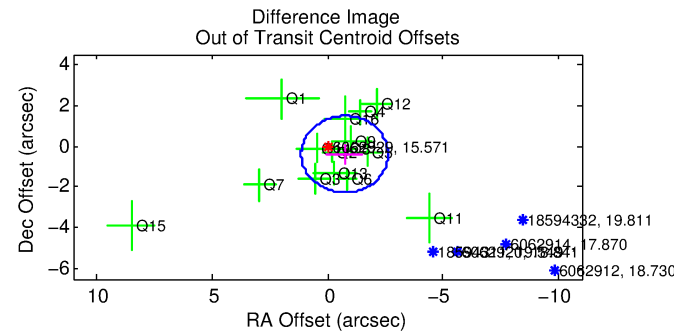
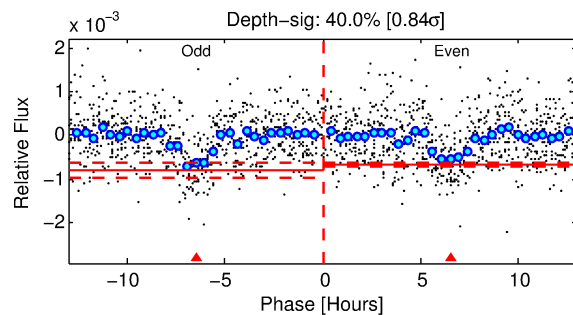
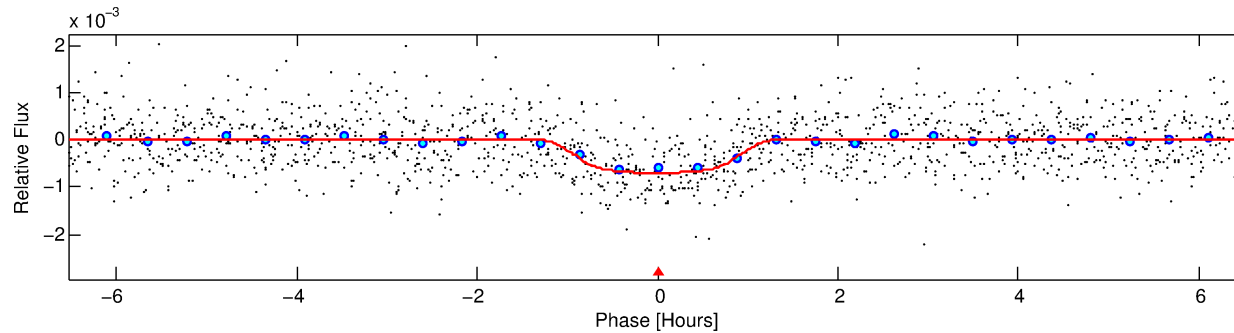
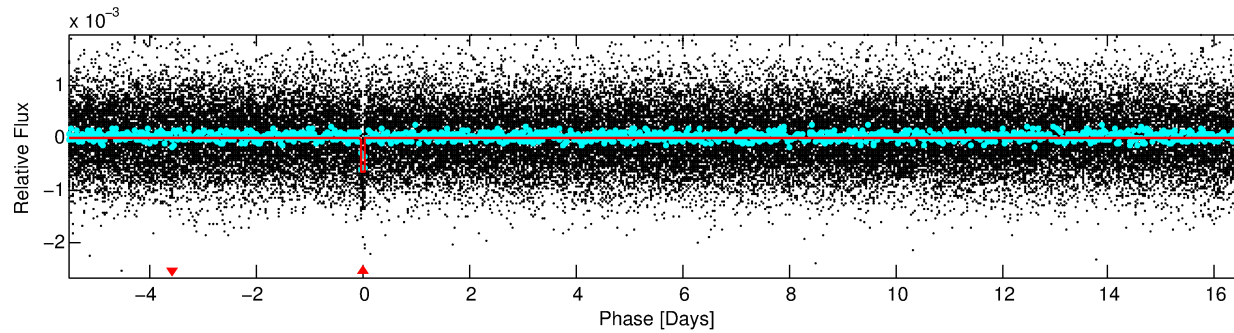
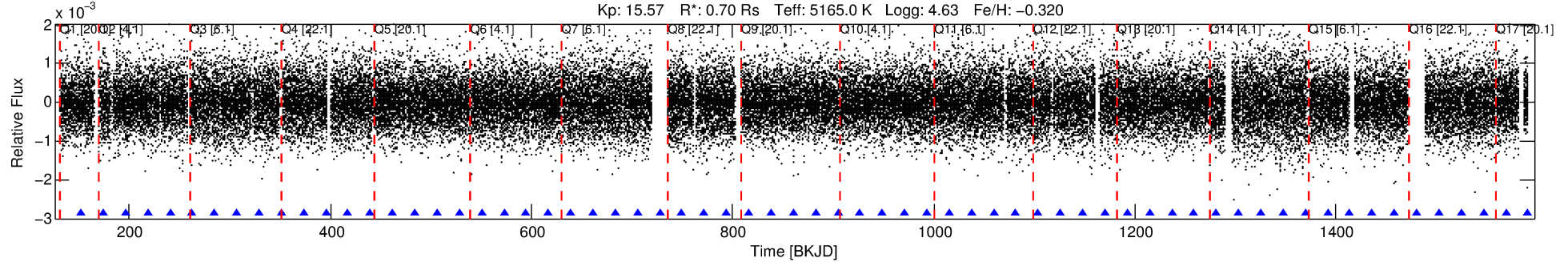
No Significant Match Found

DV One-Page Summary

KIC: 6062929 Candidate: 1 of 1 Period: 22.133 d

KOI: K02315.01 Corr: 0.962

Kp: 15.57 R*: 0.70 Rs Teff: 5165.0 K Logg: 4.63 Fe/H: -0.320



DV Fit Results:

Period = 22.13344 [0.00009] d
Epoch = 152.1836 [0.0032] BKJD
Rp/R* = 0.0288 [0.0091]
a/R* = 40.70 [51.10]
b = 0.89 [0.32]
Seff = 15.68 [3.06]
Teq = 507 [25] K
Rp = 2.21 [0.76] Re
a = 0.1416 [0.0157] AU
Ag = 259.66 [189.39] [1.37σ]
Teffp = 3149 [569] K [4.64σ]

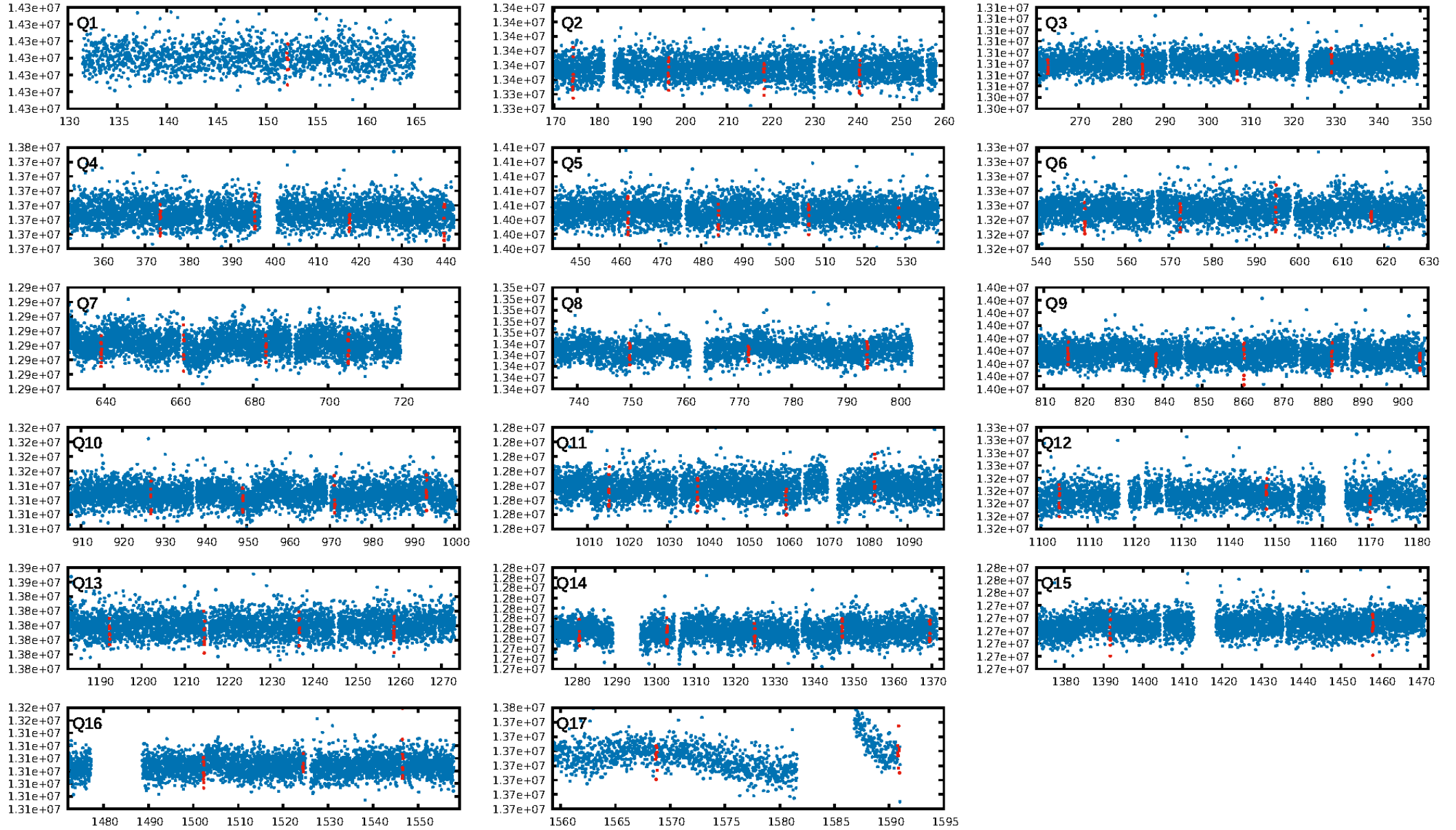
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 70.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.39e-47
RollingBand-fgt: 1.00 [57/57]
GhostDiagnostic-chr: 2.153
Centroid-sig: 32.8%
Centroid-so: 0.697 arcsec [0.88σ]
OotOffset-rm: 0.837 arcsec [1.34σ]
KicOffset-rm: 0.868 arcsec [1.43σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.73 [11/15]
DiffImageOverlap-fno: 1.00 [17/17]

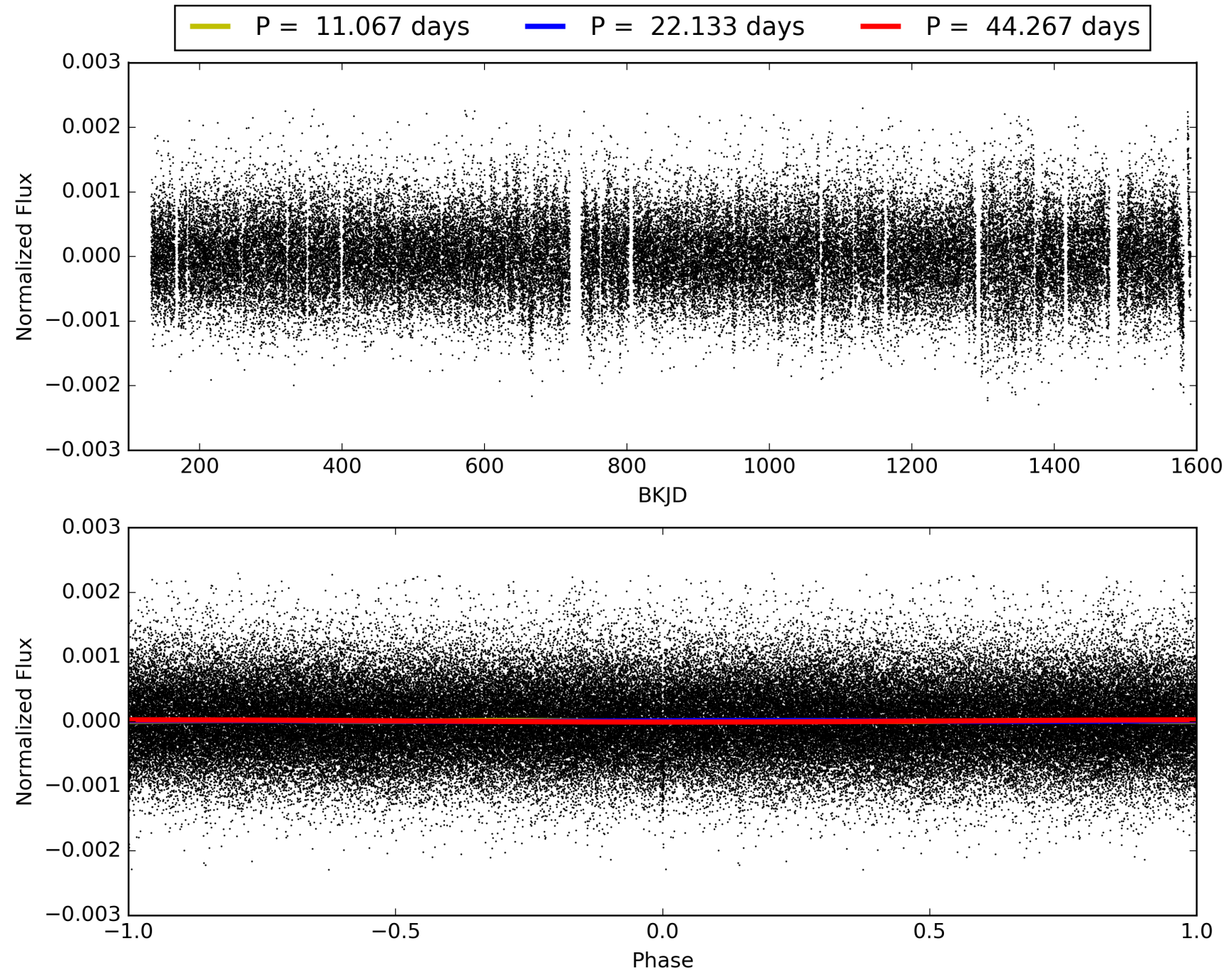
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:28:23 Z

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

TCE 006062929-01, PDC Light Curves

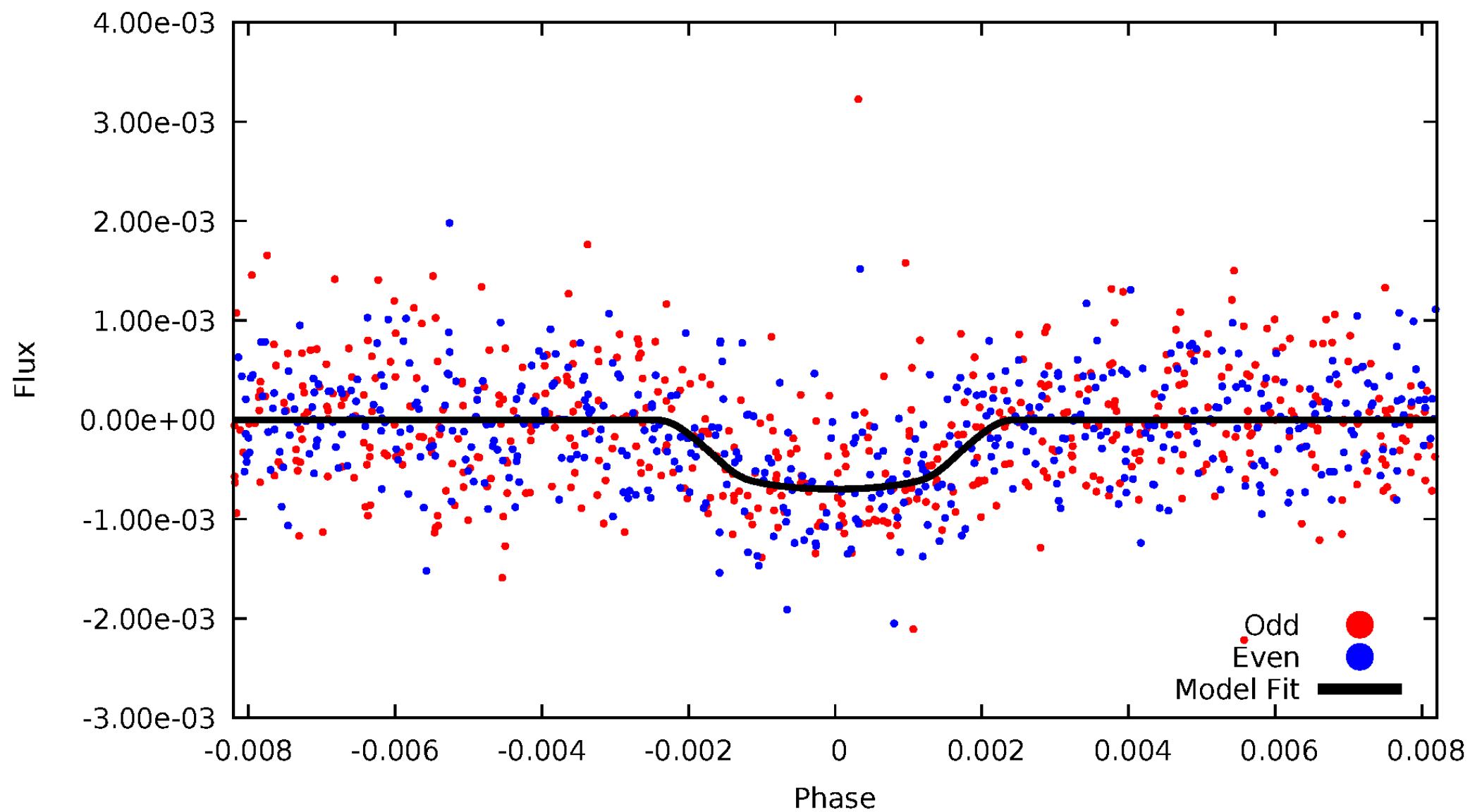


TCE 006062929-01



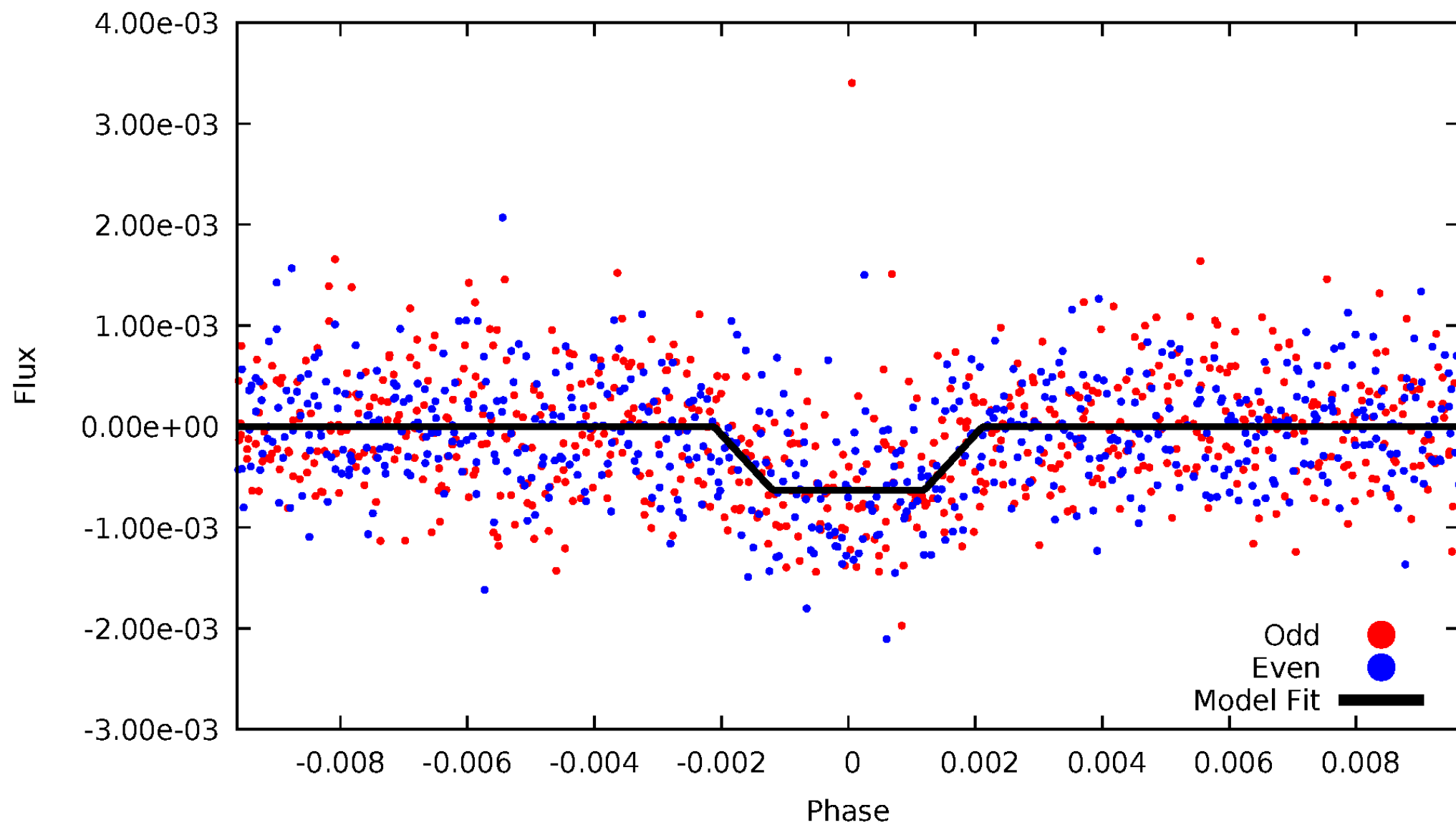
DV Odd/Even

TCE 006062929-01



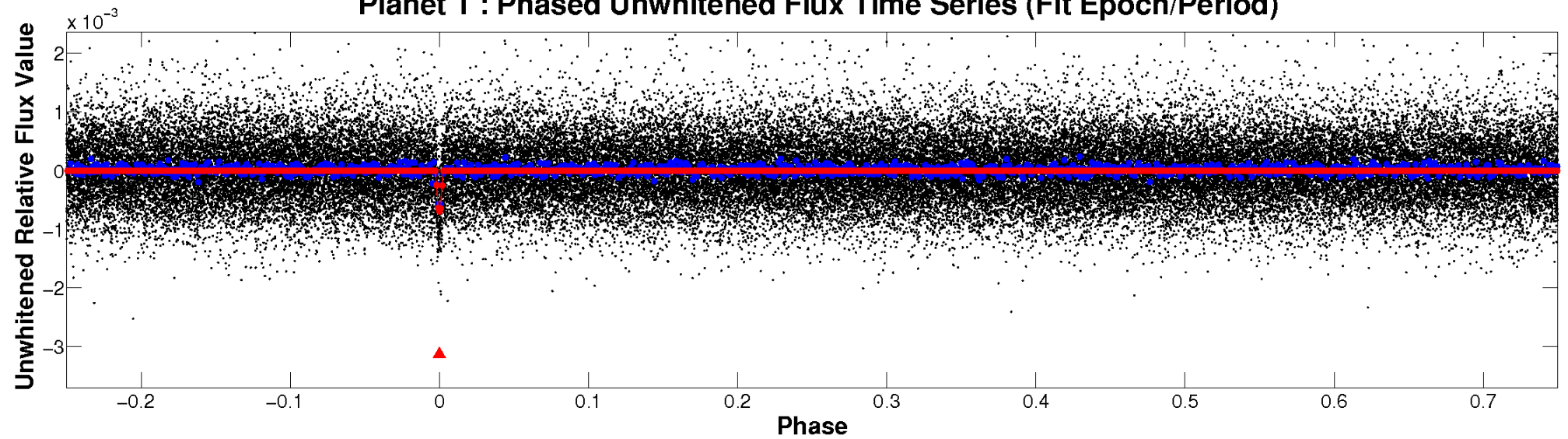
ALT Odd/Even

TCE 006062929-01

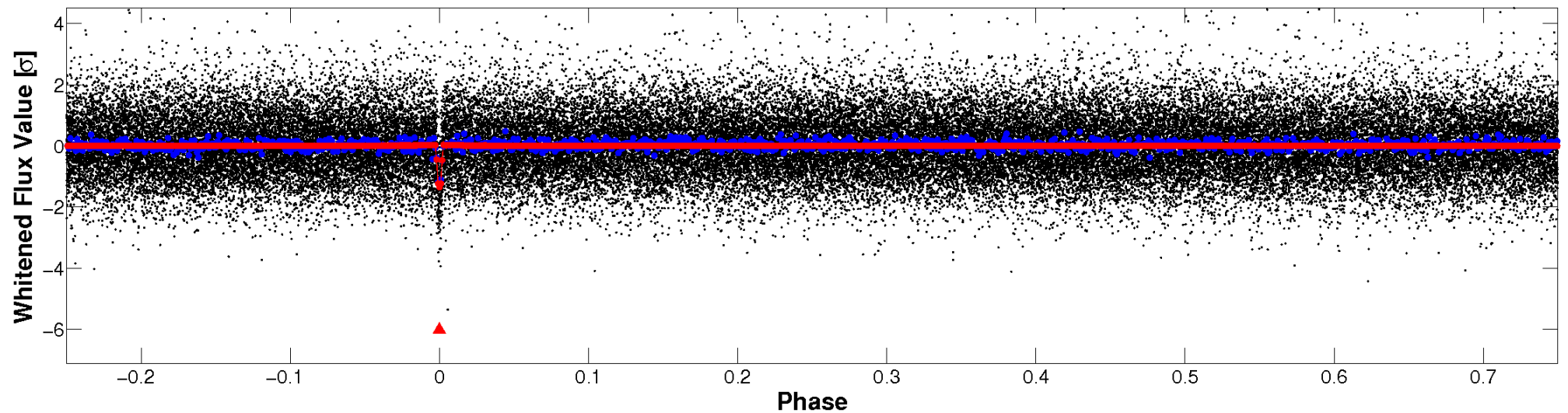


Non-Whitened Vs. Whitened Light Curve

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

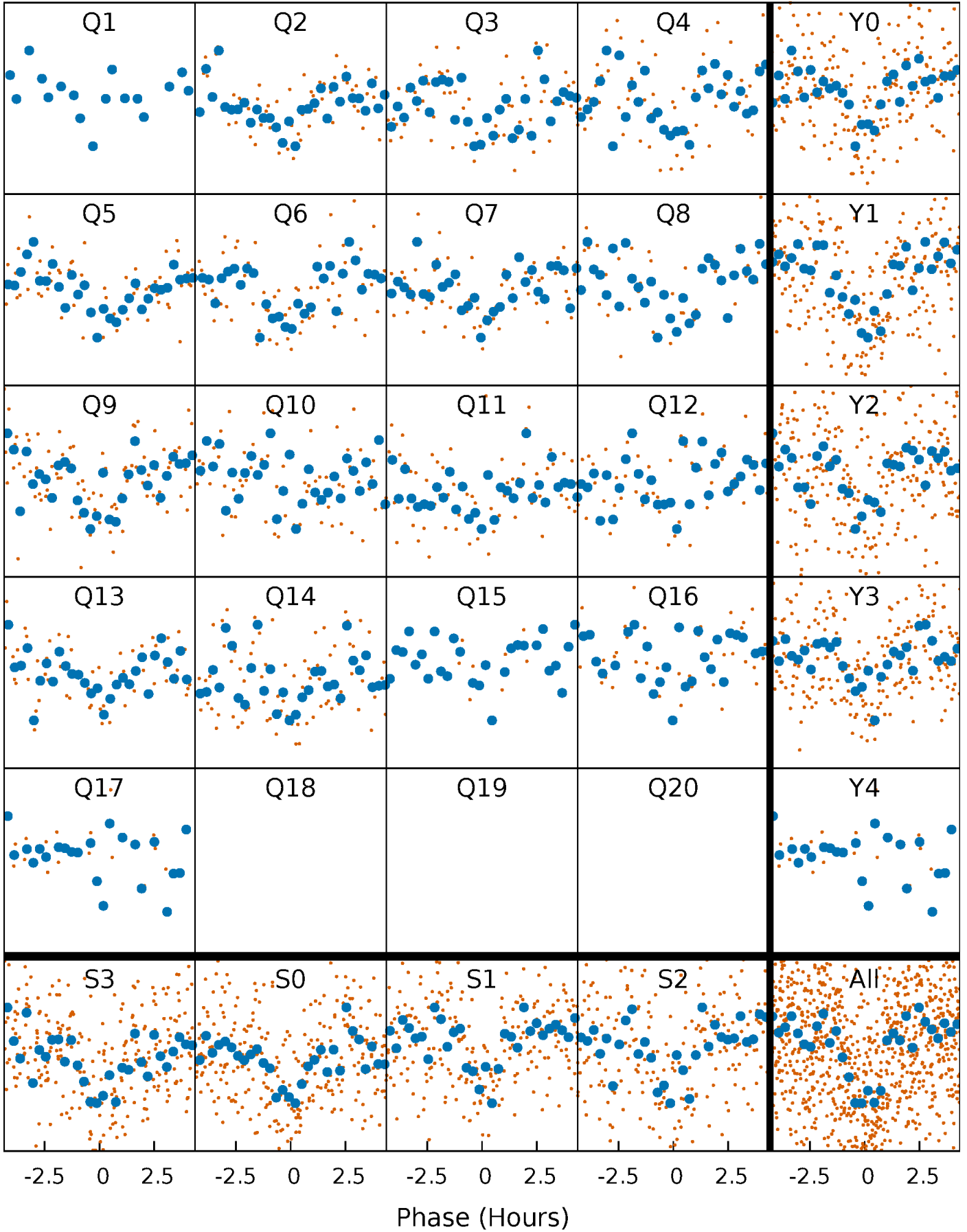


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



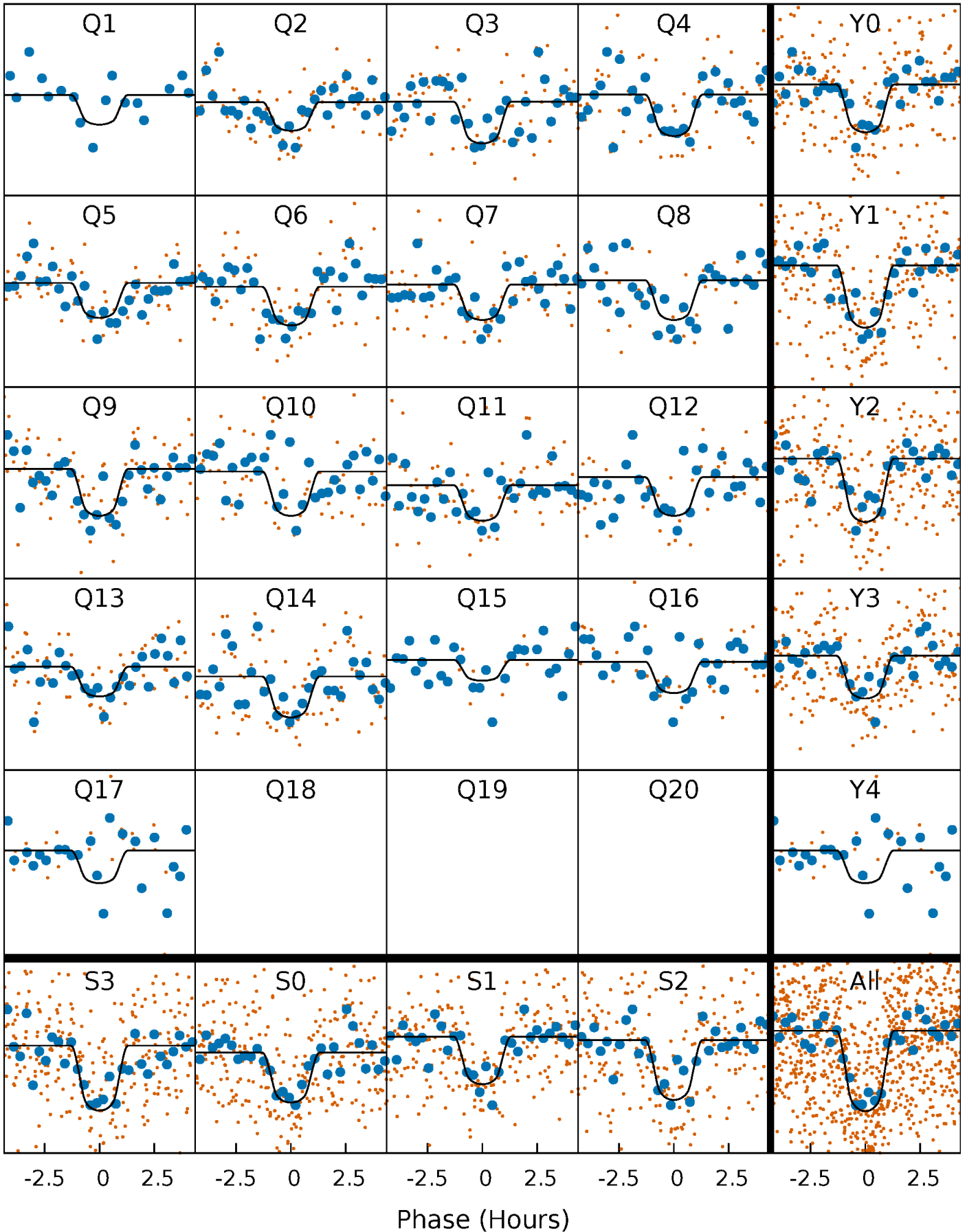
PDC Quarter-Phased Transit Curves

TCE 006062929-01 P= 22.133438 Days $T_0=152.183635$ (BKJD)



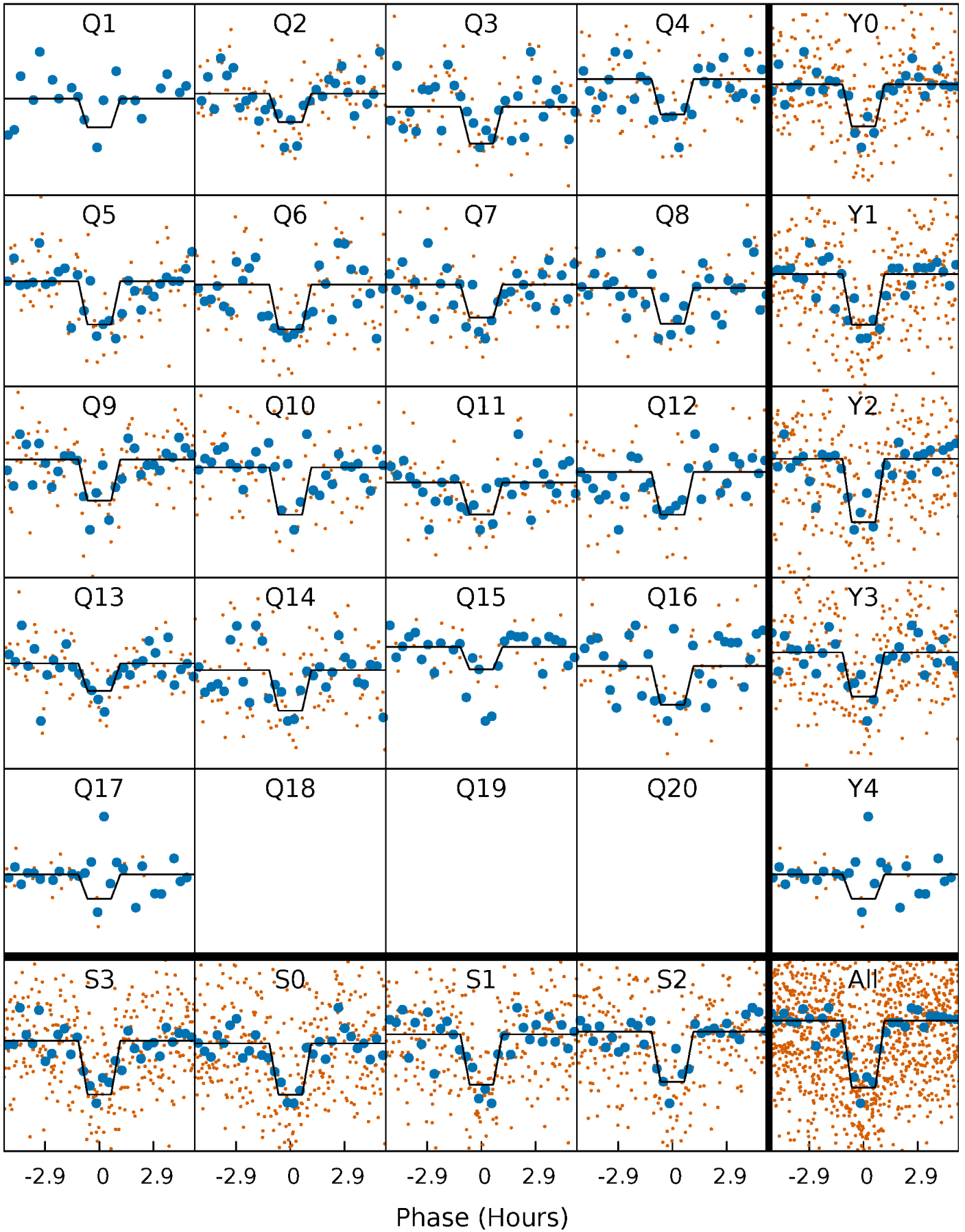
DV Quarter-Phased Transit Curves

TCE 006062929-01 P= 22.133438 Days $T_0=152.183635$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

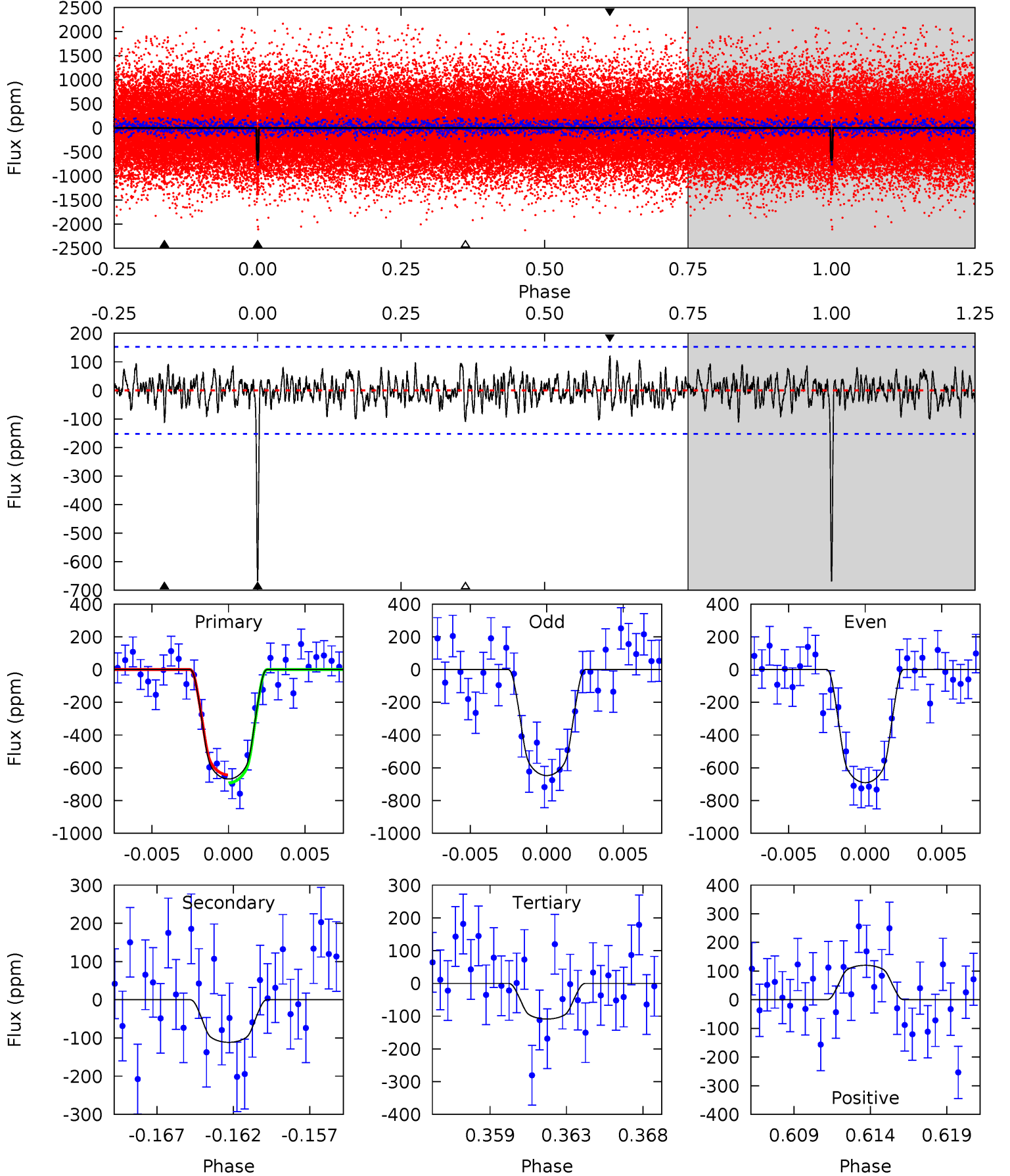
TCE 006062929-01 P= 22.133620 Days $T_0=152.177875$ (BKJD)



DV Model-Shift Uniqueness Test

006062929-01, P = 22.133438 Days, E = 130.050197 Days

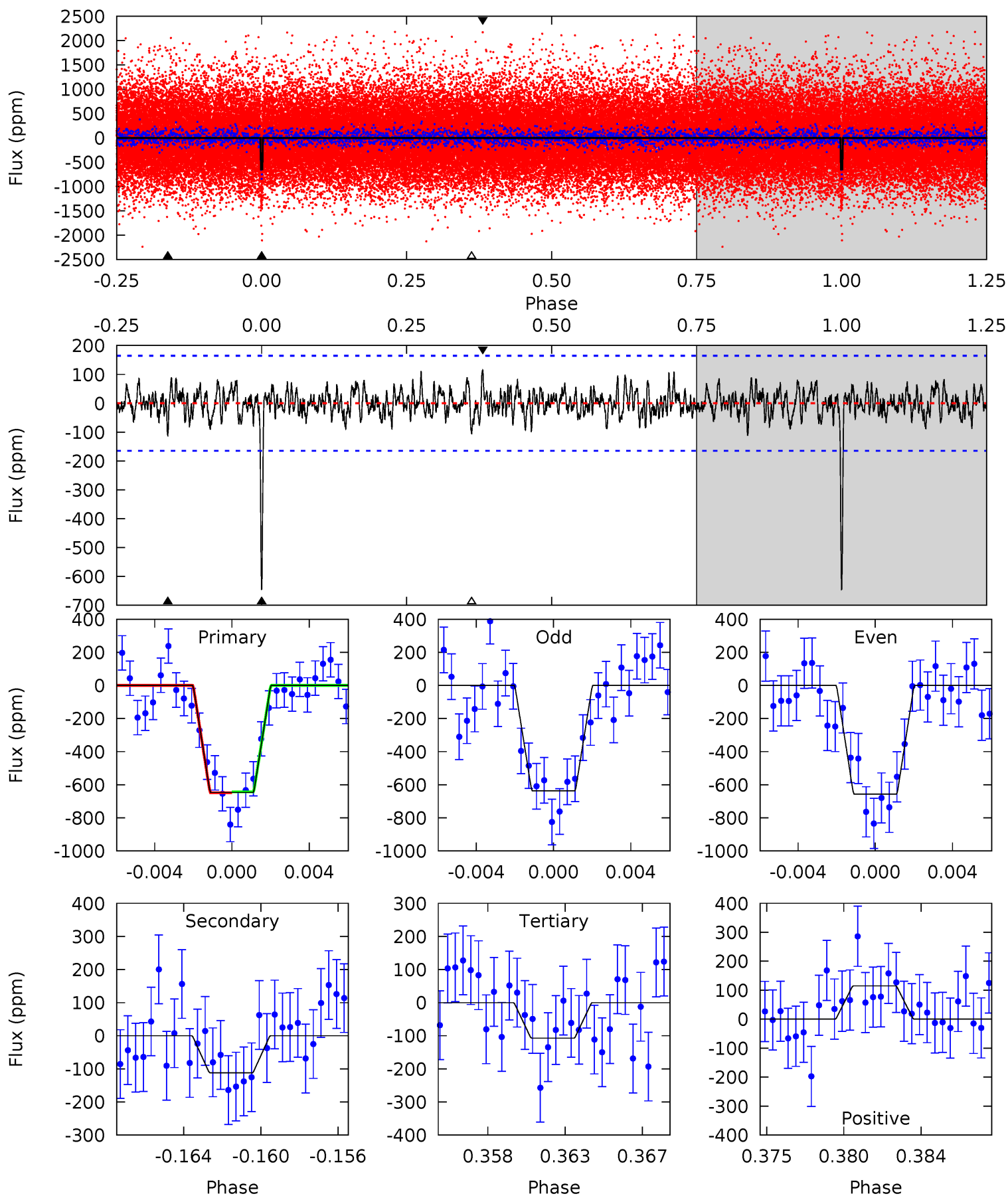
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	3.77	3.68	4.07	5.16	2.81	1.23	18.9	18.6	0.09	-0.30	0.74	1.00	0.15	0.83



Alt Model-Shift Uniqueness Test

006062929-01, P = 22.133620 Days, E = 130.044255 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	3.53	3.38	3.62	5.19	2.86	1.15	17.0	16.7	0.15	-0.09	0.30	0.96	0.15	0.09



Stellar Parameters For KIC 006062929

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5165^{+153}_{-138}	$4.633^{+0.033}_{-0.082}$	$-0.320^{+0.300}_{-0.300}$	$0.702^{+0.096}_{-0.052}$	$0.782^{+0.066}_{-0.088}$	$3.183^{+0.550}_{-0.814}$
	+3%/-3%	+1%/-2%	+94%/-94%	+14%/-7%	+8%/-11%	+17%/-26%
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 006062929-01 / KOI 2315.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-111 ± 30	$2.25^{+0.74}_{-0.75}$	716^{+29}_{-28}	3546^{+584}_{-359}	242^{+326}_{-117}
Alt.	-112 ± 32	$1.94^{+0.74}_{-0.67}$	719^{+28}_{-25}	3730^{+649}_{-400}	320^{+444}_{-163}

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

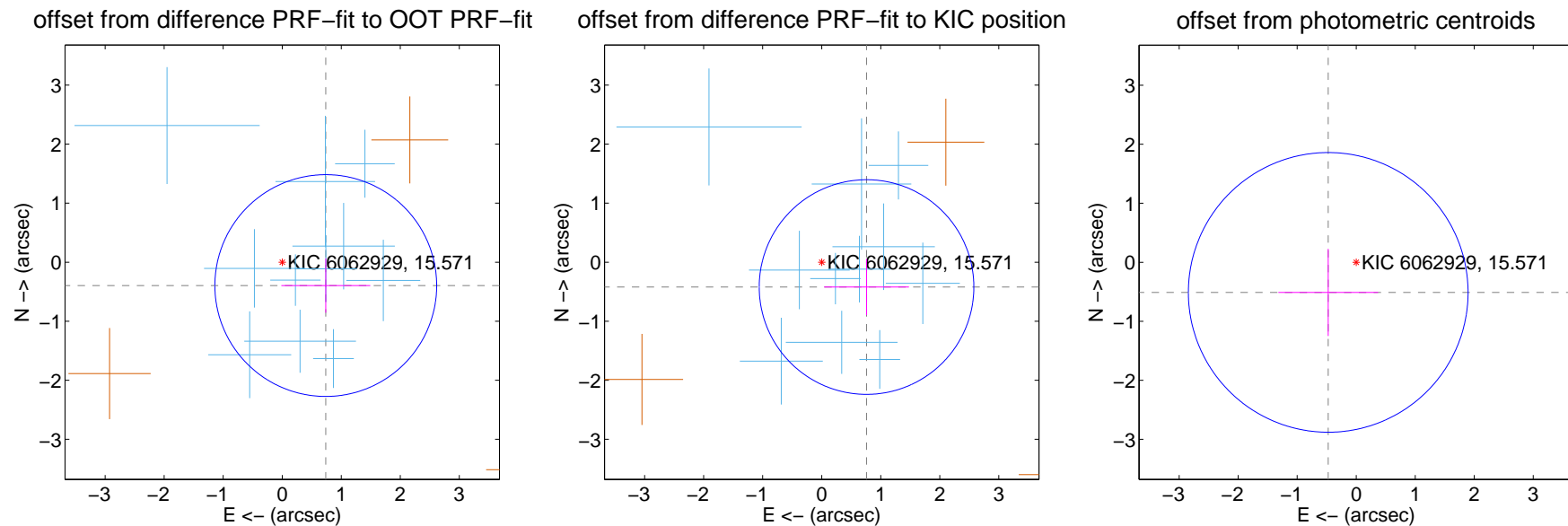
DV Centroid Data

Supplemental centroid analysis for 006062929-01. Kepler magnitude: 15.57. Transit SNR 17.45

There are 11 quarters with good PRF difference image offsets

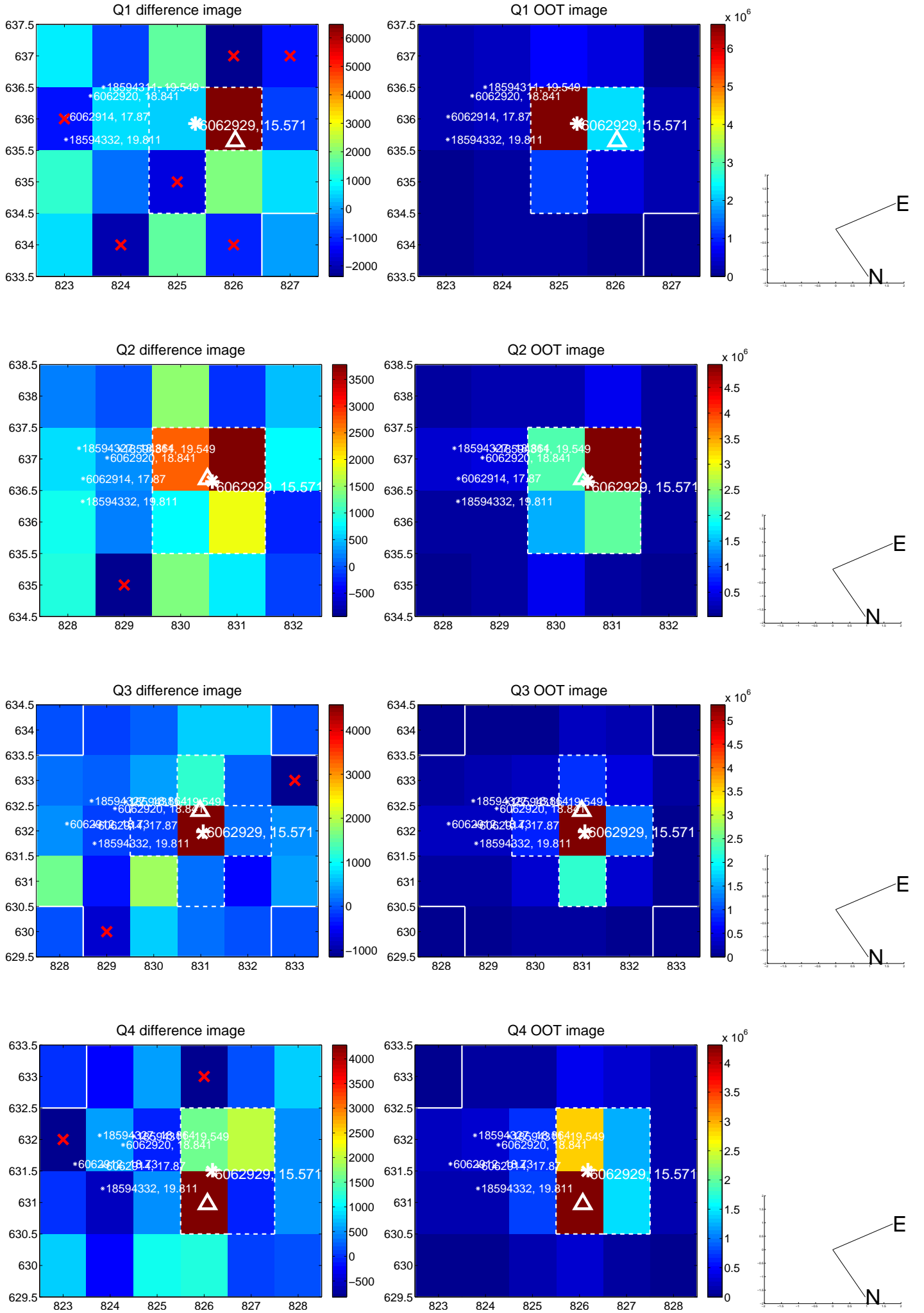
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.837 ± 0.626	1.34	-0.738 ± 0.753	-0.396 ± 0.461
PRF-fit source offset from KIC position	0.868 ± 0.606	1.43	-0.759 ± 0.719	-0.421 ± 0.476
photometric centroid source offset	0.70 ± 0.79	0.88	0.47 ± 0.85	-0.51 ± 0.74

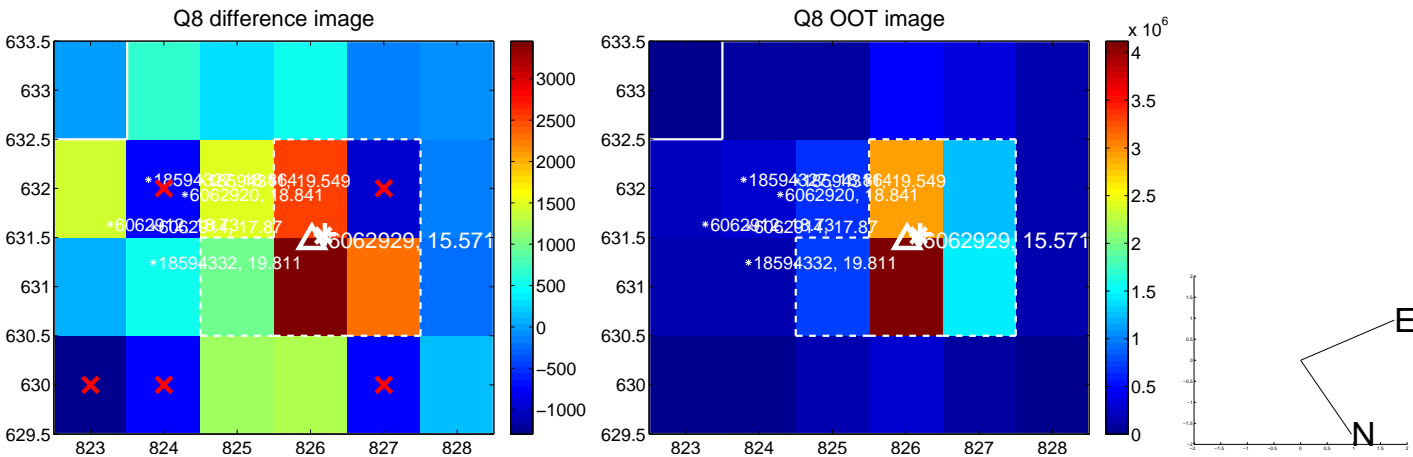
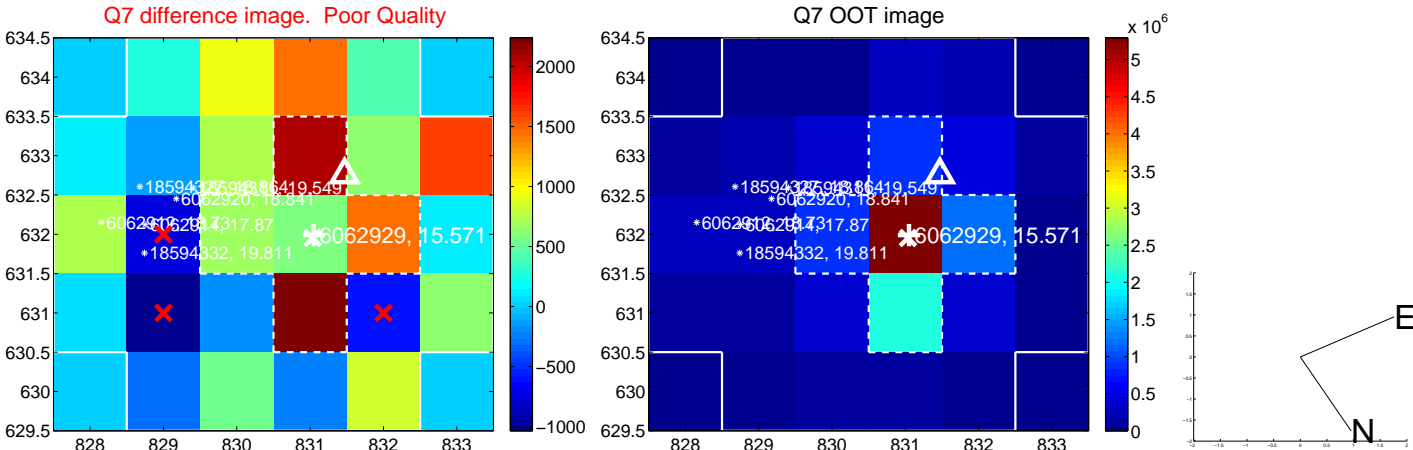
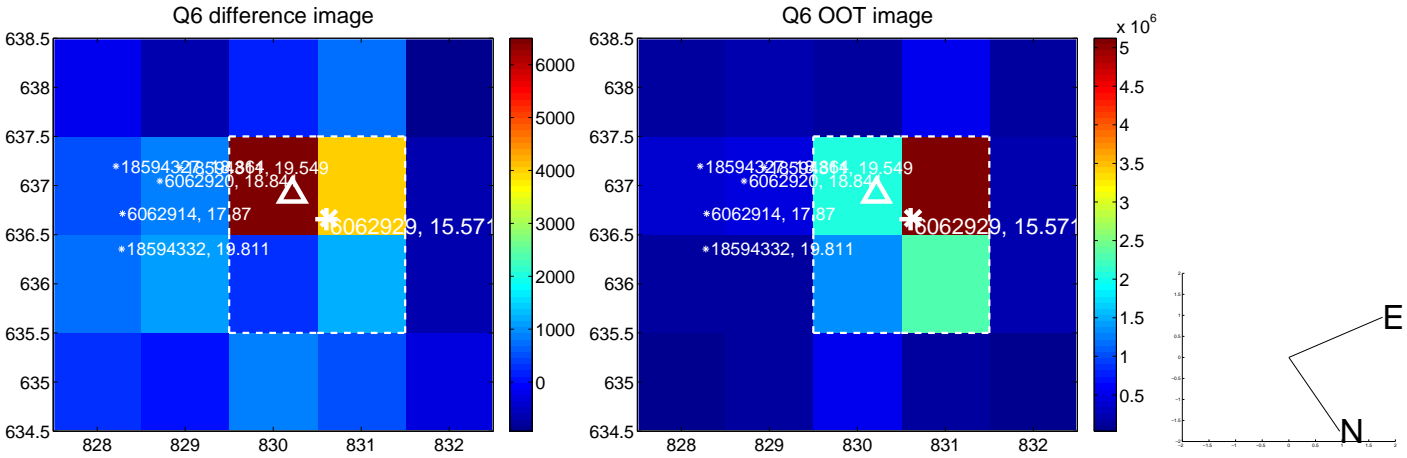
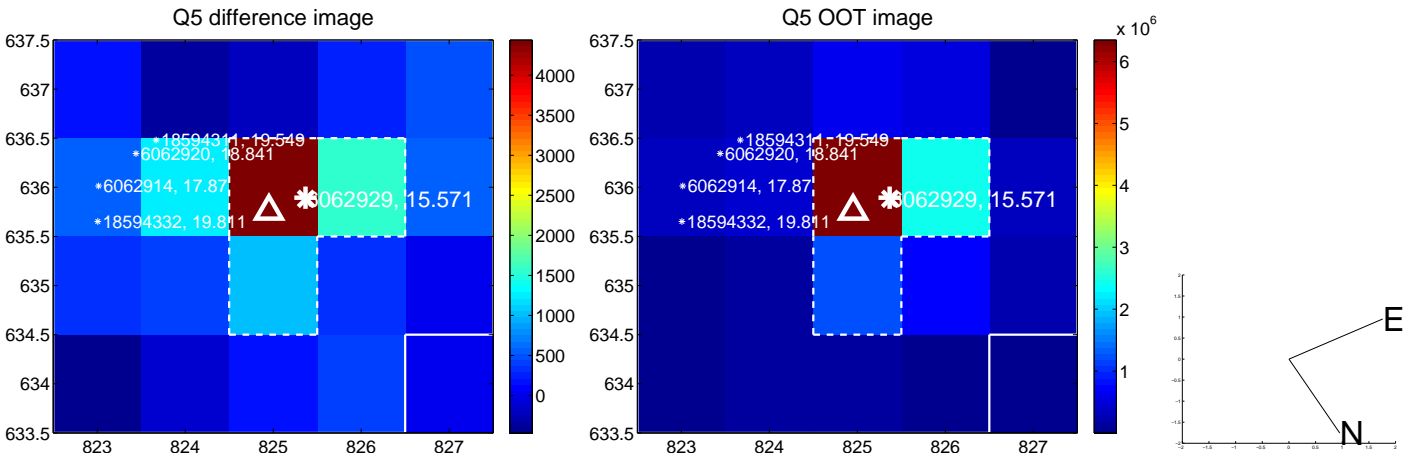


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

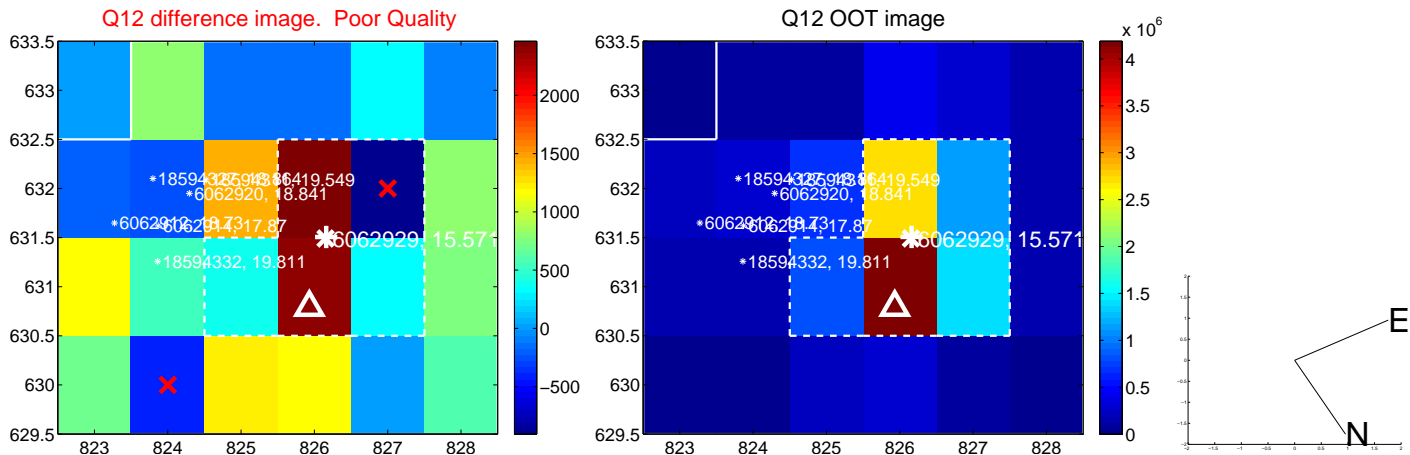
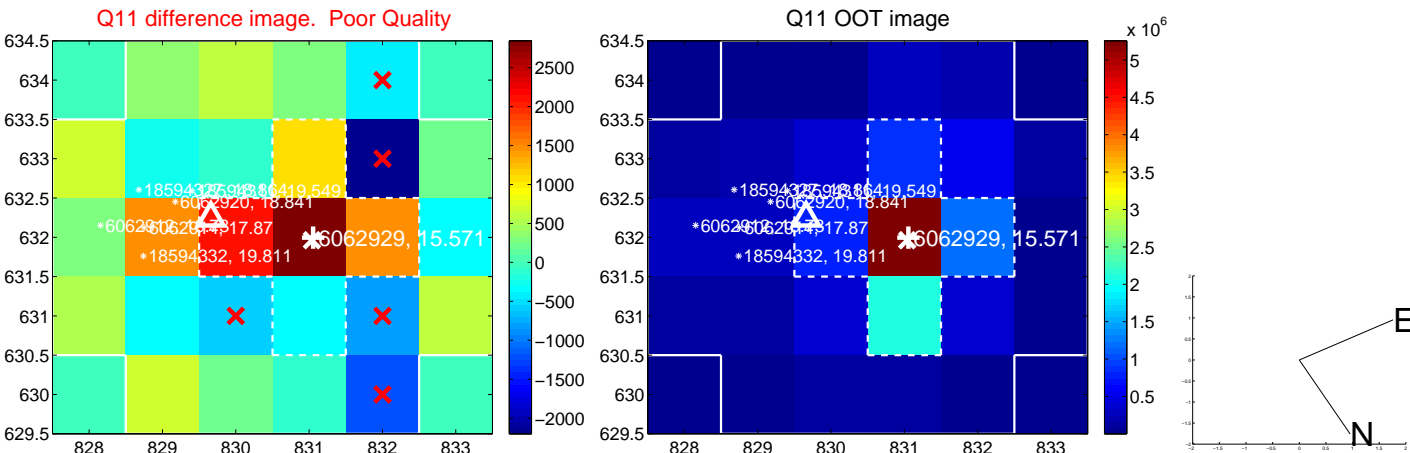
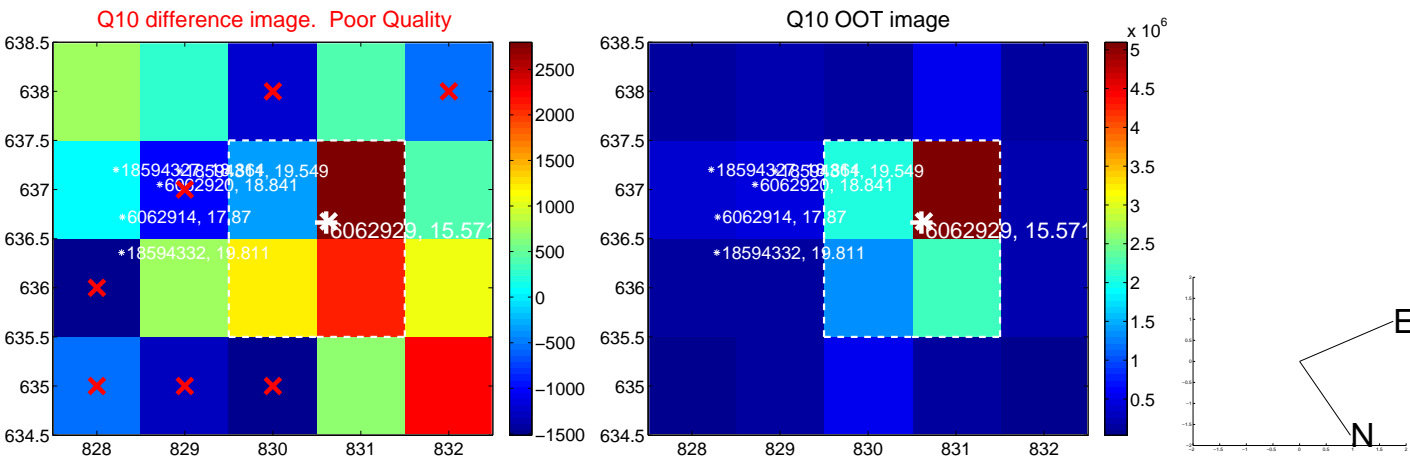
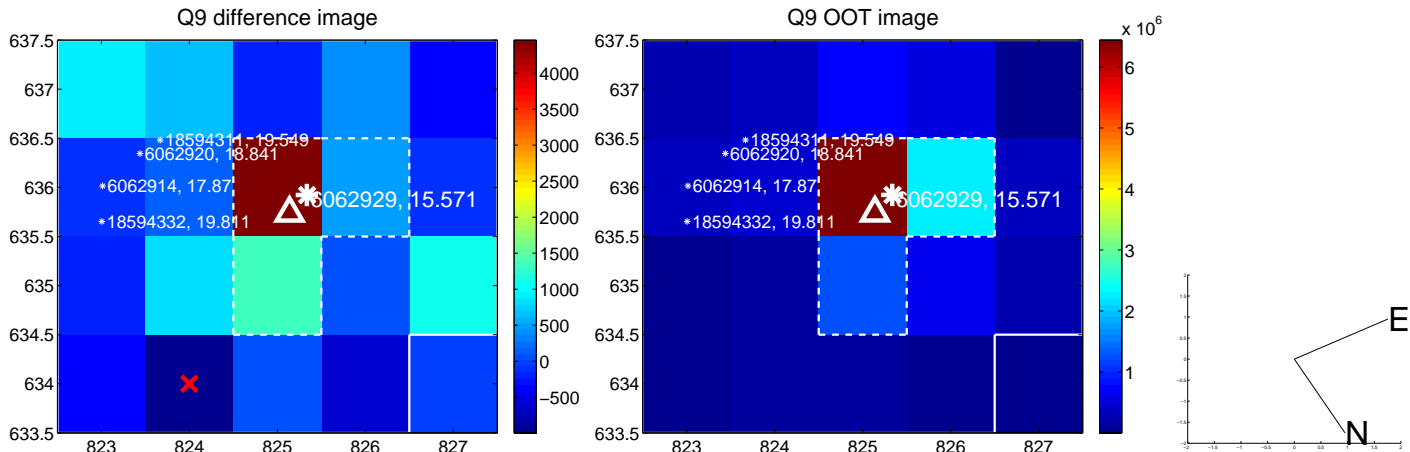
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



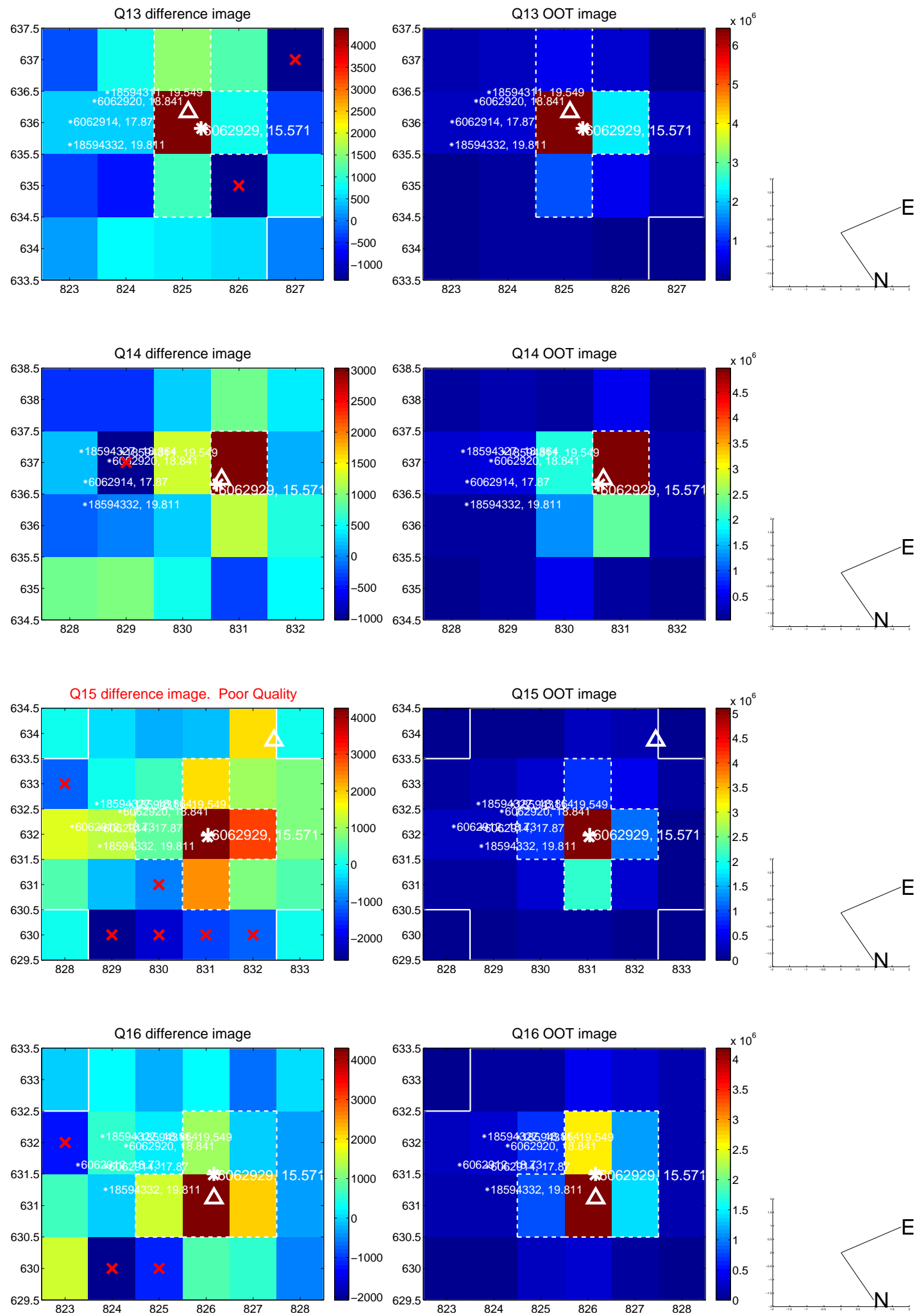
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



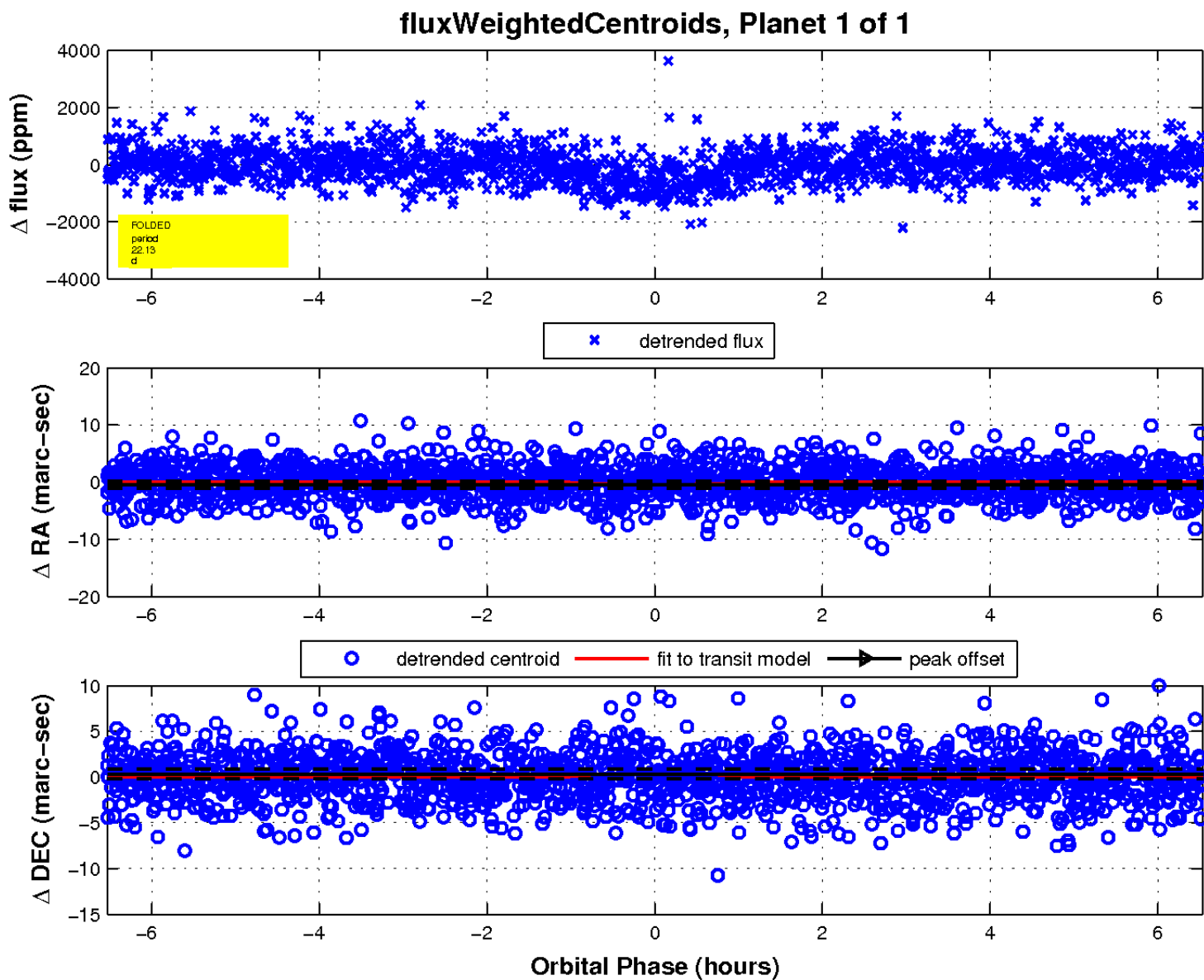
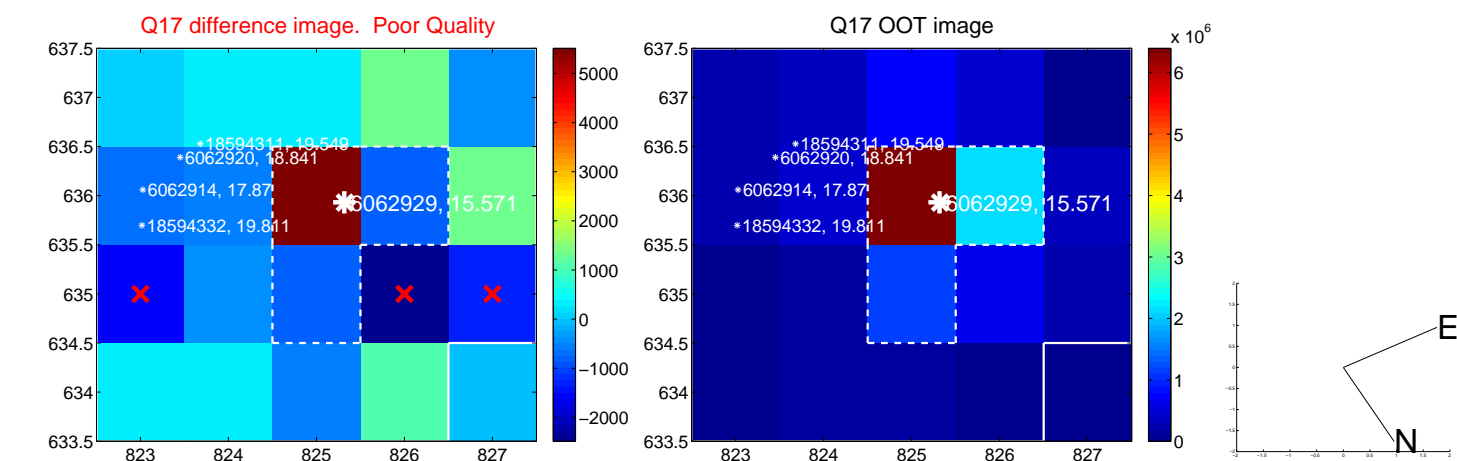
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

