

KIC 010208229

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})
010208229-01	OBS	No	367.208837	145.553976	477.8	19.811	8.0	7.9	1.07	6082	2.44	1.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010208229-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—CENT_FEW_DIFFS

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

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

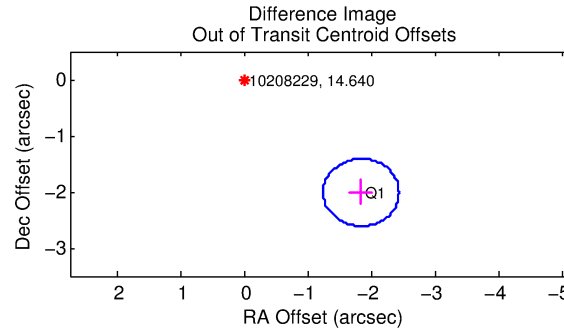
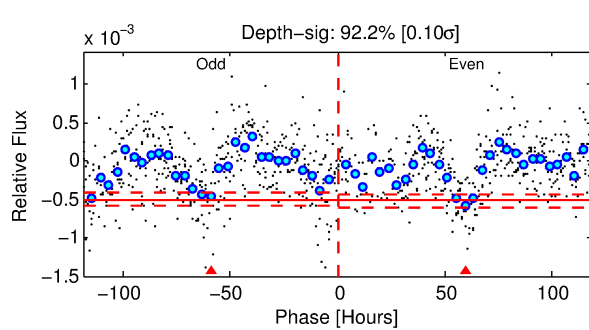
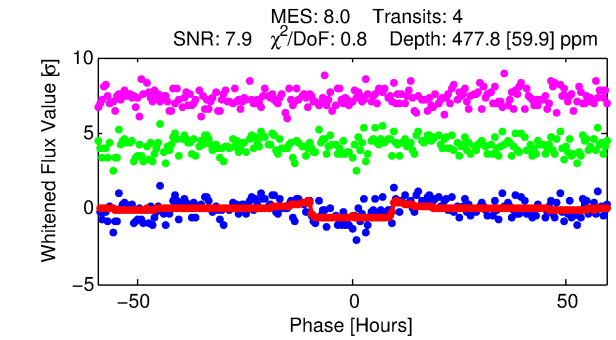
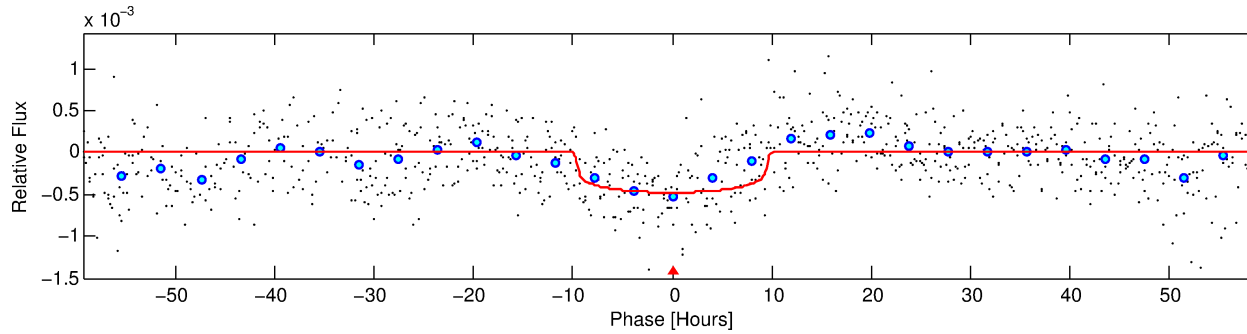
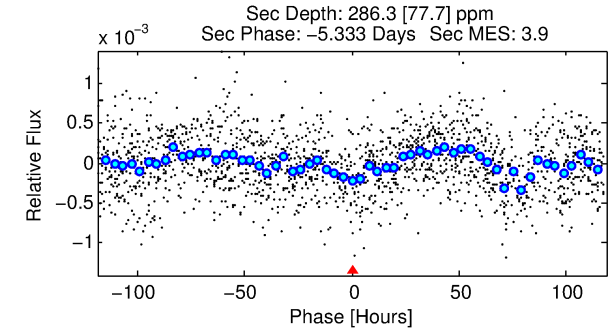
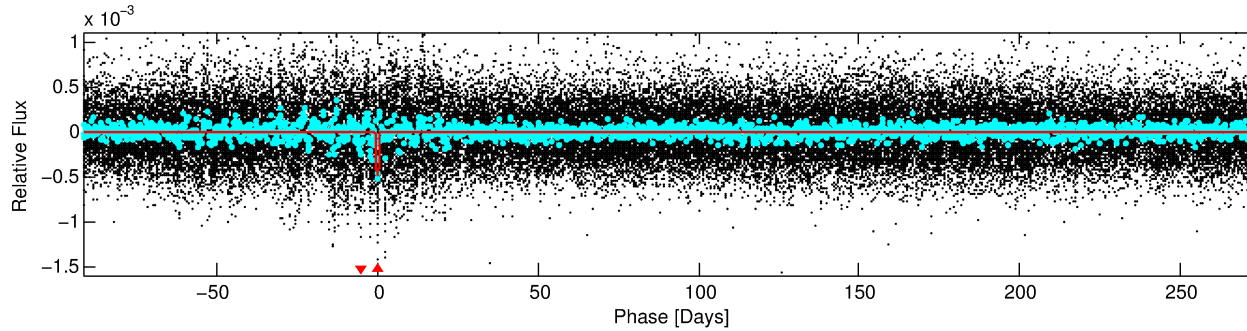
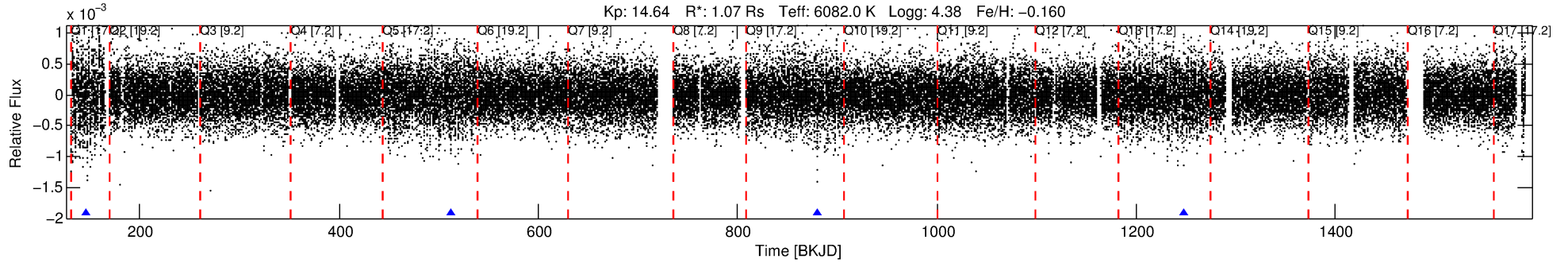
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010208229-01

No Significant Match Found

DV One-Page Summary

KIC: 10208229 Candidate: 1 of 1 Period: 367.209 d



DV Fit Results:

Period = 367.20884 [0.00939] d
Epoch = 145.5540 [0.0187] BKJD
Rp/R* = 0.0209 [0.0048]
a/R* = 118.29 [124.57]
b = 0.59 [1.18]
Seff = 1.39 [0.53]
Teq = 277 [27] K
Rp = 2.44 [0.92] Re
a = 1.0067 [0.2530] AU
Ag = 26885.64 [17266.23] [1.56σ]
Teffp = 5477 [749] K [6.94σ]

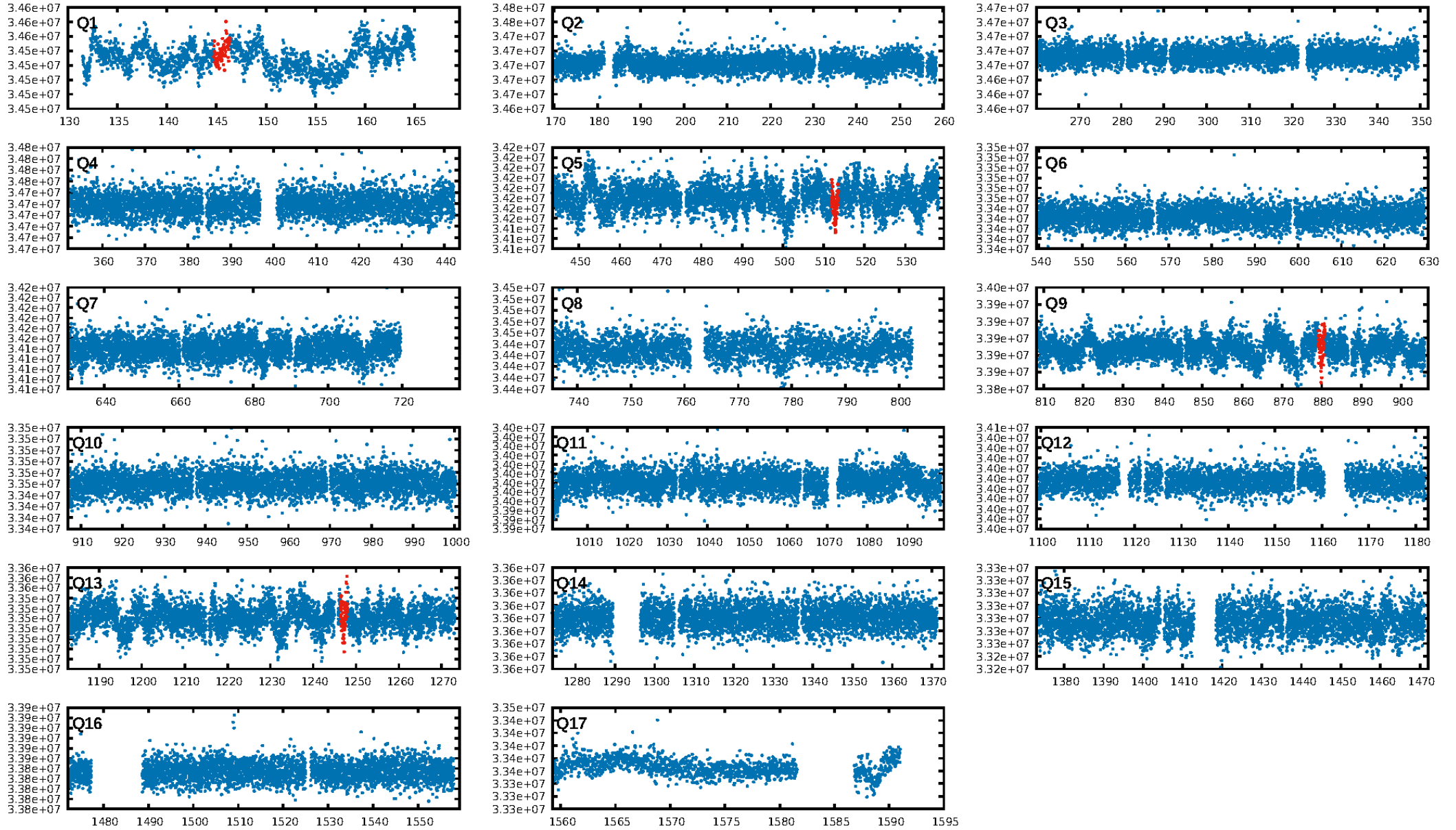
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 82.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.36e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.464
Centroid-sig: 4.7%
Centroid-so: 2.553 arcsec [1.49σ]
OotOffset-rm: 2.720 arcsec [13.64σ]
KicOffset-rm: 2.666 arcsec [13.39σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

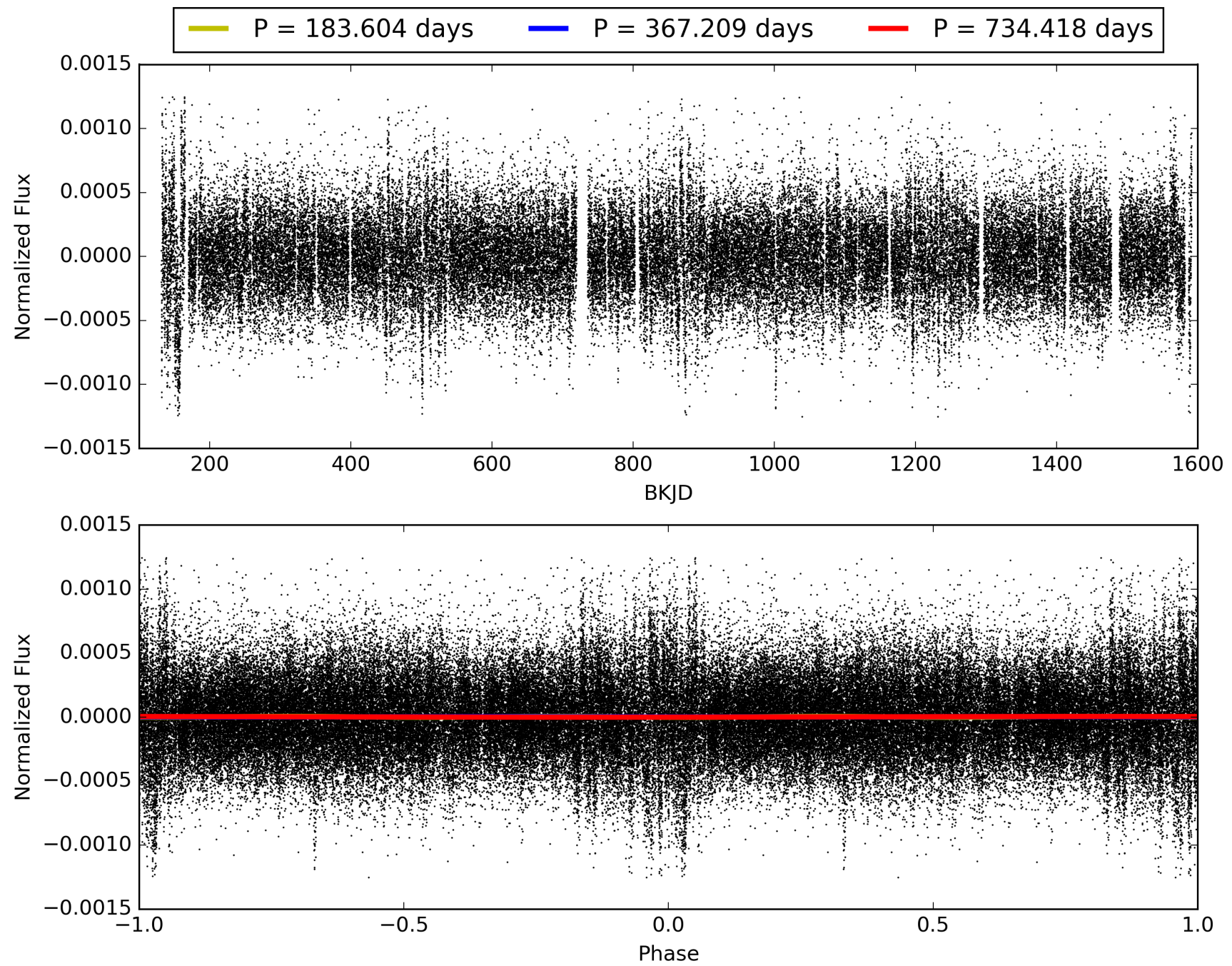
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:31:44 Z

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

TCE 010208229-01, PDC Light Curves

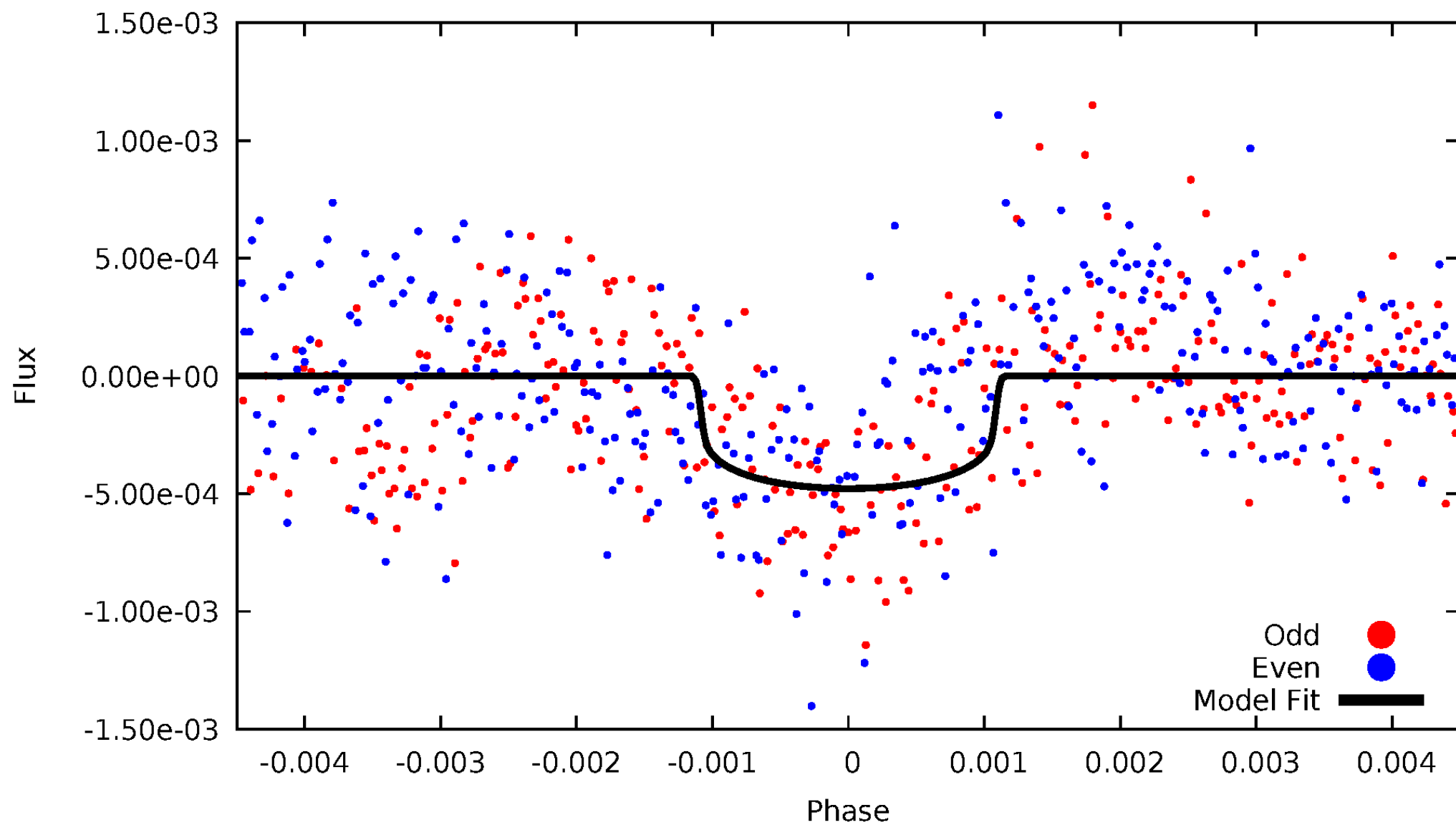


TCE 010208229-01



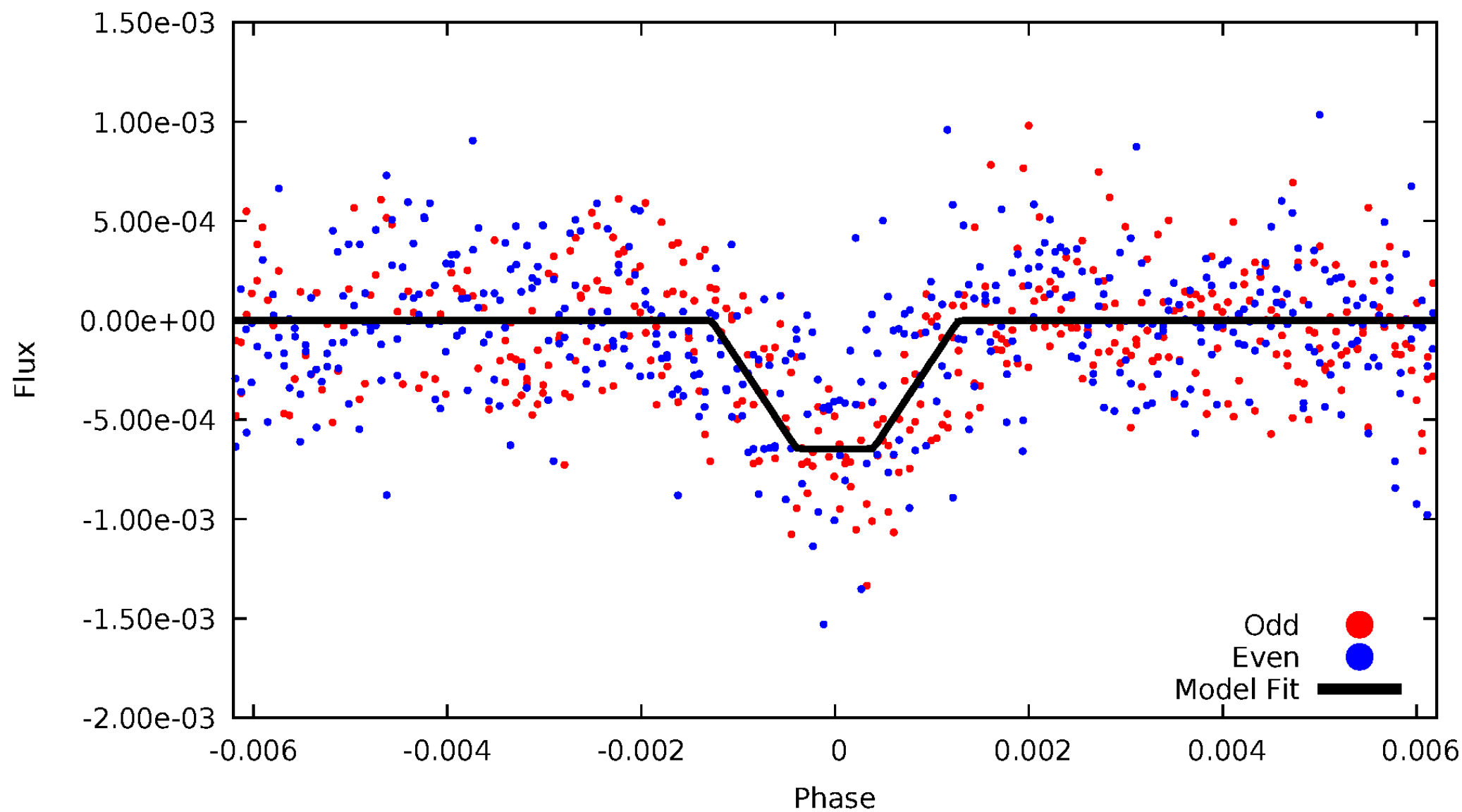
DV Odd/Even

TCE 010208229-01

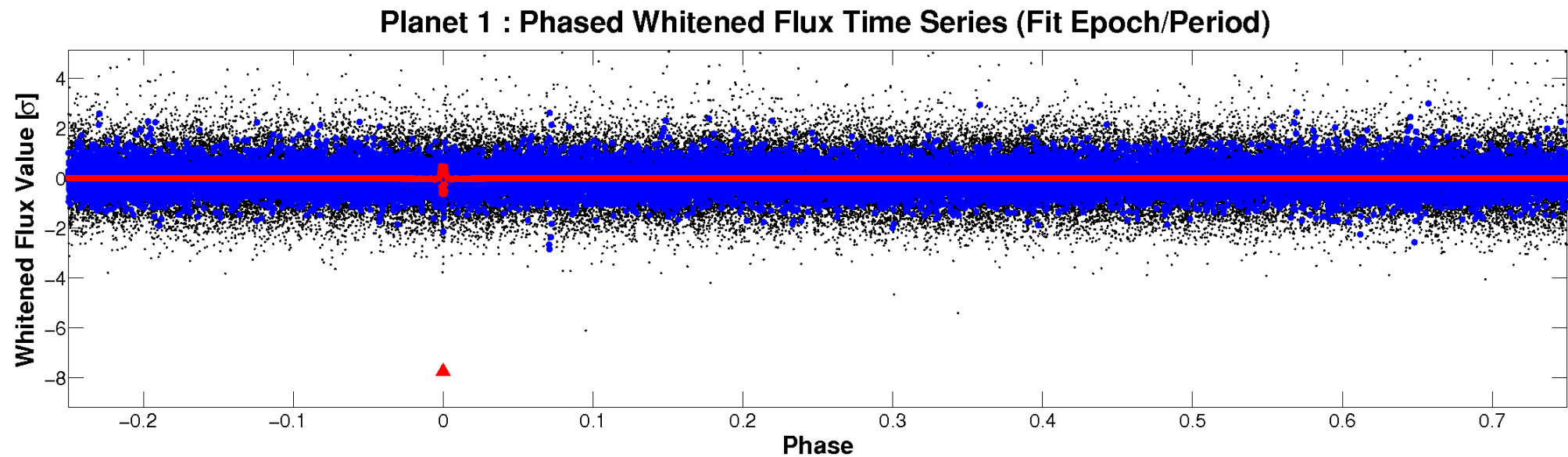
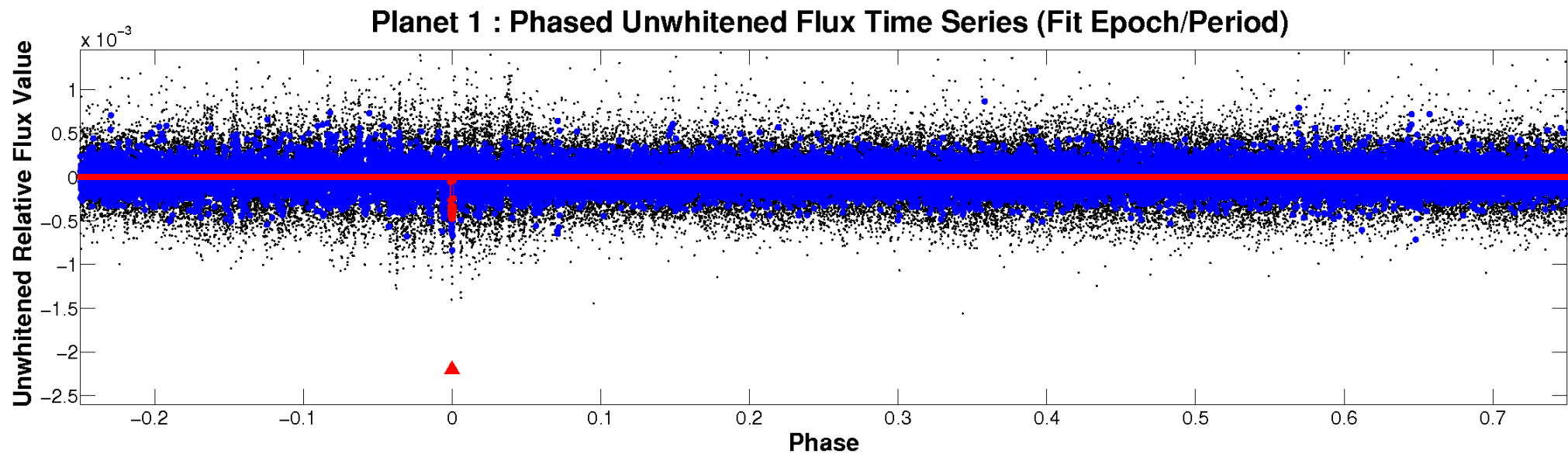


ALT Odd/Even

TCE 010208229-01

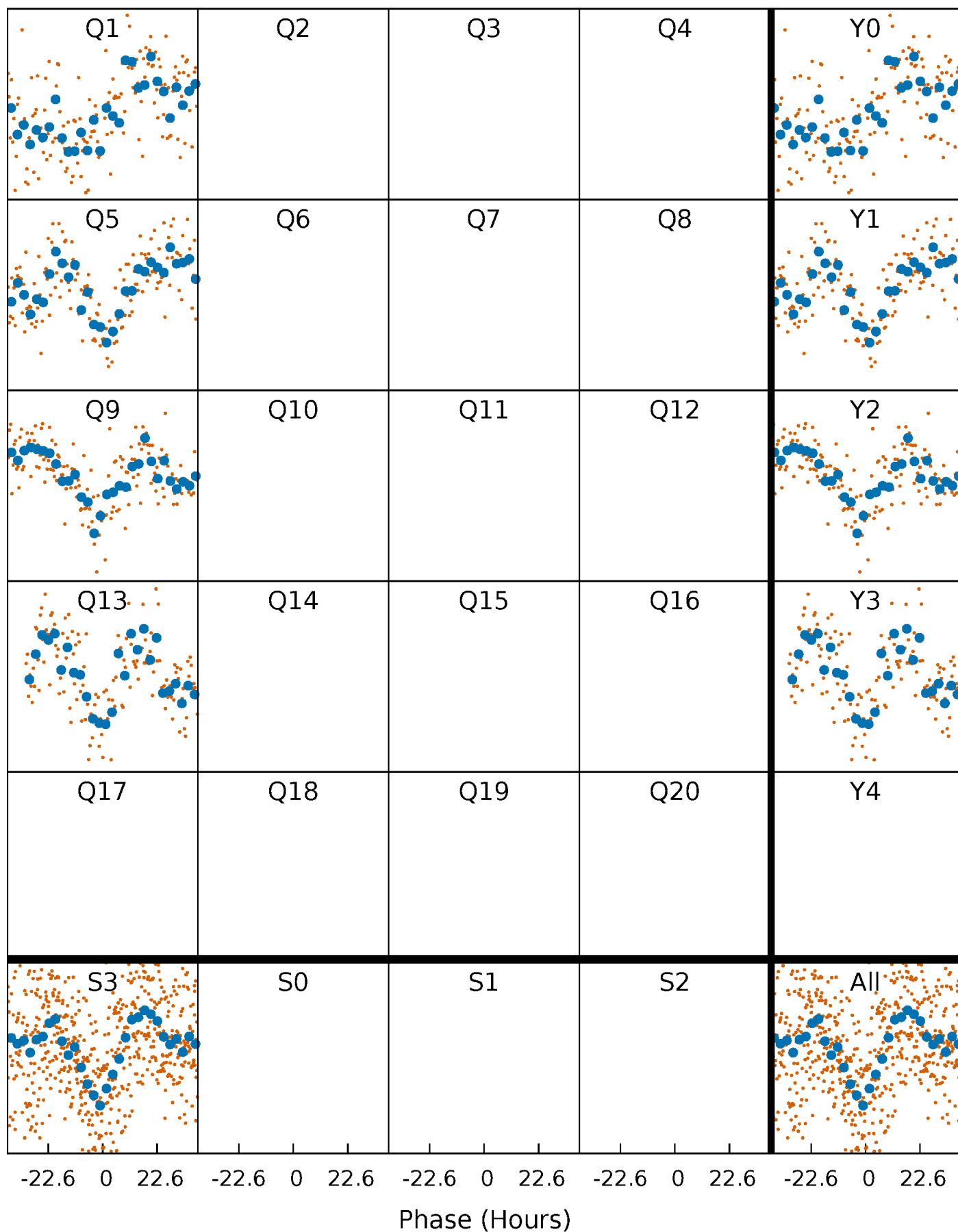


Non-Whitened Vs. Whitened Light Curve



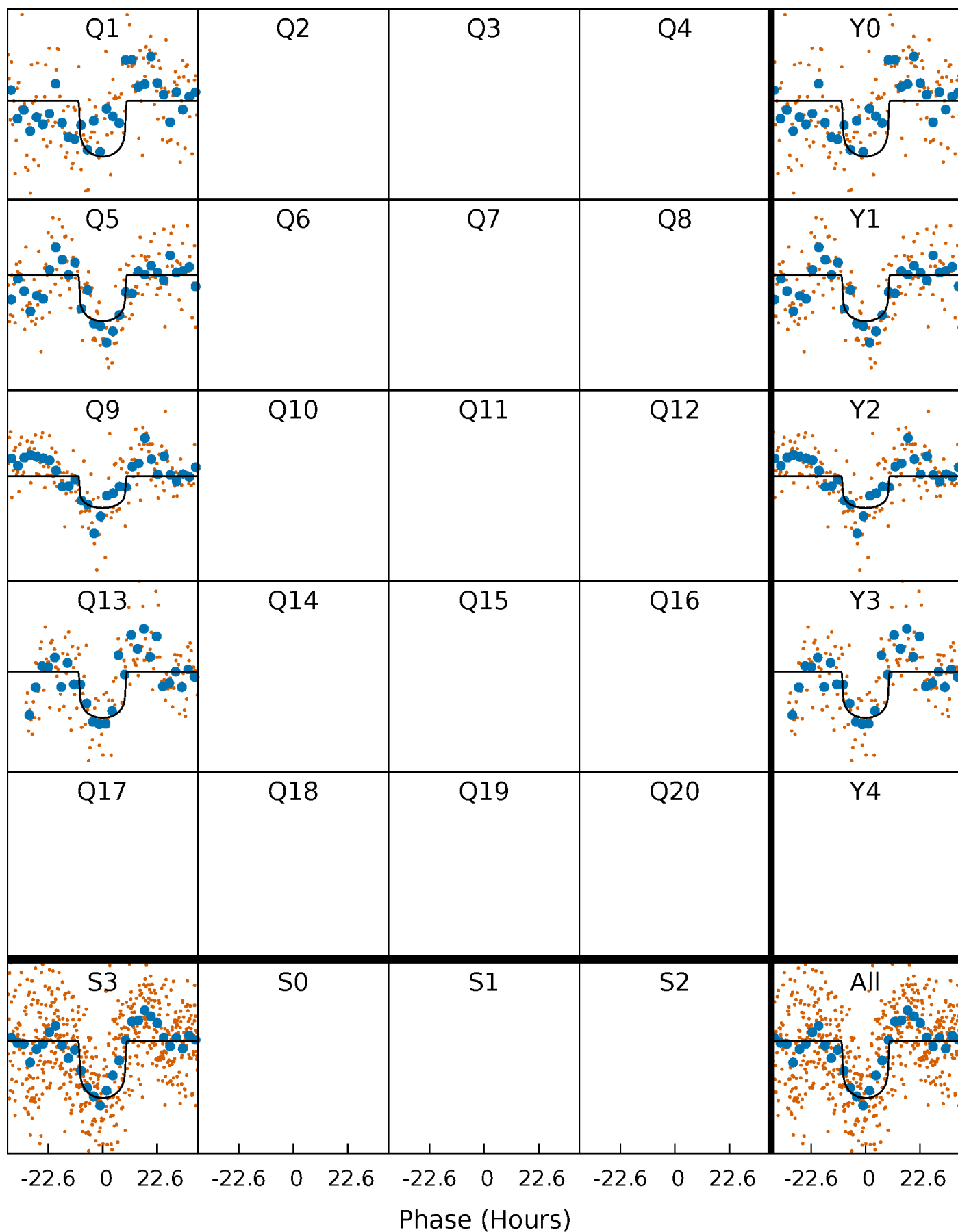
PDC Quarter-Phased Transit Curves

TCE 010208229-01 P=367.208837 Days $T_0=145.553976$ (BKJD)



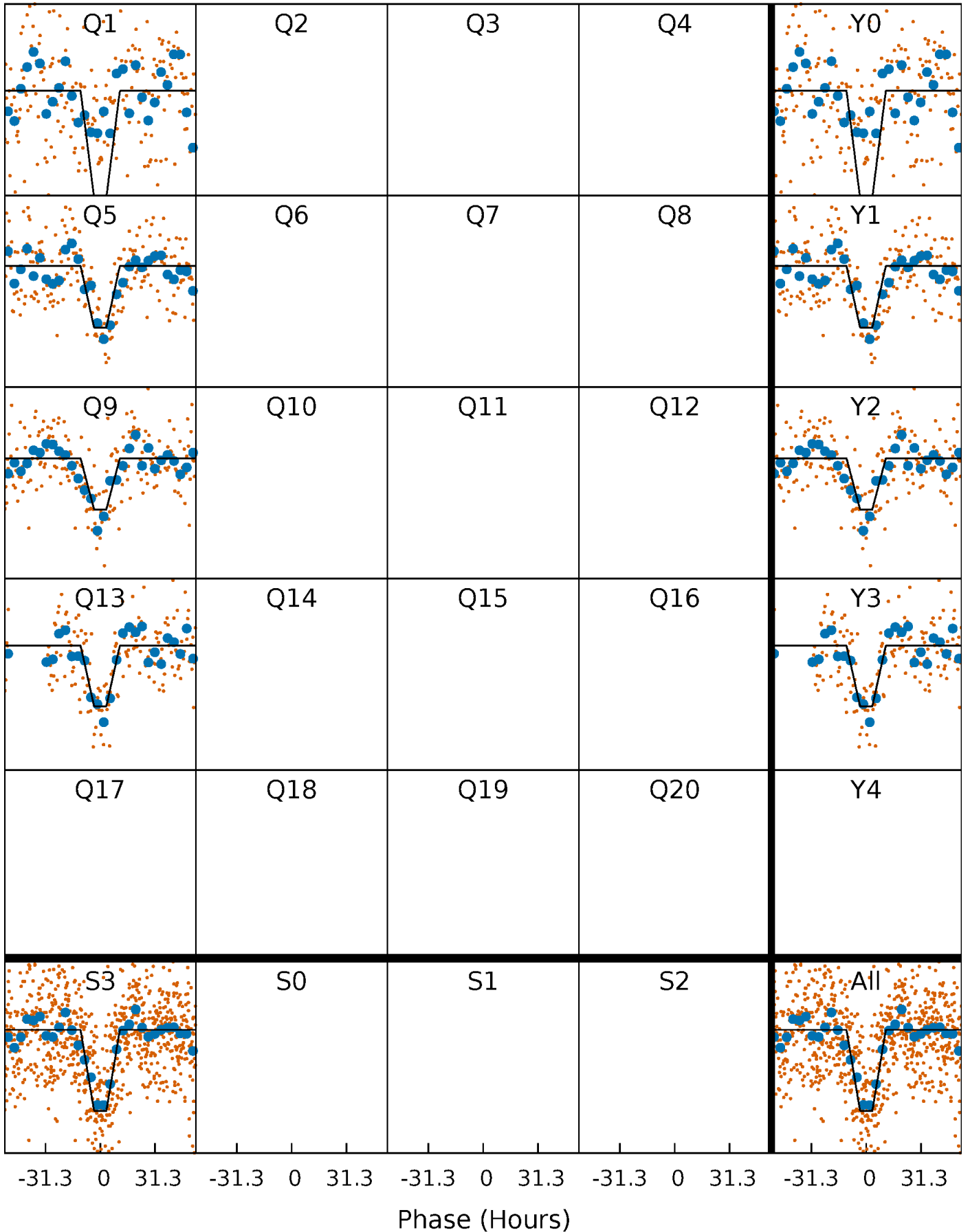
DV Quarter-Phased Transit Curves

TCE 010208229-01 P=367.208837 Days $T_0=145.553976$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

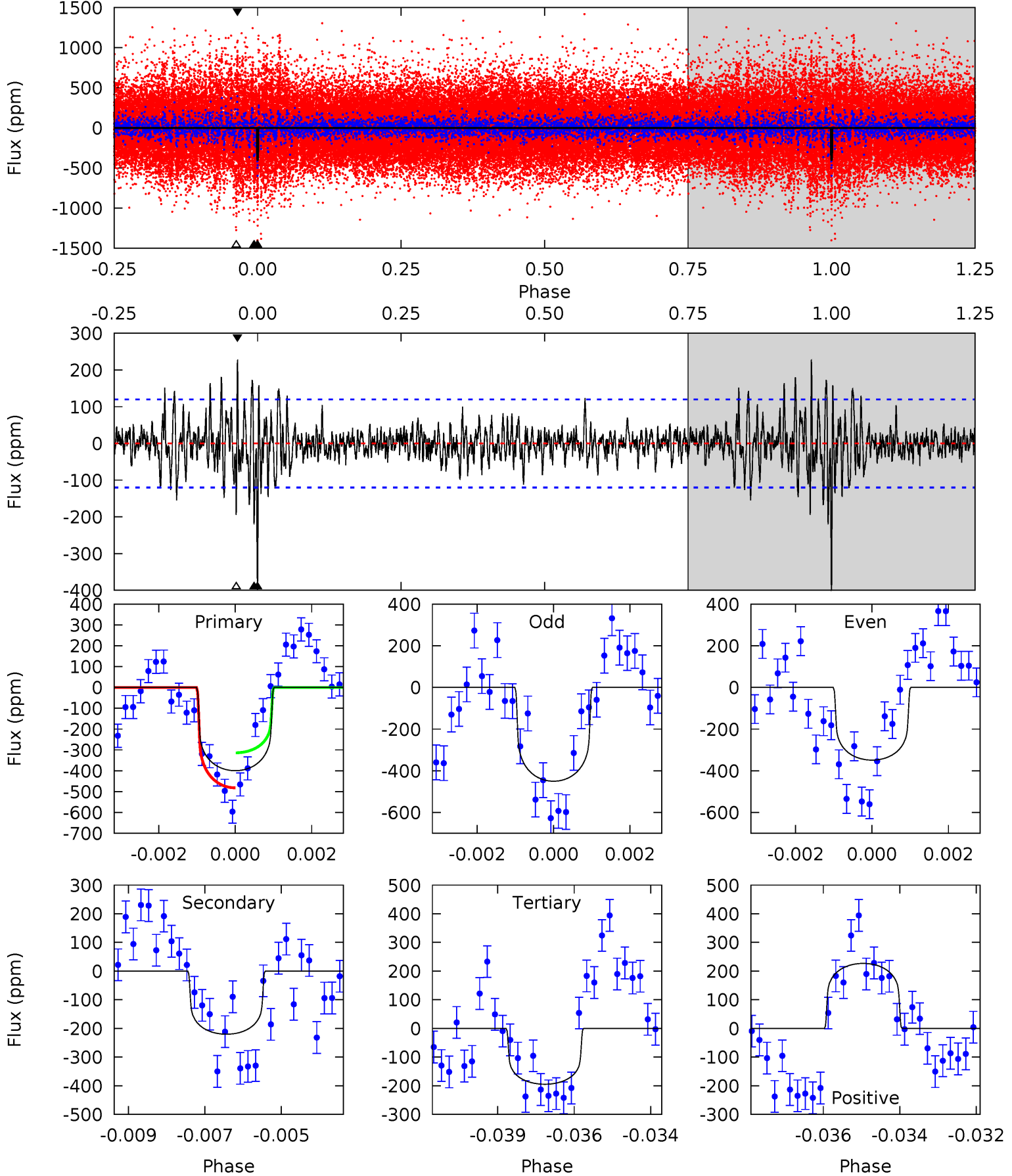
TCE 010208229-01 P=367.191073 Days $T_0=145.533612$ (BKJD)



DV Model-Shift Uniqueness Test

010208229-01, P = 367.208837 Days, E = 145.553976 Days

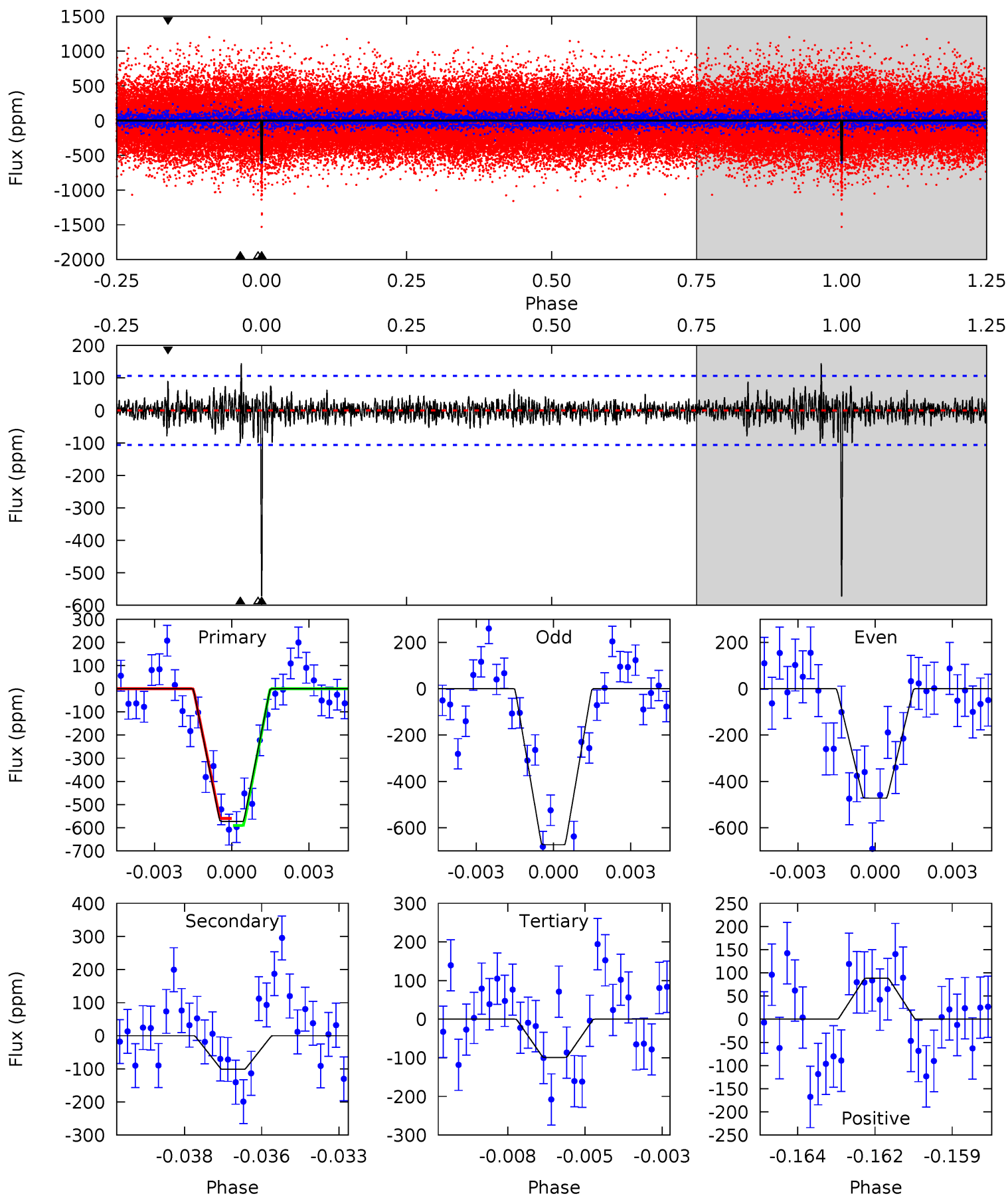
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	9.74	8.61	10.0	5.30	3.05	1.87	9.05	7.64	1.13	-0.29	2.24	0.94	0.36	3.71



Alt Model-Shift Uniqueness Test

010208229-01, P = 367.191073 Days, E = 145.533612 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.5	5.04	4.92	4.39	5.28	3.02	1.08	23.6	24.1	0.13	0.65	5.00	0.86	0.20	0.74



Stellar Parameters For KIC 010208229

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6082^{+181}_{-199}	$4.383^{+0.105}_{-0.195}$	$-0.160^{+0.300}_{-0.300}$	$1.070^{+0.324}_{-0.149}$	$1.007^{+0.154}_{-0.126}$	$1.158^{+0.551}_{-0.597}$
	+3%/-3%	+2%/-4%	+188%/-188%	+30%/-14%	+15%/-13%	+48%/-52%
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 010208229-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-220 ± 23	$2.50^{+0.70}_{-0.65}$	390^{+30}_{-20}	5168^{+722}_{-459}	19377^{+14891}_{-7397}
Alt.	-101 ± 20	$3.06^{+0.71}_{-0.63}$	390^{+27}_{-22}	4093^{+351}_{-281}	5917^{+3745}_{-2196}

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

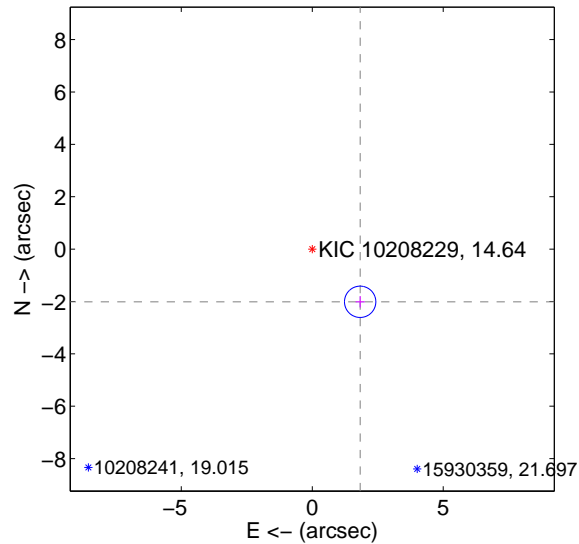
Supplemental centroid analysis for 010208229-01. Kepler magnitude: 14.64. Transit SNR 7.87

There are 1 quarters with good PRF difference image offsets

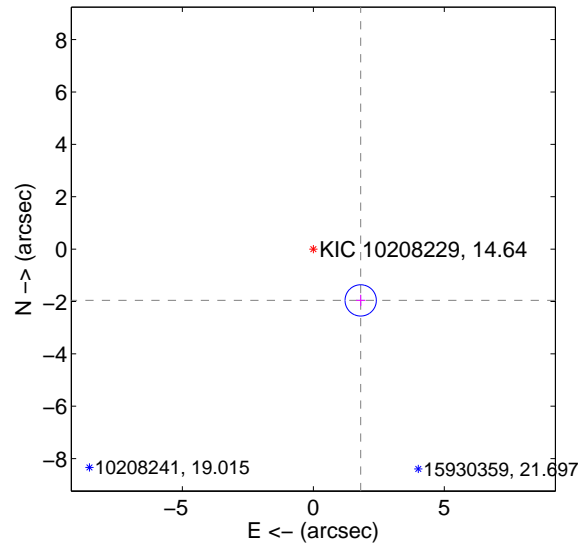
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.720 ± 0.199	13.64	-1.830 ± 0.175	-2.013 ± 0.218
PRF-fit source offset from KIC position	2.666 ± 0.199	13.39	-1.808 ± 0.175	-1.959 ± 0.218
photometric centroid source offset	2.55 ± 1.72	1.49	1.80 ± 1.78	1.81 ± 1.66

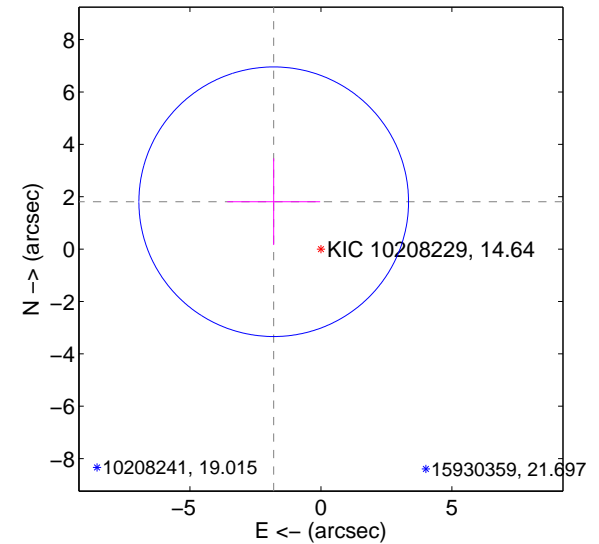
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

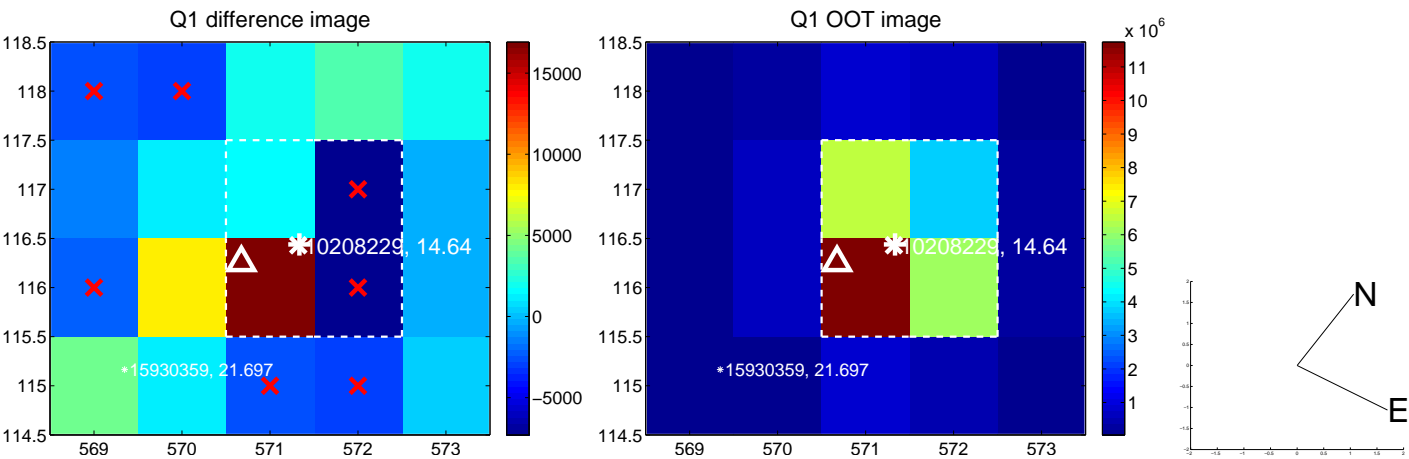


offset from photometric centroids

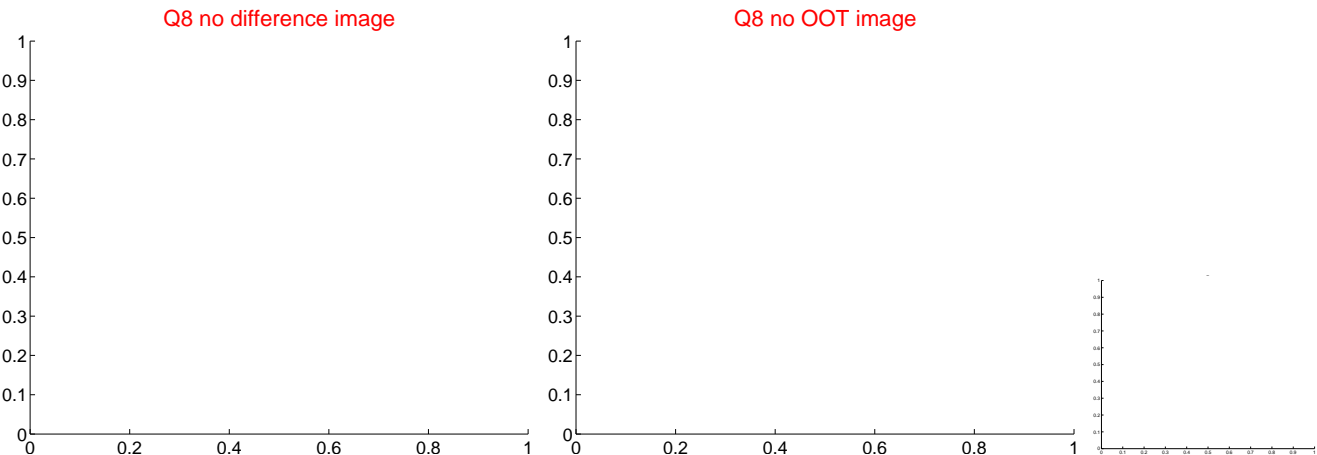
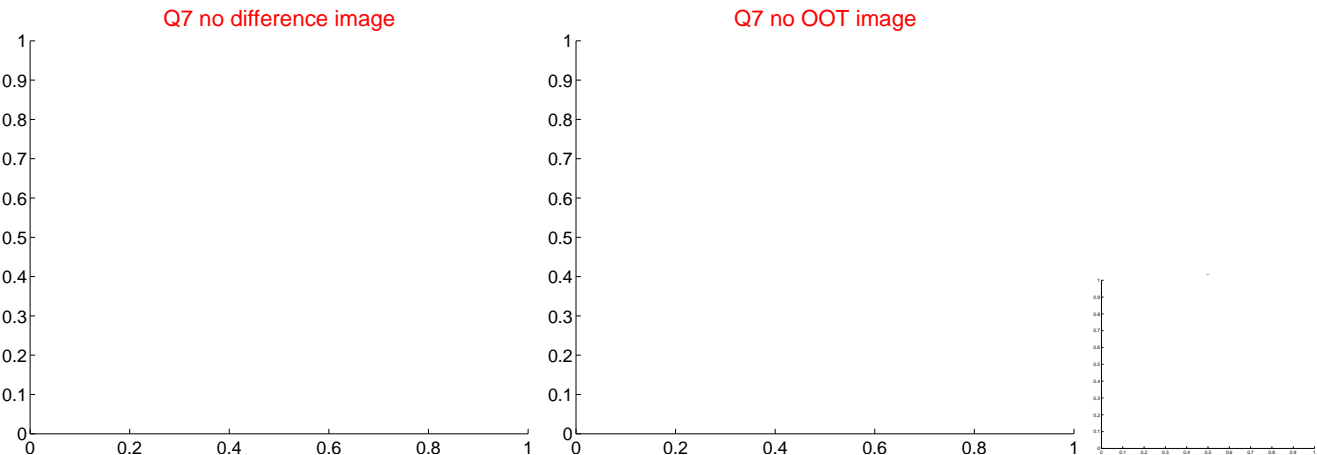
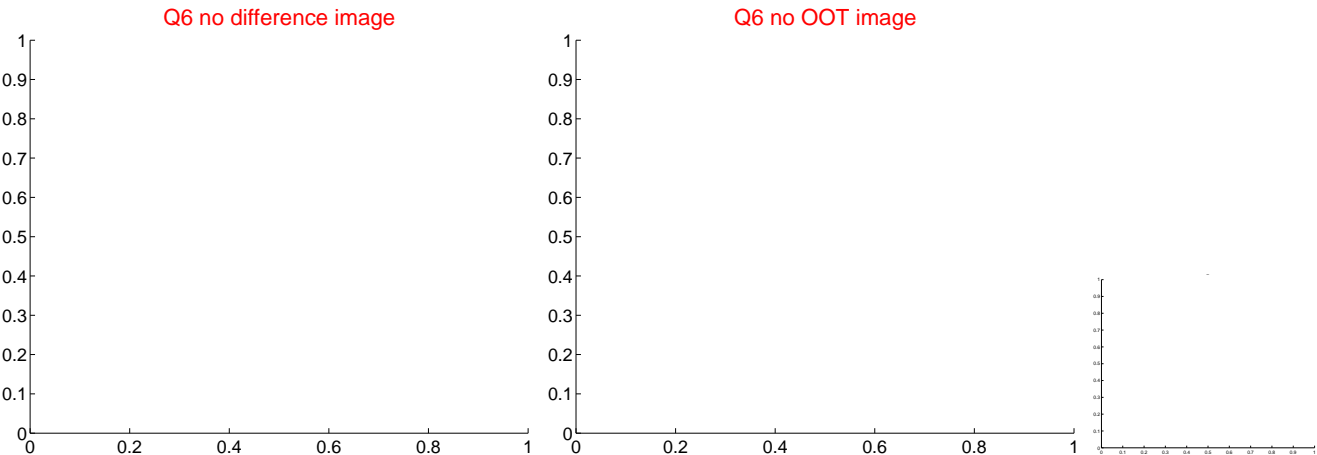
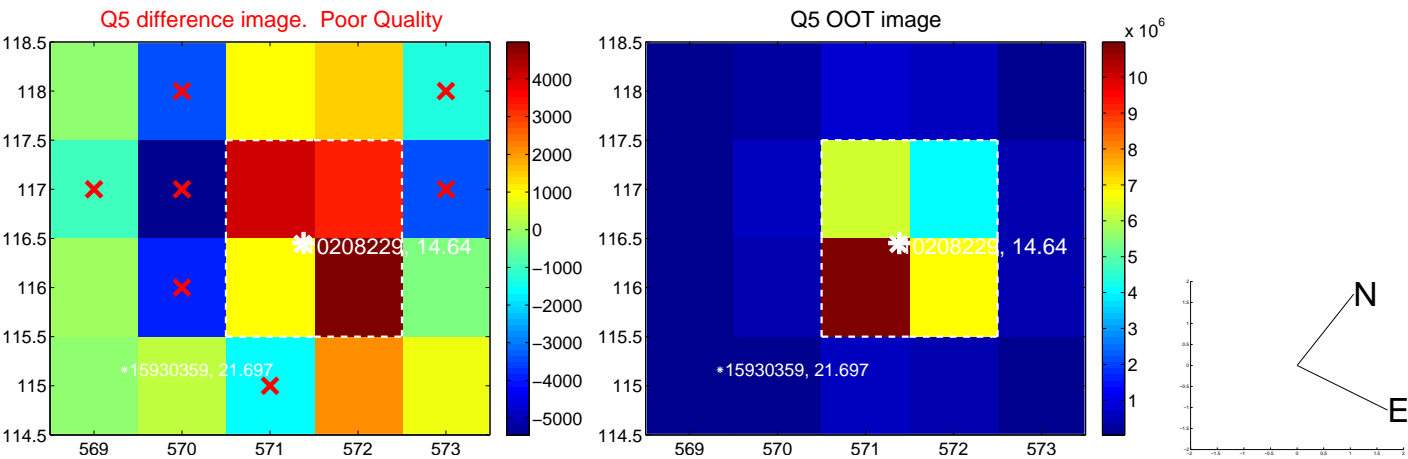


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

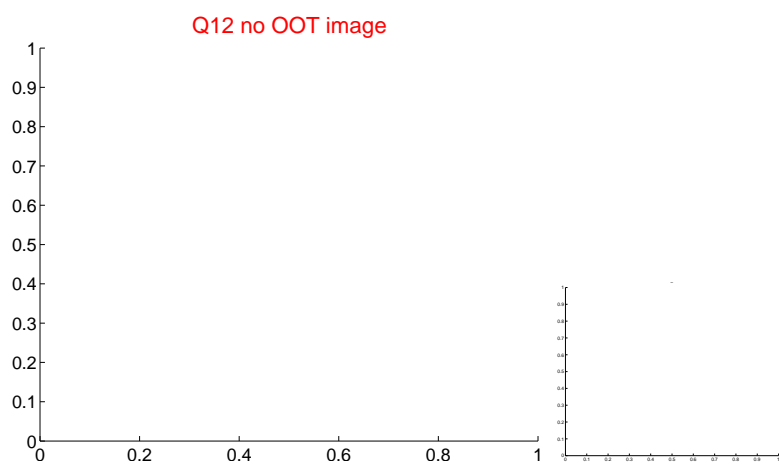
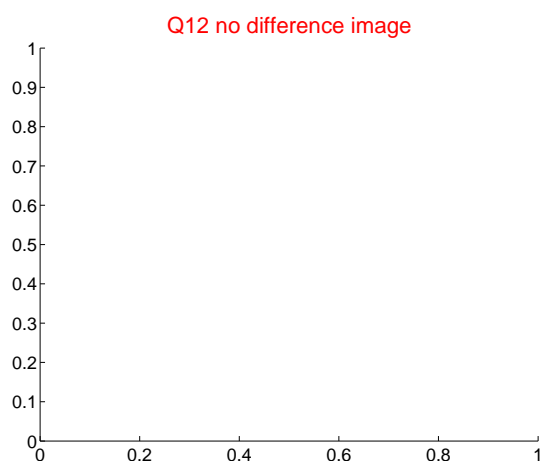
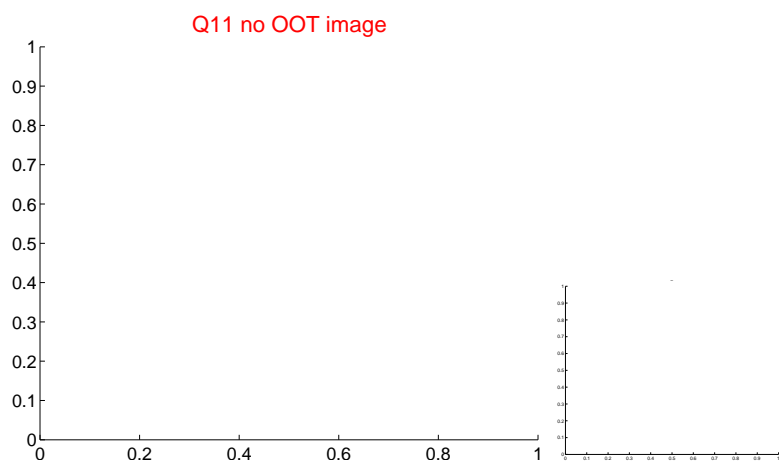
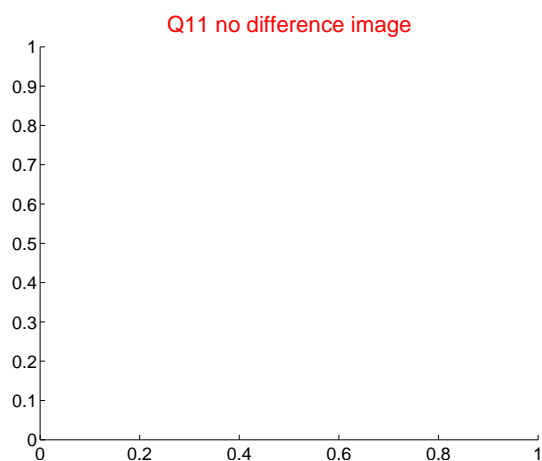
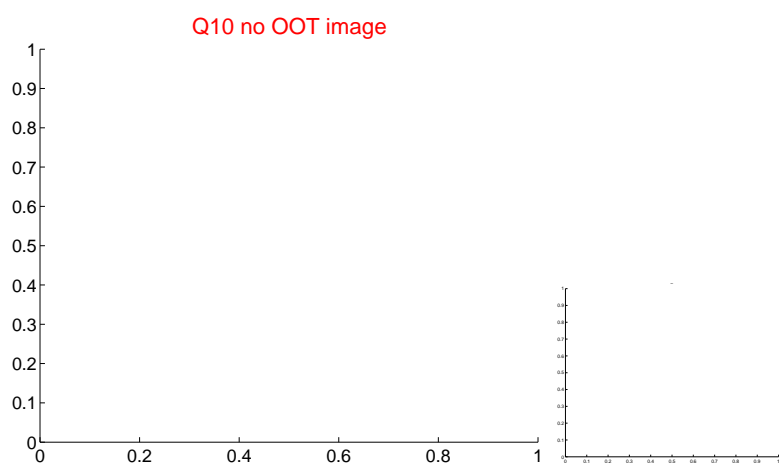
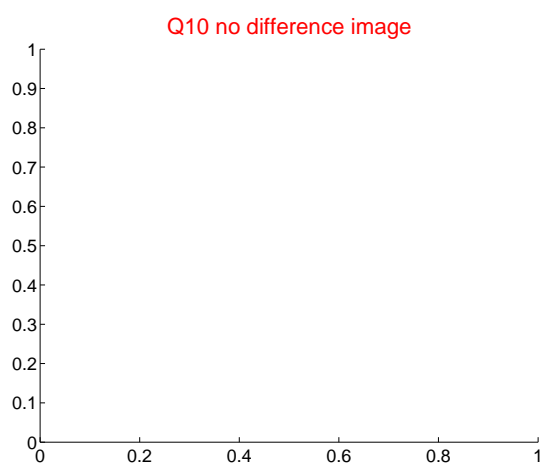
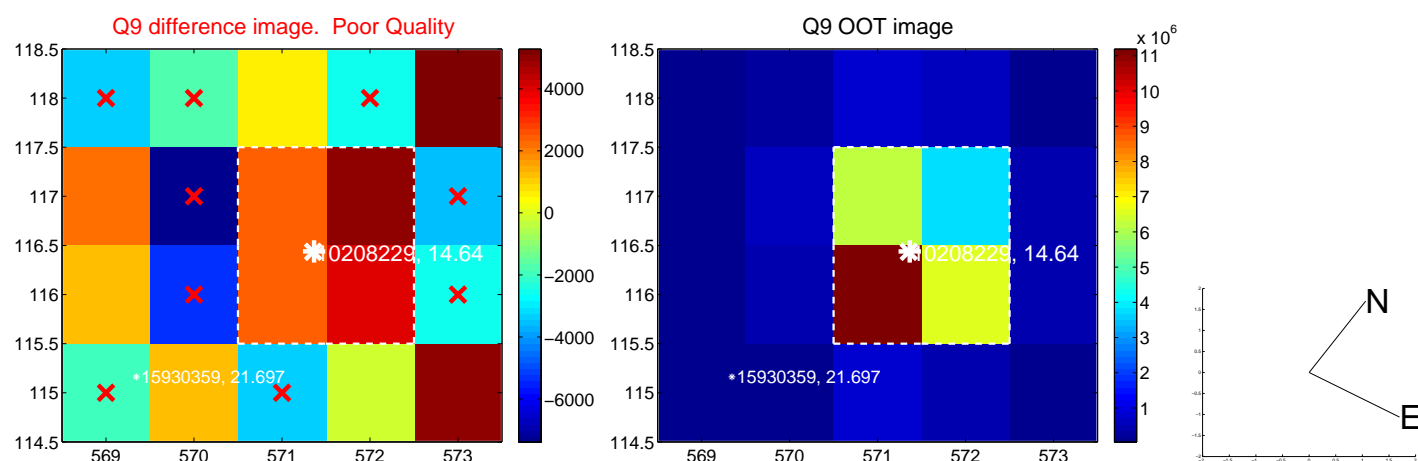
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



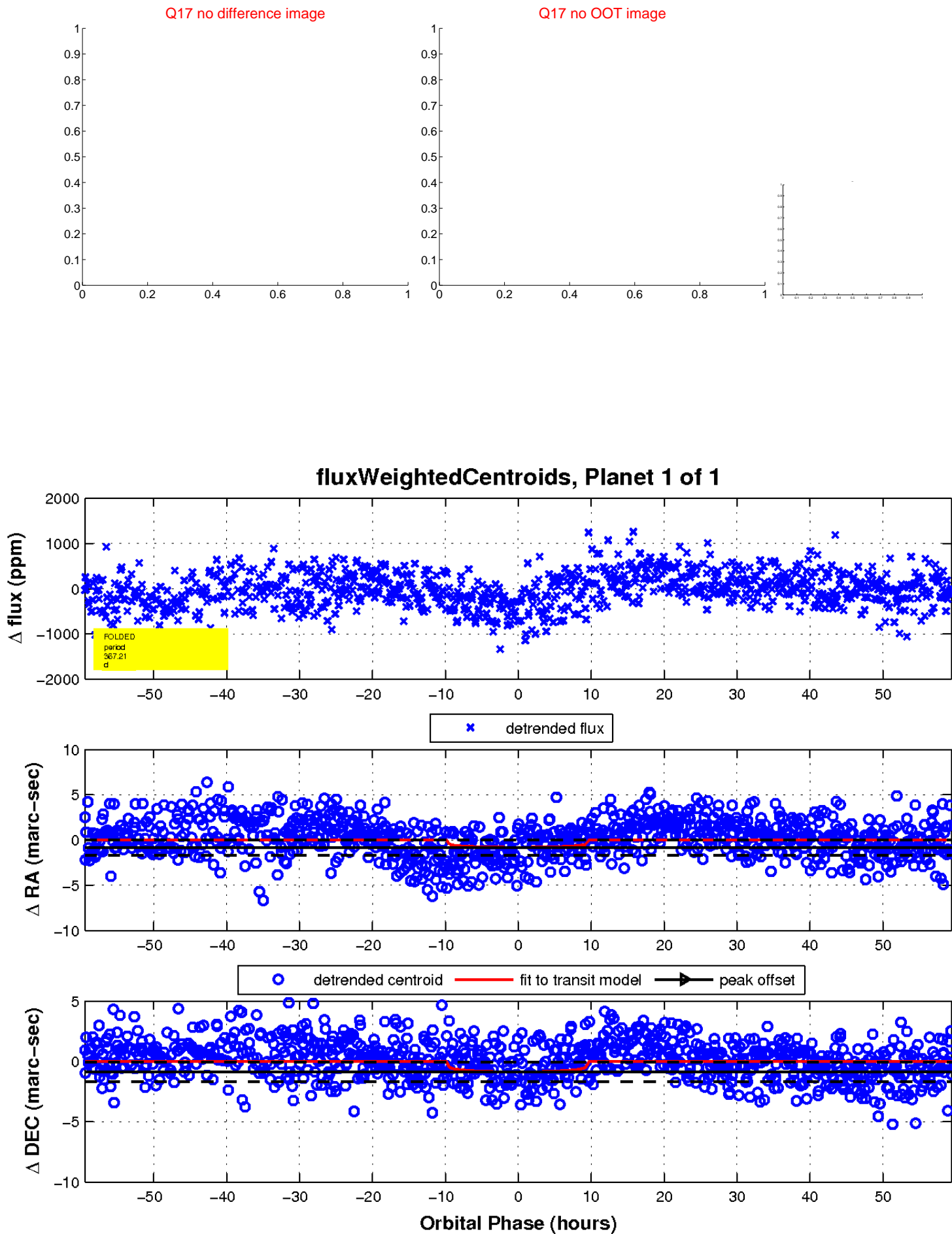
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

