

KIC 011391667

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})
011391667-01	OBS	1652.01	0.541870	131.968152	7291.7	1.582	2030.1	1454.8	5.62	5591	59.74	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011391667-01	OBS	FP	0.00	0	1	0	0	PLANET_IN_STAR—DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_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 011391667-01

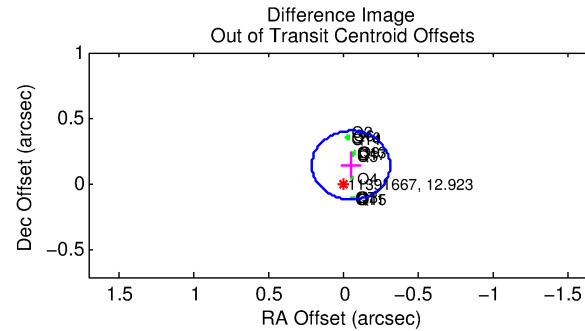
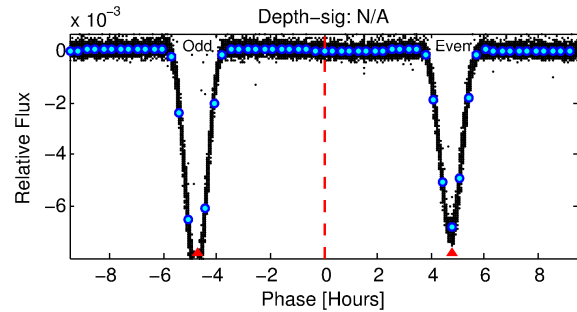
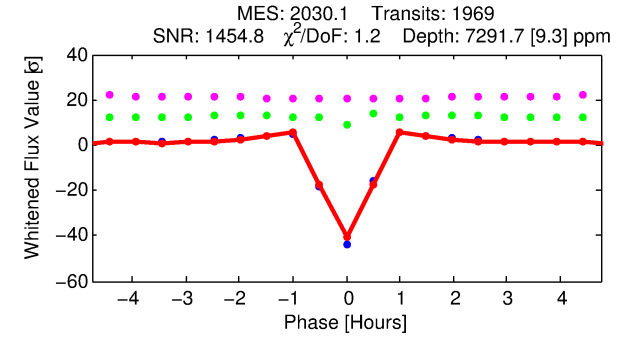
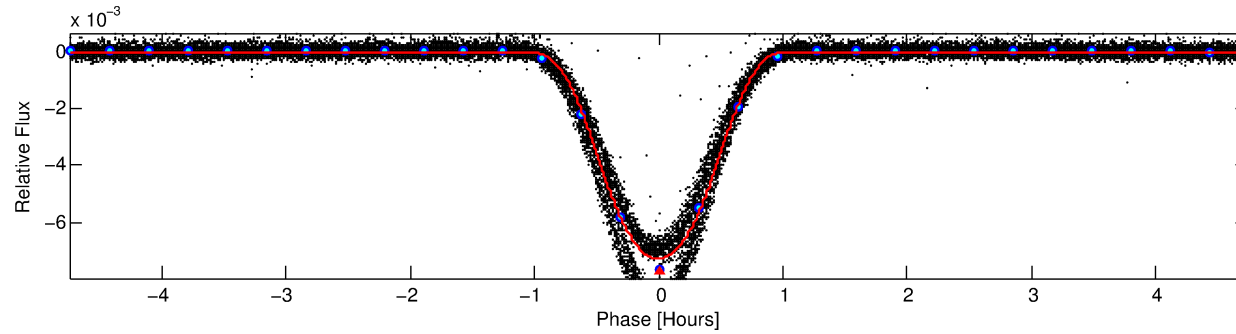
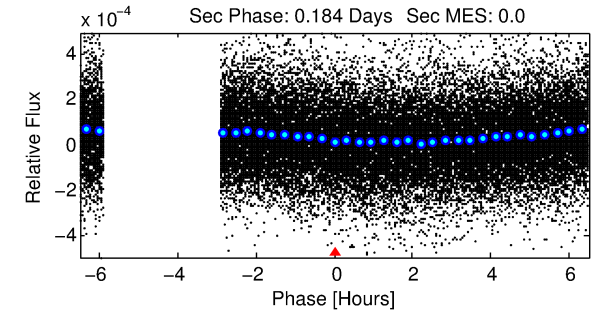
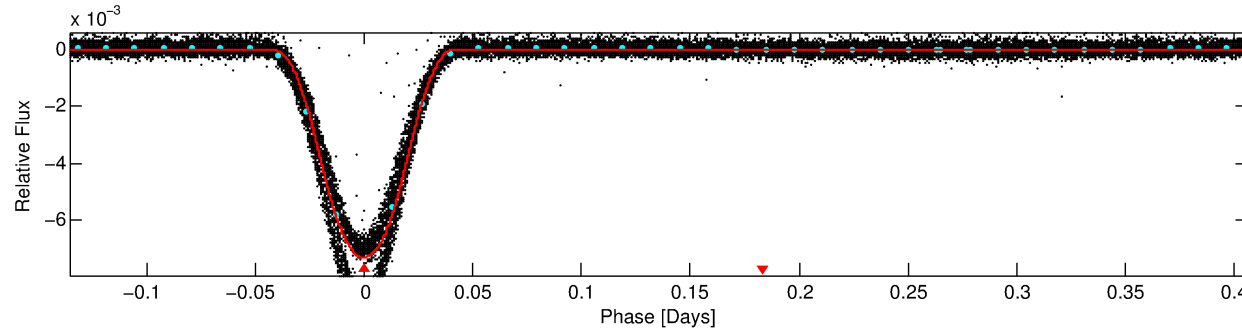
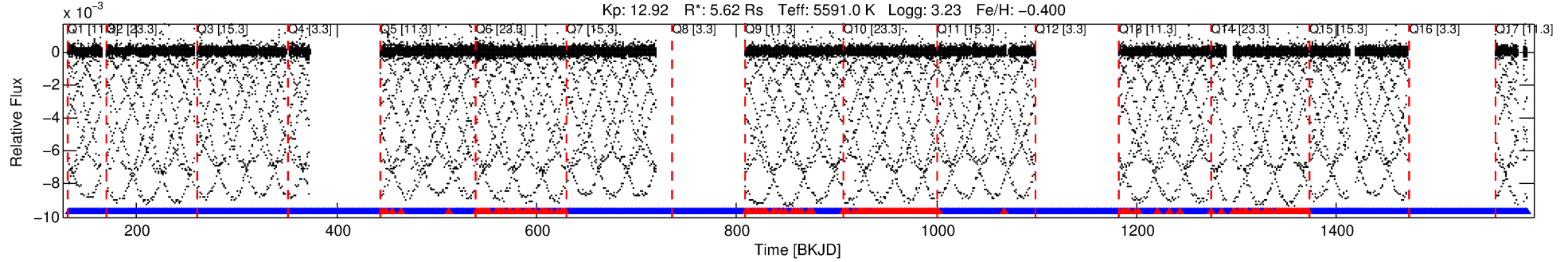
No Significant Match Found

DV One-Page Summary

KIC: 11391667 Candidate: 1 of 1 Period: 0.542 d

KOI: K01652 Corr: No Ephemeris Match

Kp: 12.92 R*: 5.62 Rs Teff: 5591.0 K Logg: 3.23 Fe/H: -0.400



DV Fit Results:

Period = 0.54187 [0.00000] d
Epoch = 131.9682 [0.0000] BKJD
Rp/R* = 0.0974 [0.0003]
a/R* = 1.88 [0.00]
b = 0.91 [0.00]
Seff = N/A
Teq = N/A
Rp = 59.74 [24.32] Re
a = N/A
Ag = N/A
Teffp = N/A

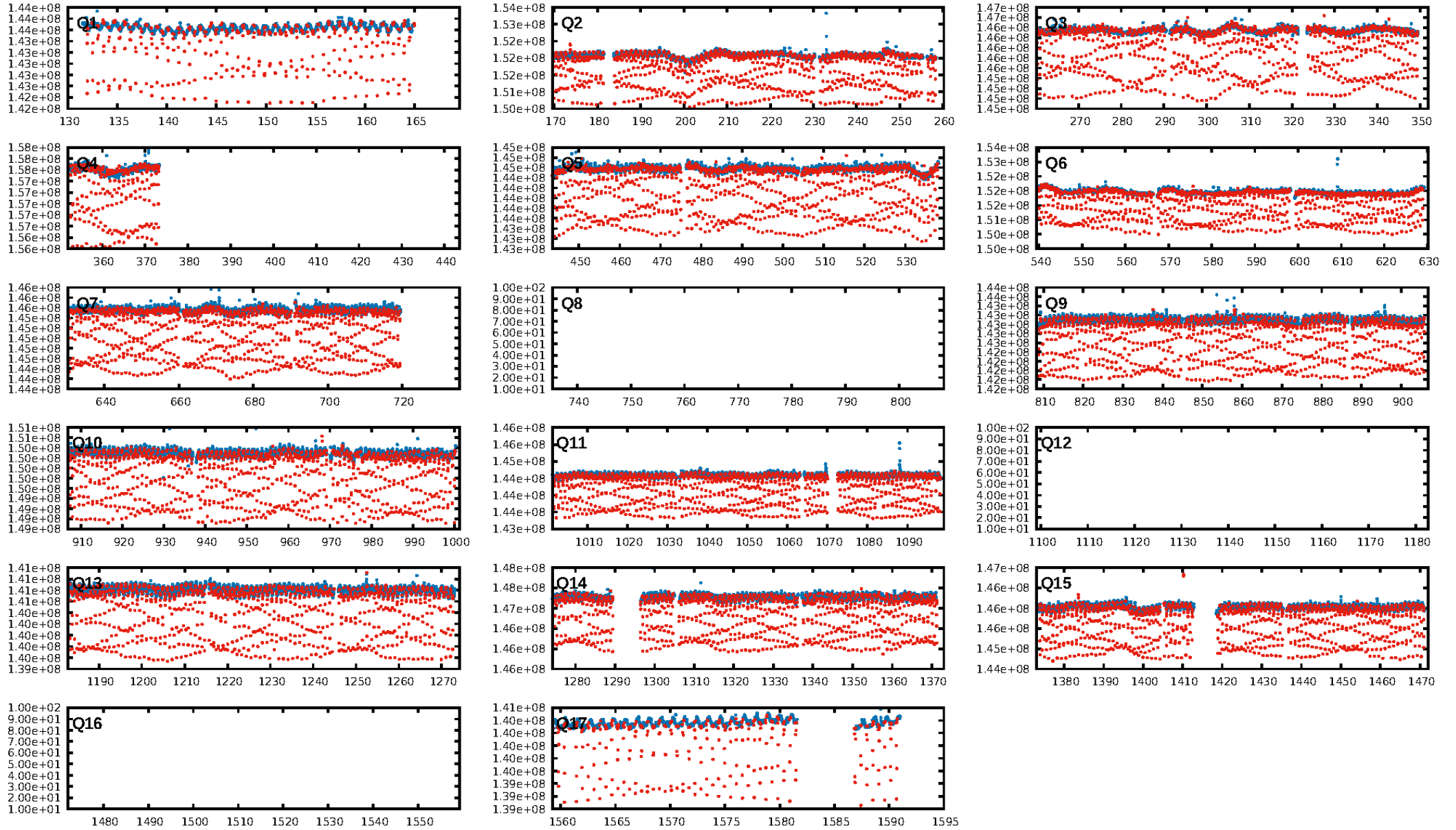
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.84 [1528/1818]
GhostDiagnostic-chr: 14.87
Centroid-sig: 0.0%
Centroid-so: 0.300 arcsec [72.79σ]
OotOffset-rm: 0.156 arcsec [1.80σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-rm: 0.354 arcsec [3.47σ]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

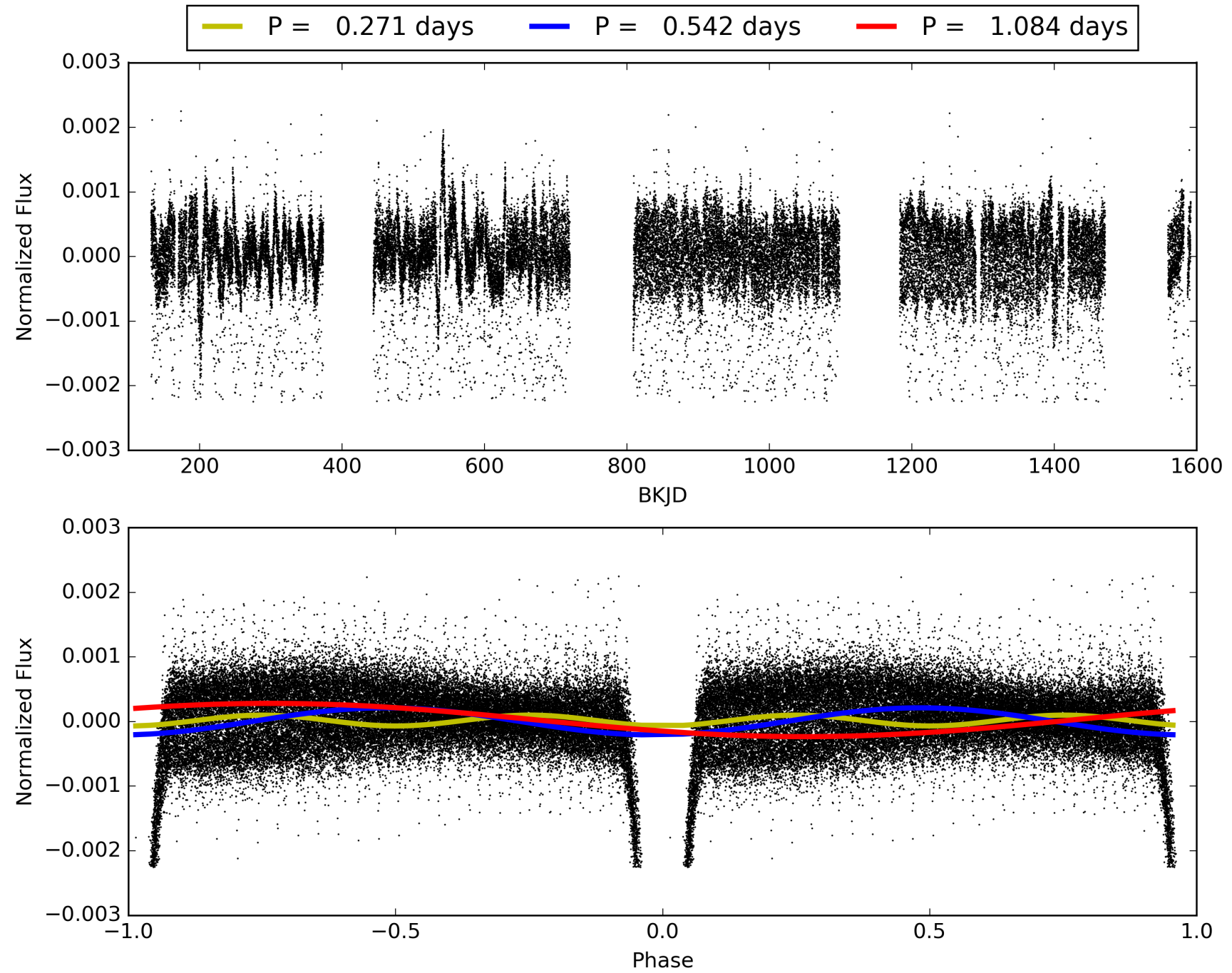
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:21:02 Z

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

TCE 011391667-01, PDC Light Curves

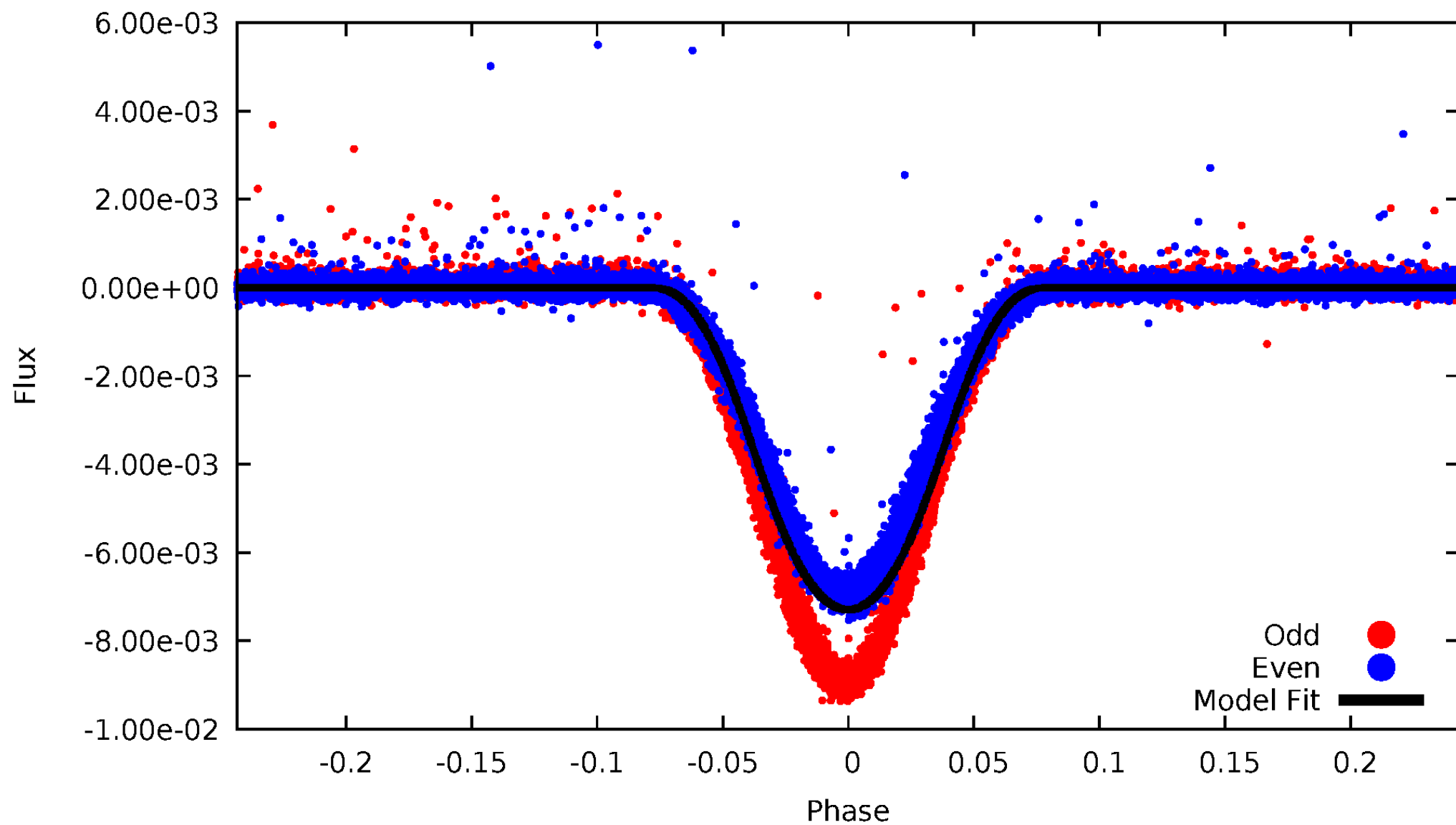


TCE 011391667-01



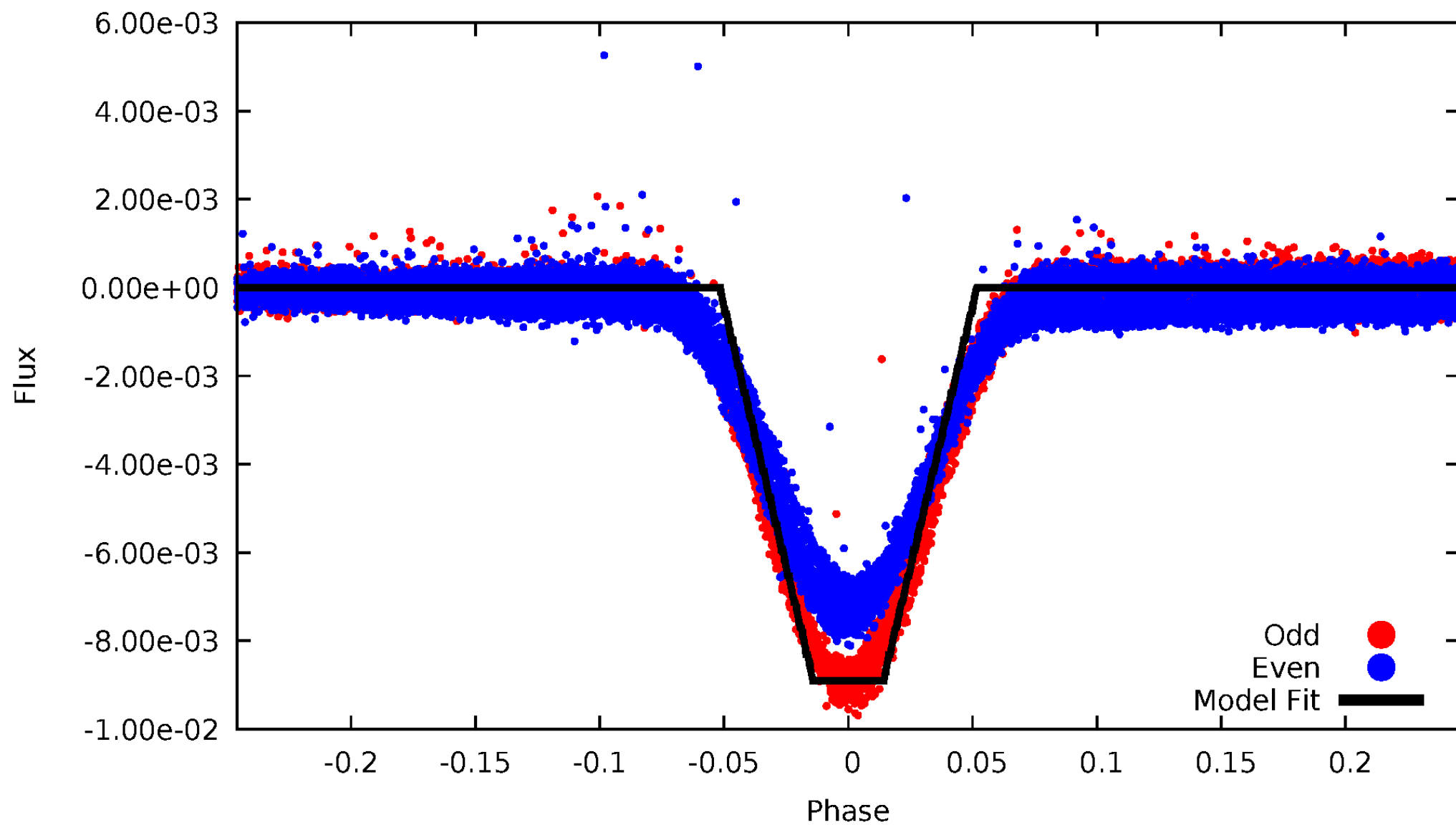
DV Odd/Even

TCE 011391667-01



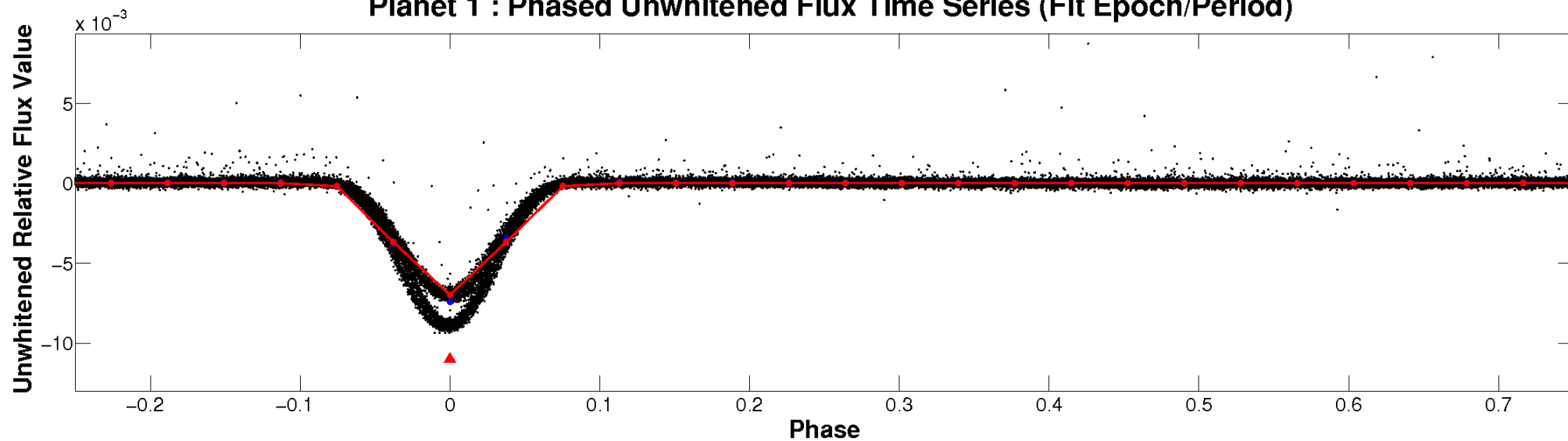
ALT Odd/Even

TCE 011391667-01

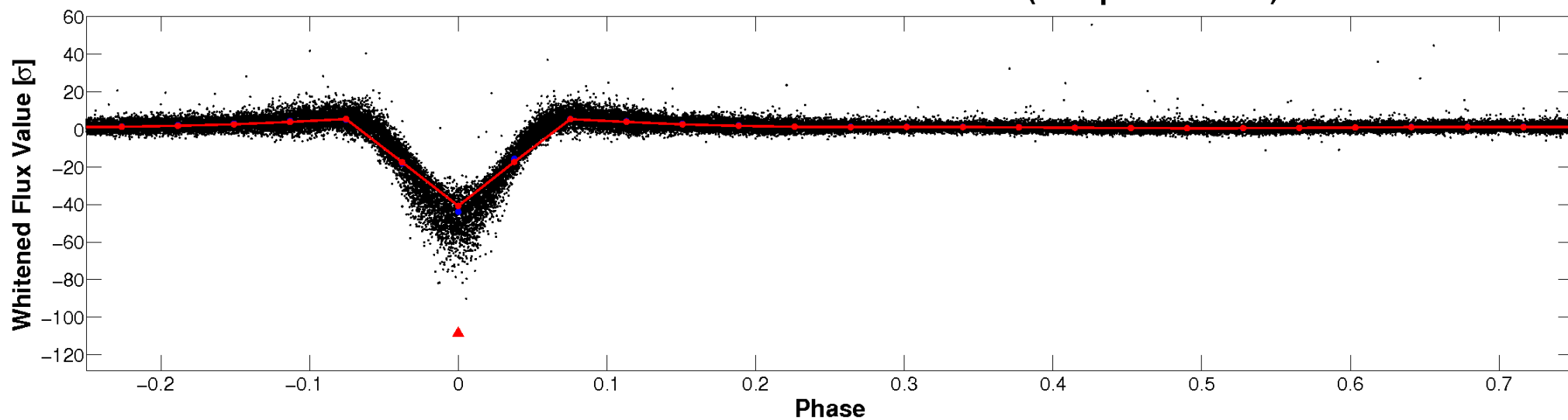


Non-Whitened Vs. Whitened Light Curve

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

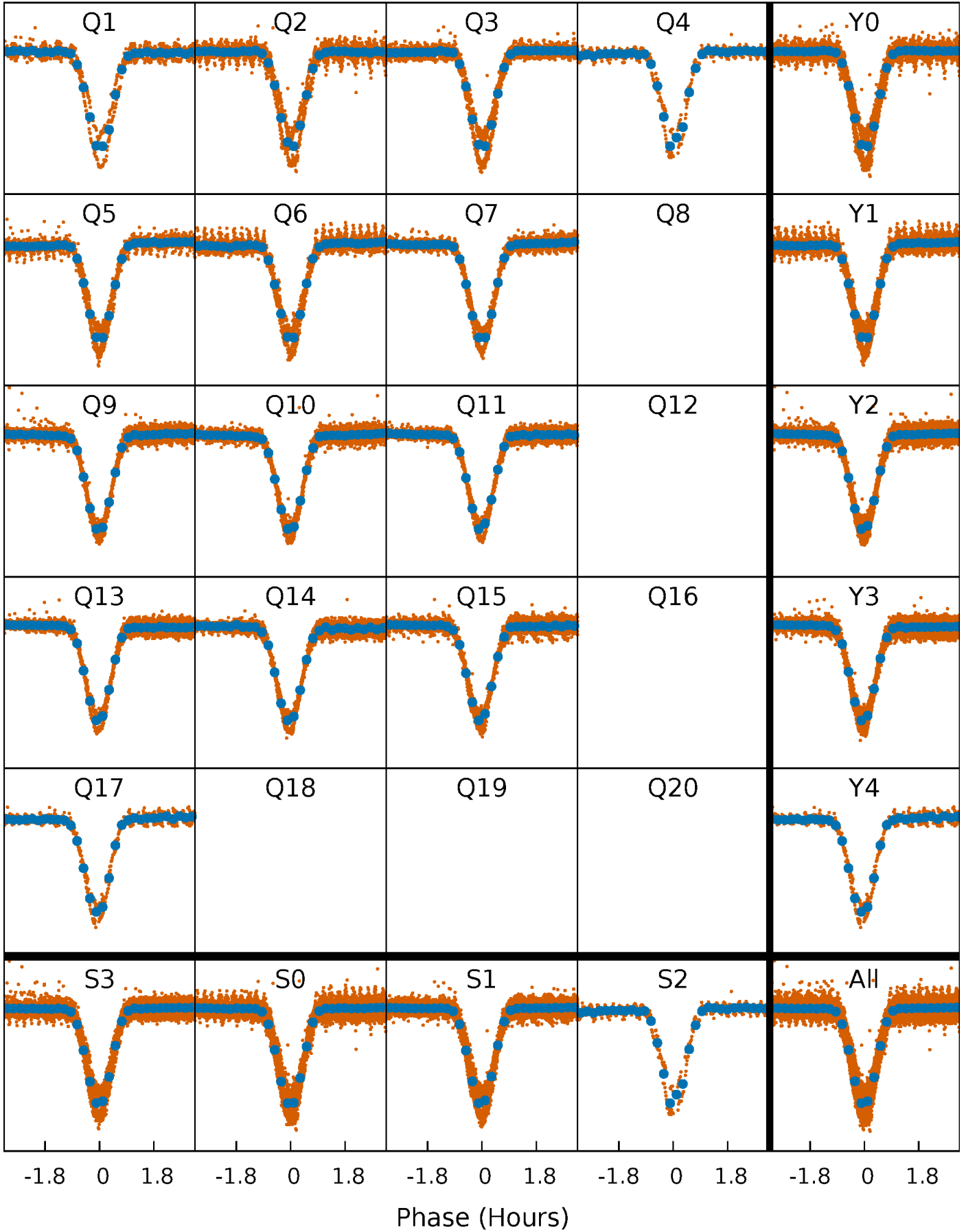


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



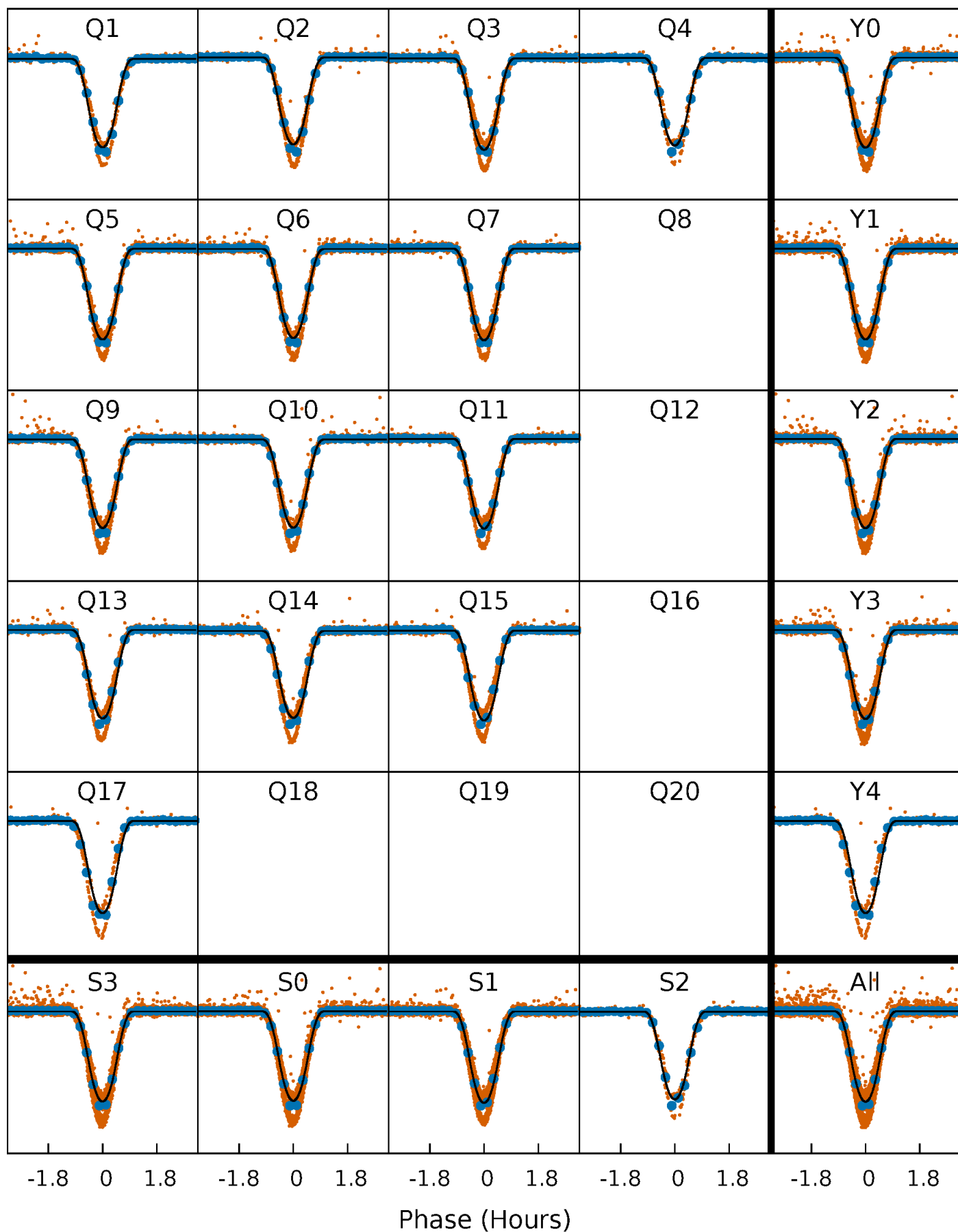
PDC Quarter-Phased Transit Curves

TCE 011391667-01 P= 0.541870 Days $T_0=131.968152$ (BKJD)



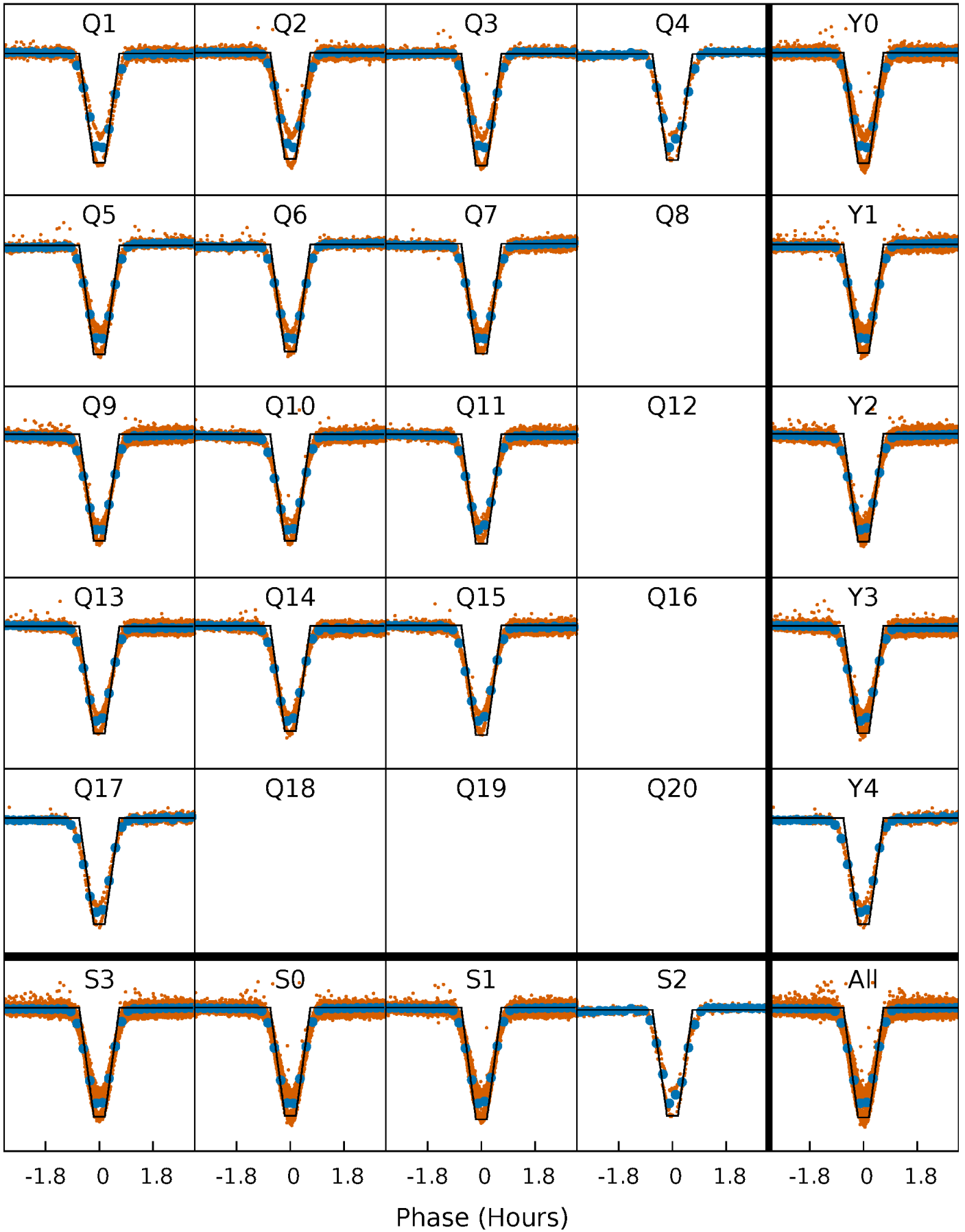
DV Quarter-Phased Transit Curves

TCE 011391667-01 P= 0.541870 Days $T_0=131.968152$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

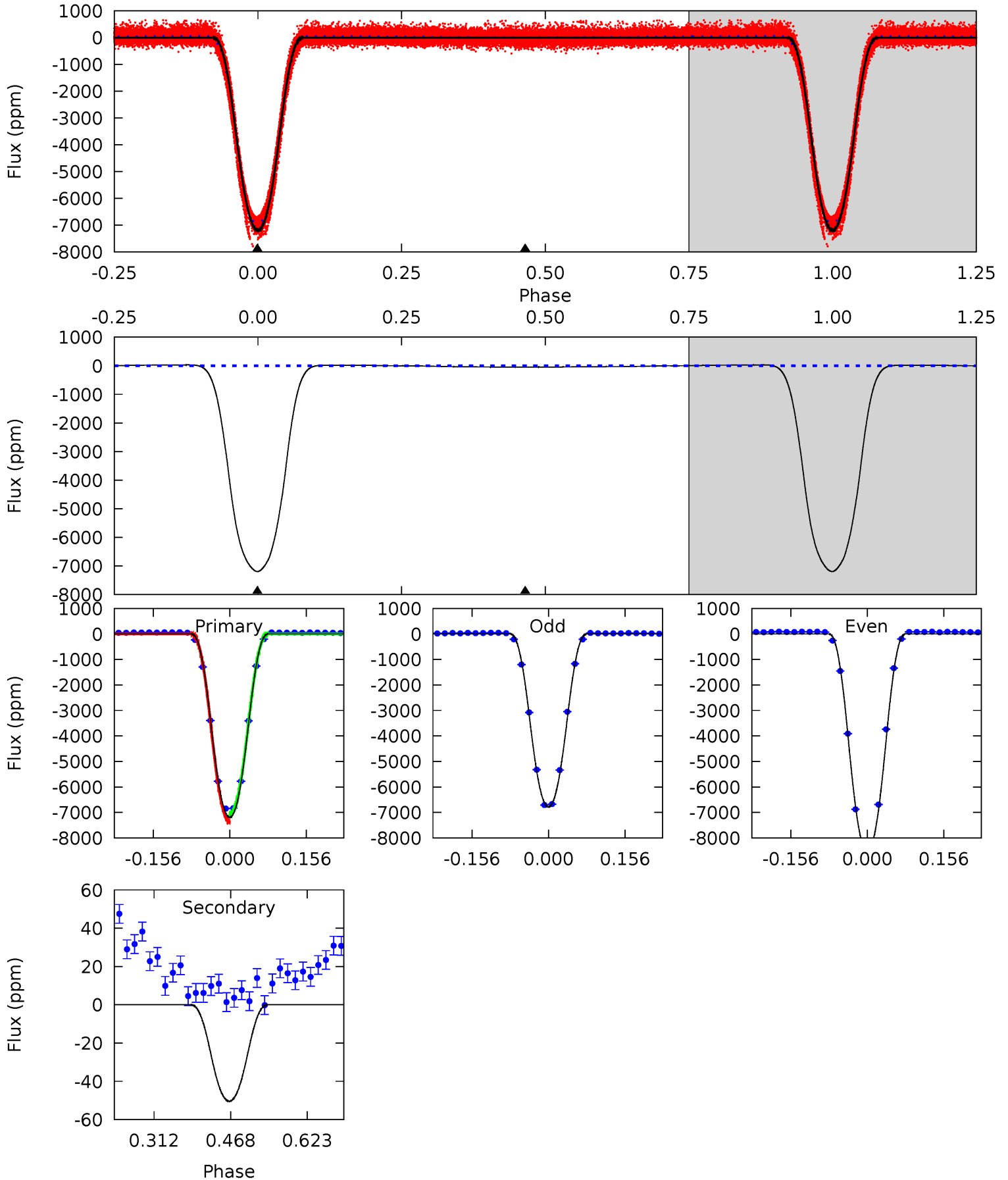
TCE 011391667-01 P= 0.541869 Days $T_0=131.968459$ (BKJD)



DV Model-Shift Uniqueness Test

011391667-01, P = 0.541870 Days, E = 131.426282 Days

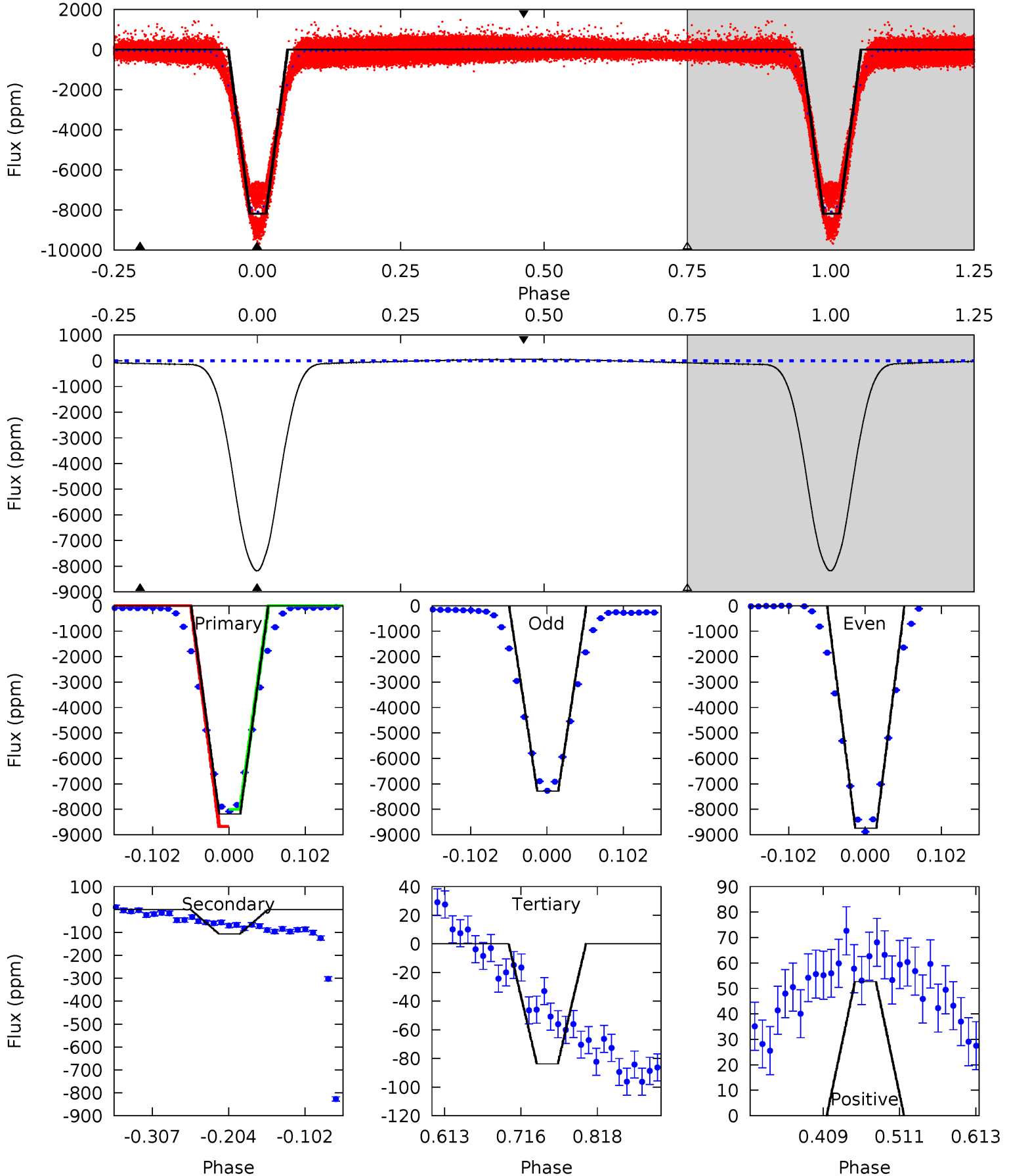
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3790	26.6	0	0	4.47	1.42	8.04	3790	3790	26.6	26.6	509.5	1.03	0.00	0



Alt Model-Shift Uniqueness Test

011391667-01, P = 0.541869 Days, E = 131.426590 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1853	24.1	19.0	11.9	4.56	1.63	11.4	1834	1841	5.09	12.1	186.5	0.99	0.01	0



Stellar Parameters For KIC 011391667

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5591^{+156}_{-267}	$3.227^{+0.287}_{-0.103}$	$-0.400^{+0.250}_{-0.450}$	$5.618^{+0.610}_{-2.287}$	$1.942^{+0.136}_{-0.773}$	$0.015^{+0.037}_{-0.004}$
	+3%/-5%	+9%/-3%	+62%/-112%	+11%/-41%	+7%/-40%	+240%/-26%
Source	PHO1	FLK73	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 011391667-01 / KOI 1652.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-50 ± 2	$59.98^{+4.45}_{-13.06}$	6277^{+410}_{-586}	-5168^{+417}_{-314}	$0.002^{+0.001}_{-0.000}$
Alt.	-106 ± 4	$58.35^{+4.14}_{-13.31}$	6294^{+399}_{-553}	-5172^{+396}_{-304}	$0.005^{+0.002}_{-0.001}$

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 $A_{obs} \gg 1.0$

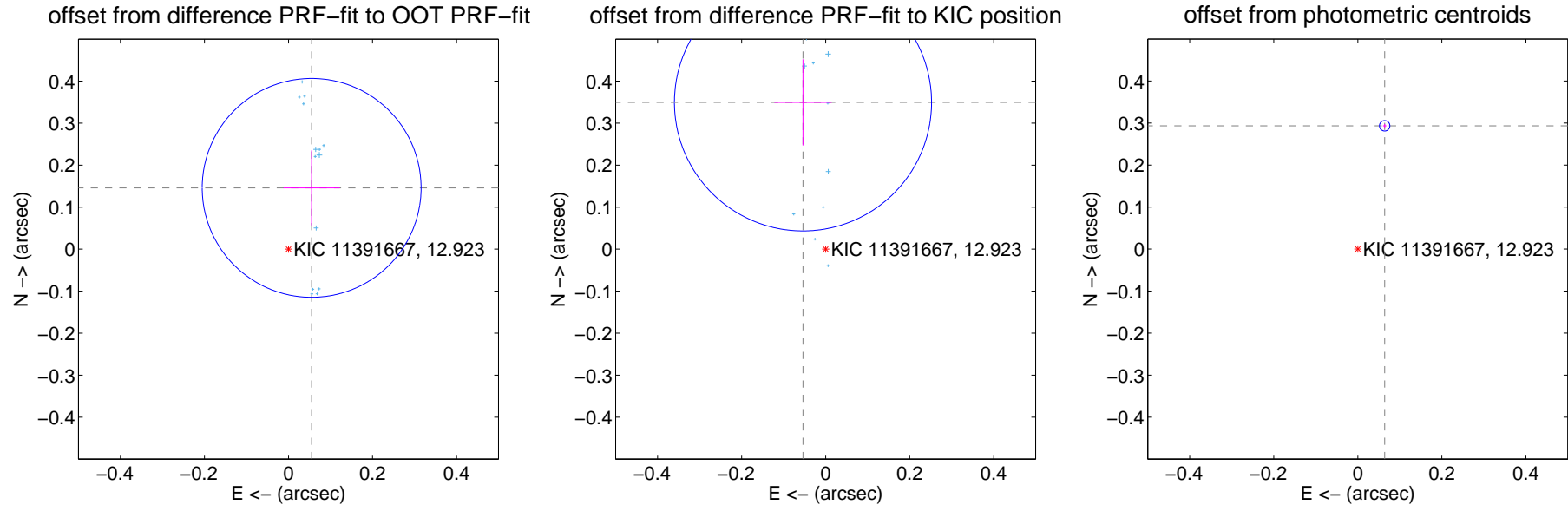
DV Centroid Data

Supplemental centroid analysis for 011391667-01. Kepler magnitude: 12.92. Transit SNR 1454.77

There are 14 quarters with good PRF difference image offsets

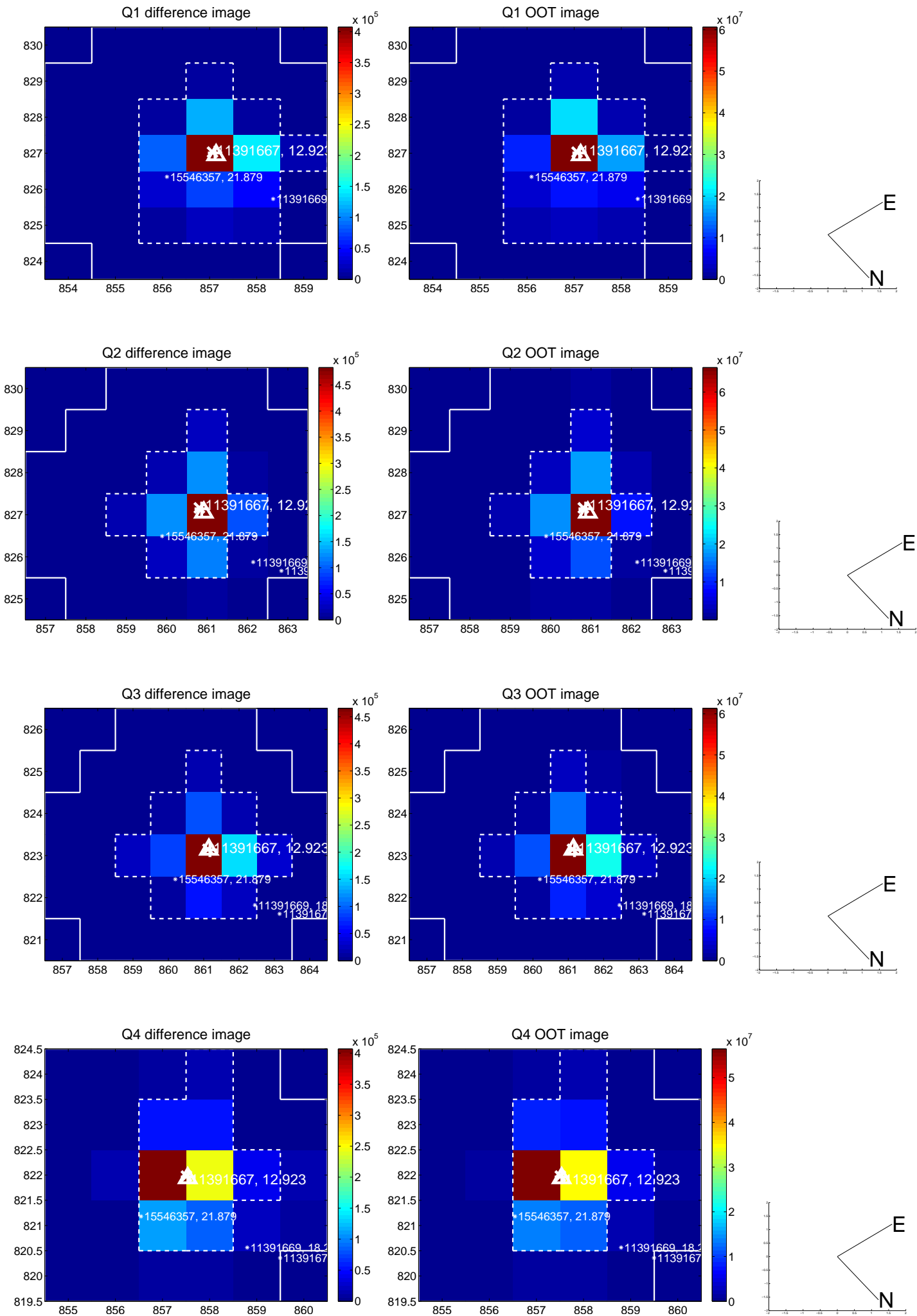
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.156 ± 0.087	1.80	-0.055 ± 0.067	0.146 ± 0.089
PRF-fit source offset from KIC position	0.354 ± 0.102	3.47	0.054 ± 0.068	0.349 ± 0.103
photometric centroid source offset	0.30 ± 0.00	72.79	-0.06 ± 0.00	0.29 ± 0.00

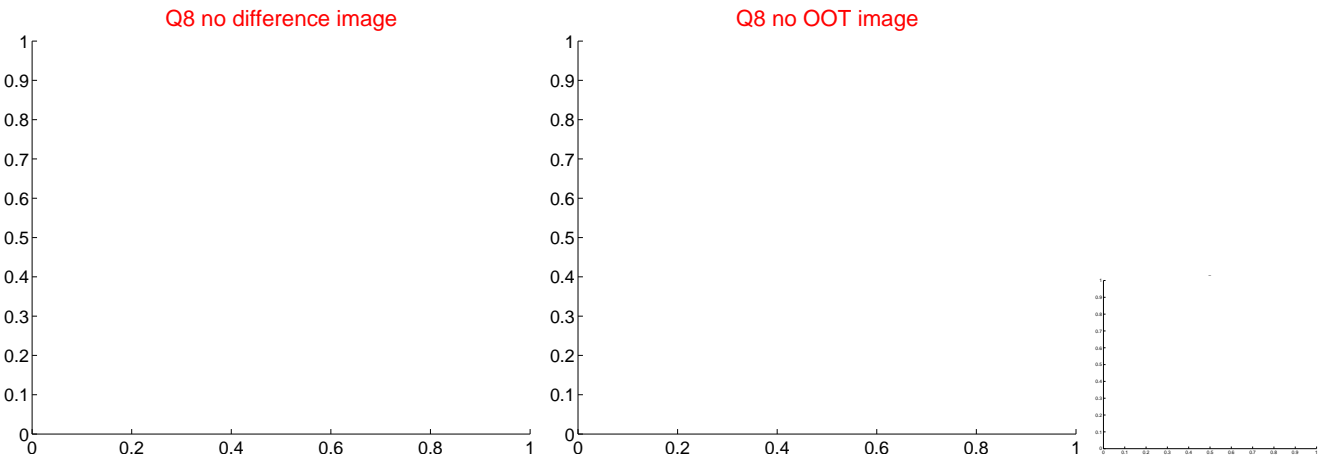
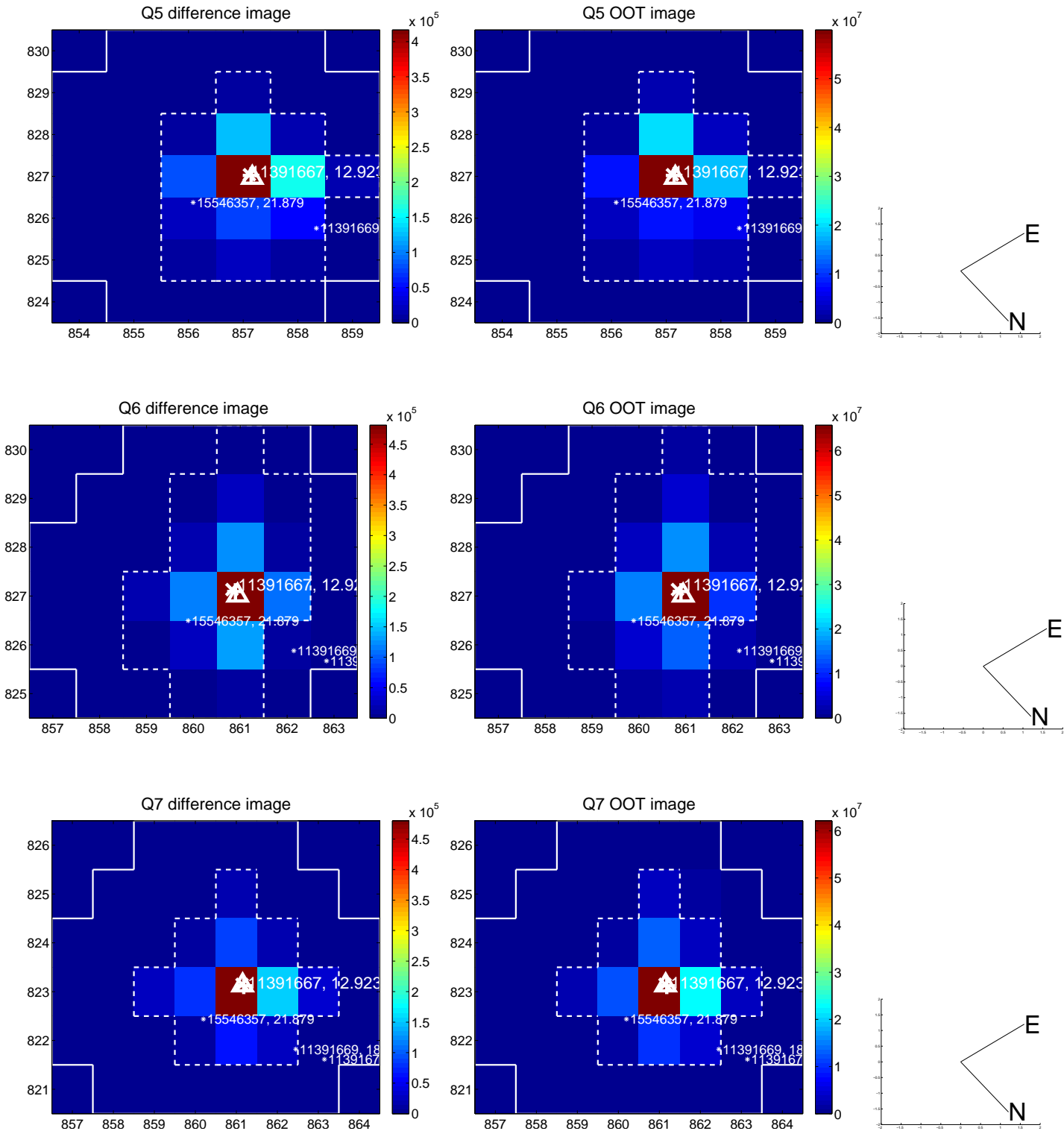


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

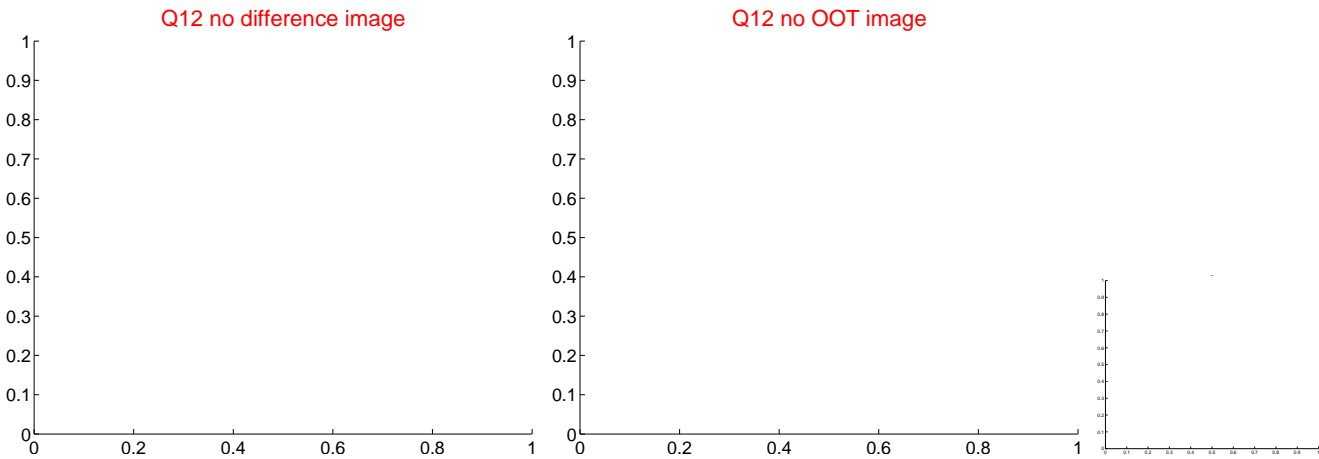
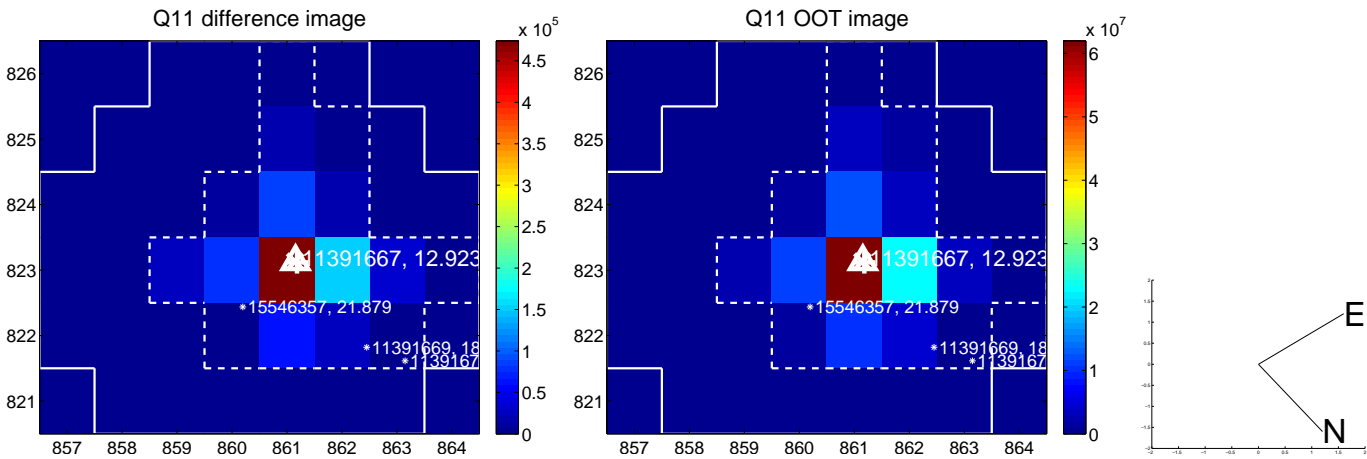
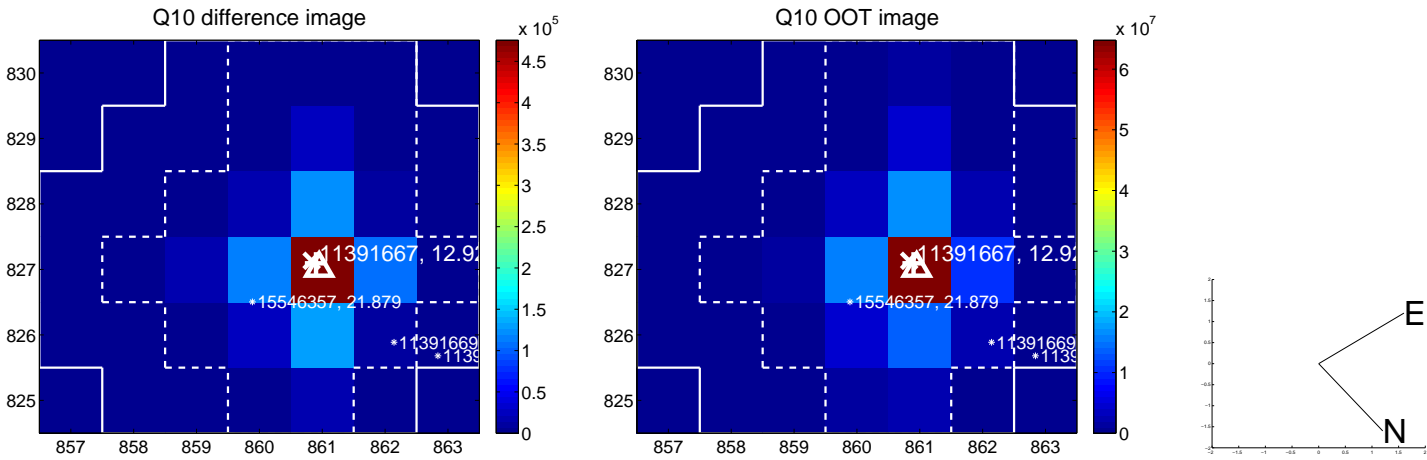
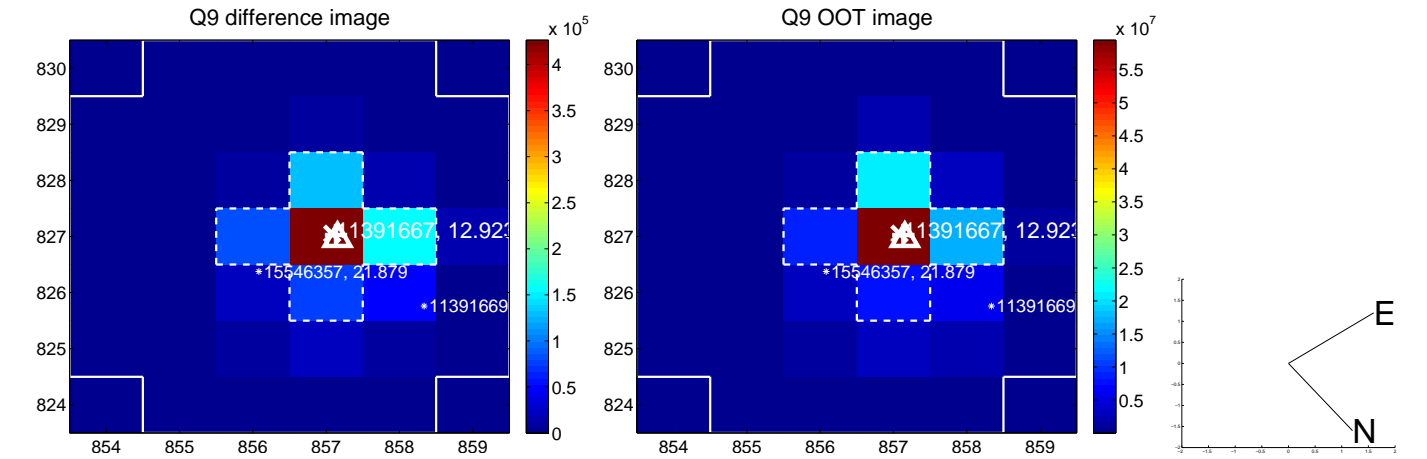
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



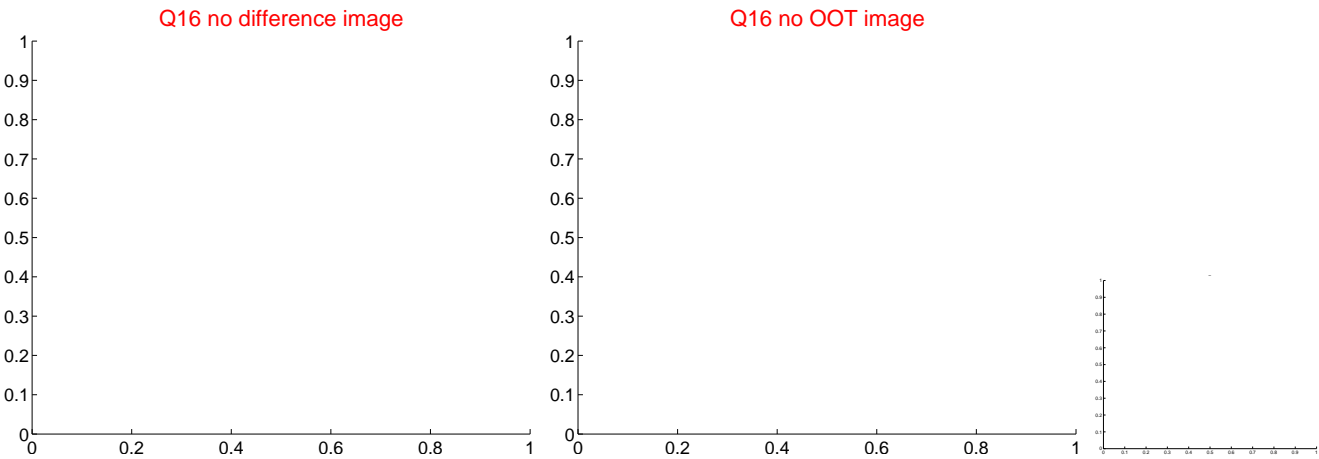
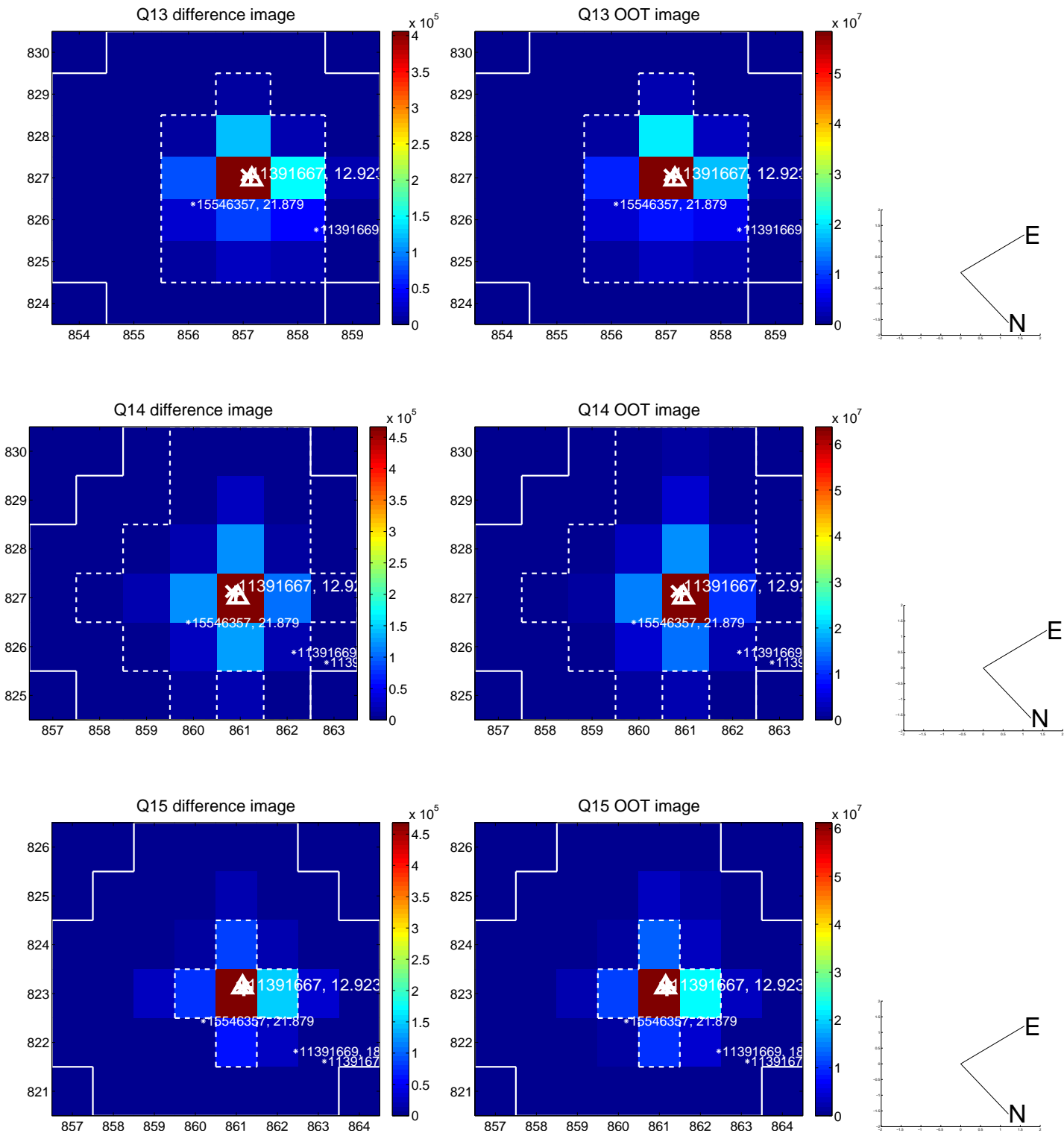
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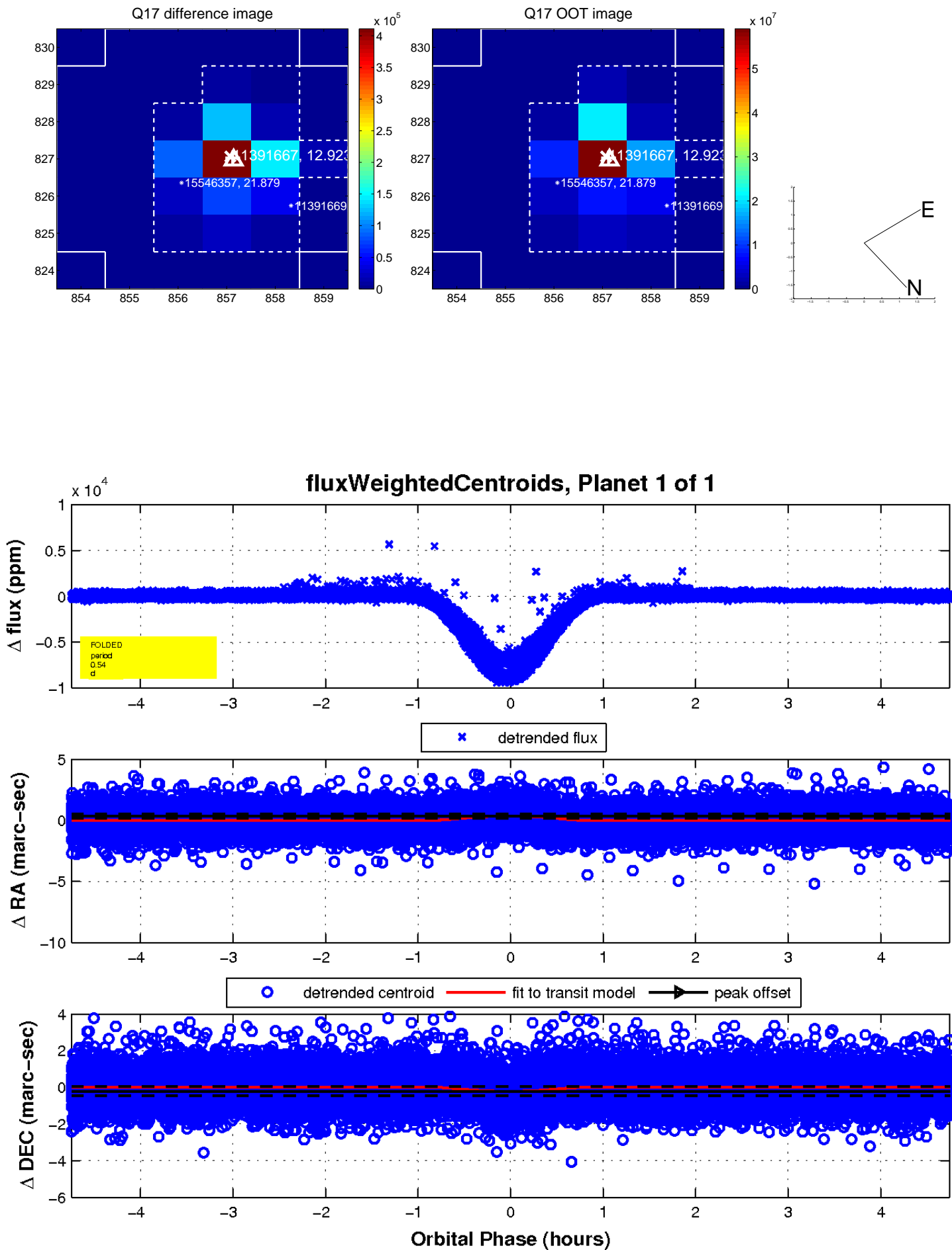
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

