

KIC 003851193

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})
003851193-01	OBS	6367.01	1.341068	131.844266	103742.0	3.599	7169.3	4055.5	1.23	6368	39.76	3551.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003851193-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_DV

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.

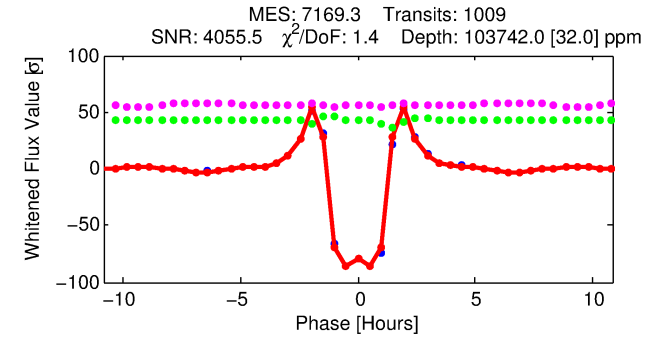
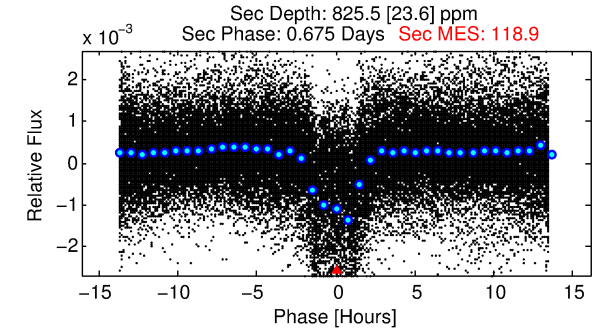
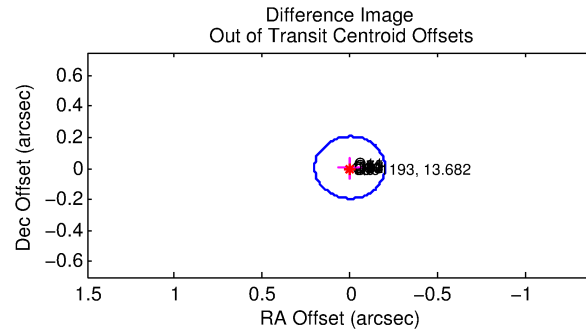
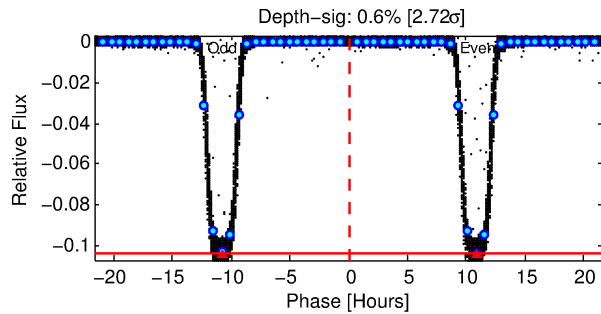
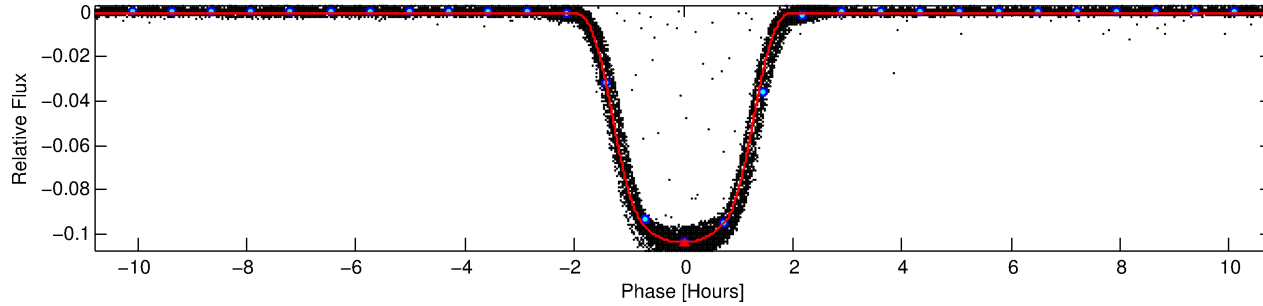
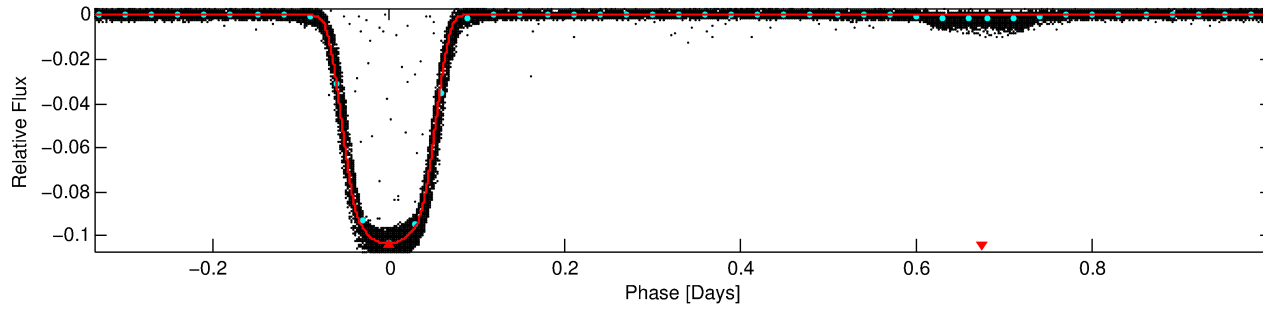
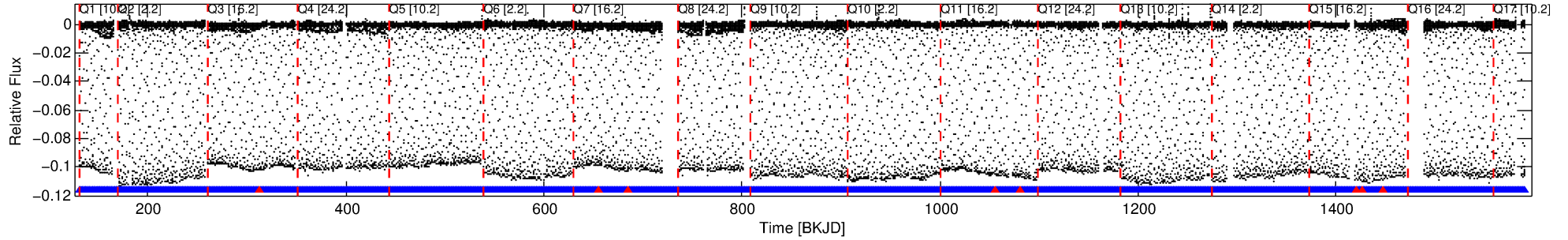
Ephemeris Match Information For 003851193-01

No Significant Match Found

DV One-Page Summary

KIC: 3851193 Candidate: 1 of 1 Period: 1.341 d
KOI: K06367.01 Corr: 0.967

Kp: 13.68 R*: 1.23 Rs Teff: 6368.0 K Logg: 4.32 Fe/H: -0.060



DV Fit Results:

Period = 1.34107 [0.00000] d
Epoch = 131.8443 [0.0000] BKJD
Rp/R* = 0.2974 [0.0001]
a/R* = 3.77 [0.00]
b = 0.00 [0.08]
Seff = 3551.37 [1393.93]
Teff = 1968 [193] K
Rp = 39.76 [12.98] Re
a = 0.0250 [0.0066] AU
Ag = 0.18 [0.07] [-12.37σ]
Teffp = 1979 [66] K [0.05σ]

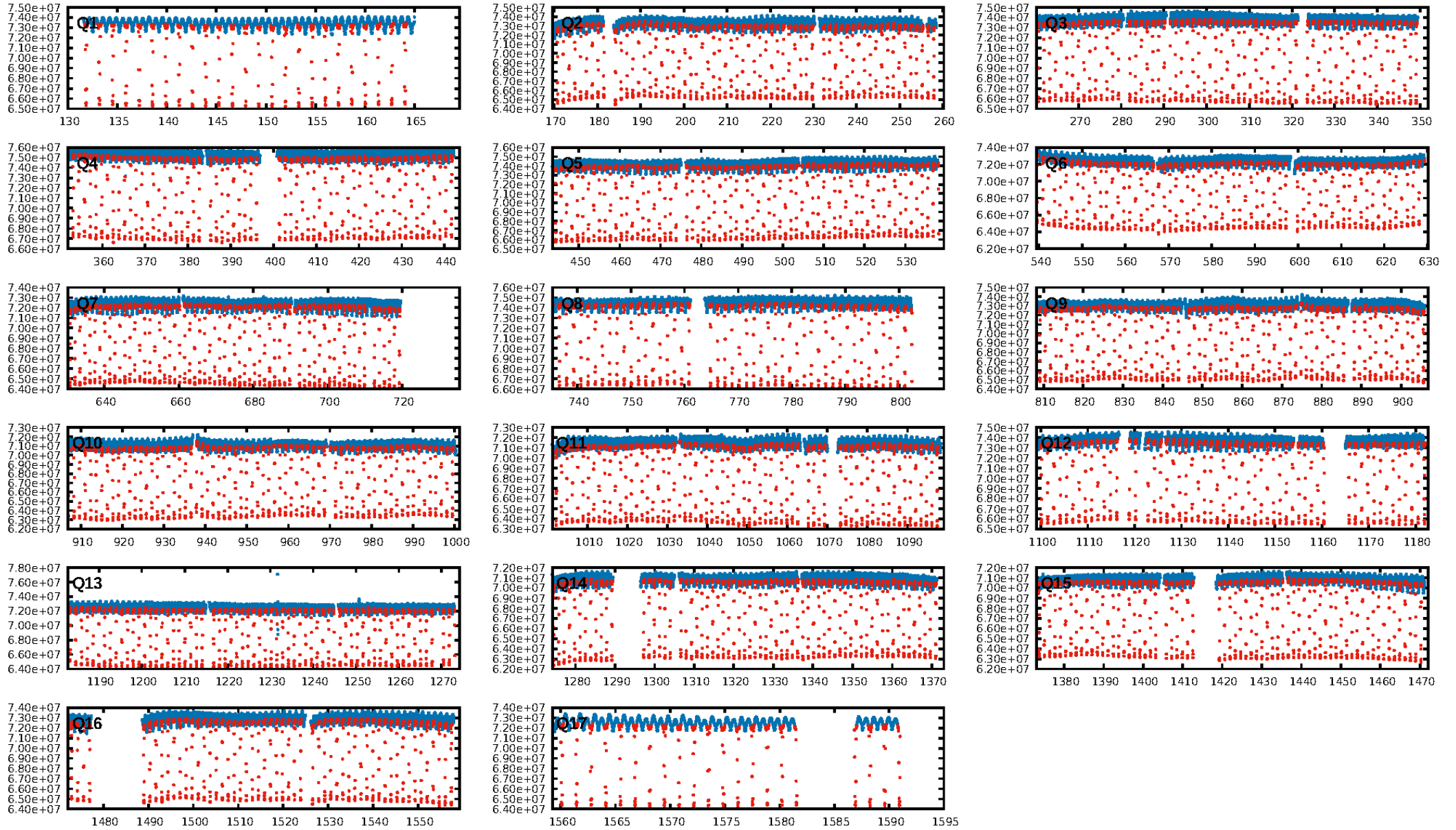
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [955/963]
GhostDiagnostic-chr: 1.425
Centroid-sig: 0.0%
Centroid-so: 0.055 arcsec [100.70σ]
OotOffset-rm: 0.007 arcsec [0.10σ]
KicOffset-rm: 0.056 arcsec [0.83σ]
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]

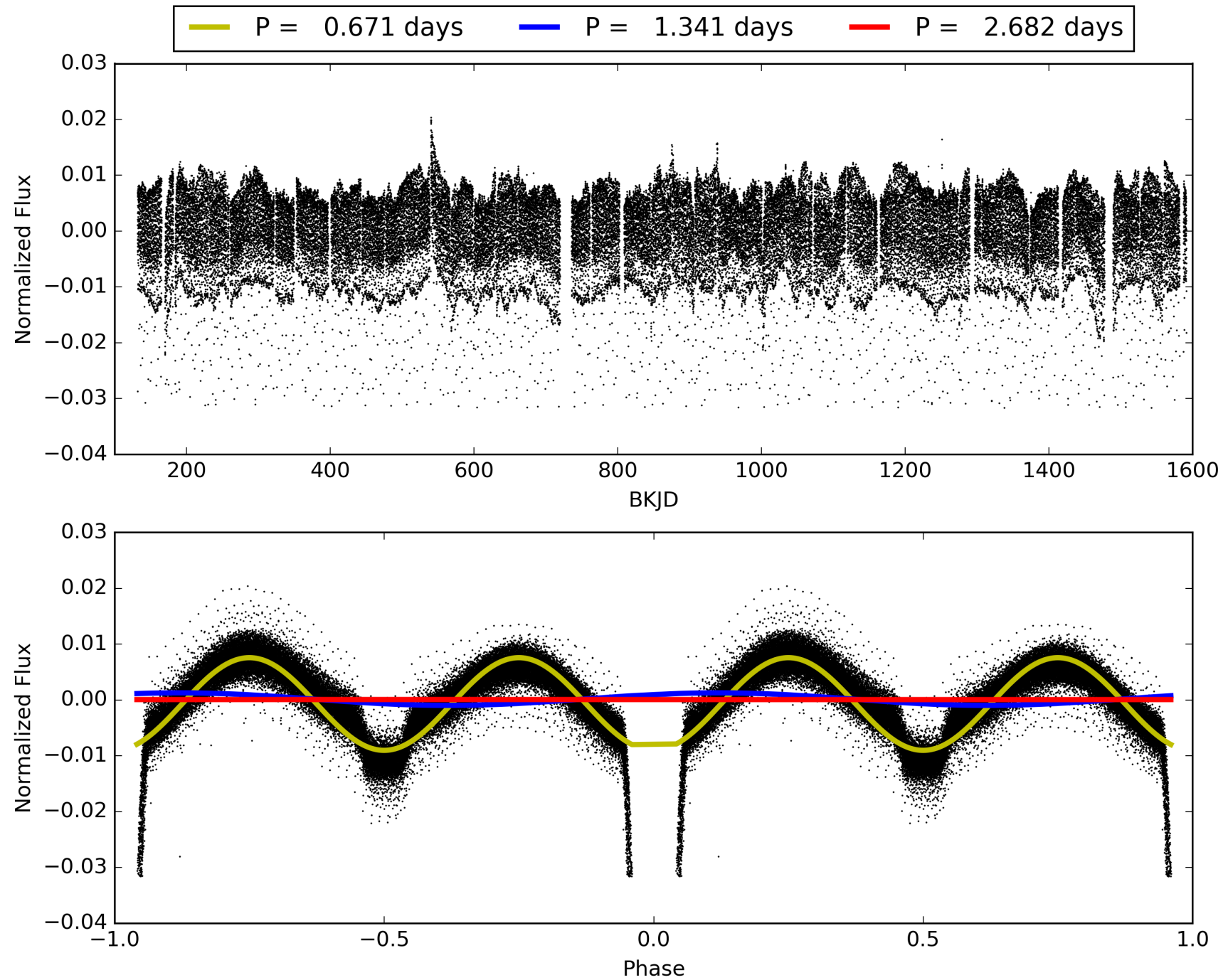
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:19:22 Z

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

TCE 003851193-01, PDC Light Curves

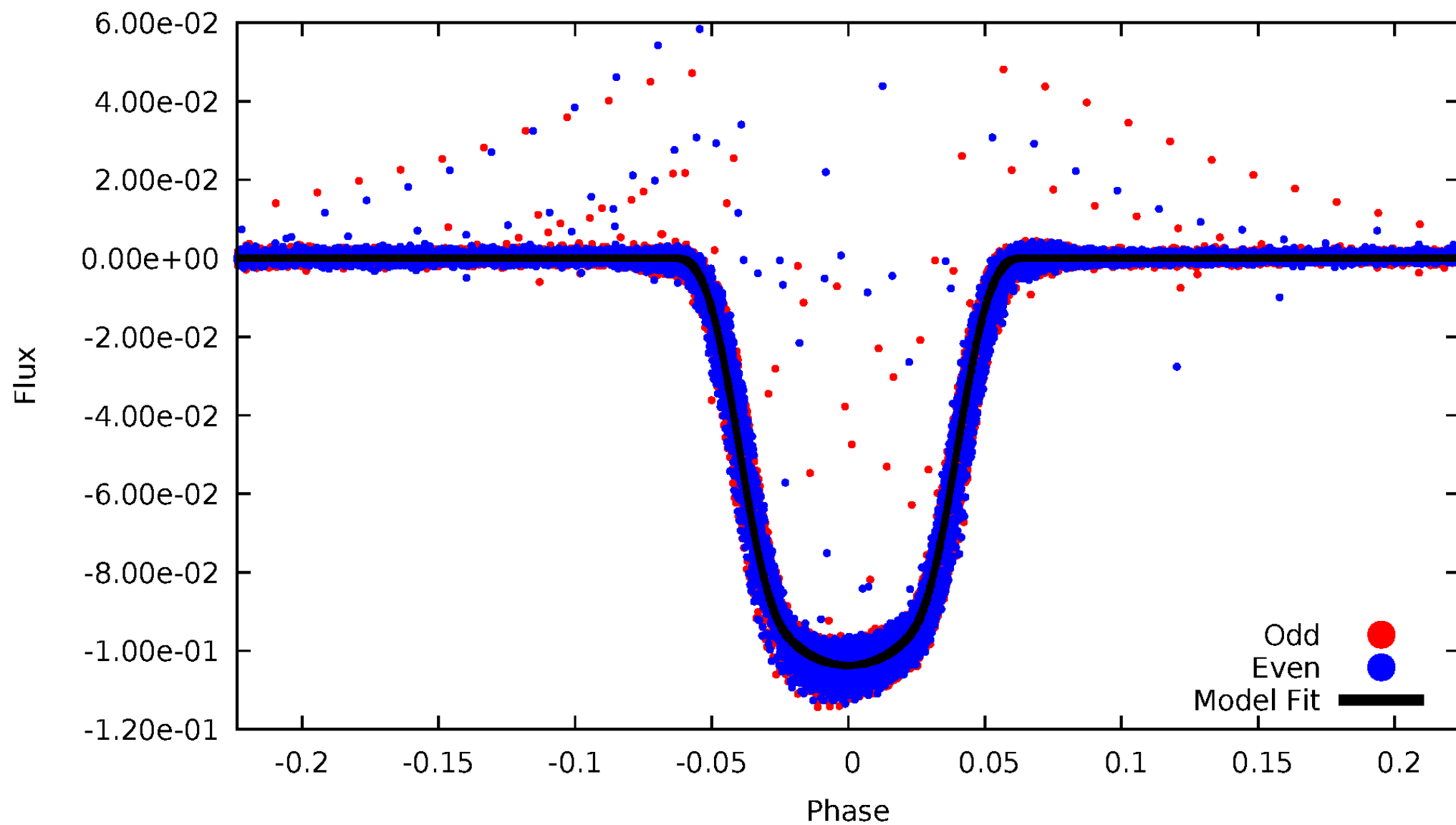


TCE 003851193-01



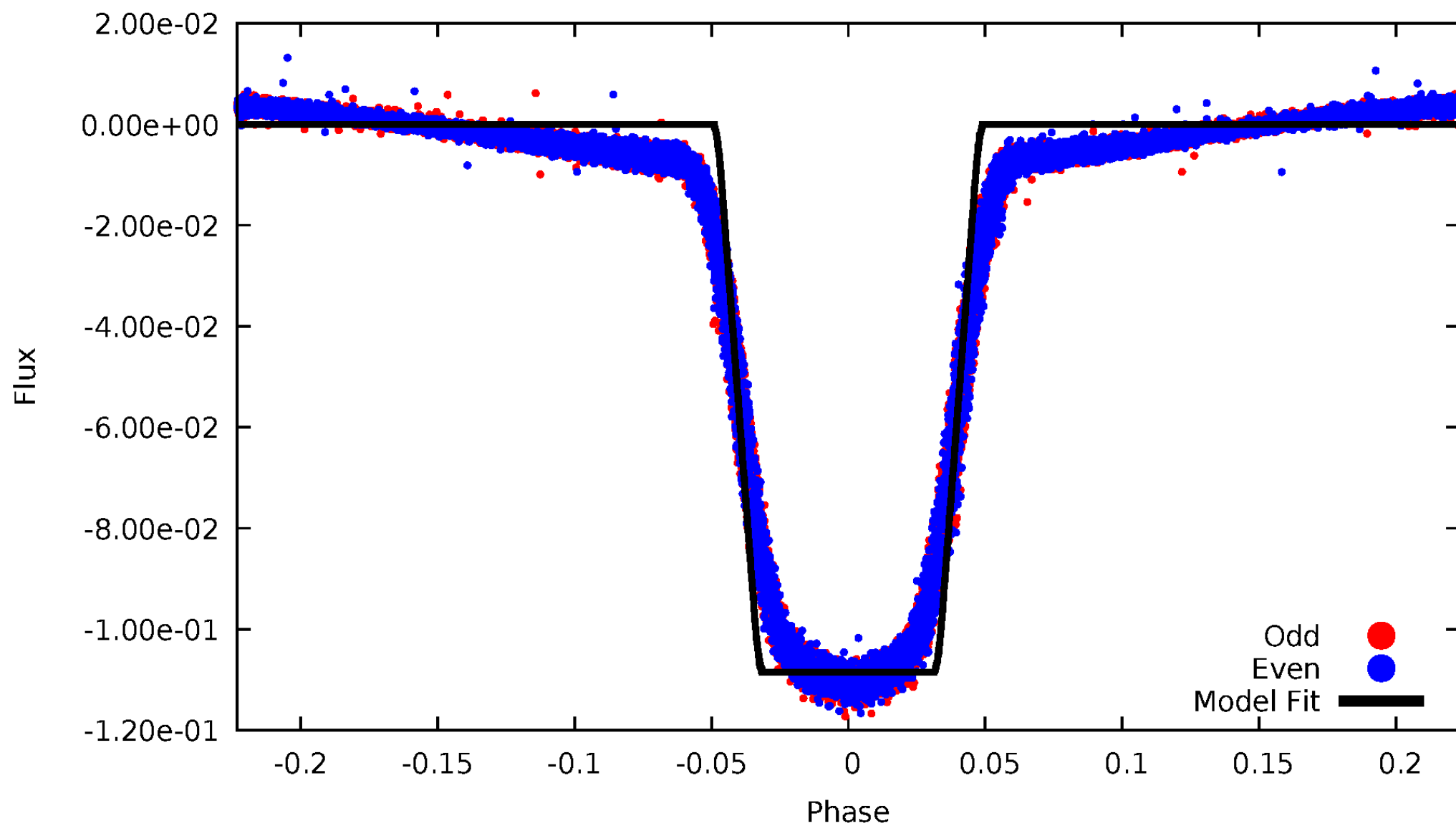
DV Odd/Even

TCE 003851193-01



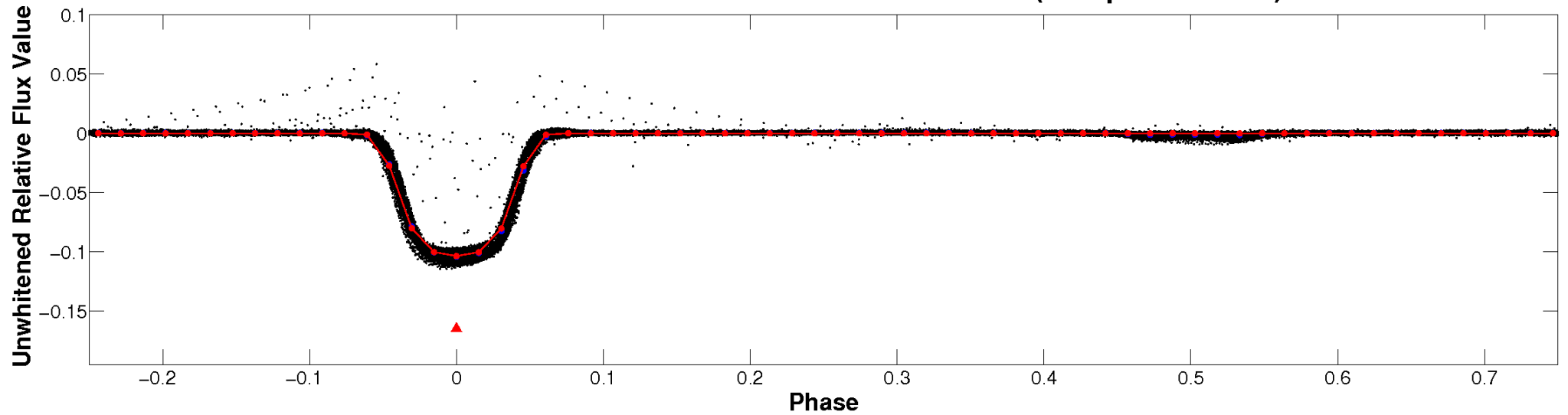
ALT Odd/Even

TCE 003851193-01

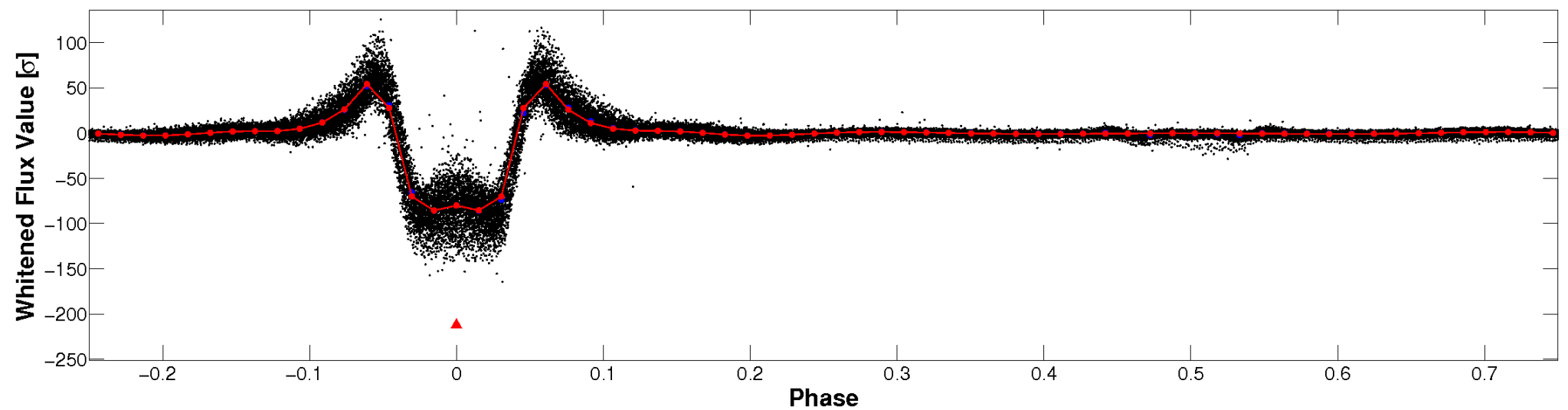


Non-Whitened Vs. Whitened Light Curve

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

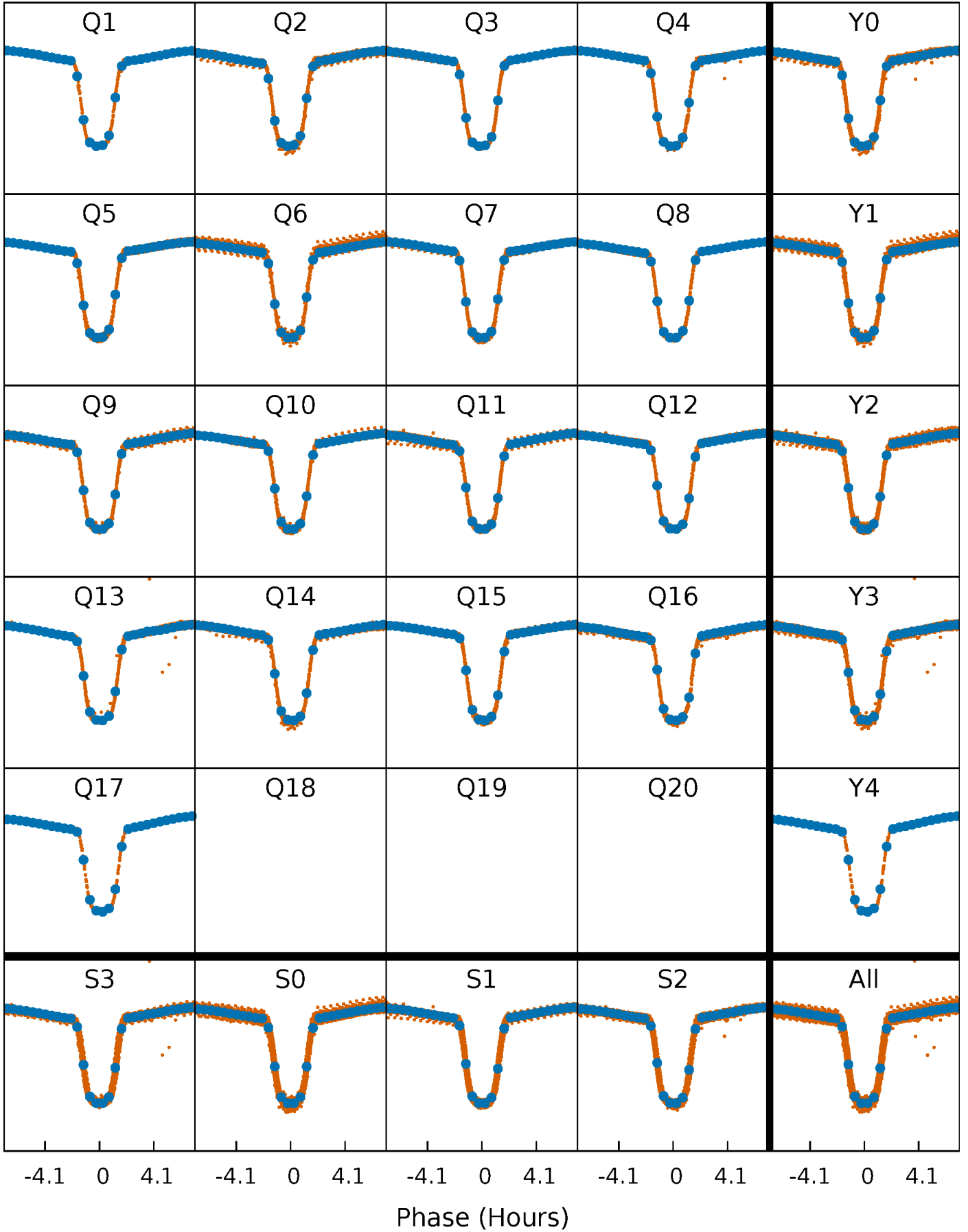


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



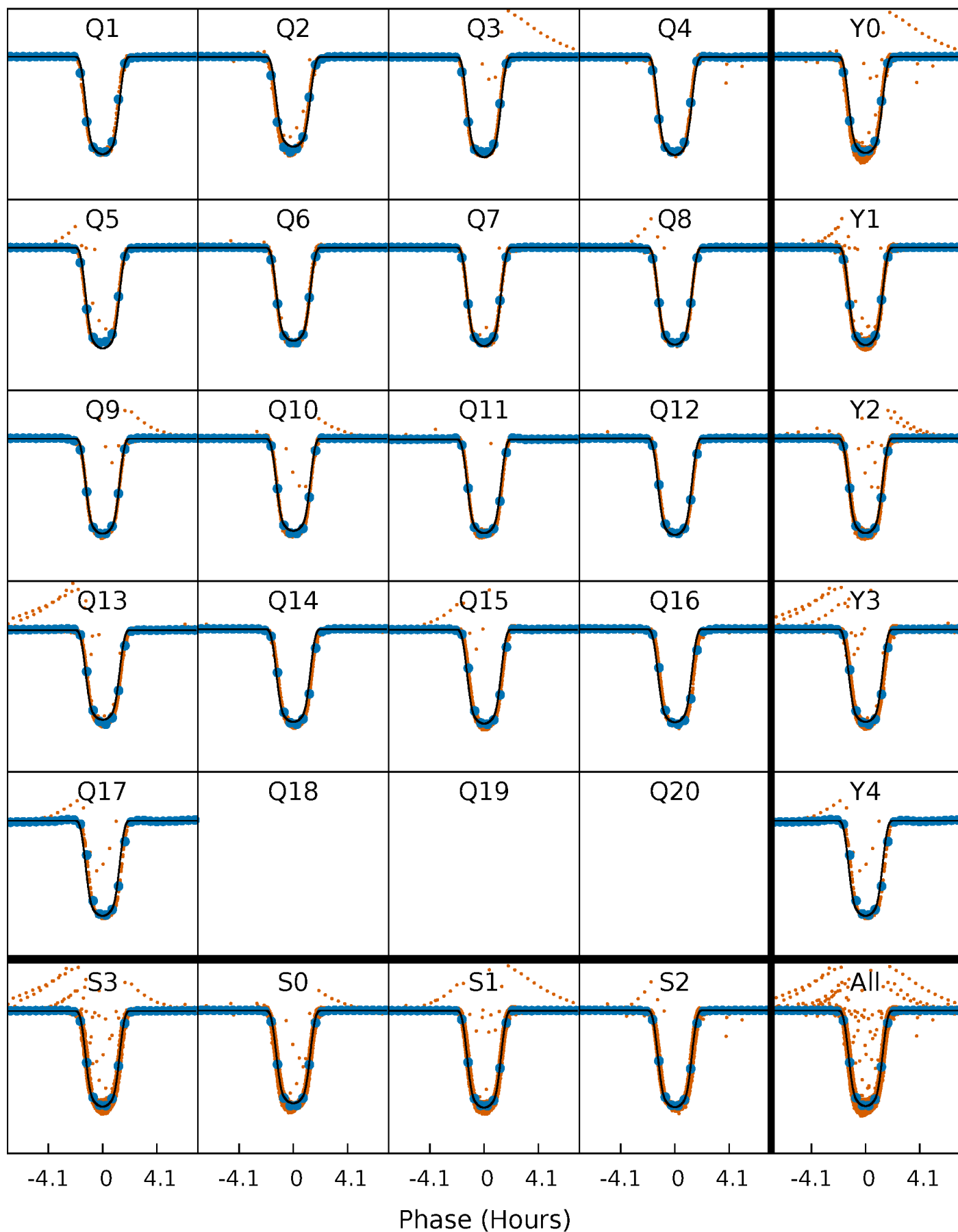
PDC Quarter-Phased Transit Curves

TCE 003851193-01 P= 1.341068 Days $T_0=131.844266$ (BKJD)



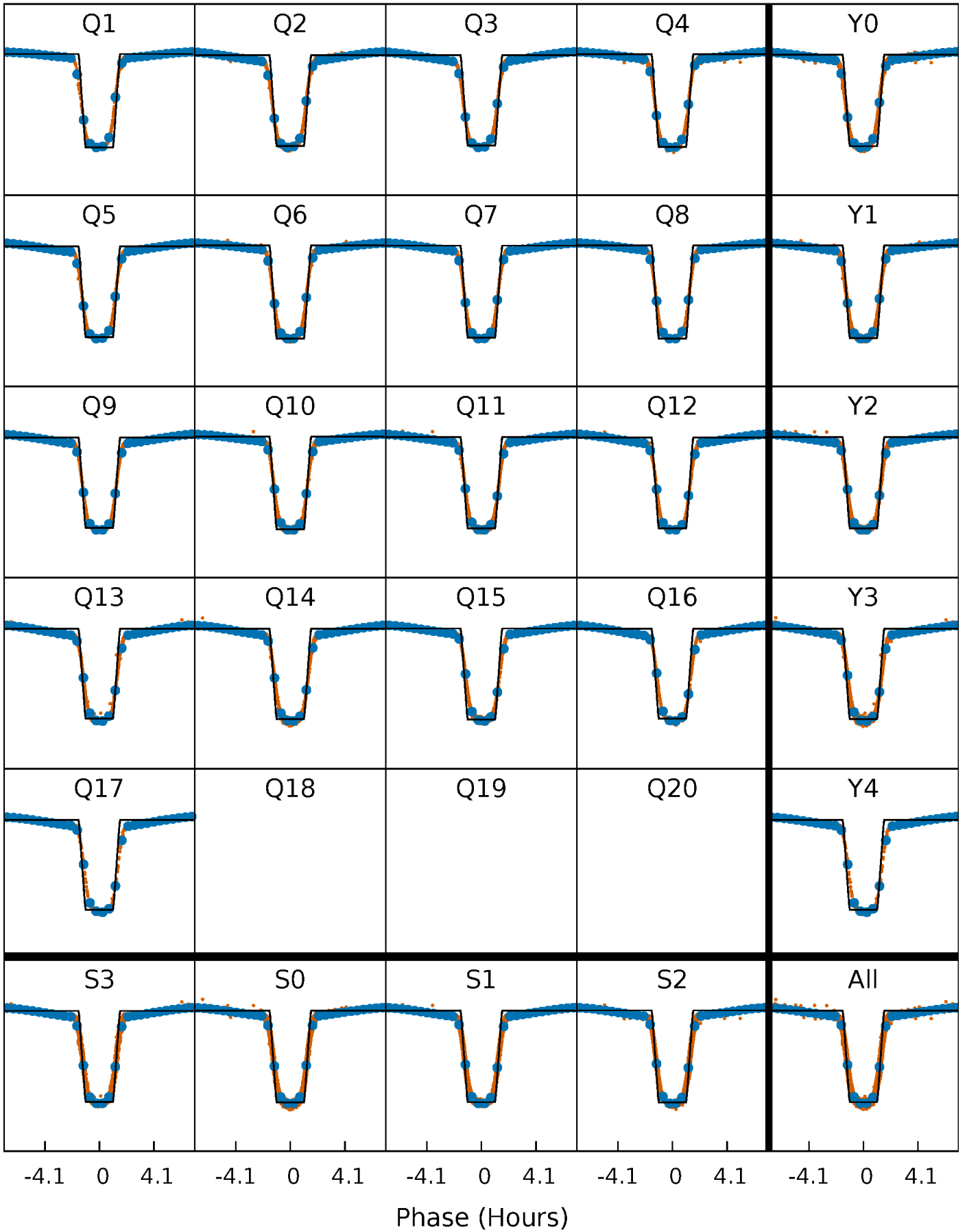
DV Quarter-Phased Transit Curves

TCE 003851193-01 P= 1.341068 Days $T_0=131.844266$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

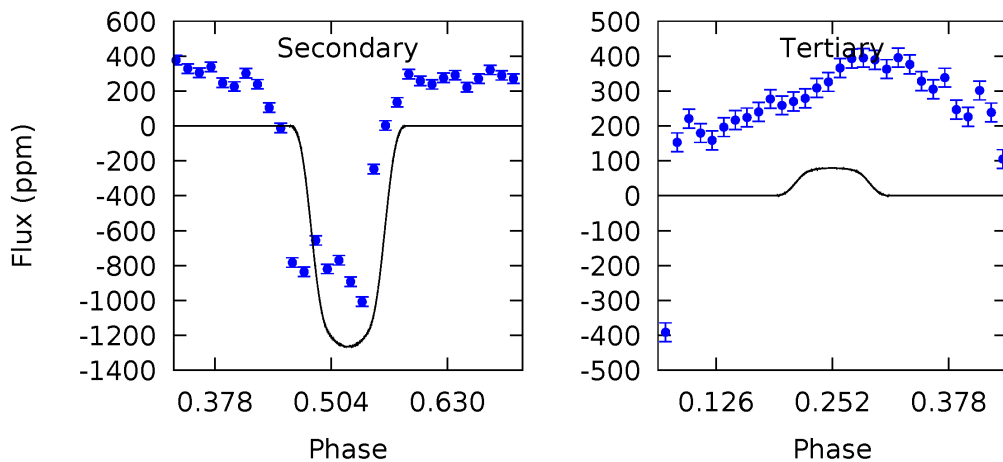
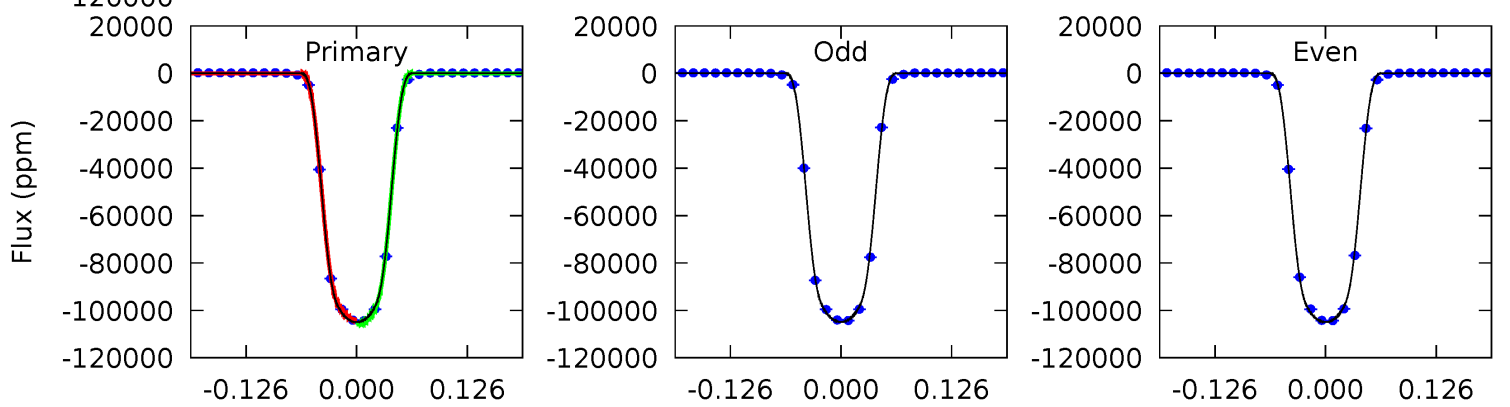
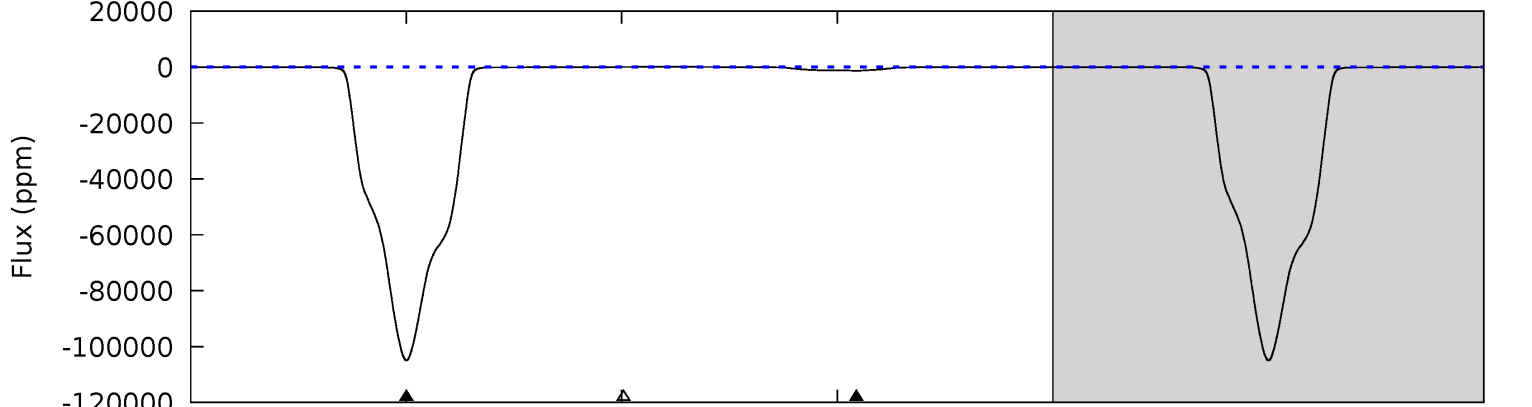
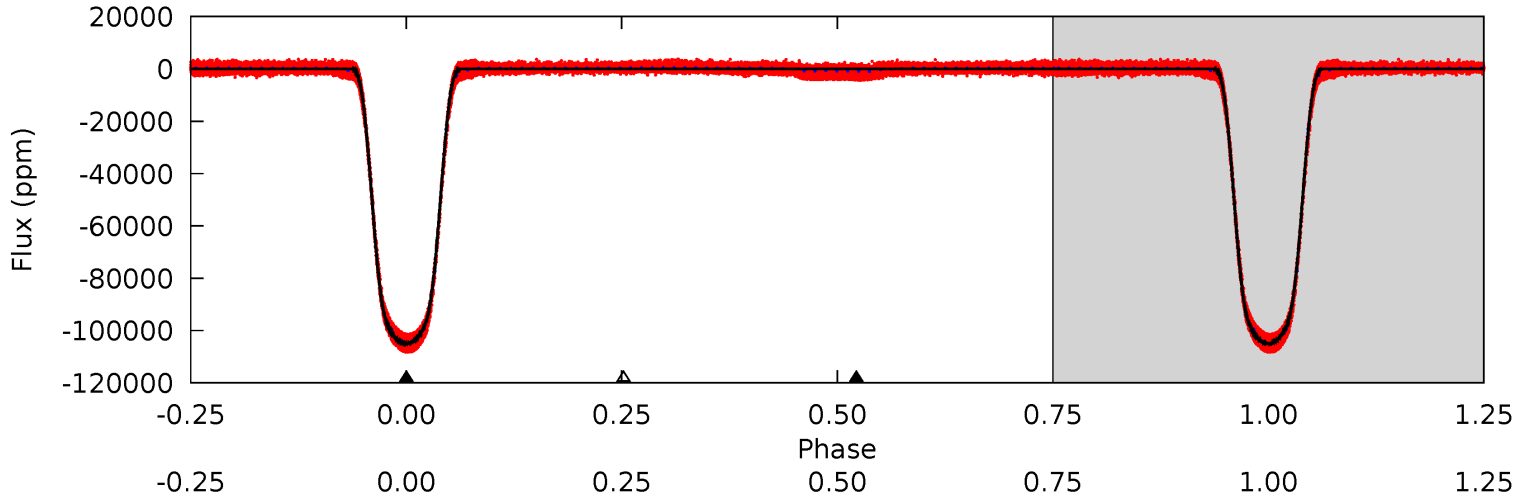
TCE 003851193-01 P= 1.341071 Days $T_0=131.843156$ (BKJD)



DV Model-Shift Uniqueness Test

003851193-01, P = 1.341068 Days, E = 130.503198 Days

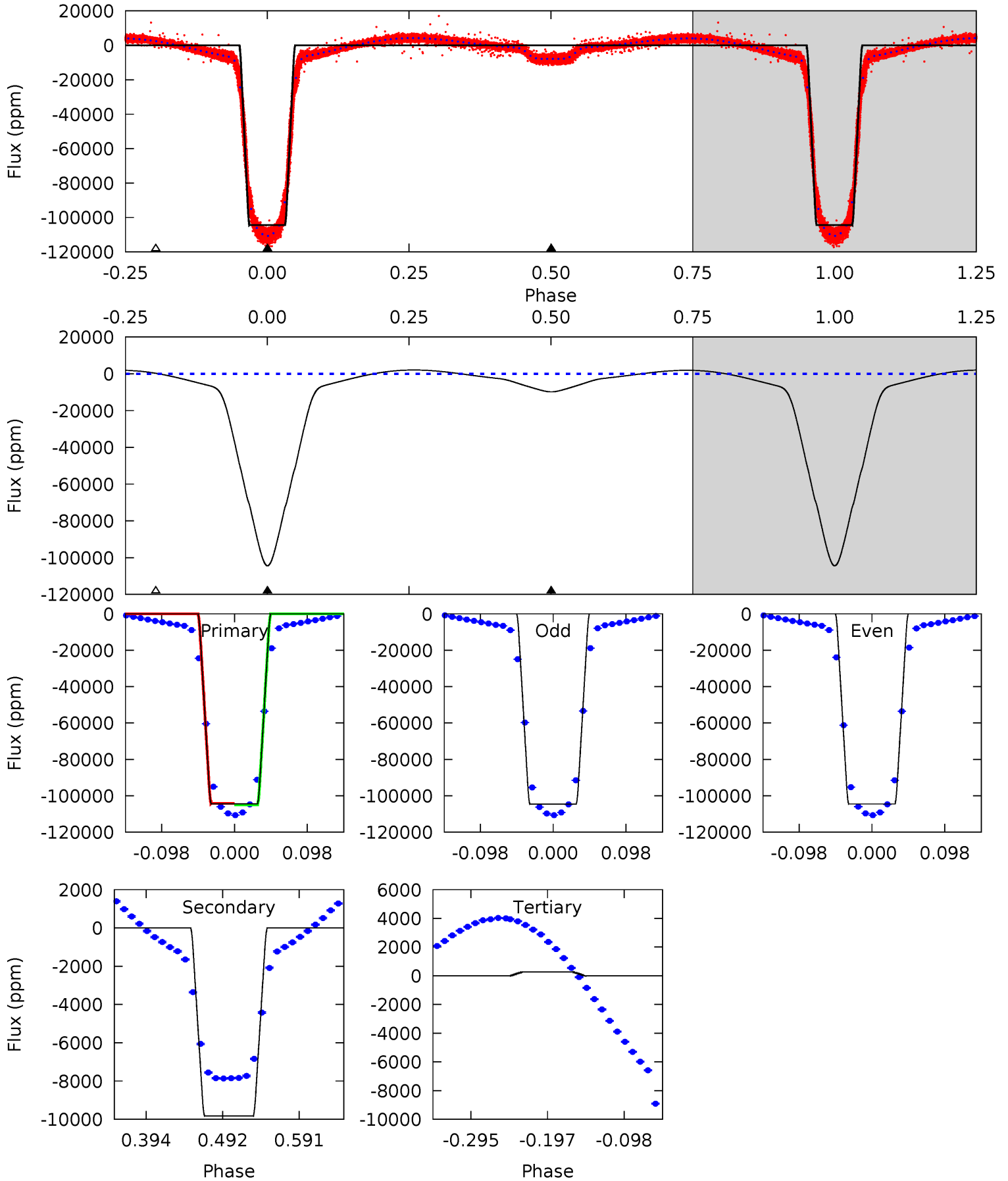
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8764	105.6	-6.61	0	4.52	1.53	5.00	8770	8764	112.3	105.6	2.28	0.99	0.00	76.1



Alt Model-Shift Uniqueness Test

003851193-01, P = 1.341071 Days, E = 130.502085 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2825	265.9	-7.36	0	4.57	1.65	62.1	2832	2825	273.2	265.9	1.49	1.00	0.02	9.80



Stellar Parameters For KIC 003851193

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6368^{+160}_{-208}	$4.323^{+0.105}_{-0.195}$	$-0.060^{+0.250}_{-0.300}$	$1.225^{+0.400}_{-0.171}$	$1.151^{+0.188}_{-0.157}$	$0.881^{+0.423}_{-0.459}$
	+3%/-3%	+2%/-5%	+417%/-500%	+33%/-14%	+16%/-14%	+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 003851193-01 / KOI 6367.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1265 ± 12	$39.80^{+6.69}_{-3.15}$	2772^{+207}_{-144}	-2261^{+4278}_{-367}	$0.266^{+0.049}_{-0.060}$
Alt.	-9826 ± 37	$44.04^{+7.85}_{-3.38}$	2769^{+209}_{-155}	3727^{+75}_{-86}	$1.711^{+0.304}_{-0.423}$

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 $A_{obs} \gg 1.0$

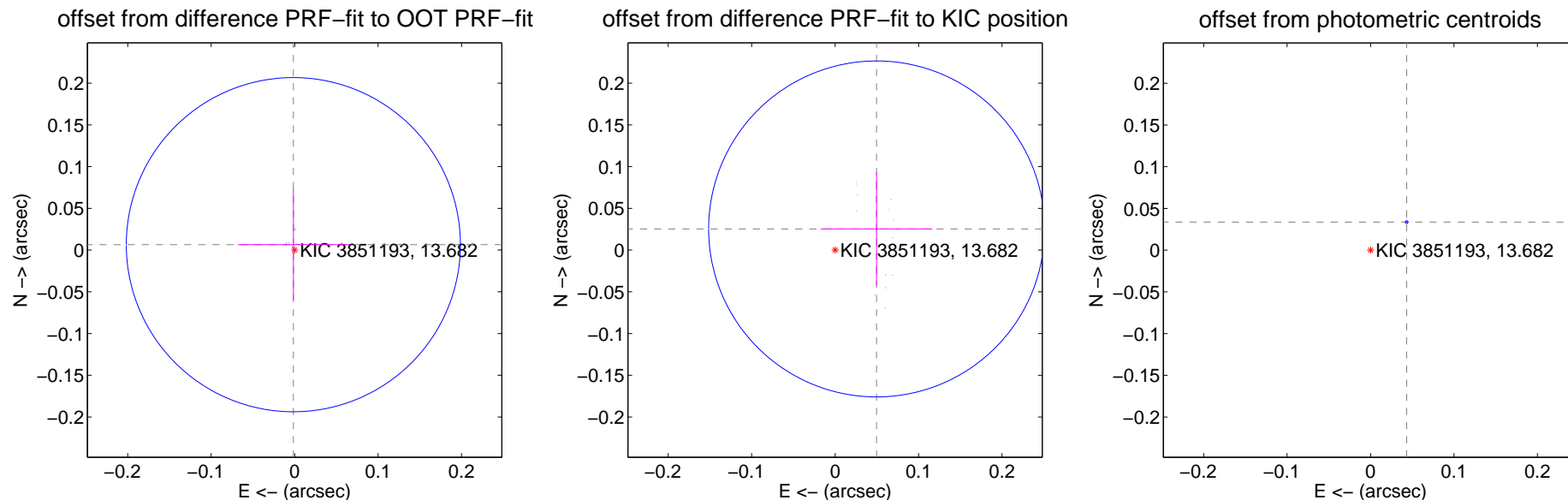
DV Centroid Data

Supplemental centroid analysis for 003851193-01. Kepler magnitude: 13.68. Transit SNR 4055.52

There are 17 quarters with good PRF difference image offsets

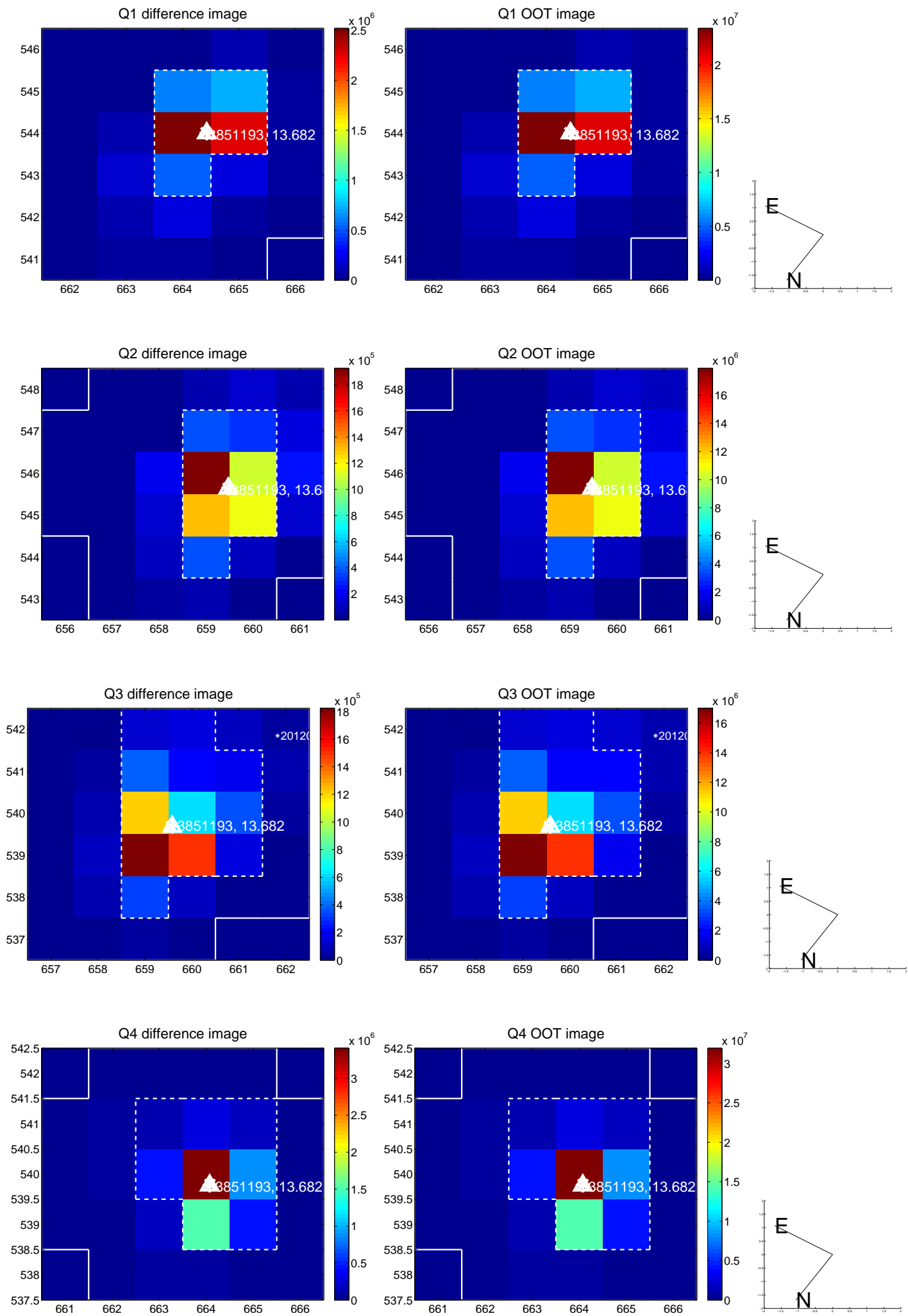
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.007 ± 0.067	0.10	0.002 ± 0.067	0.006 ± 0.067
PRF-fit source offset from KIC position	0.056 ± 0.067	0.83	-0.050 ± 0.067	0.025 ± 0.068
photometric centroid source offset	0.05 ± 0.00	100.70	-0.04 ± 0.00	0.03 ± 0.00

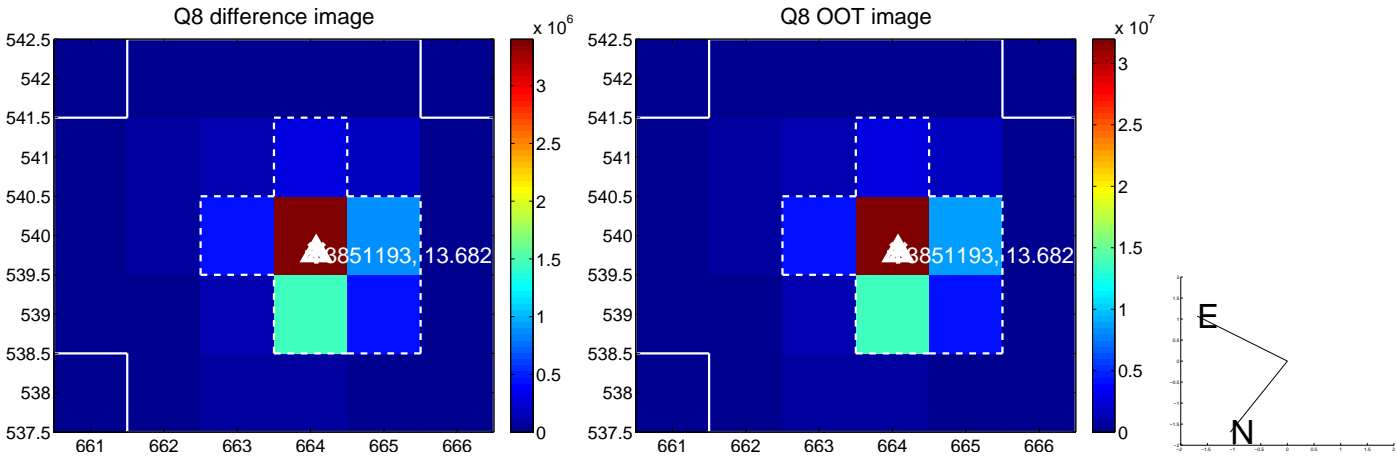
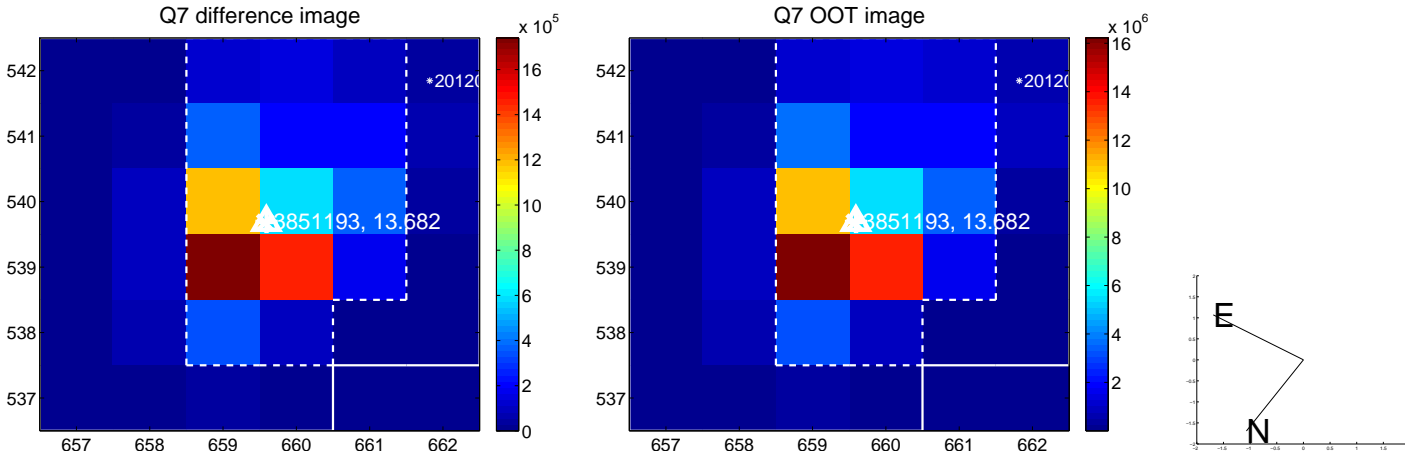
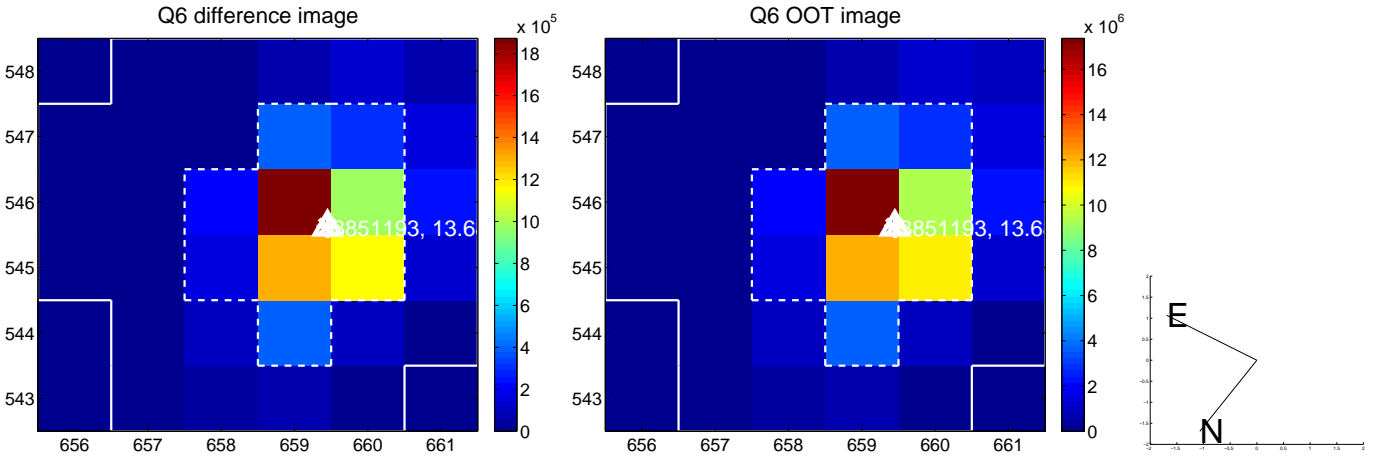
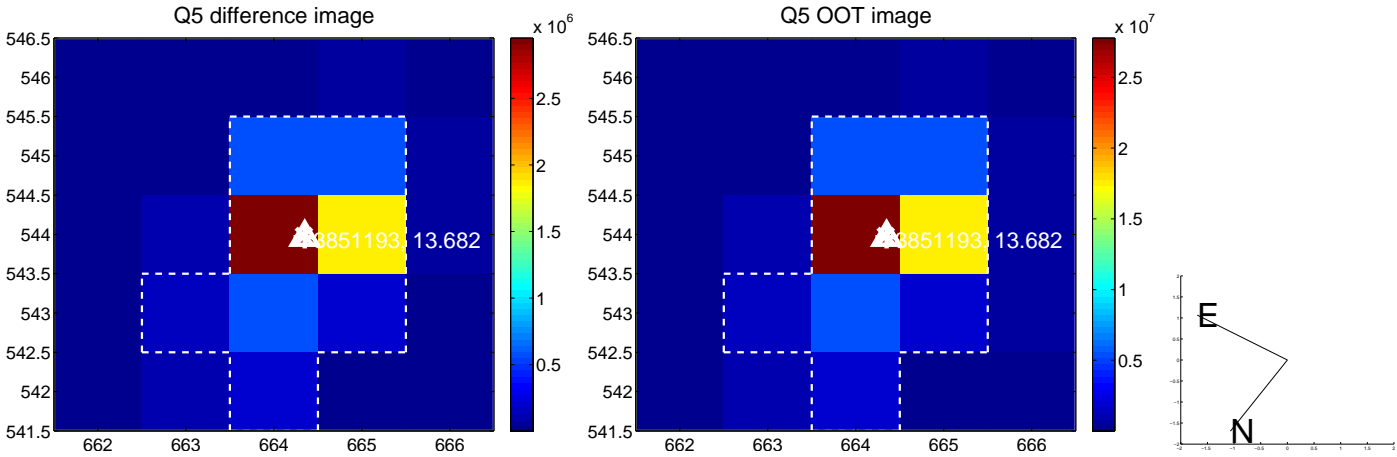


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

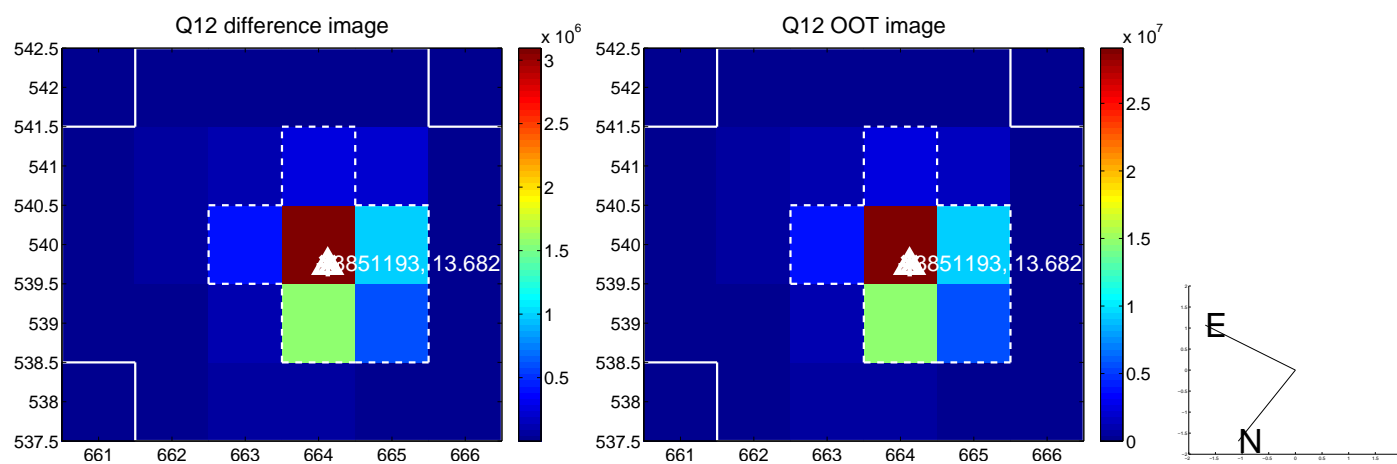
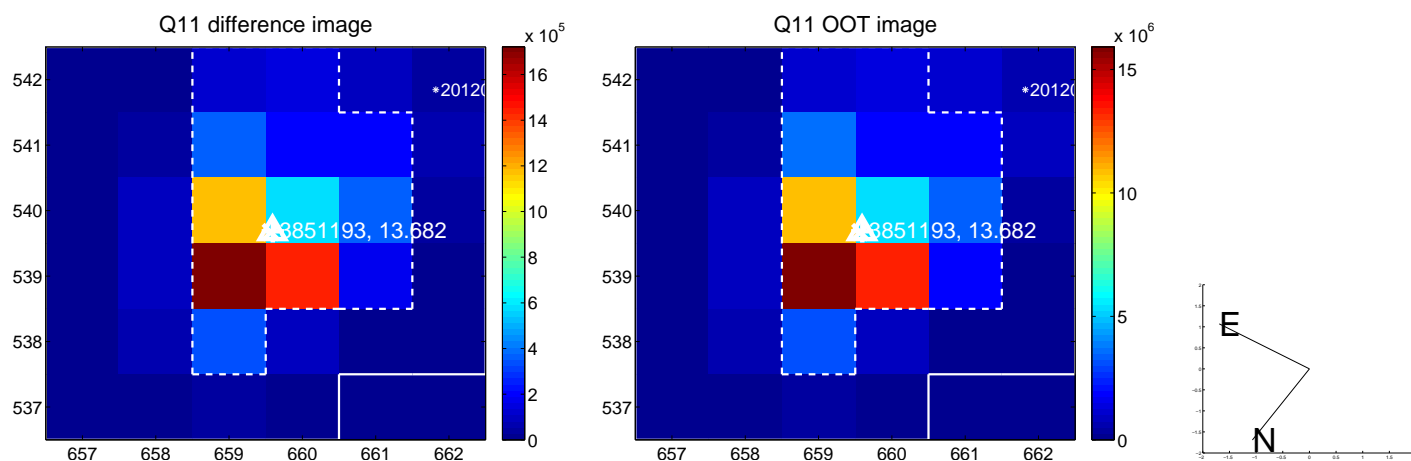
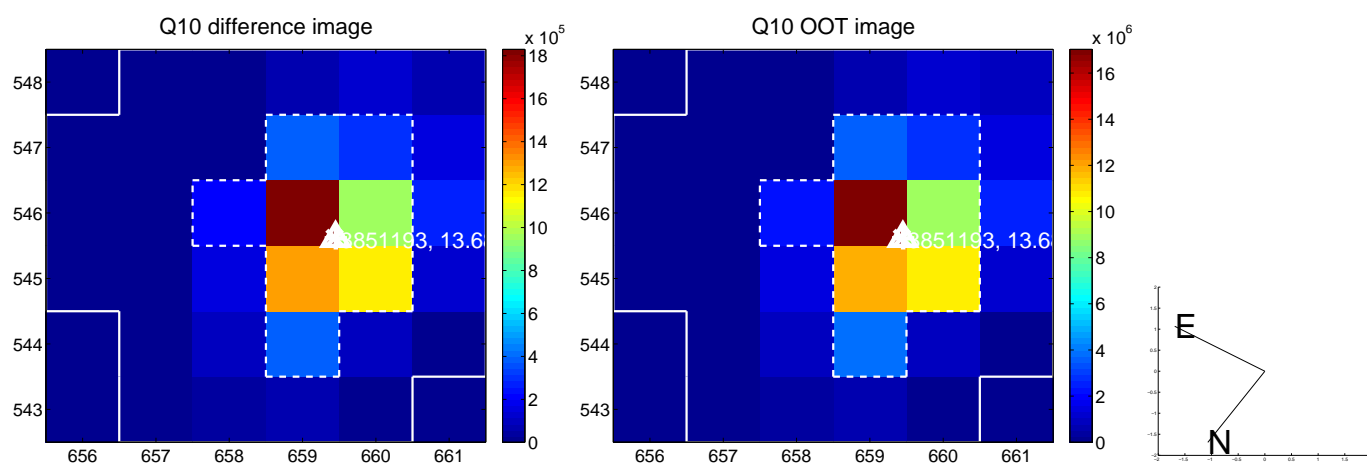
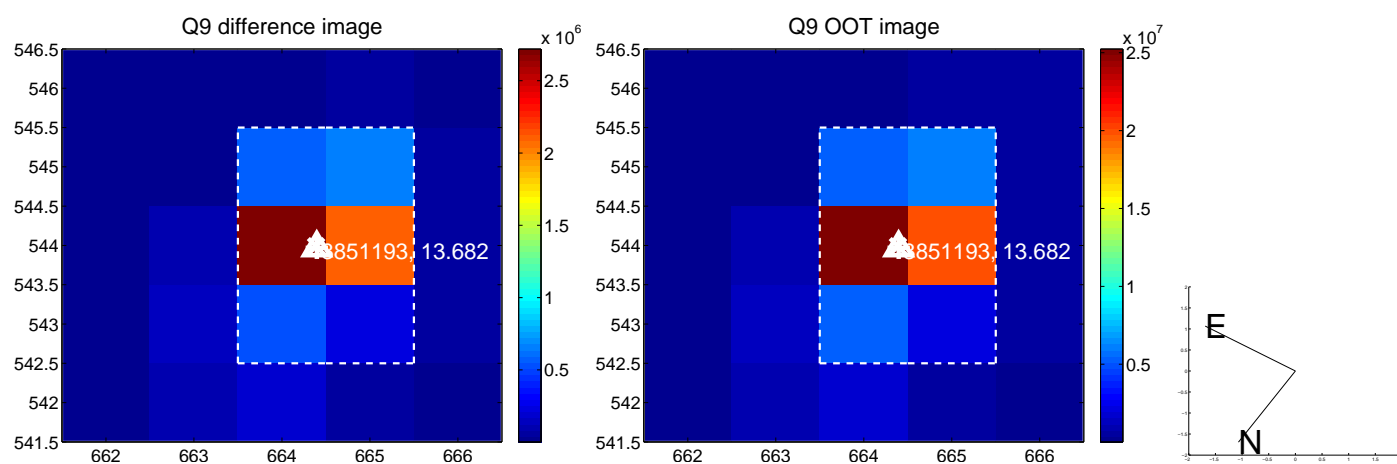
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



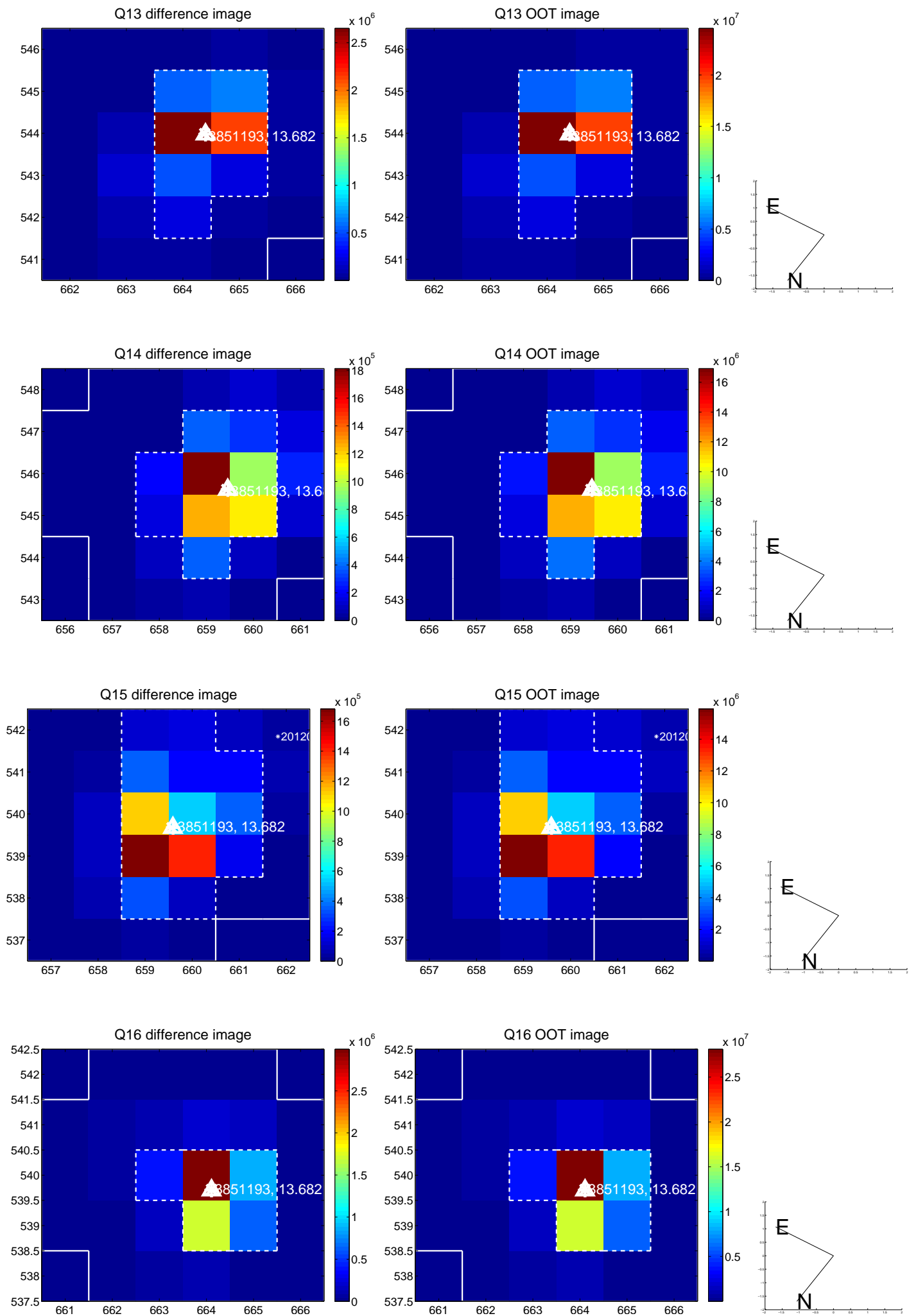
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



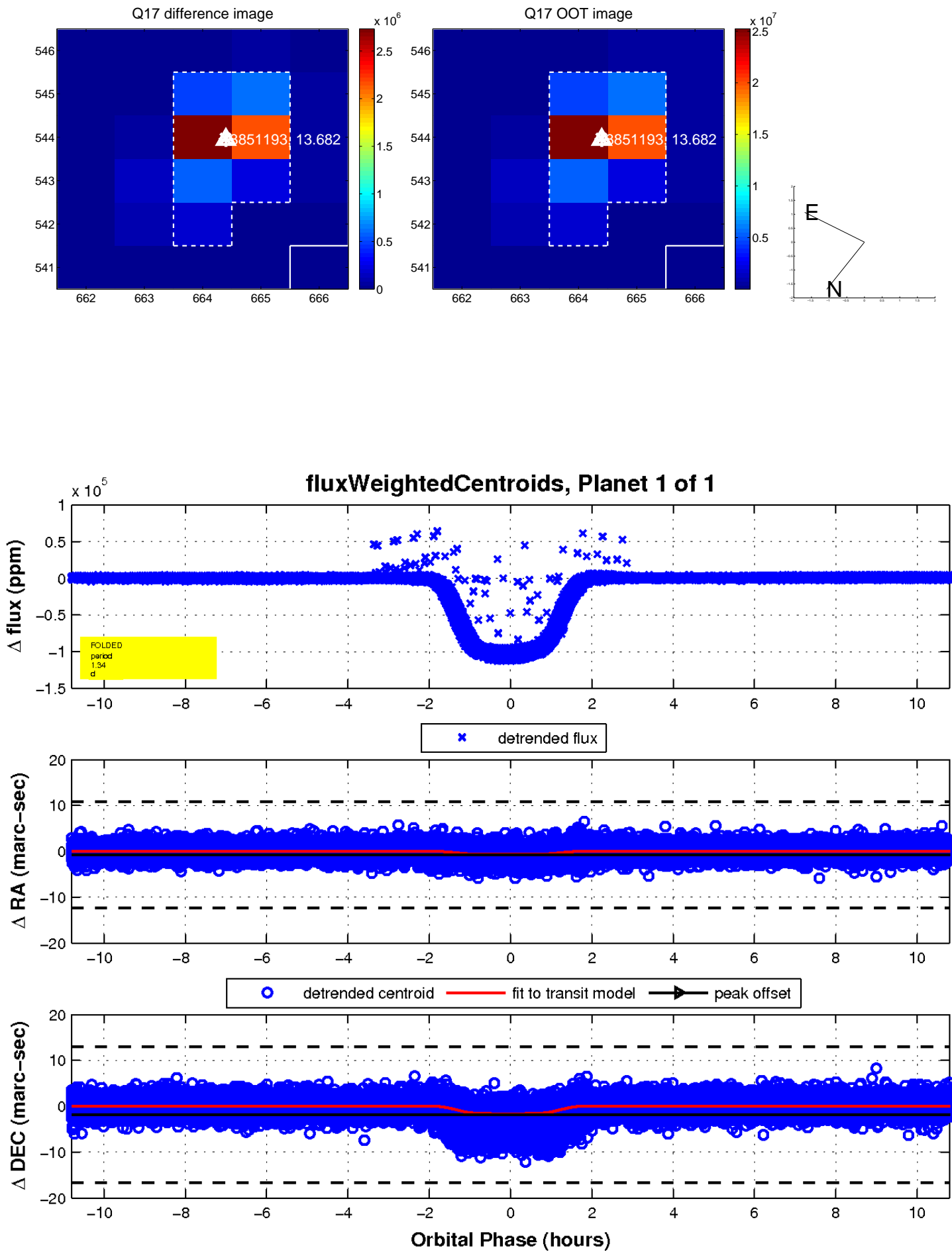
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

