

KIC 010790387

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})
010790387-01	OBS	1288.01	117.931122	219.704118	8487.9	5.906	200.7	206.9	1.07	6392	10.46	7.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010790387-01	OBS	PC	1.00	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.

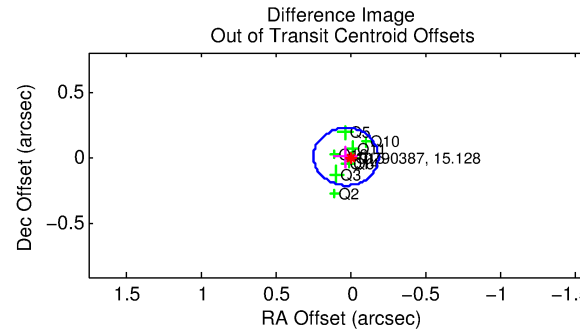
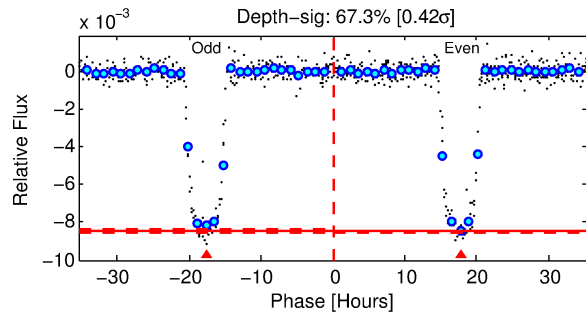
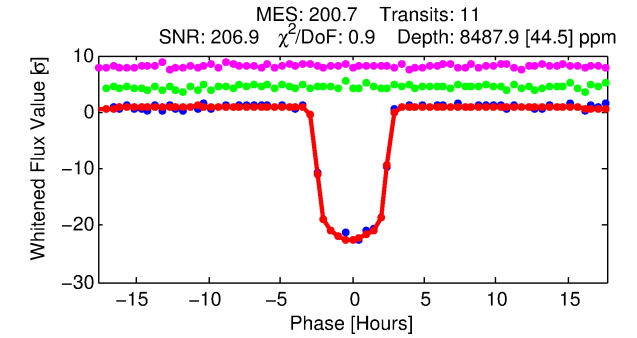
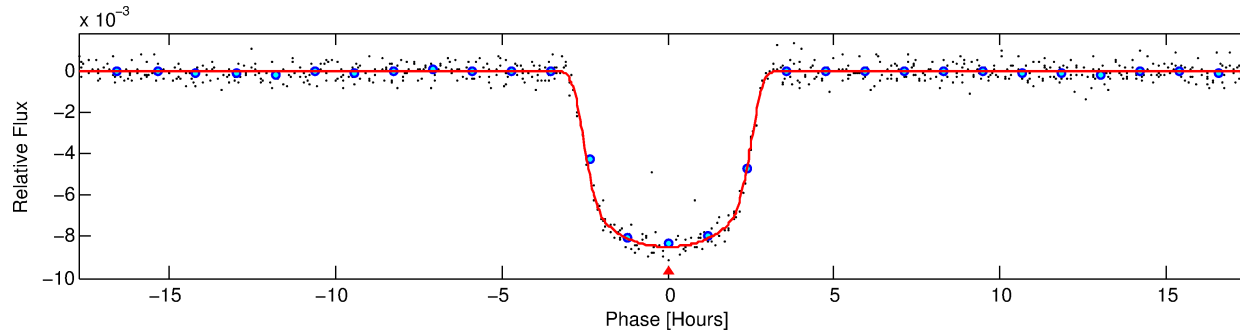
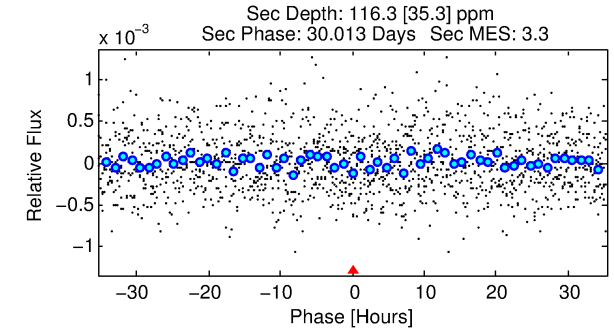
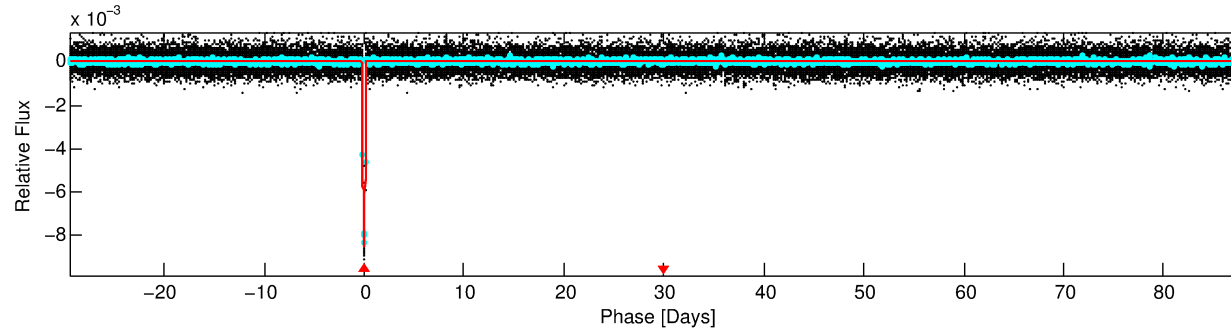
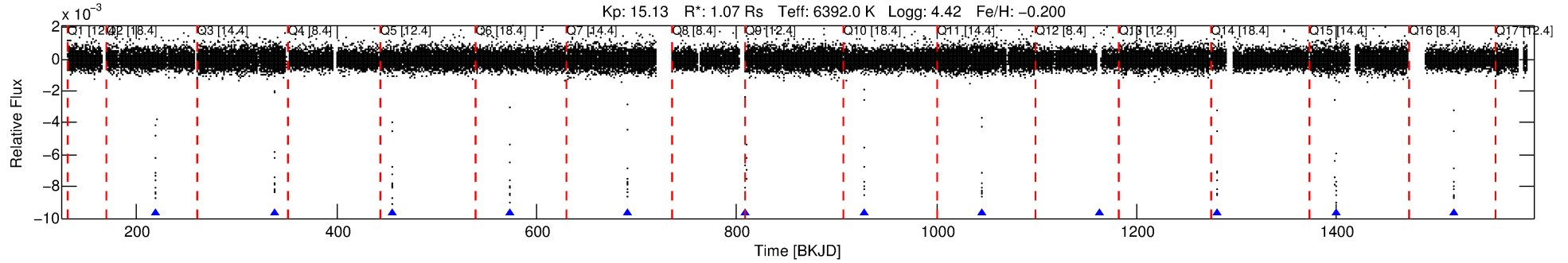
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010790387-01

No Significant Match Found

DV One-Page Summary

KIC: 10790387 Candidate: 1 of 1 Period: 117.931 d
KOI: K01288.01 Corr: 0.992



DV Fit Results:

Period = 117.93112 [0.00009] d
Epoch = 219.7041 [0.0006] BKJD
Rp/R* = 0.0894 [0.0007]
a/R* = 133.09 [4.41]
b = 0.65 [0.03]
Seff = 7.21 [2.99]
Teff = 418 [43] K
Rp = 10.46 [3.53] Re
a = 0.4882 [0.1352] AU
Ag = 139.38 [69.27] [2.00 σ]
Teffp = 2220 [183] K [9.56 σ]

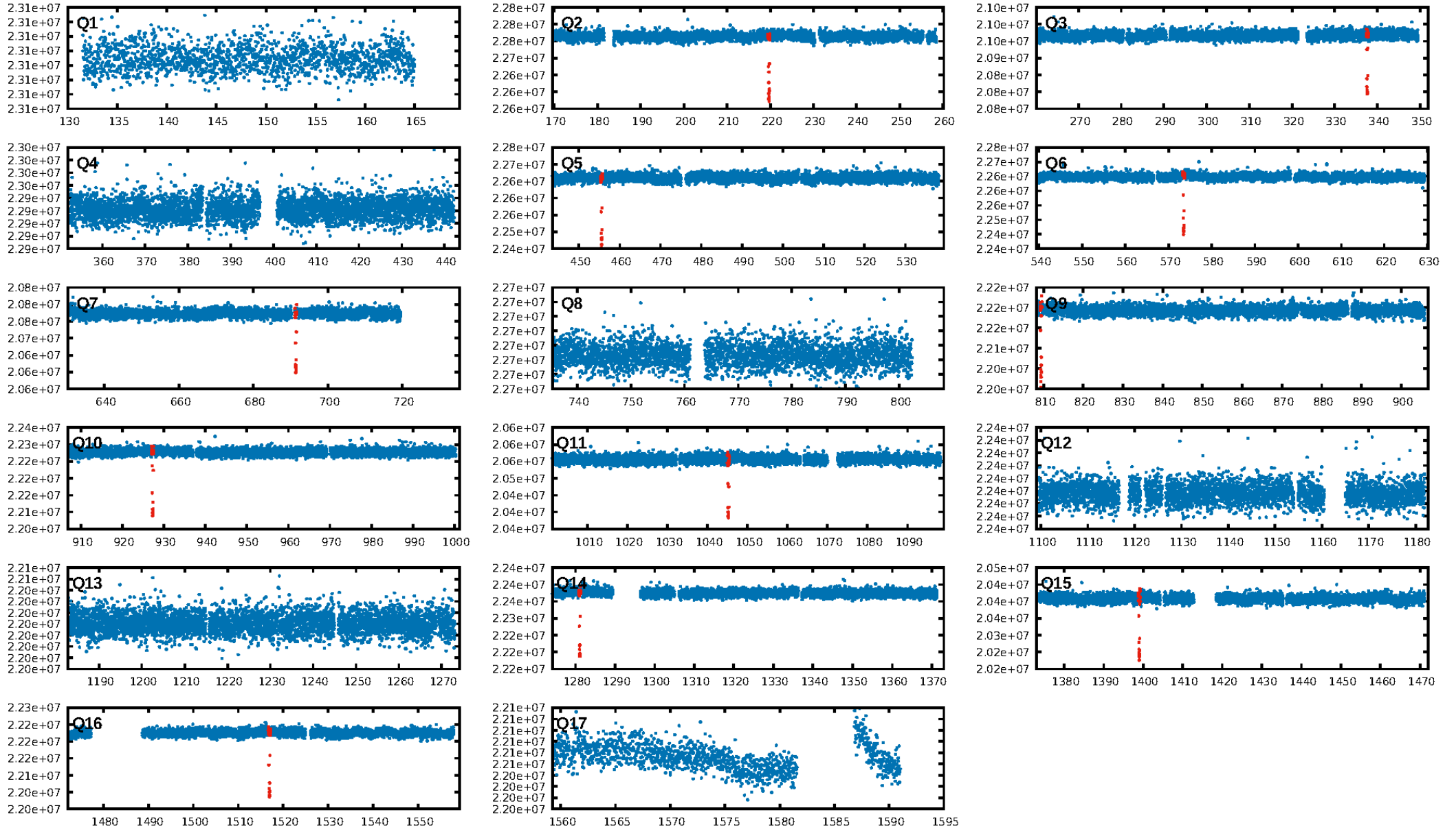
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 35.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 7.583
Centroid-sig: 0.0%
Centroid-so: 0.090 arcsec [1.31 σ]
OotOffset-rm: 0.030 arcsec [0.42 σ]
KicOffset-rm: 0.062 arcsec [0.79 σ]
OotOffset-st: 4/3/1/1 [9]
KicOffset-st: 4/3/1/1 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

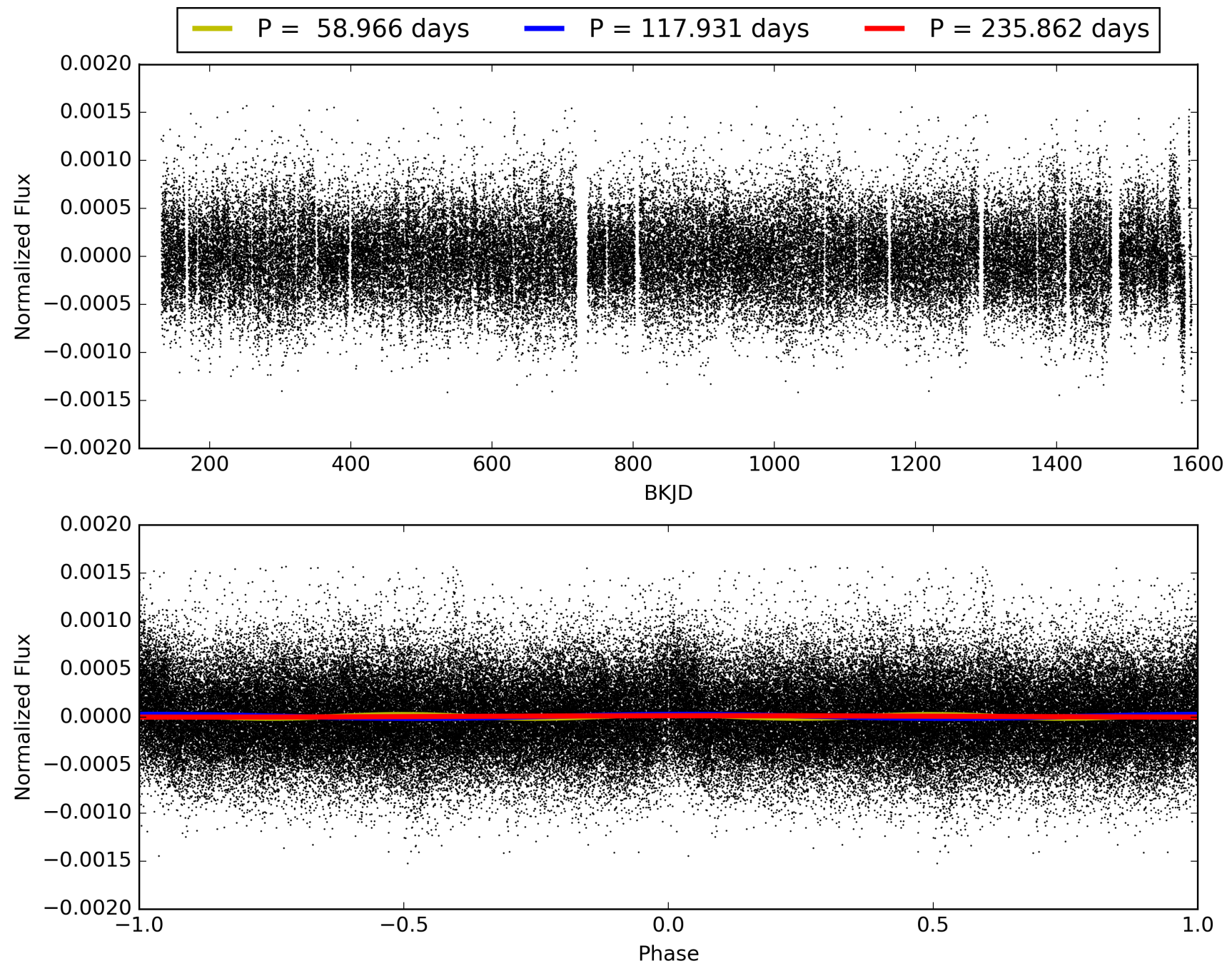
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:07:15 Z

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

TCE 010790387-01, PDC Light Curves

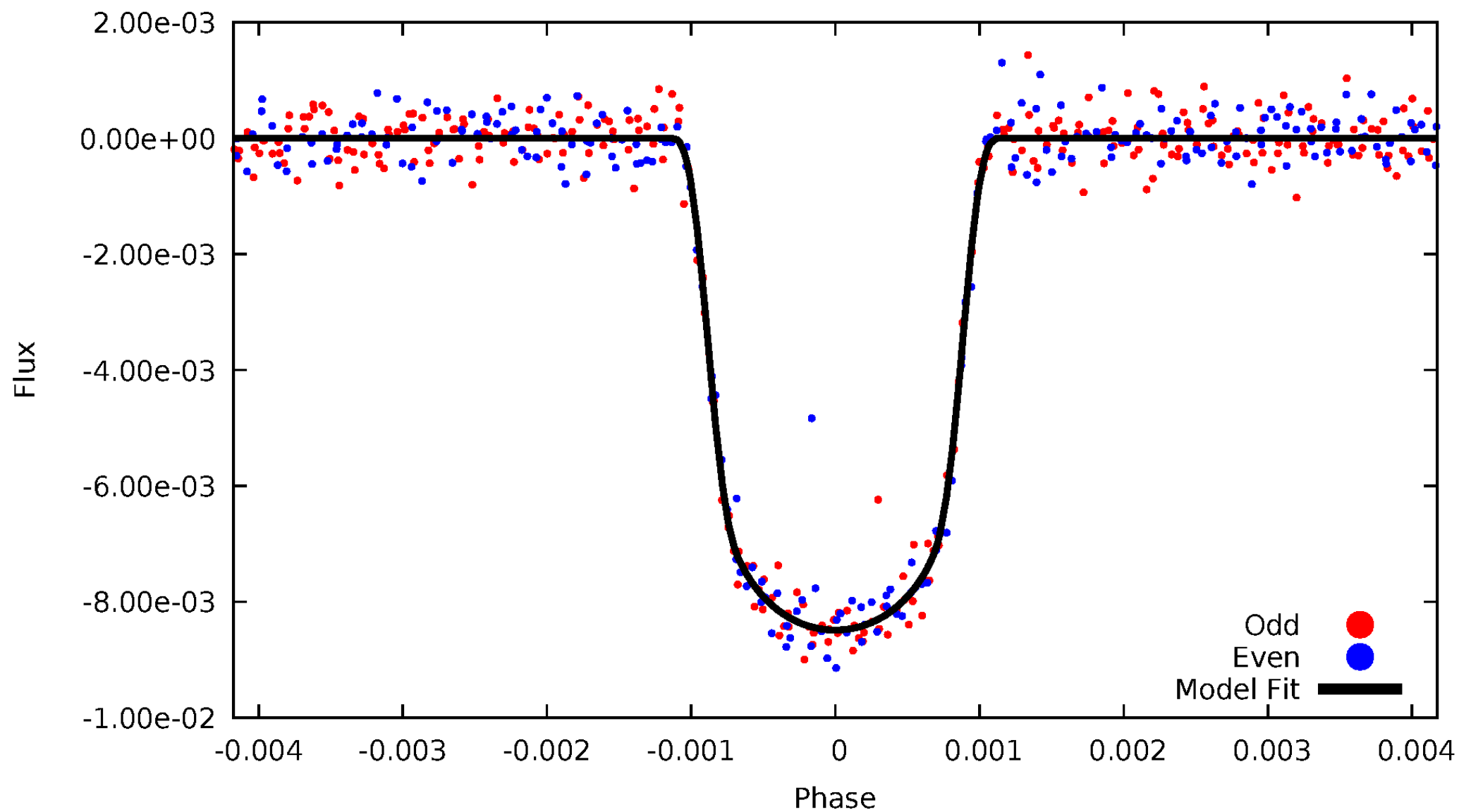


TCE 010790387-01



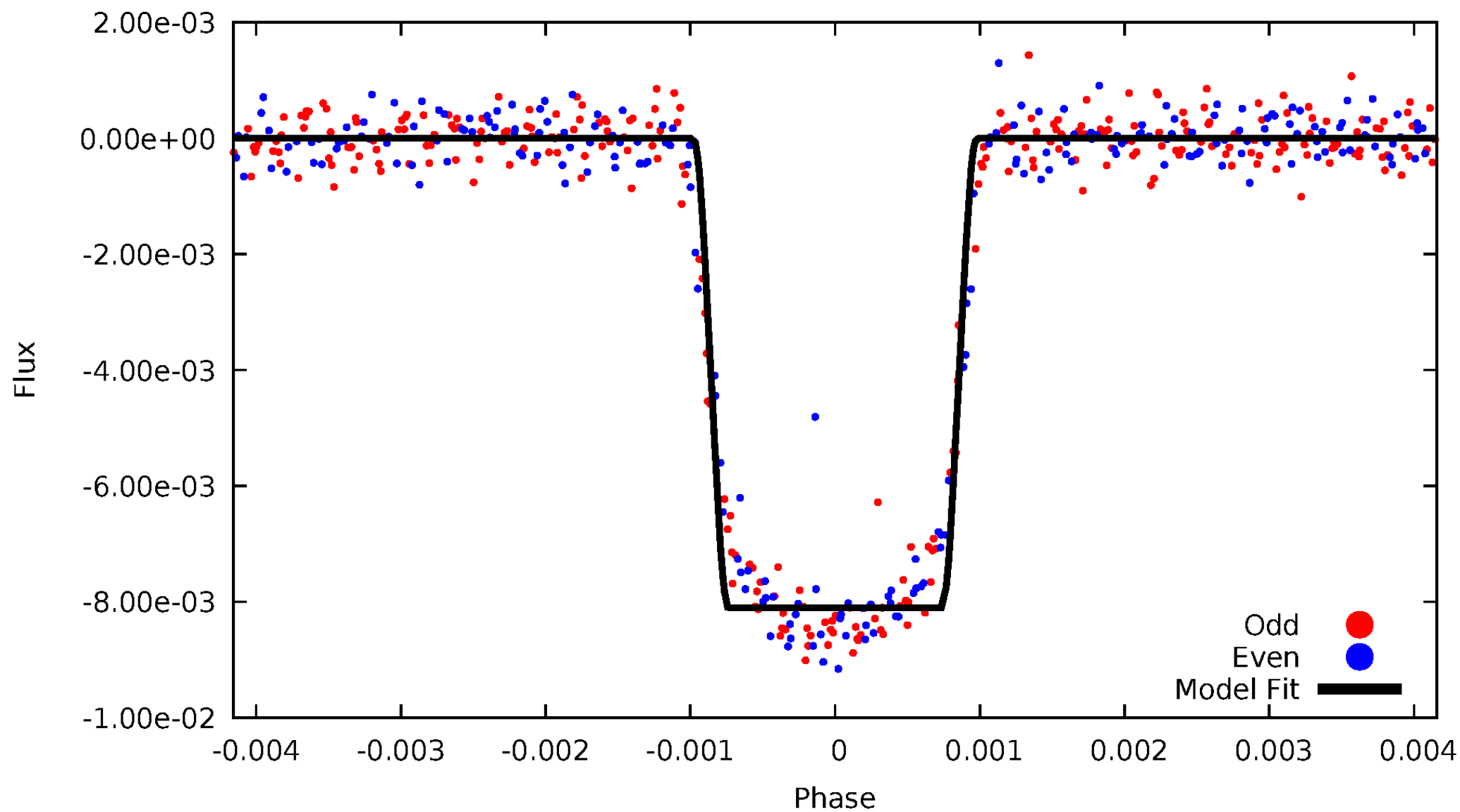
DV Odd/Even

TCE 010790387-01



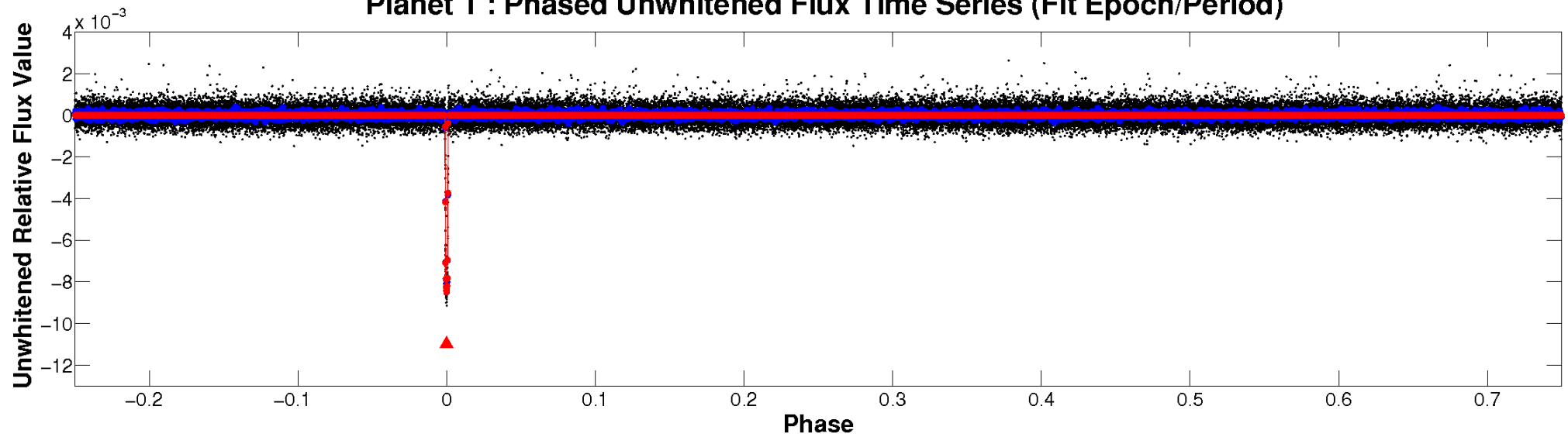
ALT Odd/Even

TCE 010790387-01

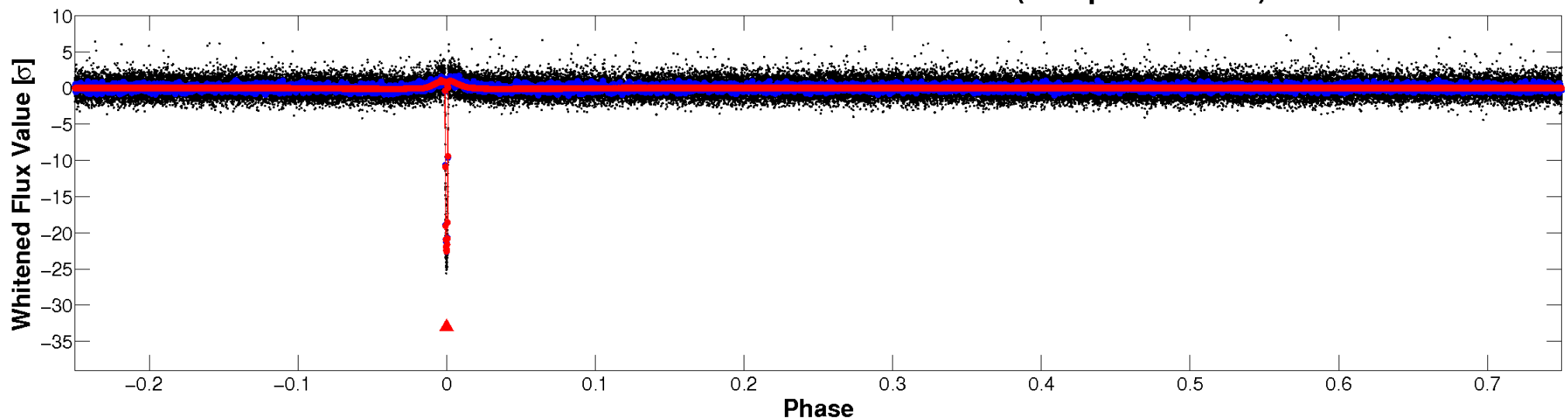


Non-Whitened Vs. Whitened Light Curve

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

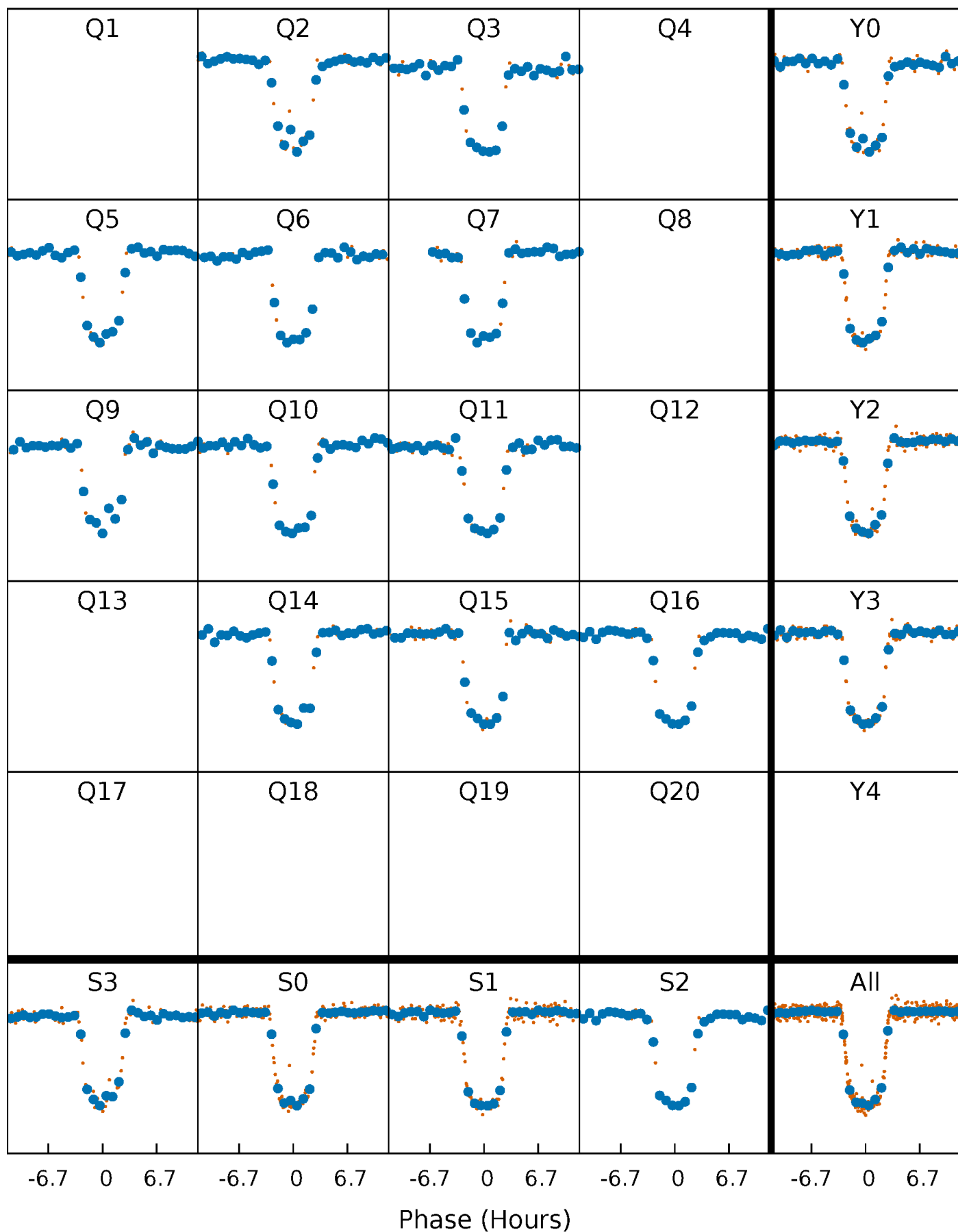


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



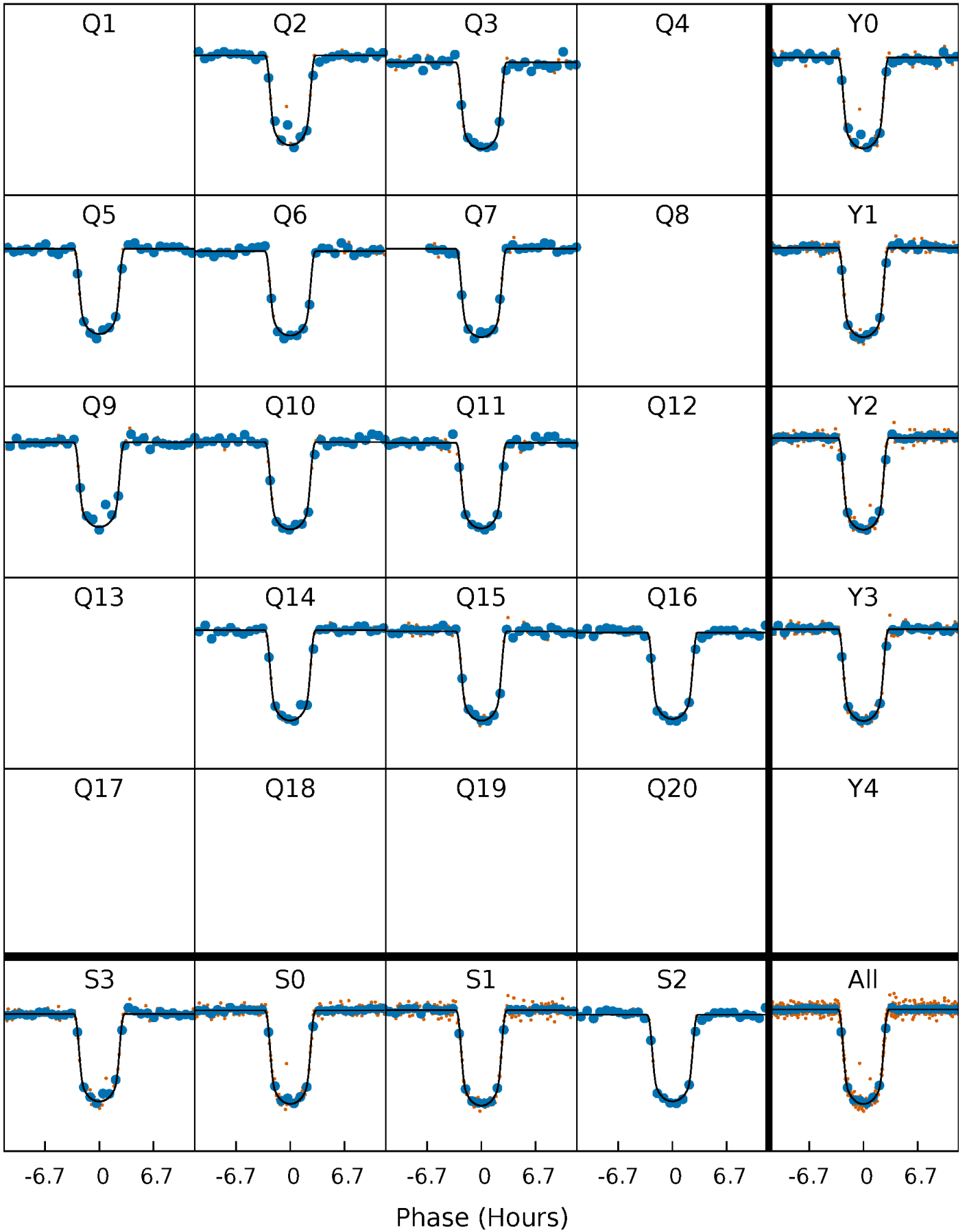
PDC Quarter-Phased Transit Curves

TCE 010790387-01 P=117.931122 Days $T_0=219.704118$ (BKJD)



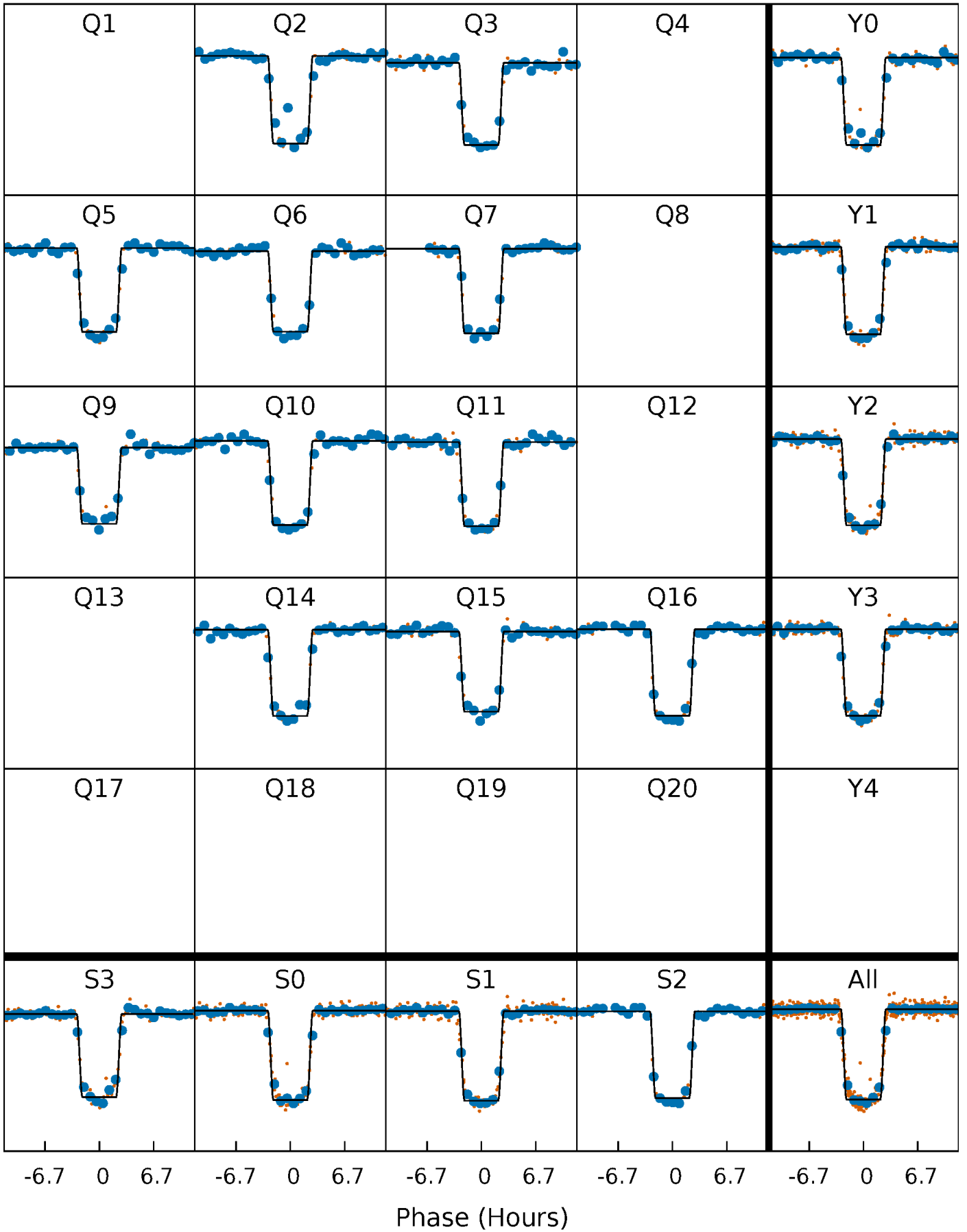
DV Quarter-Phased Transit Curves

TCE 010790387-01 P=117.931122 Days $T_0=219.704118$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

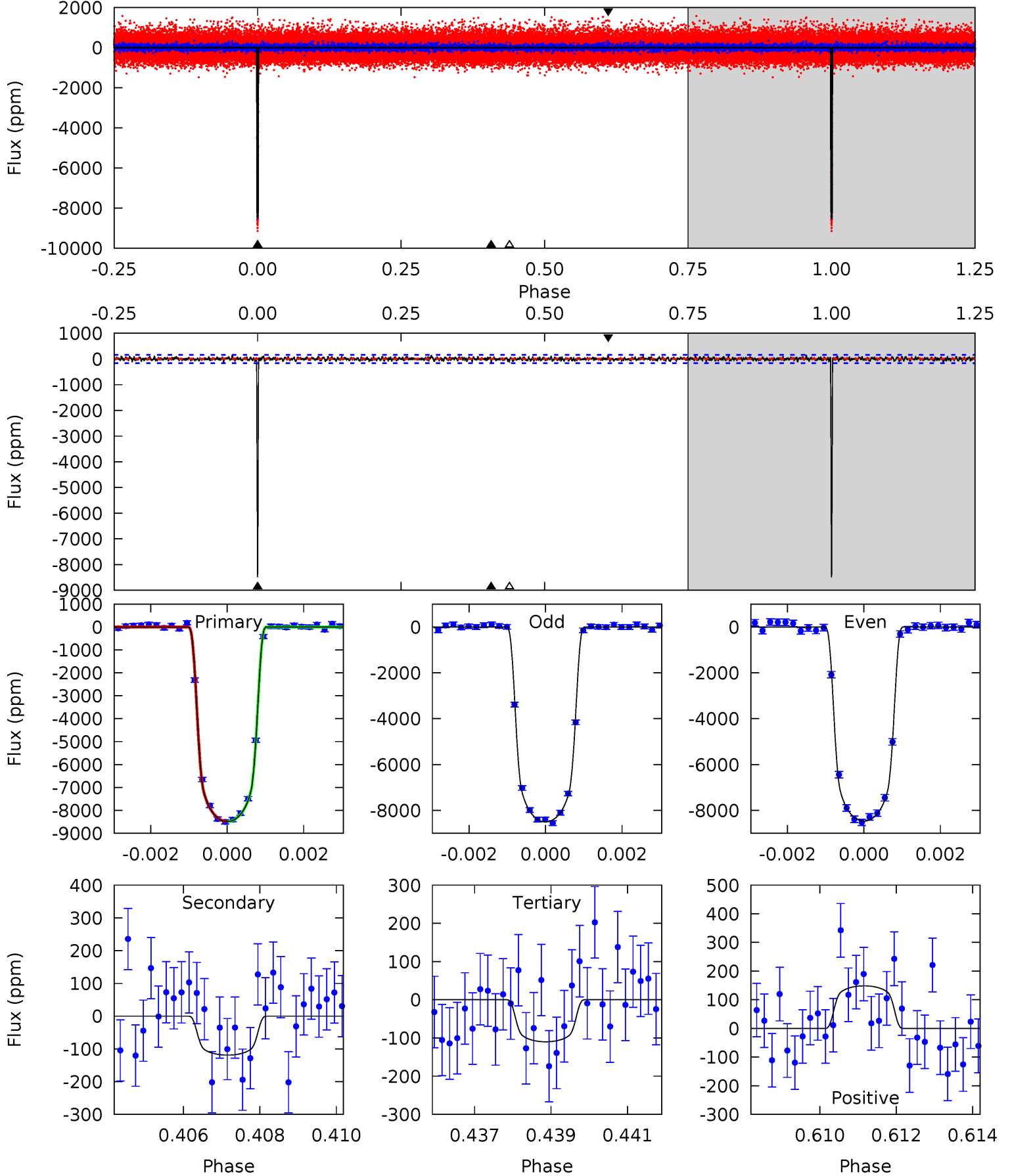
TCE 010790387-01 P=117.931727 Days $T_0=219.701019$ (BKJD)



DV Model-Shift Uniqueness Test

010790387-01, $P = 117.931122$ Days, $E = 101.772996$ Days

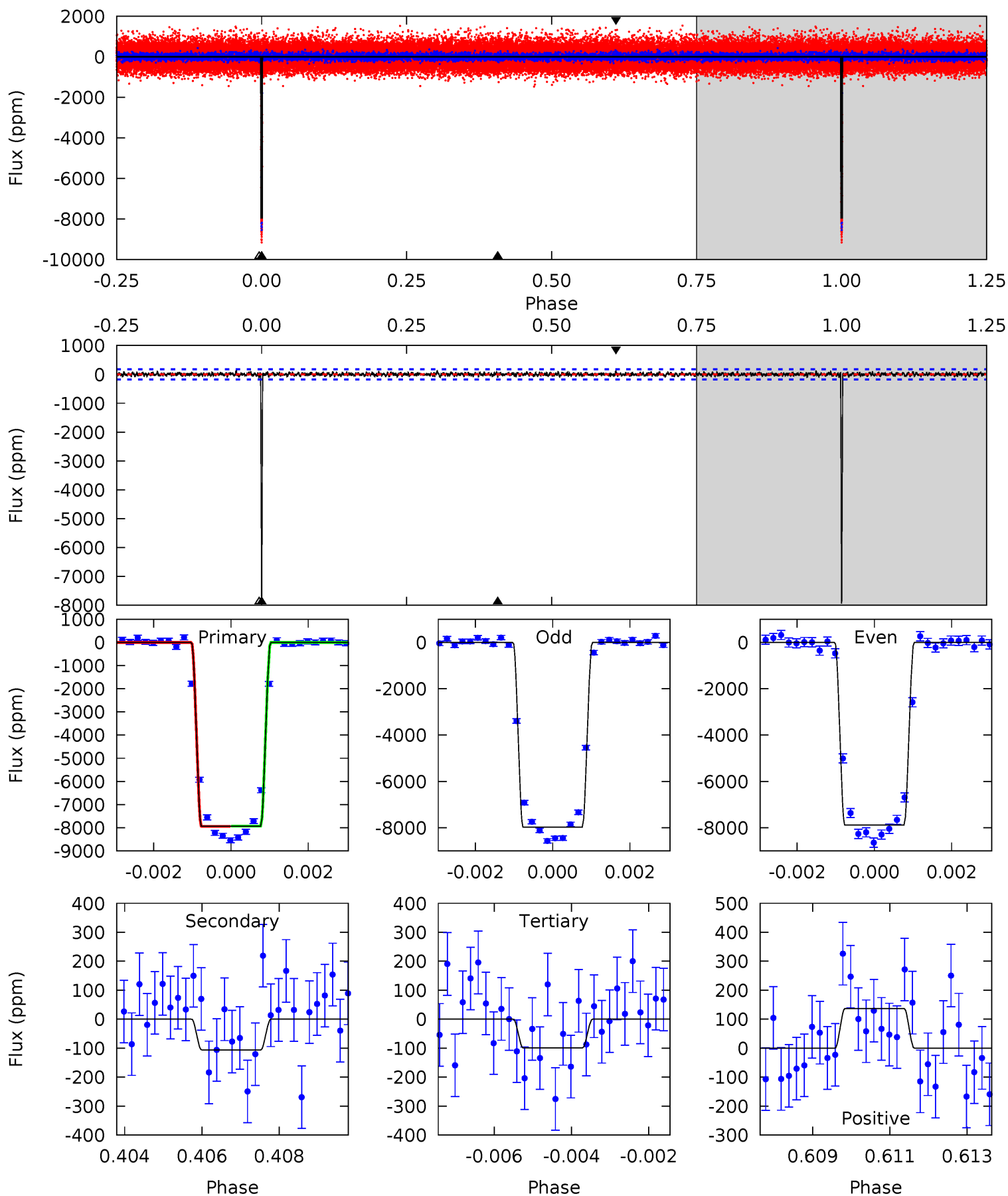
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
279.8	3.92	3.62	4.90	5.31	3.06	1.20	276.2	274.9	0.30	-0.98	0.57	0.99	0.02	0.10



Alt Model-Shift Uniqueness Test

010790387-01, $P = 117.931727$ Days, $E = 101.769292$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
241.3	3.22	3.02	4.16	5.33	3.10	0.99	238.3	237.2	0.20	-0.94	1.34	1.00	0.02	0.18



Stellar Parameters For KIC 010790387

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6392^{+151}_{-207}	$4.425^{+0.056}_{-0.210}$	$-0.200^{+0.250}_{-0.300}$	$1.072^{+0.362}_{-0.121}$	$1.116^{+0.153}_{-0.153}$	$1.274^{+0.381}_{-0.696}$
	+2%/-3%	+1%/-5%	+125%/-150%	+34%/-11%	+14%/-14%	+30%/-55%
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 010790387-01 / KOI 1288.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-119 ± 30	$10.58^{+1.93}_{-0.76}$	594^{+42}_{-29}	2925^{+104}_{-124}	129^{+46}_{-42}
Alt.	-106 ± 33	$10.85^{+1.93}_{-0.86}$	596^{+41}_{-29}	2873^{+107}_{-158}	111^{+43}_{-42}

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 $A_{obs} \gg 1.0$

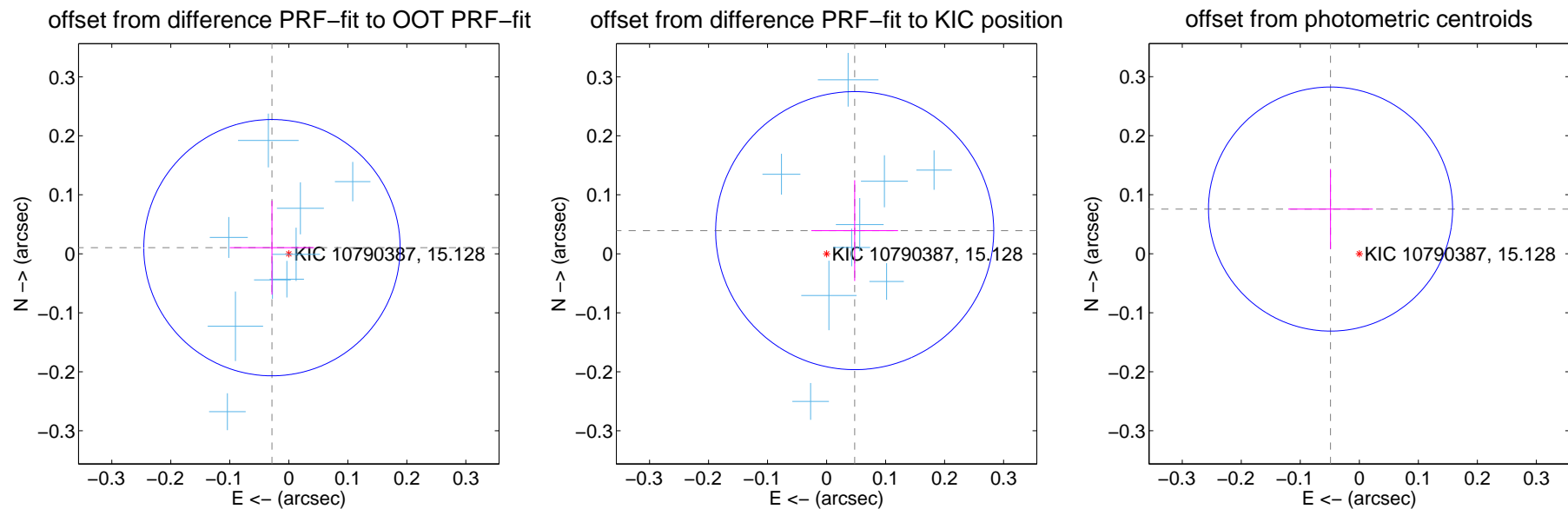
DV Centroid Data

Supplemental centroid analysis for 010790387-01. Kepler magnitude: 15.13. Transit SNR 206.88

There are 9 quarters with good PRF difference image offsets

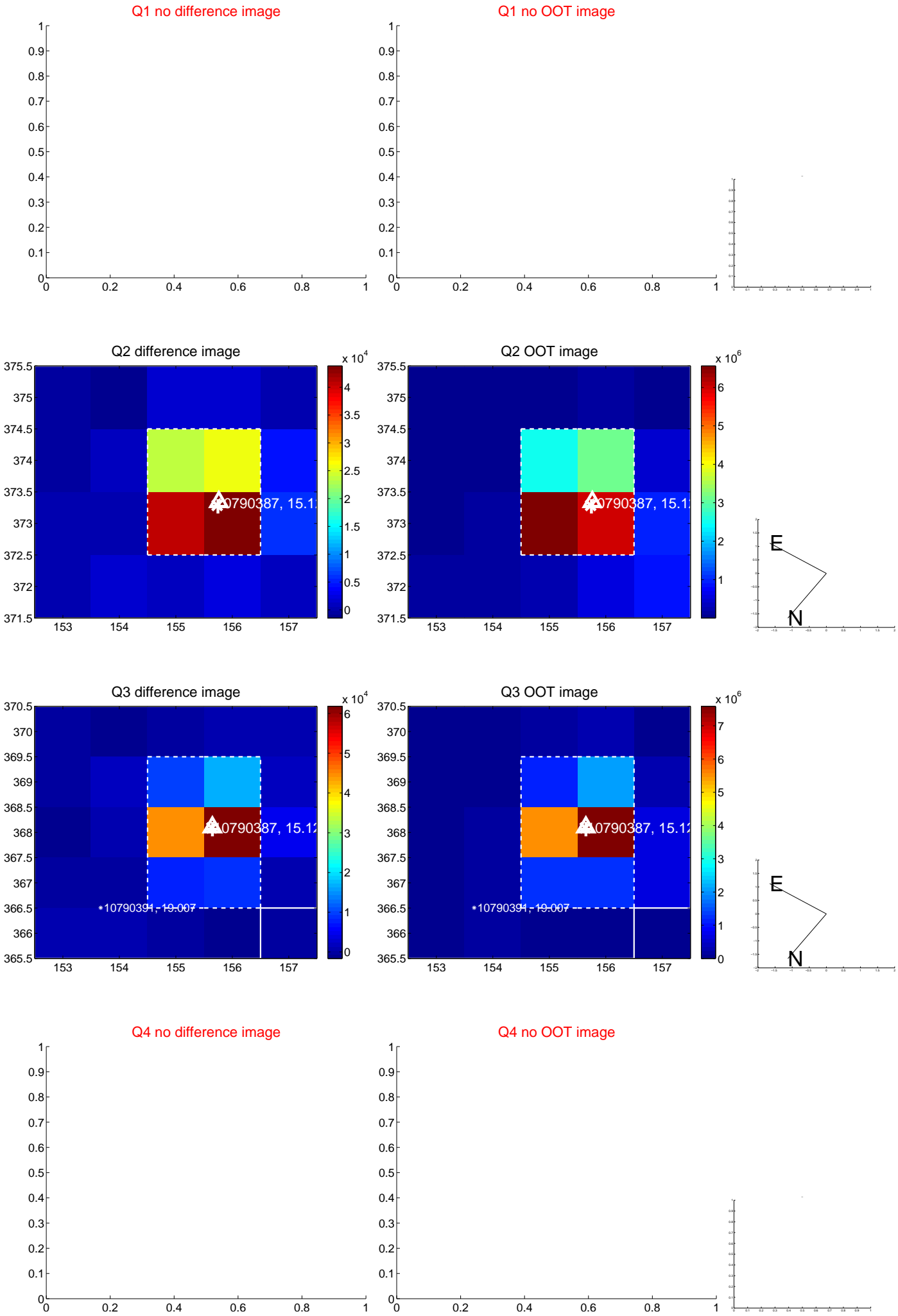
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.030 ± 0.072	0.42	0.029 ± 0.071	0.010 ± 0.080
PRF-fit source offset from KIC position	0.062 ± 0.079	0.79	-0.048 ± 0.074	0.039 ± 0.085
photometric centroid source offset	0.09 ± 0.07	1.31	0.05 ± 0.07	0.08 ± 0.07

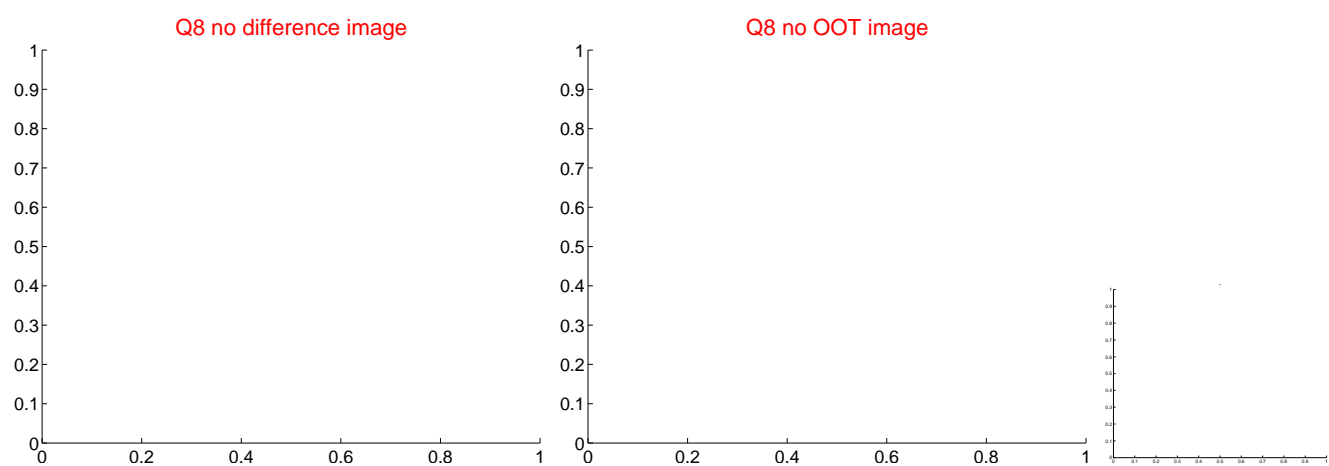
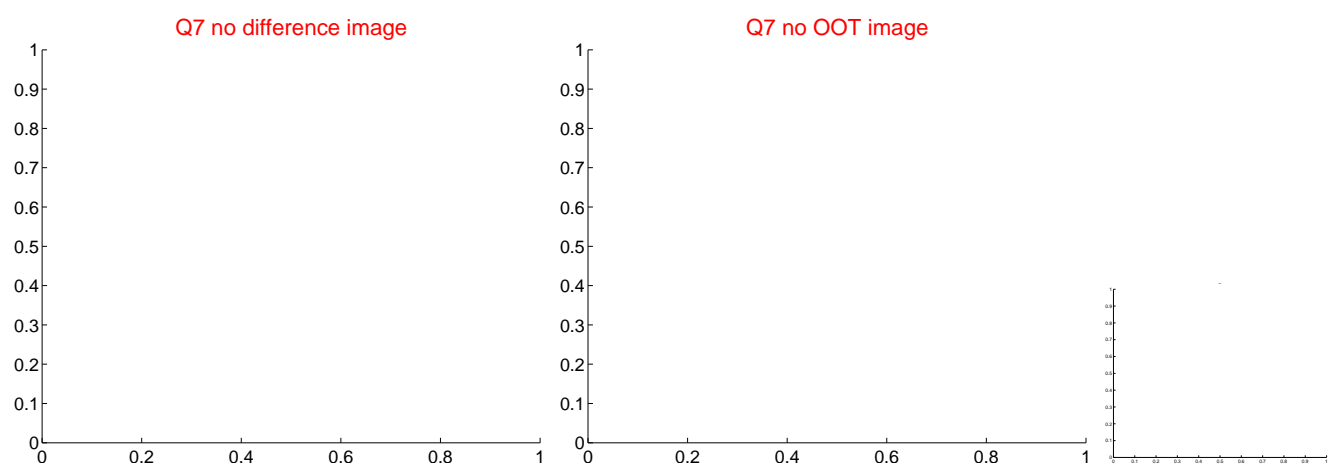
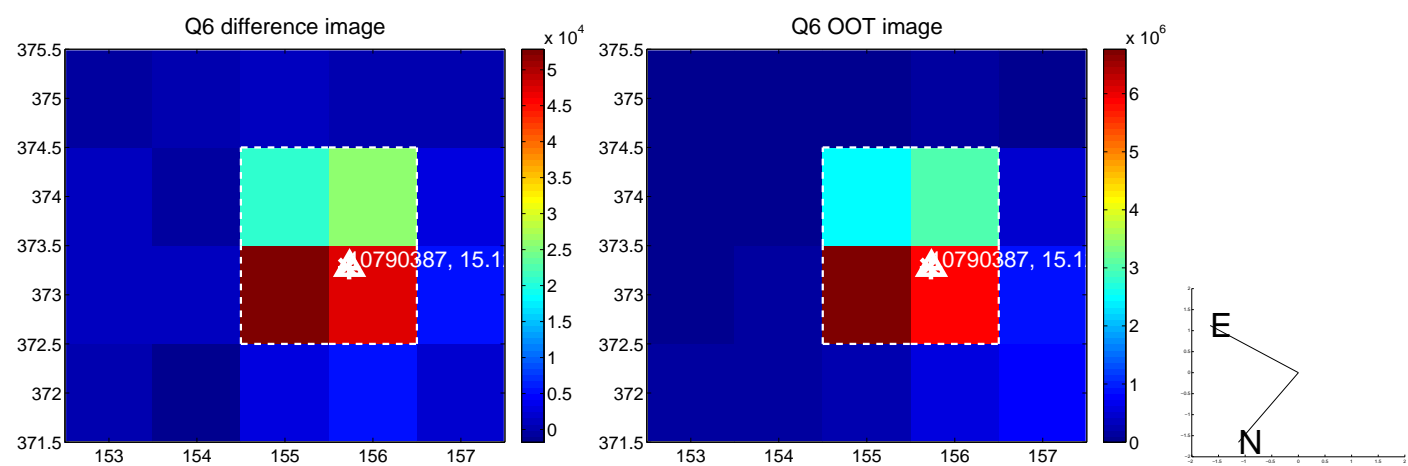
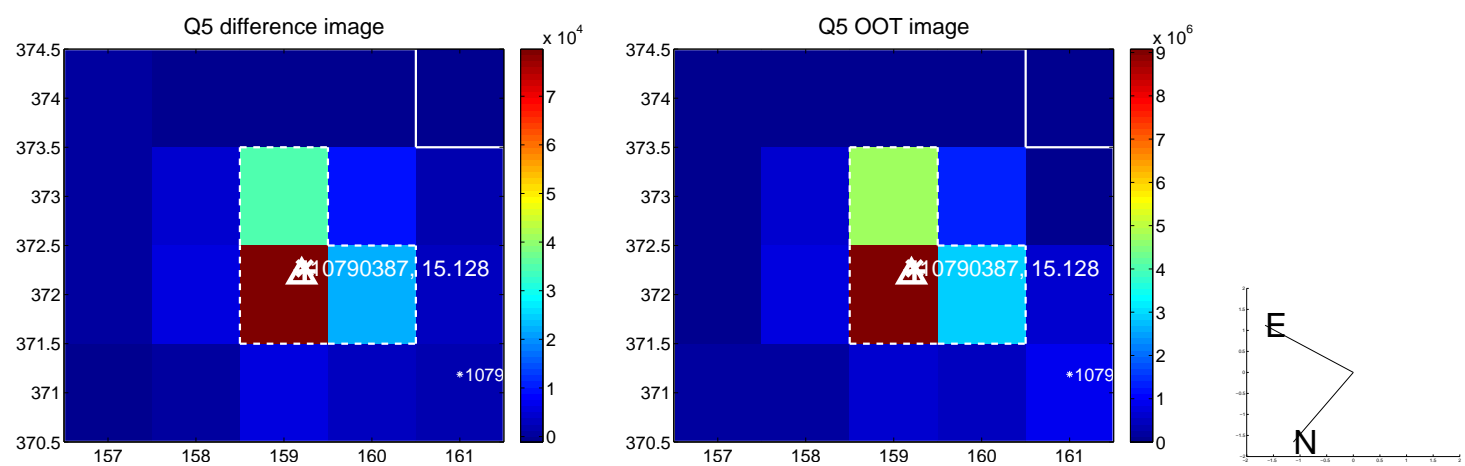


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

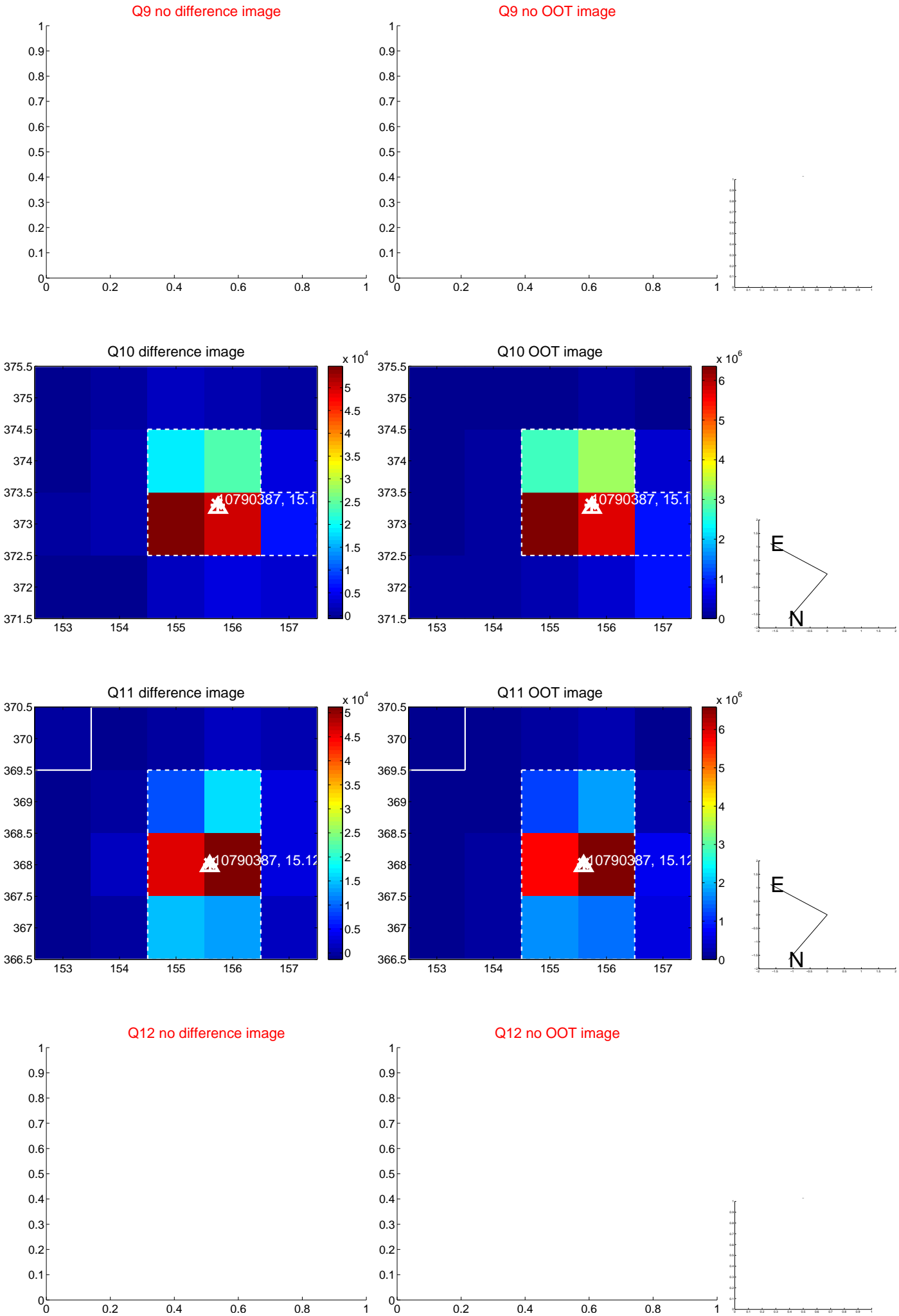
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



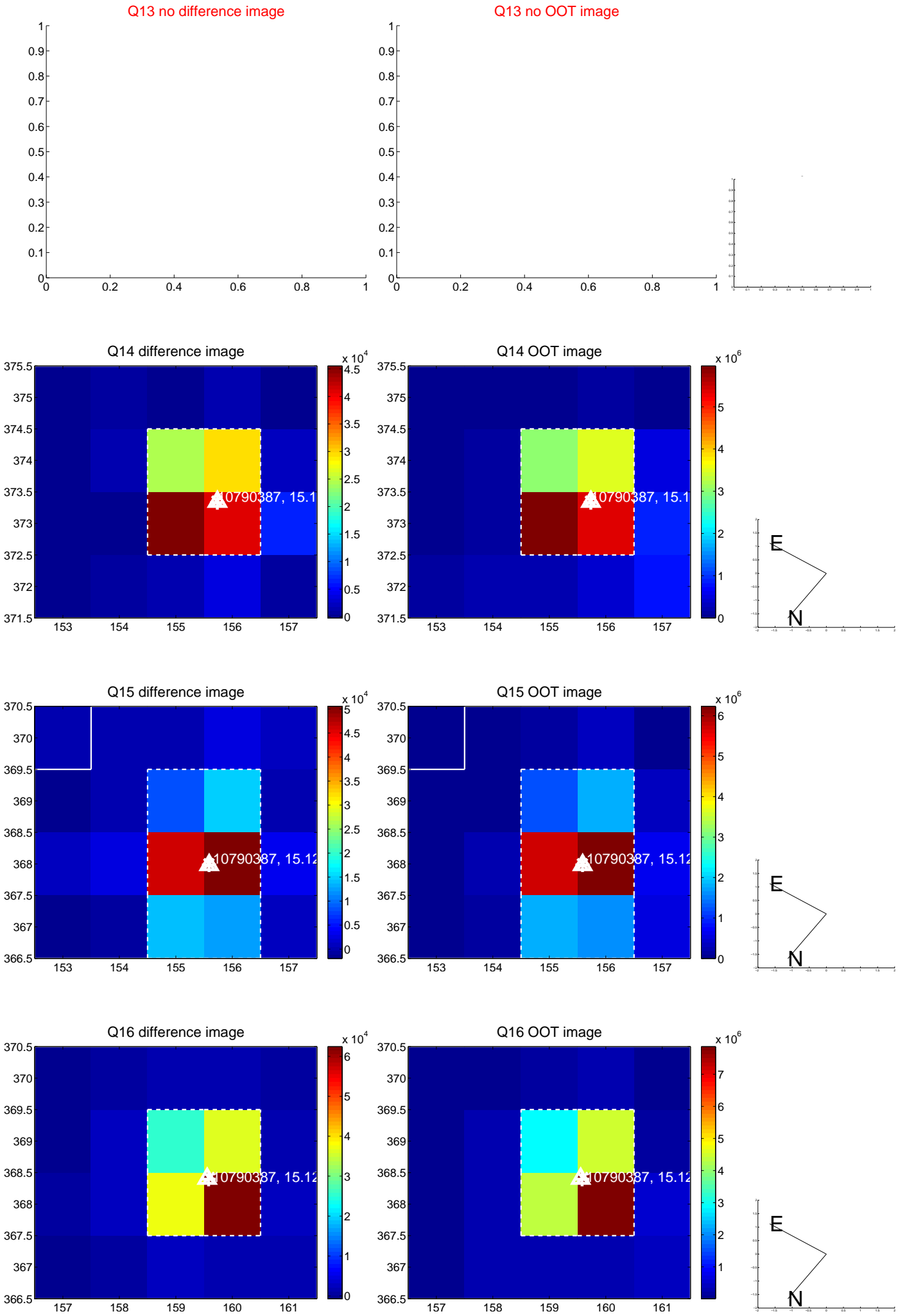
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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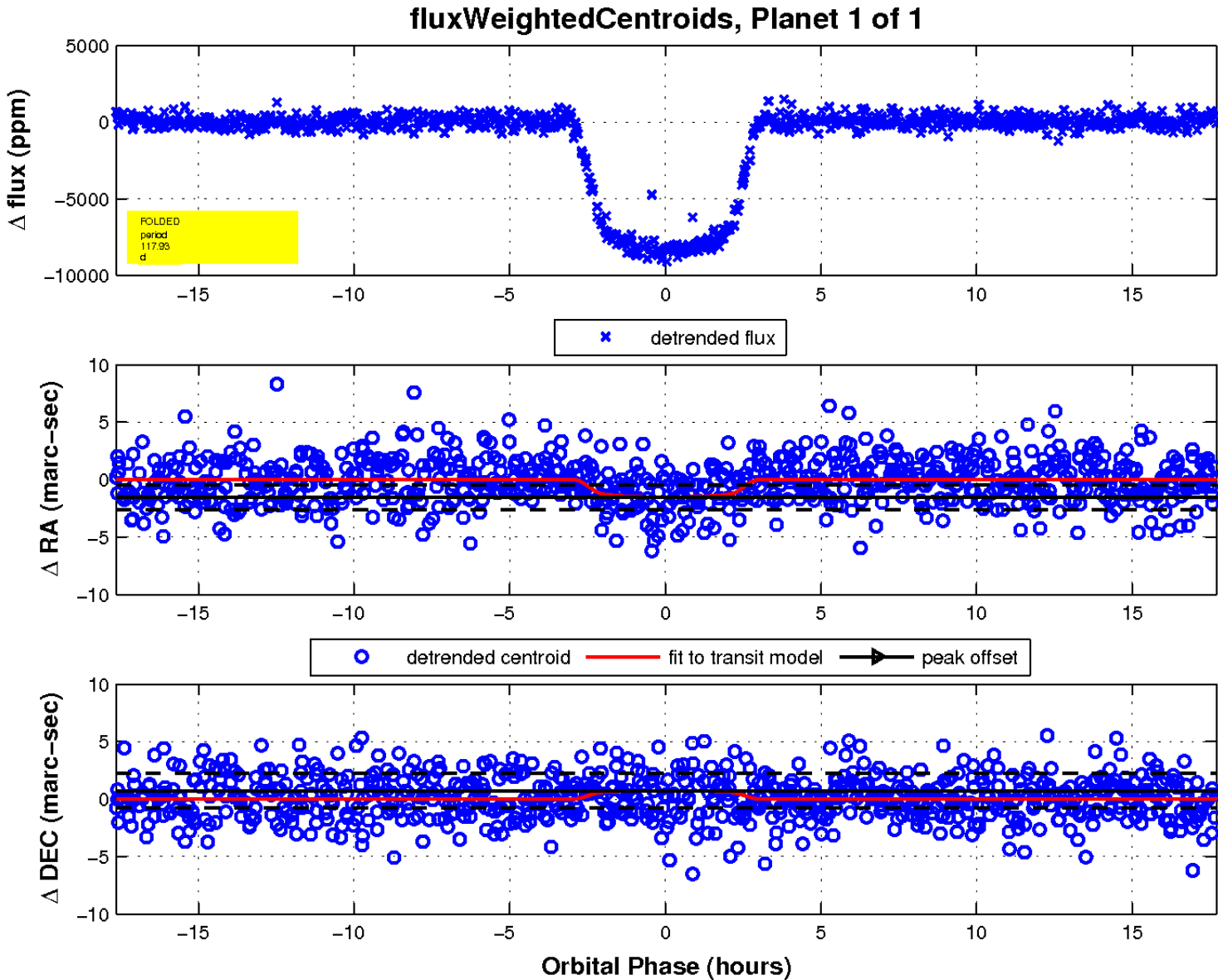
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Q17 no difference image

Q17 no OOT image



UKIRT Image

Declination

