

KIC 011357192

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})
011357192-01	OBS	3782.01	186.516571	169.647661	5767.4	3.208	105.8	107.8	2.99	5018	37.60	9.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011357192-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED—CENT_KIC_POS

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.

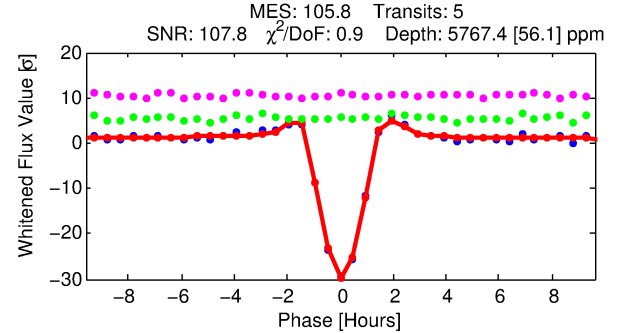
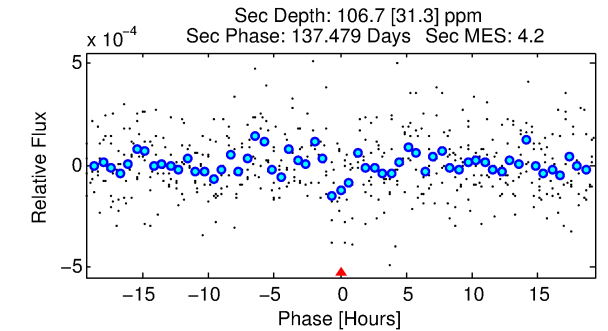
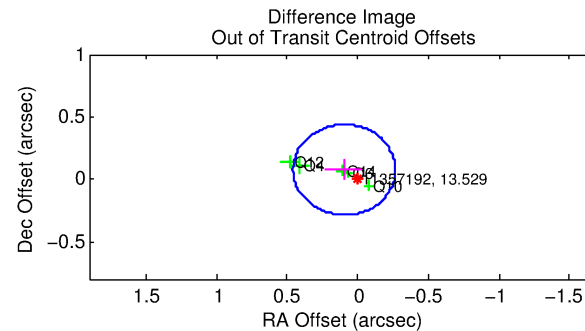
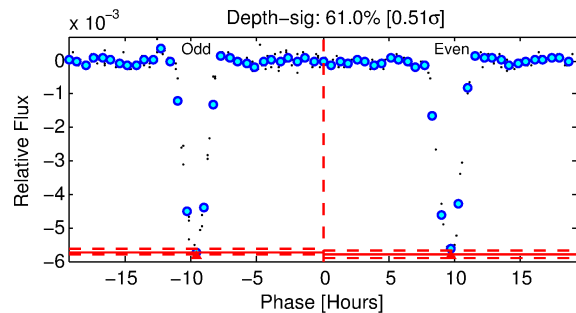
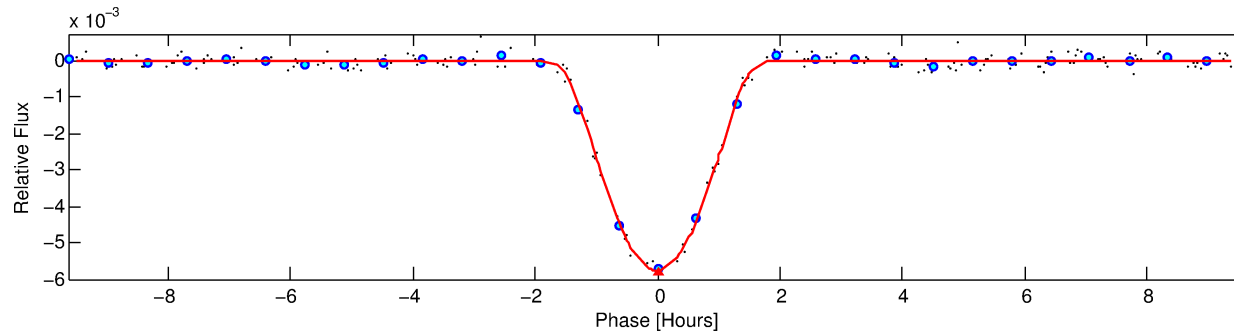
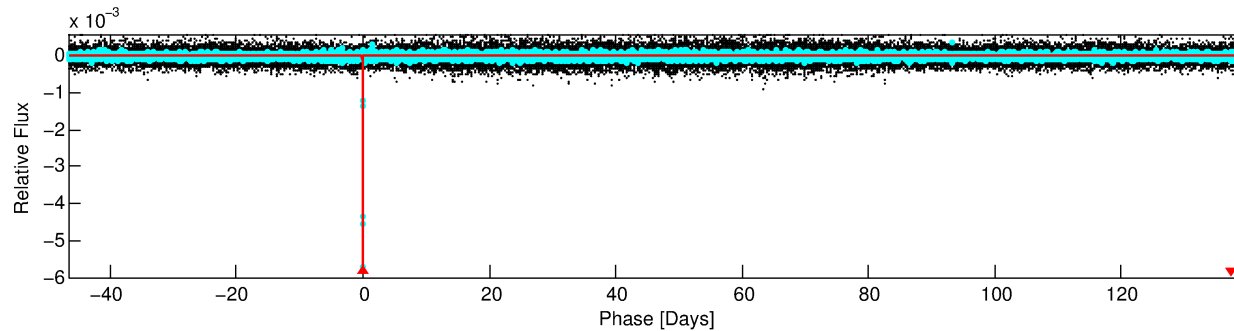
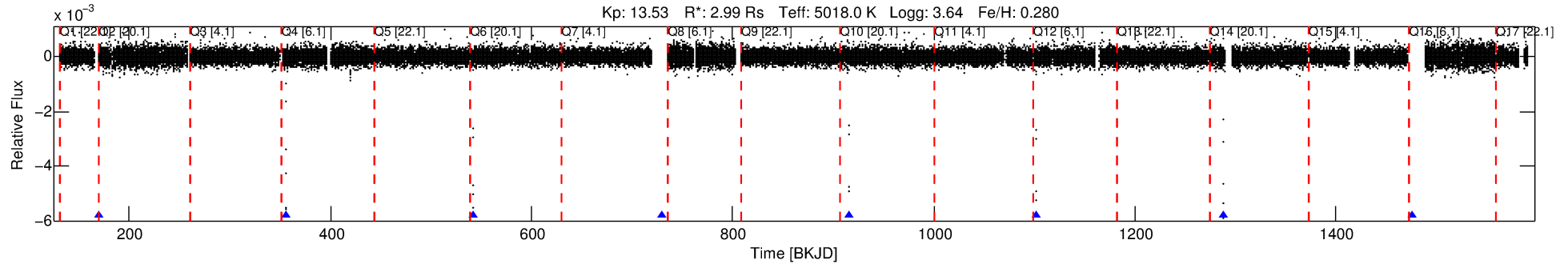
Ephemeris Match Information For 011357192-01

No Significant Match Found

DV One-Page Summary

KIC: 11357192 Candidate: 1 of 1 Period: 186.517 d

KOI: K03782.01 Corr: 0.991



DV Fit Results:

Period = 186.51657 [0.00017] d
Epoch = 169.6477 [0.0007] BKJD
Rp/R* = 0.1152 [0.0315]
a/R* = 242.09 [15.15]
b = 0.97 [0.05]
Seff = 9.84 [14.52]
Teq = 452 [167] K
Rp = 37.60 [29.31] Re
a = 0.7183 [0.6088] AU
Ag = 21.43 [34.21] [0.60 σ]
Teff = 1503 [237] K [3.62 σ]

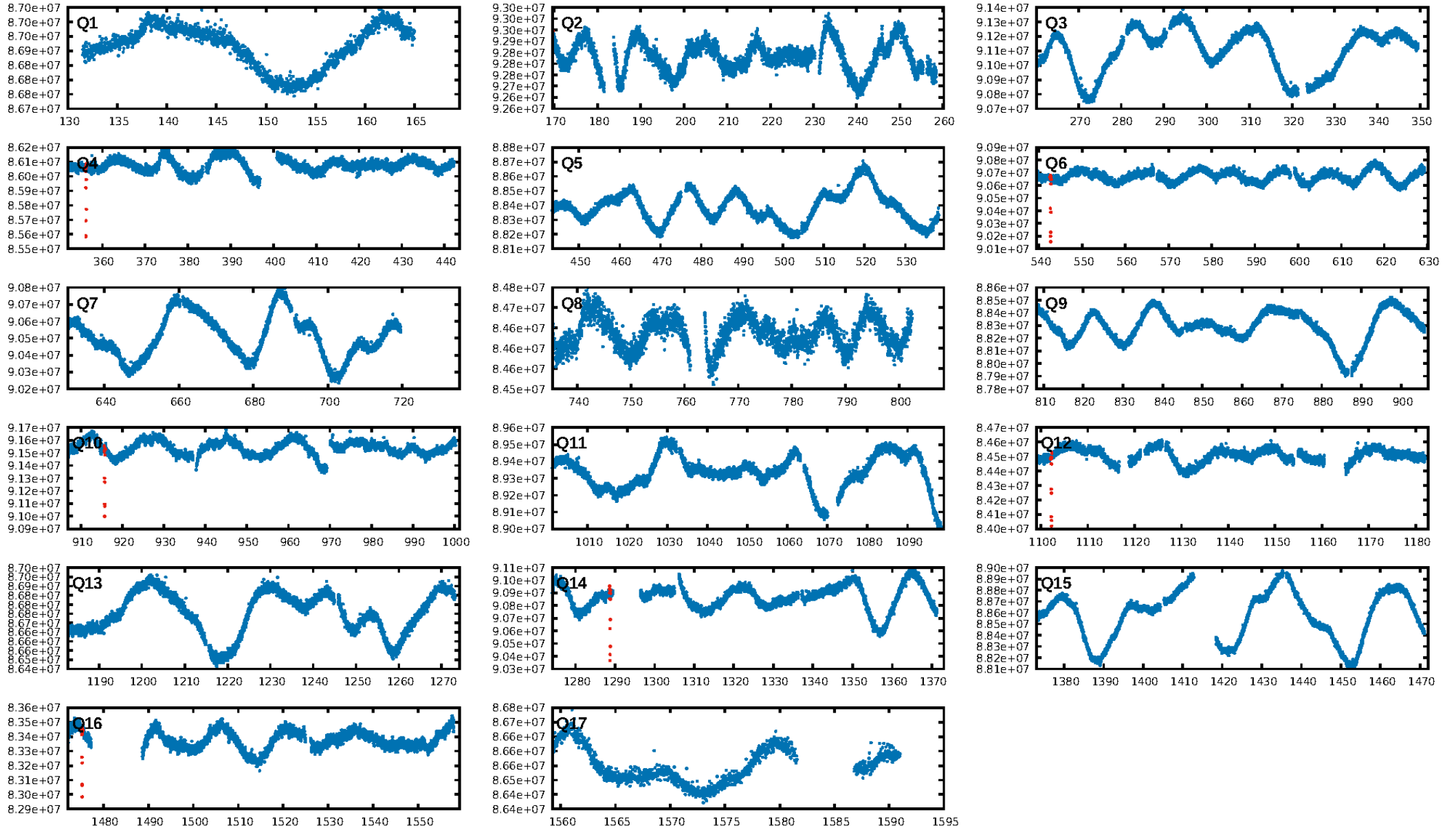
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 76.2%
ModelChiSquareGof-sig: 90.8%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 6.413
Centroid-sig: 0.0%
Centroid-so: 0.594 arcsec [7.86 σ]
OotOffset-rm: 0.121 arcsec [1.00 σ]
OotOffset-st: 3/0/2/0 [5]
KicOffset-rm: 0.613 arcsec [8.47 σ]
KicOffset-st: 3/0/2/0 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [5/5]

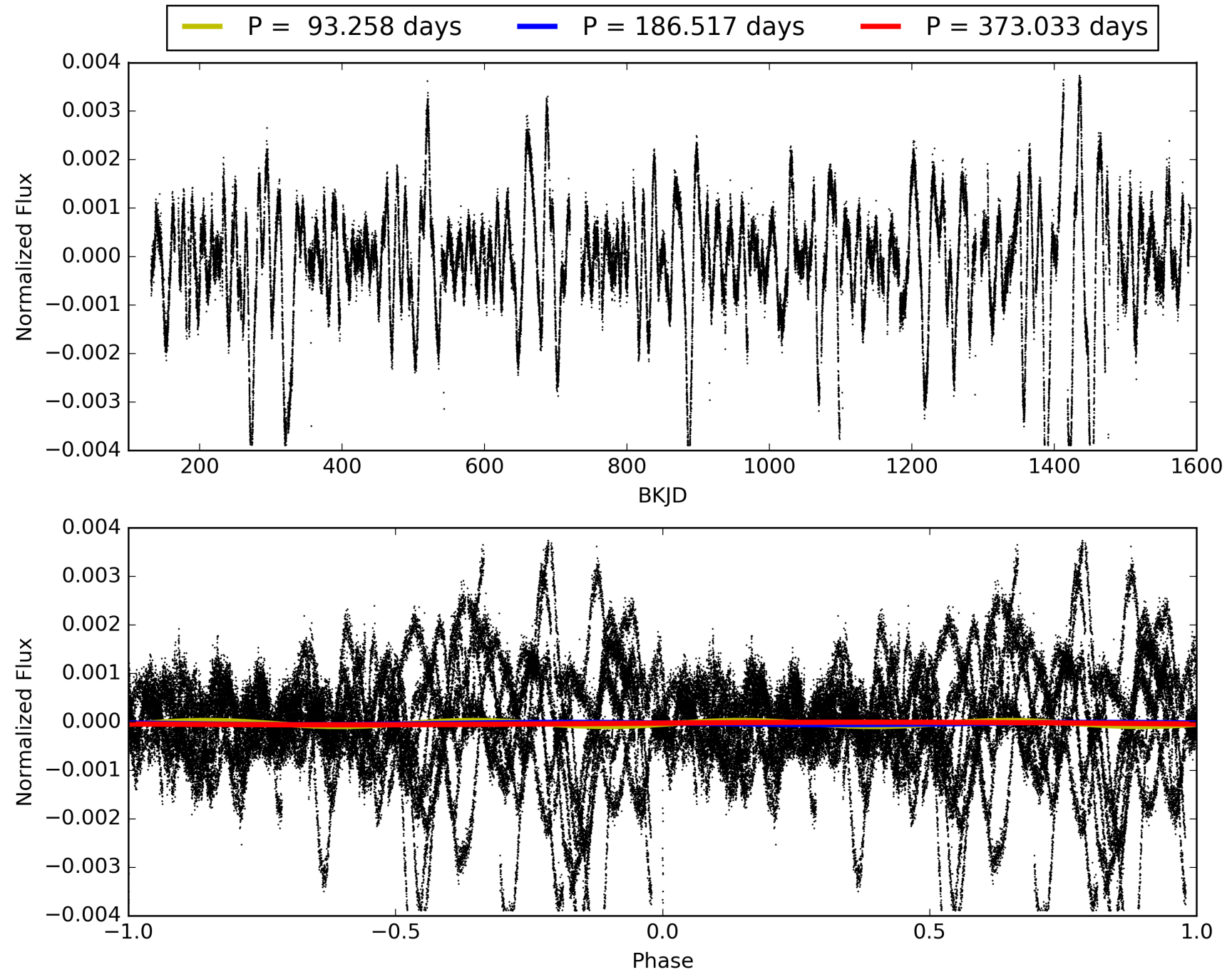
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:16:13 Z

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

TCE 011357192-01, PDC Light Curves

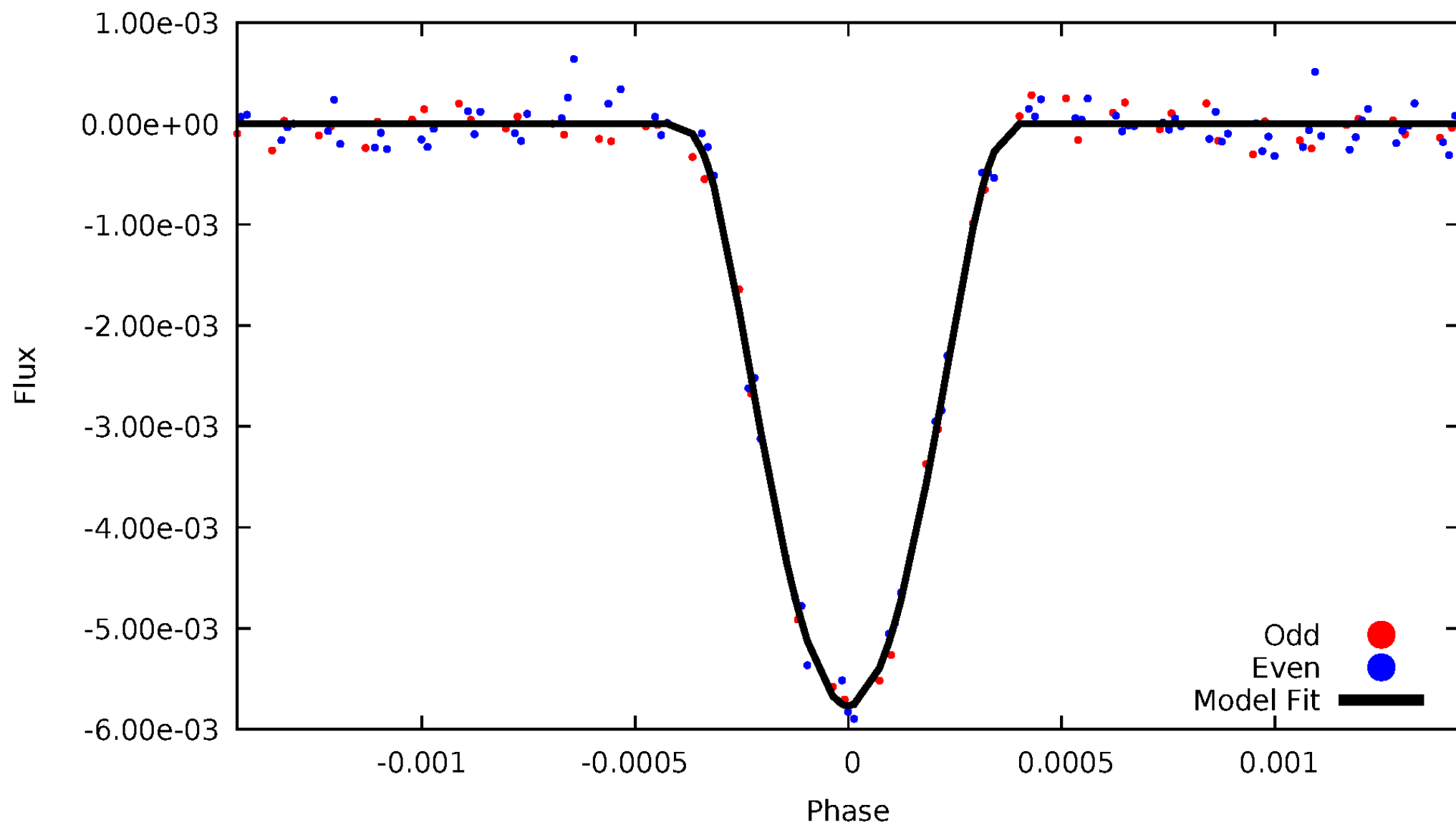


TCE 011357192-01



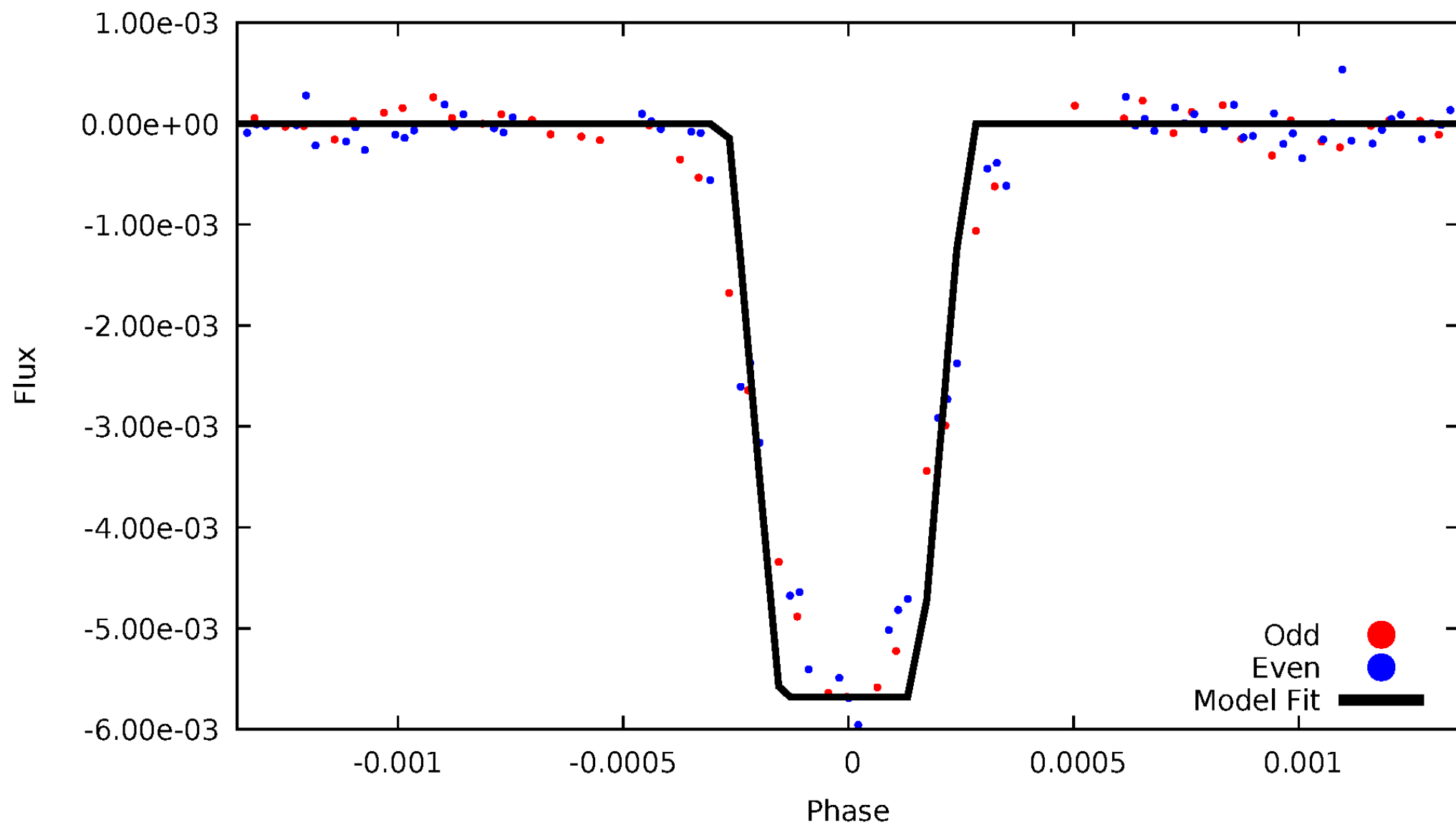
DV Odd/Even

TCE 011357192-01



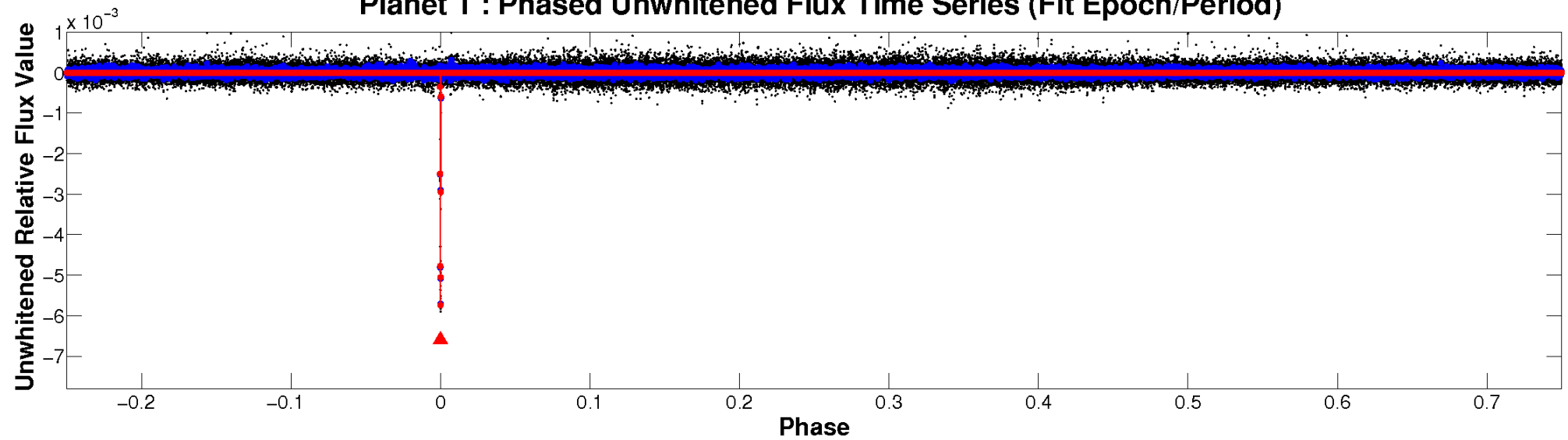
ALT Odd/Even

TCE 011357192-01

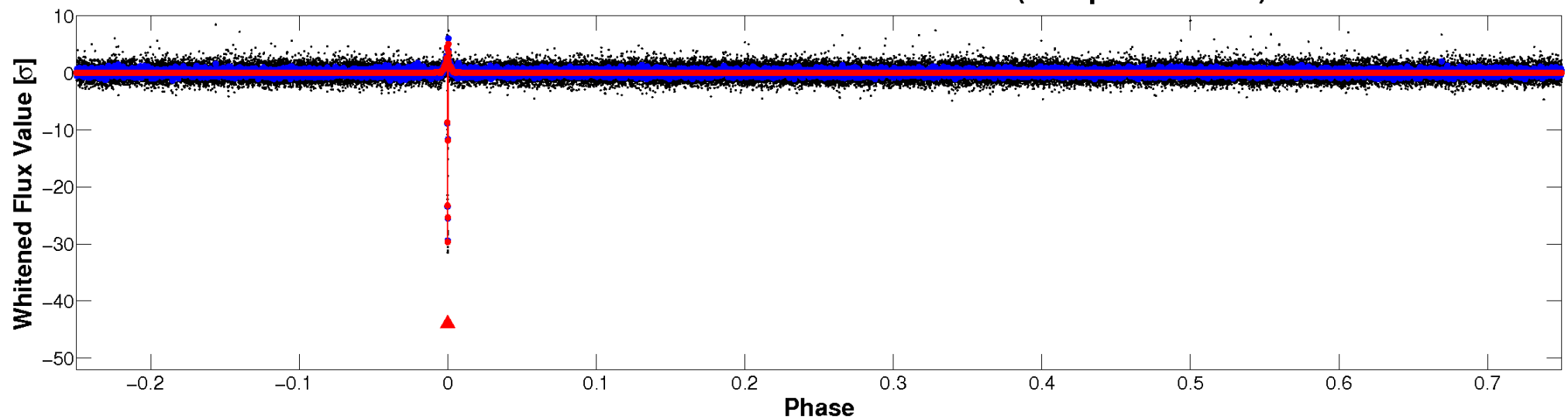


Non-Whitened Vs. Whitened Light Curve

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

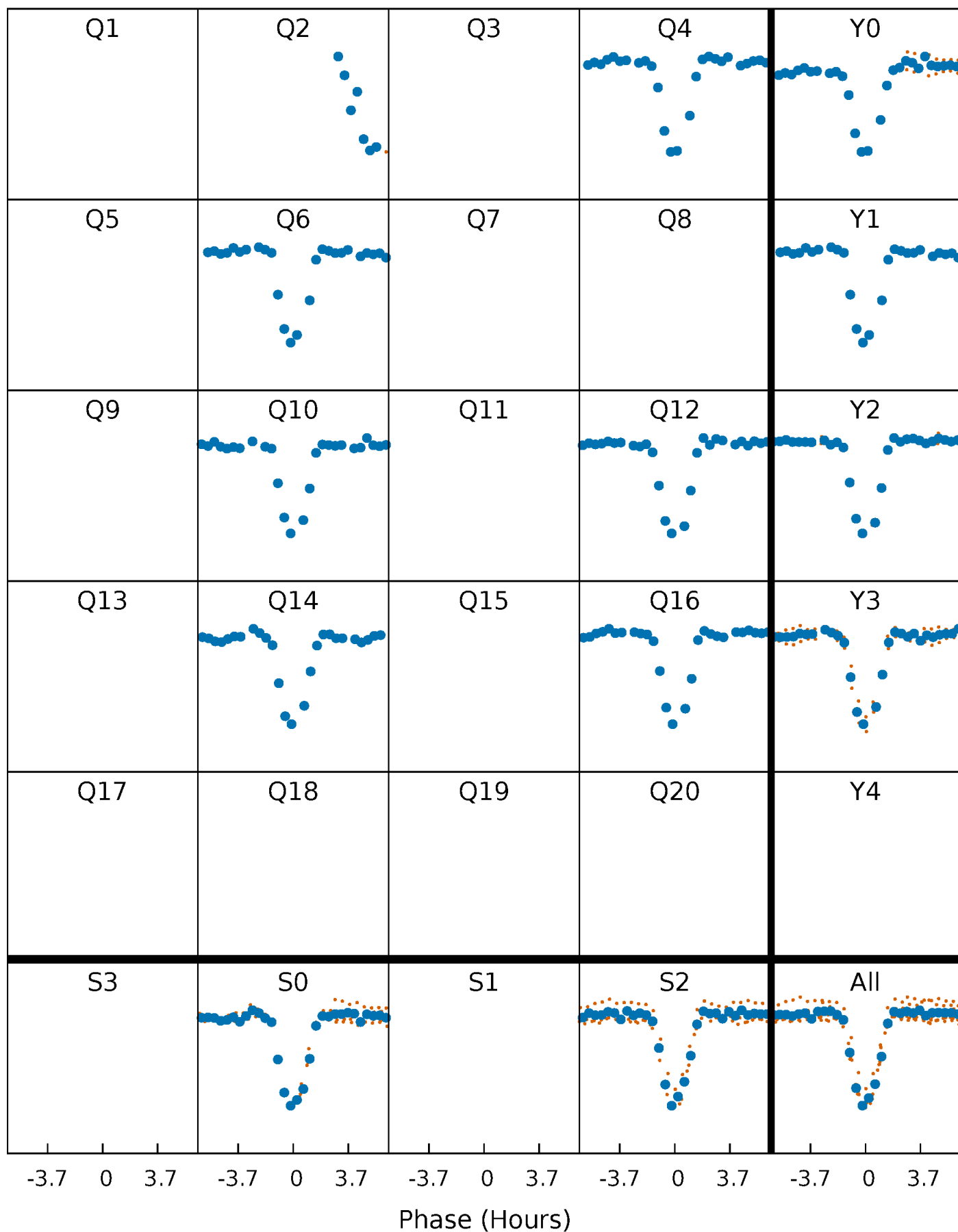


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



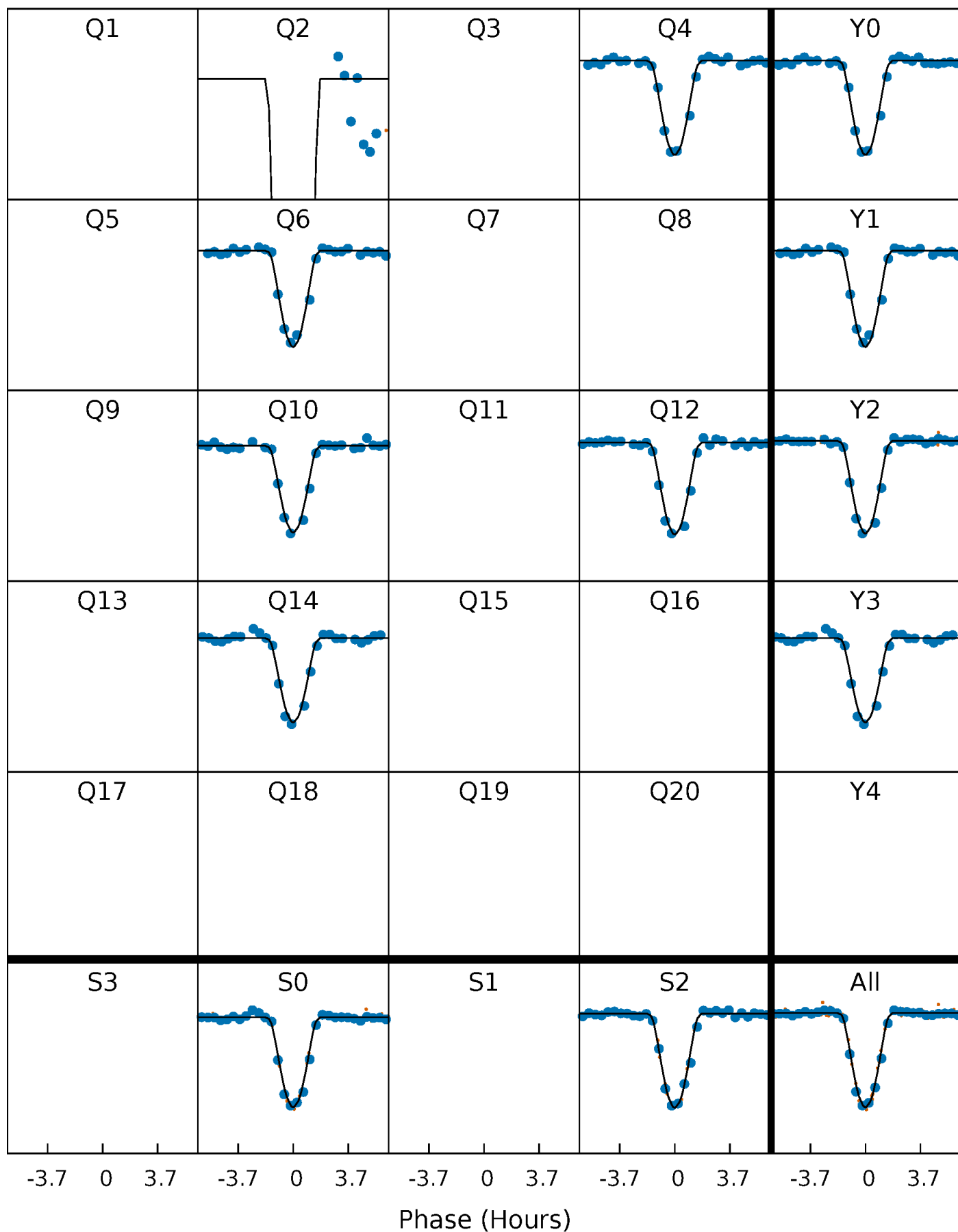
PDC Quarter-Phased Transit Curves

TCE 011357192-01 P=186.516571 Days $T_0=169.647661$ (BKJD)



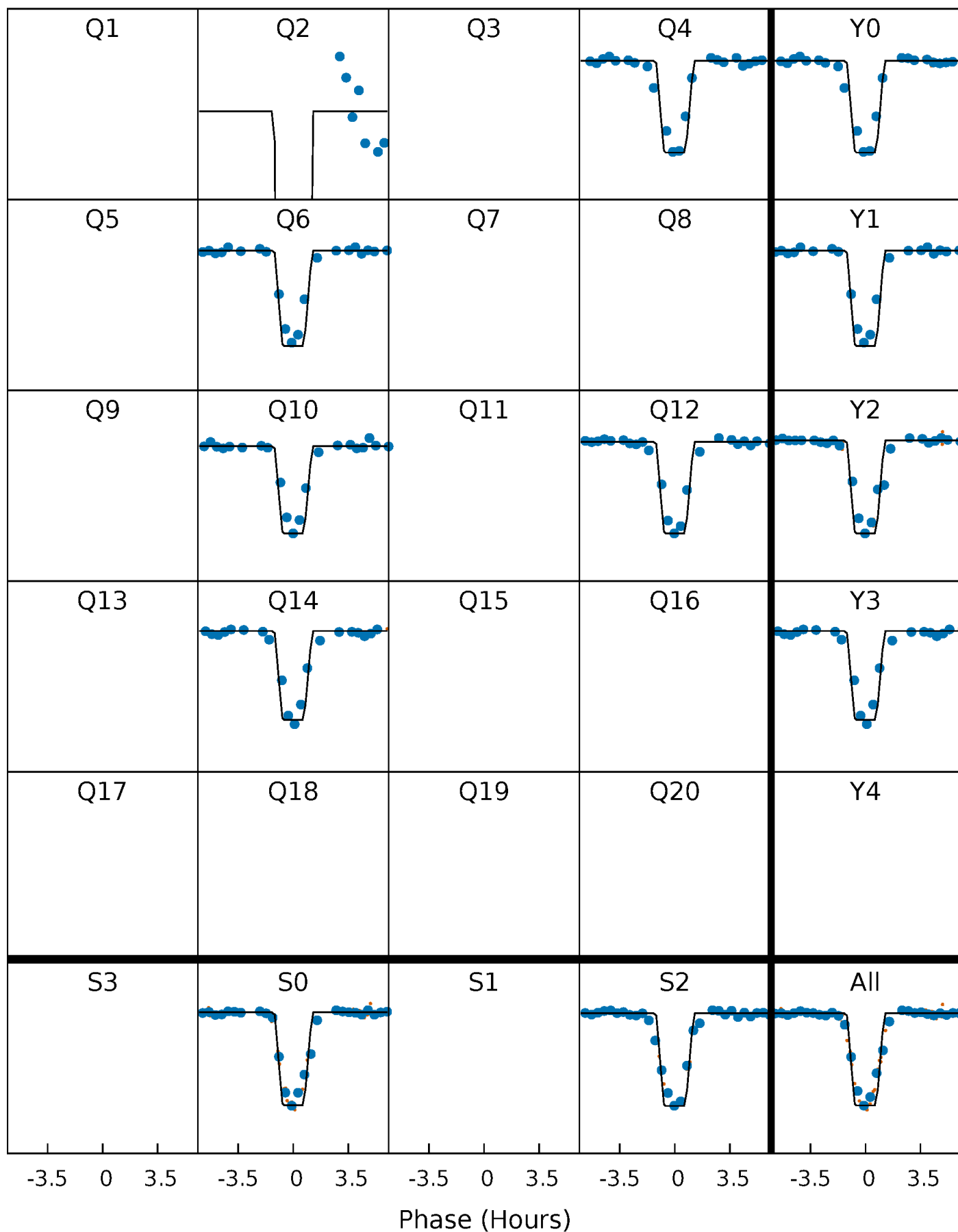
DV Quarter-Phased Transit Curves

TCE 011357192-01 P=186.516571 Days $T_0=169.647661$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

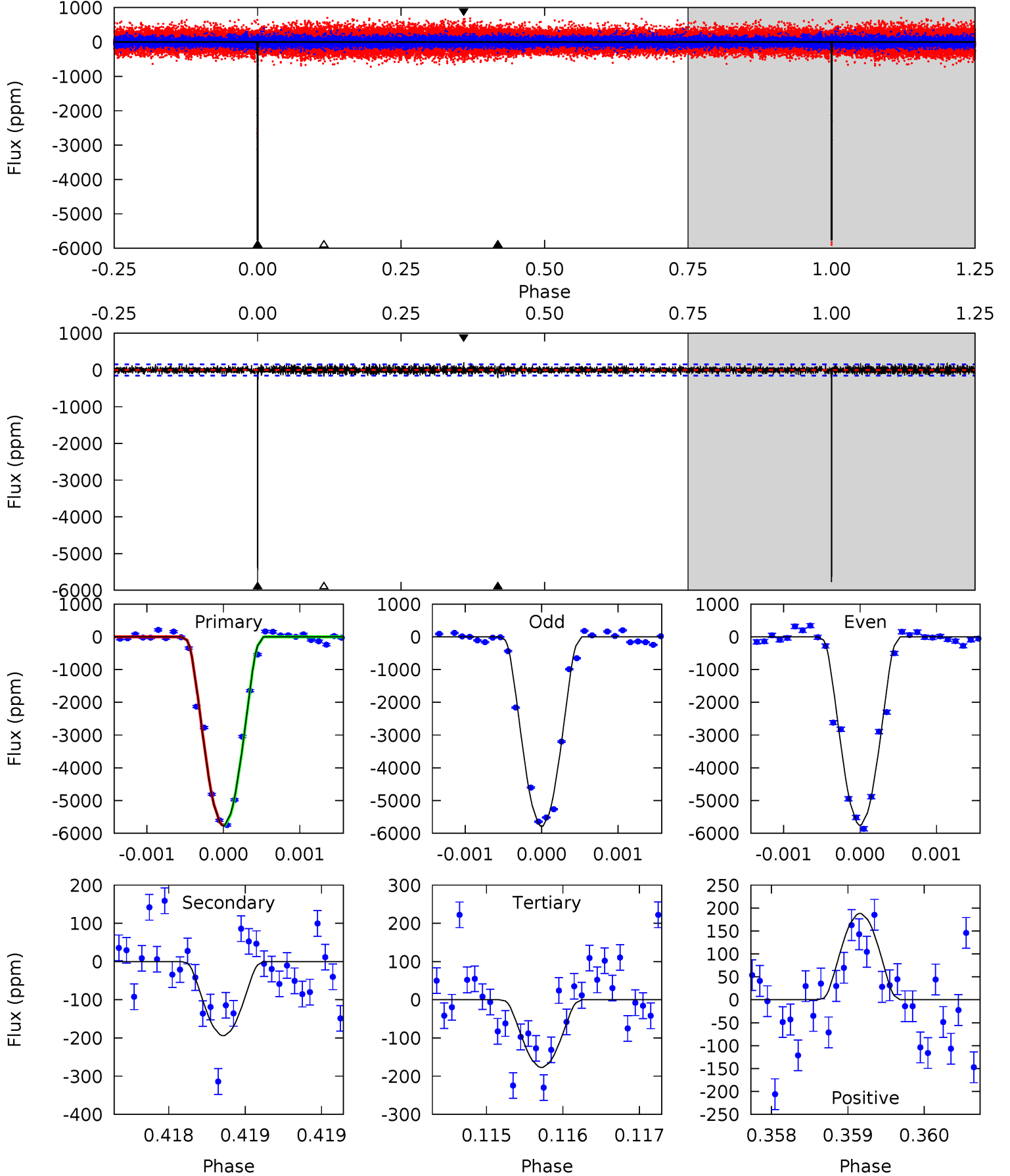
TCE 011357192-01 P=186.515947 Days $T_0=169.649842$ (BKJD)



DV Model-Shift Uniqueness Test

011357192-01, P = 186.516571 Days, E = 169.647661 Days

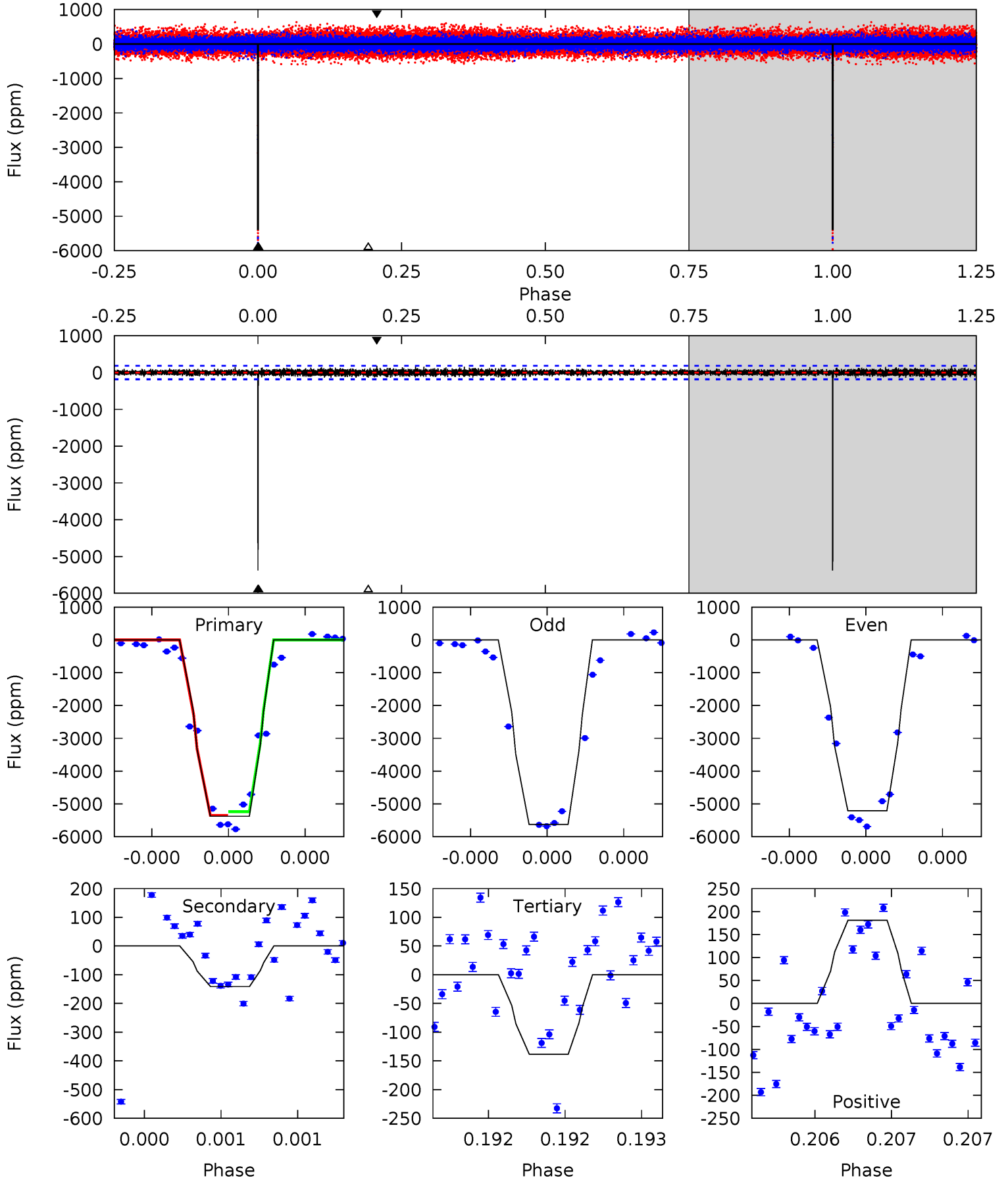
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
208.3	7.01	6.40	6.79	5.50	3.36	1.73	201.9	201.5	0.61	0.22	0.67	1.01	0.03	0.44



Alt Model-Shift Uniqueness Test

011357192-01, P = 186.515947 Days, E = 169.649842 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
162.1	4.25	4.17	5.47	5.58	3.49	1.13	157.9	156.6	0.08	-1.21	5.70	1.01	0.03	1.57



Stellar Parameters For KIC 011357192

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5018^{+150}_{-150}	$3.639^{+0.904}_{-0.226}$	$0.280^{+0.150}_{-0.300}$	$2.990^{+0.936}_{-2.183}$	$1.421^{+0.228}_{-0.532}$	$0.075^{+1.815}_{-0.039}$
	+3%/-3%	+25%/-6%	+54%/-107%	+31%/-73%	+16%/-37%	+2425%/-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 011357192-01 / KOI 3782.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-194 ± 28	$34.16^{+15.19}_{-15.42}$	621^{+67}_{-135}	2553^{+223}_{-166}	46^{+100}_{-23}
Alt.	-141 ± 33	$22.01^{+13.72}_{-11.81}$	623^{+70}_{-124}	2713^{+486}_{-236}	78^{+256}_{-48}

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

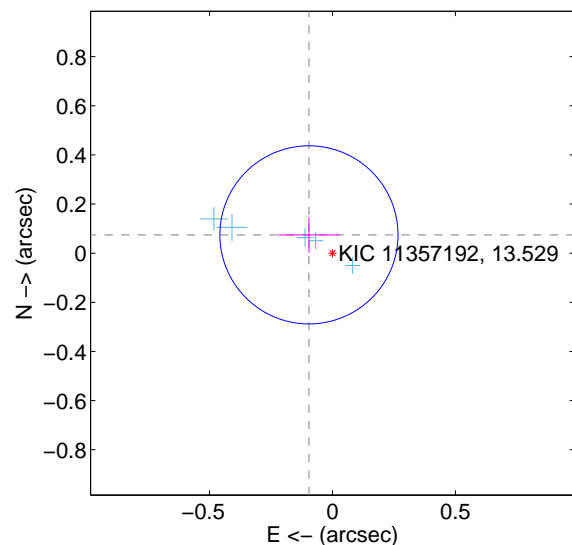
Supplemental centroid analysis for 011357192-01. Kepler magnitude: 13.53. Transit SNR 107.79

There are 5 quarters with good PRF difference image offsets

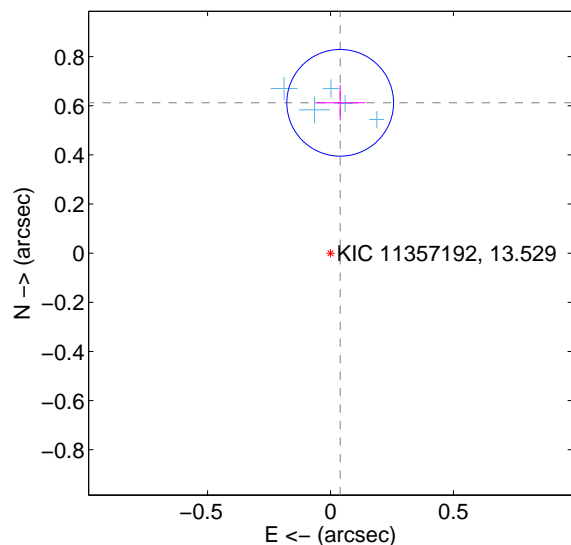
The direct PRF centroid is offset from the target star catalog position by about 0.62 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.121 ± 0.121	1.00	0.096 ± 0.125	0.074 ± 0.073
PRF-fit source offset from KIC position	0.613 ± 0.072	8.47	-0.039 ± 0.102	0.612 ± 0.072
photometric centroid source offset	0.59 ± 0.08	7.86	-0.41 ± 0.08	0.43 ± 0.07

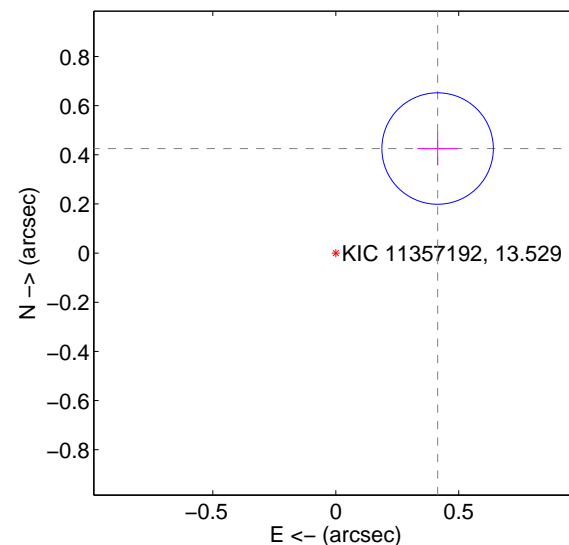
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

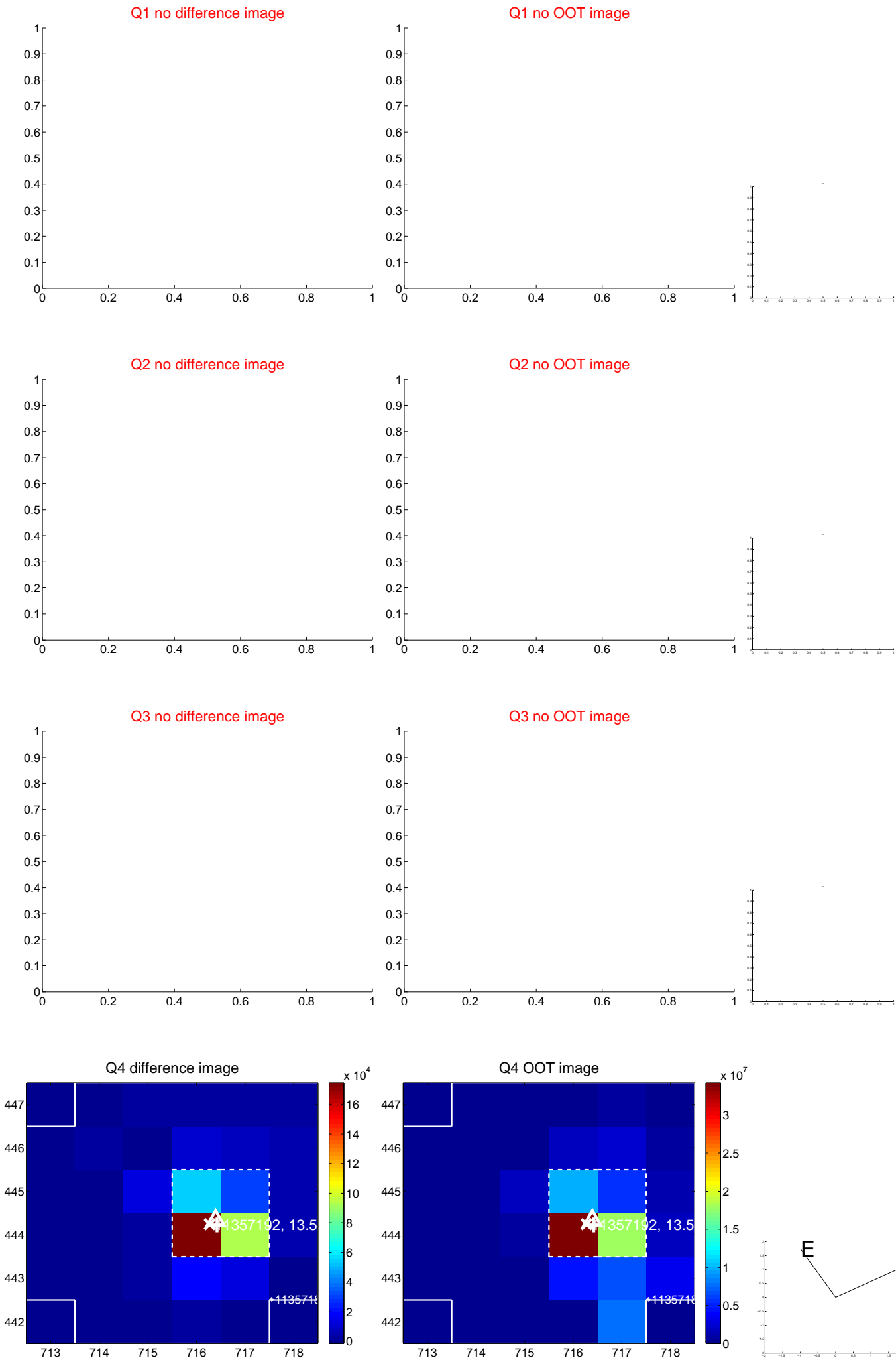


offset from photometric centroids

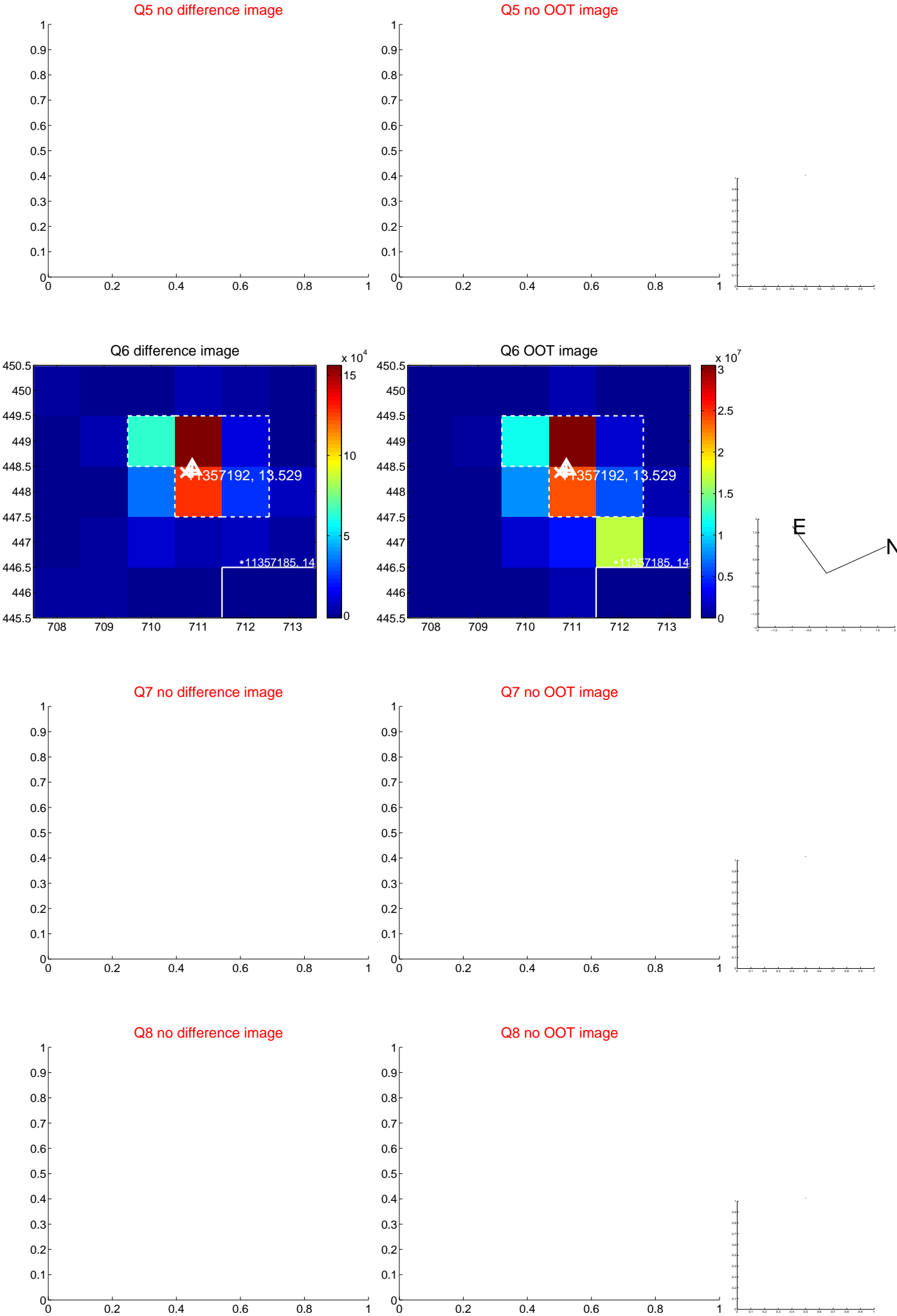


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

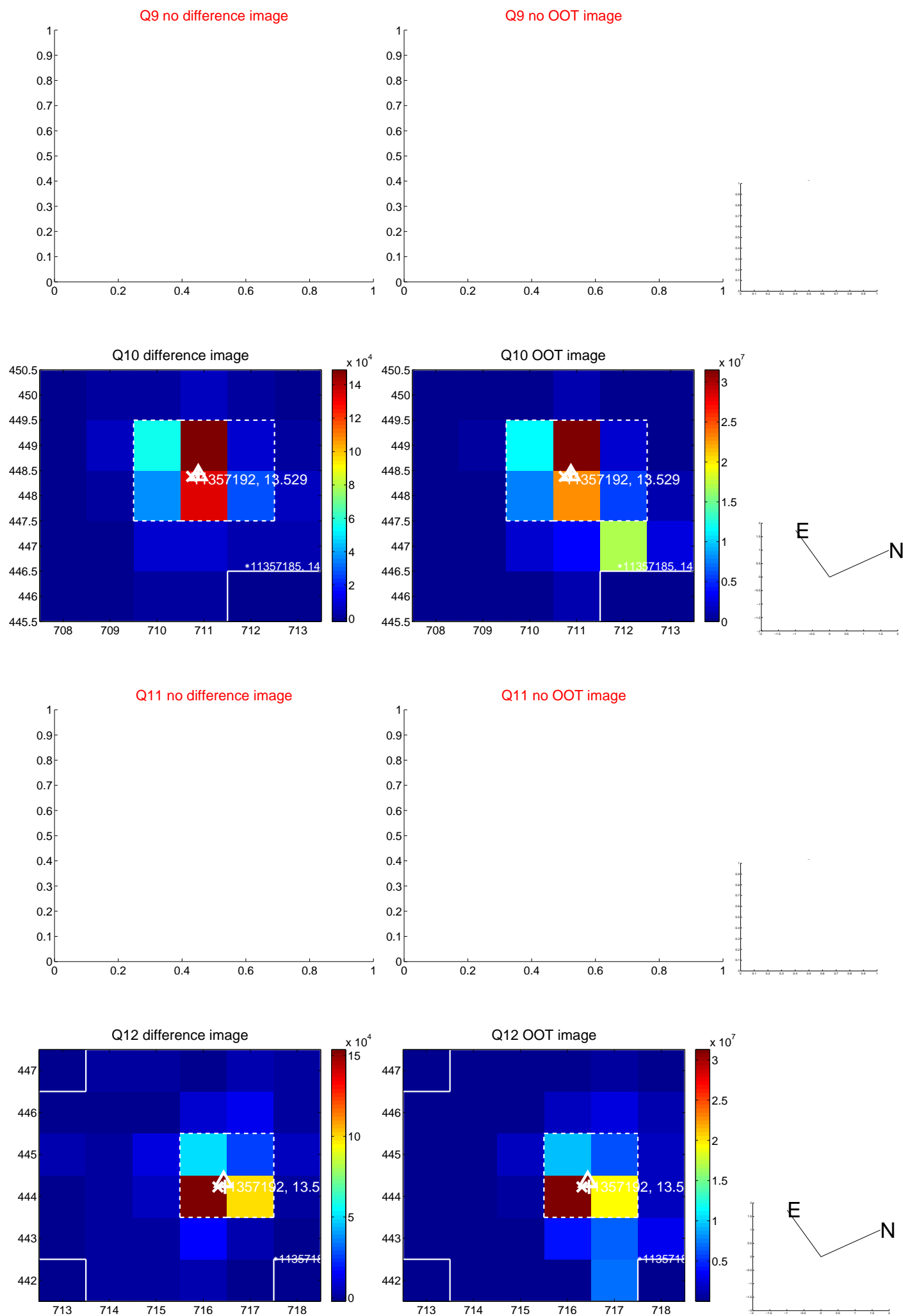
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



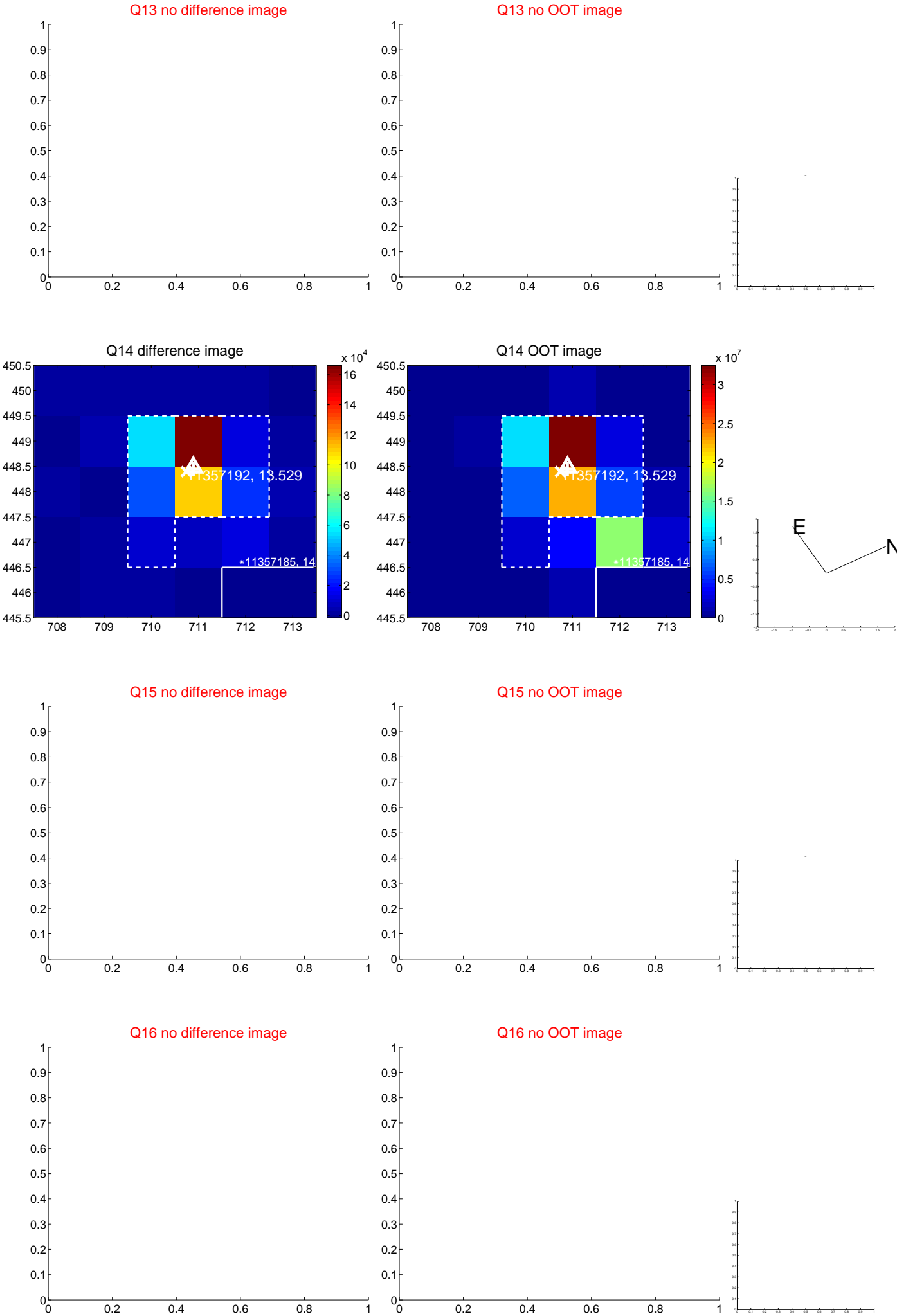
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



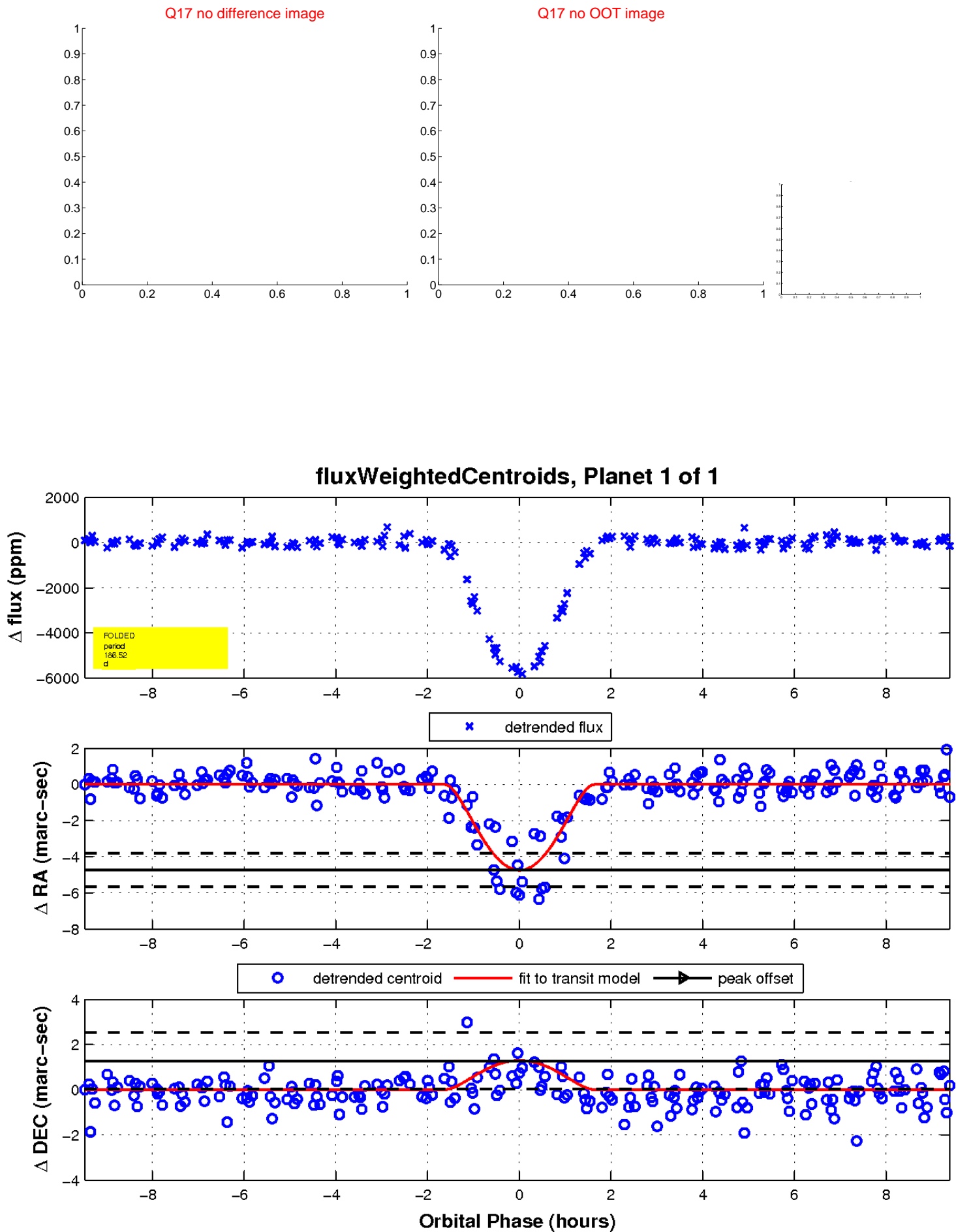
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



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



UKIRT Image

