

KIC 011568657

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})
011568657-01	OBS	No	13.476374	140.944427	999.3	22.094	35.4	48.5	3.51	6567	20.88	1205.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011568657-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

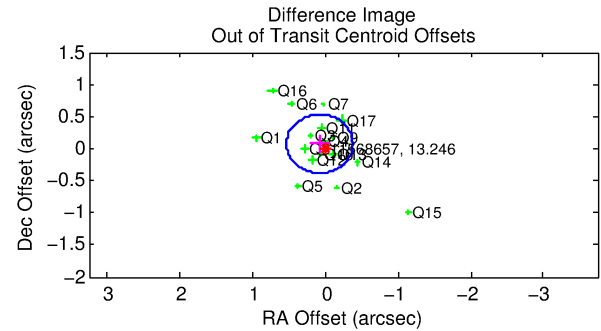
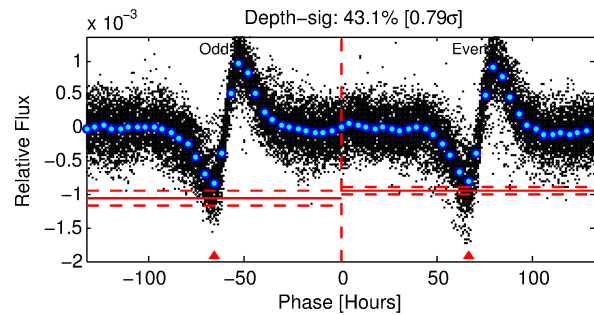
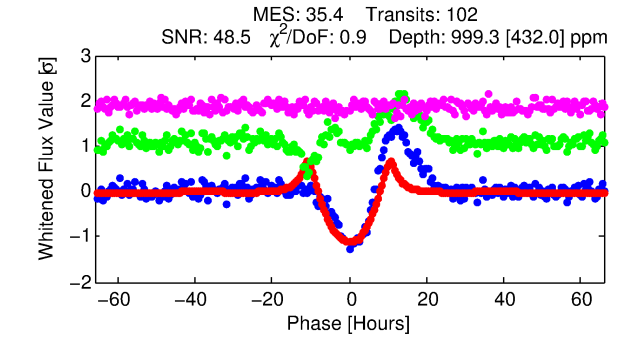
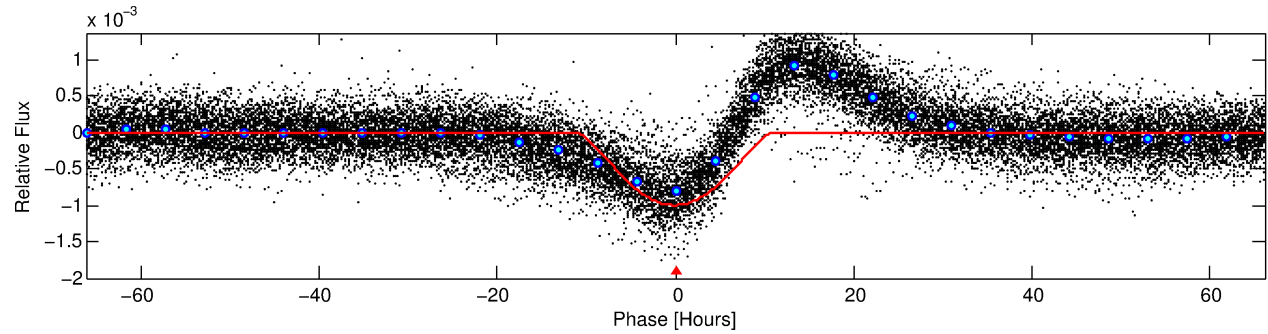
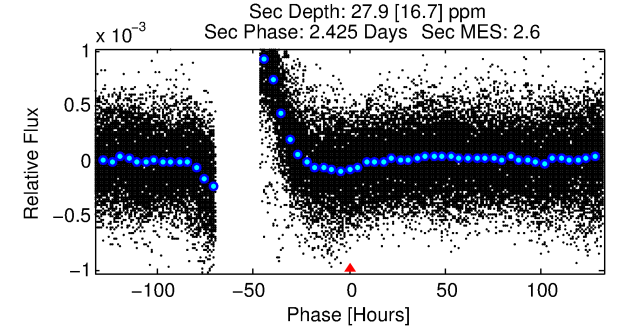
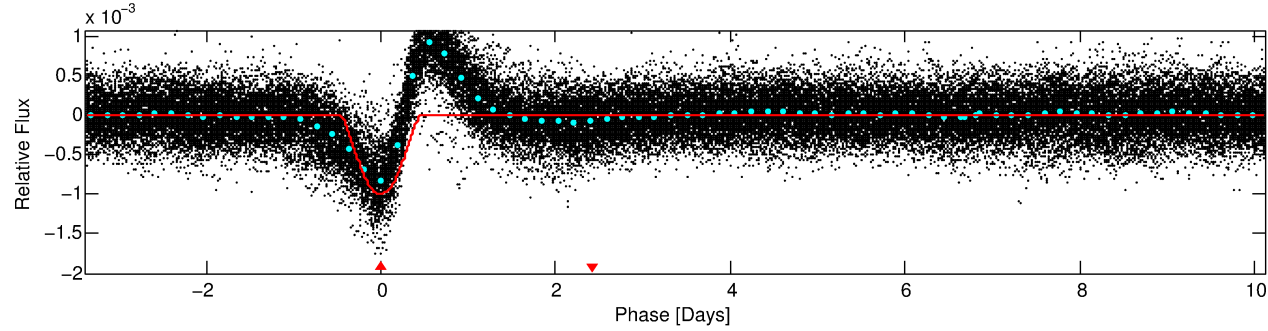
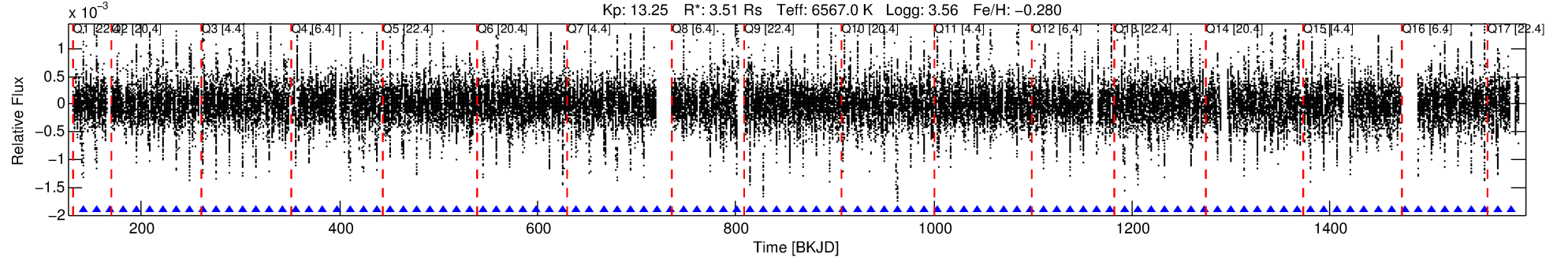
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011568657-01

No Significant Match Found

DV One-Page Summary

KIC: 11568657 Candidate: 1 of 1 Period: 13.476 d



DV Fit Results:

Period = 13.47637 [0.00010] d
Epoch = 140.9444 [0.0063] BKJD
Rp/R* = 0.0545 [0.0121]
a/R* = 1.86 [0.06]
b = 1.00 [0.00]
Seff = 1205.64 [772.43]
Teq = 1503 [241] K
Rp = 20.88 [9.85] Re
a = 0.1305 [0.0517] AU
Ag = 0.60 [0.59] [-0.68 σ]
Teffp = 2045 [386] K [1.19 σ]

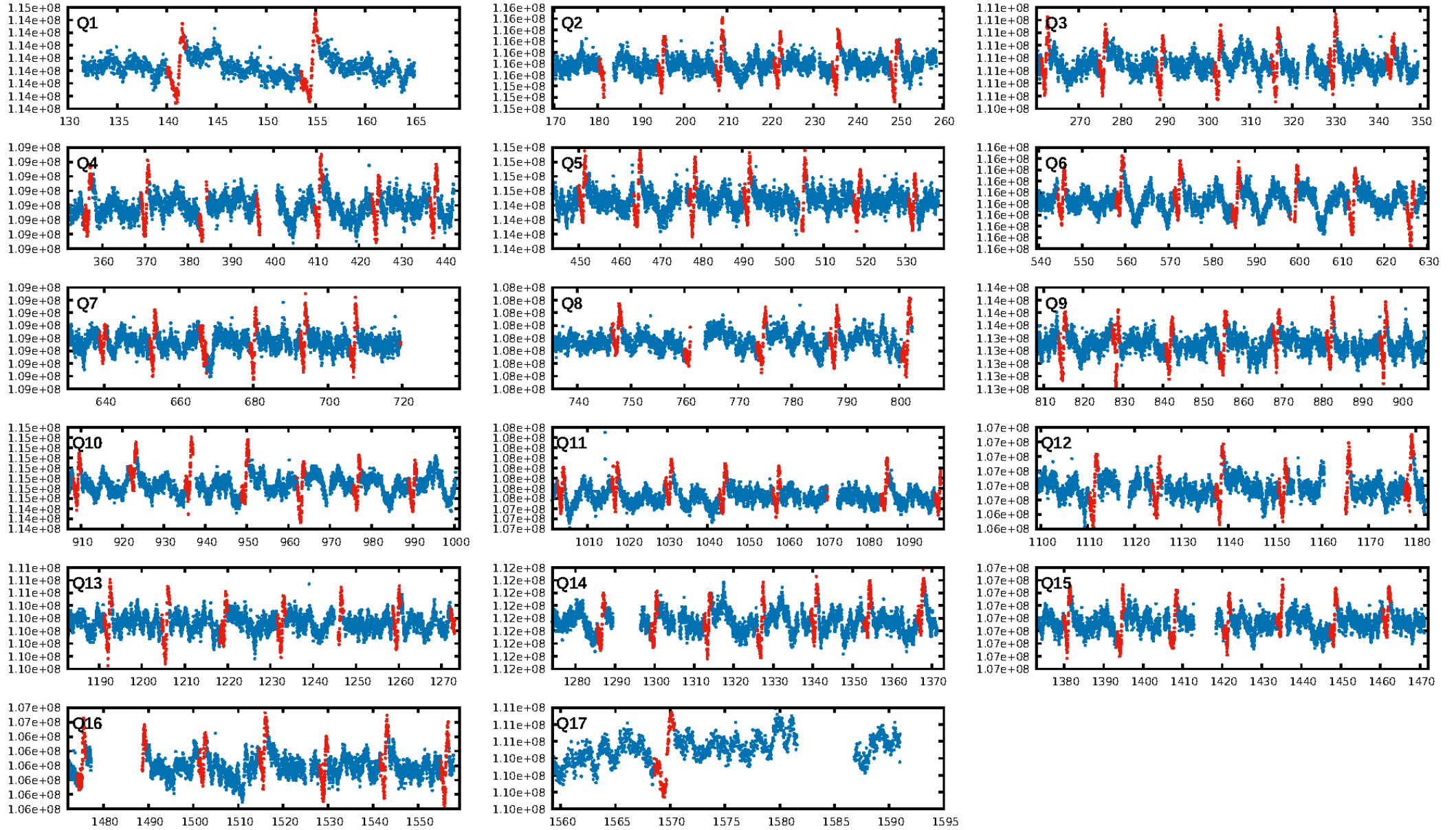
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.18e-245
RollingBand-fgt: 1.00 [99/99]
GhostDiagnostic-chr: 1.577
Centroid-sig: 54.8%
Centroid-so: 0.116 arcsec [2.26 σ]
OotOffset-rm: 0.108 arcsec [0.71 σ]
KicOffset-rm: 0.181 arcsec [1.15 σ]
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]

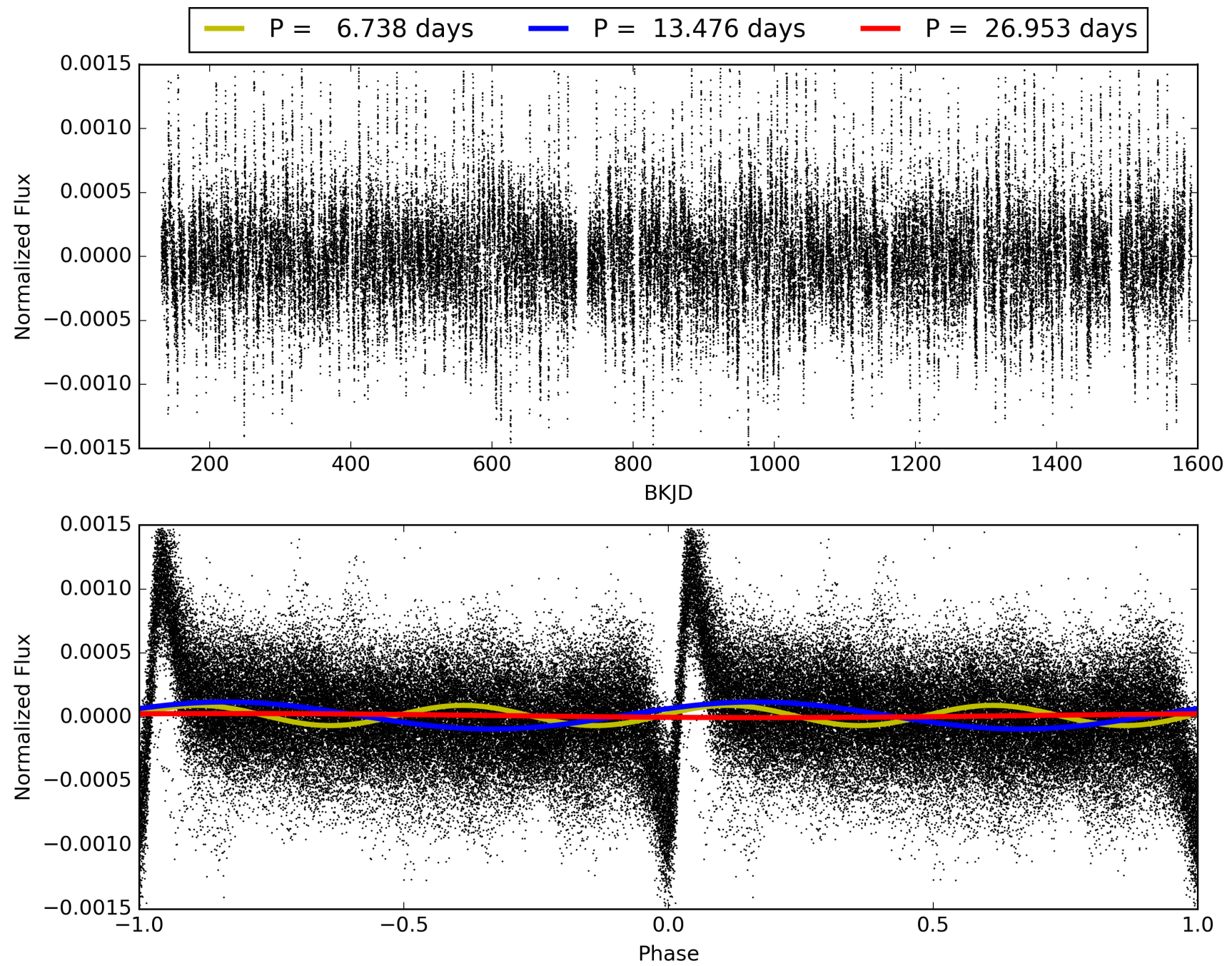
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:35:53 Z

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

TCE 011568657-01, PDC Light Curves

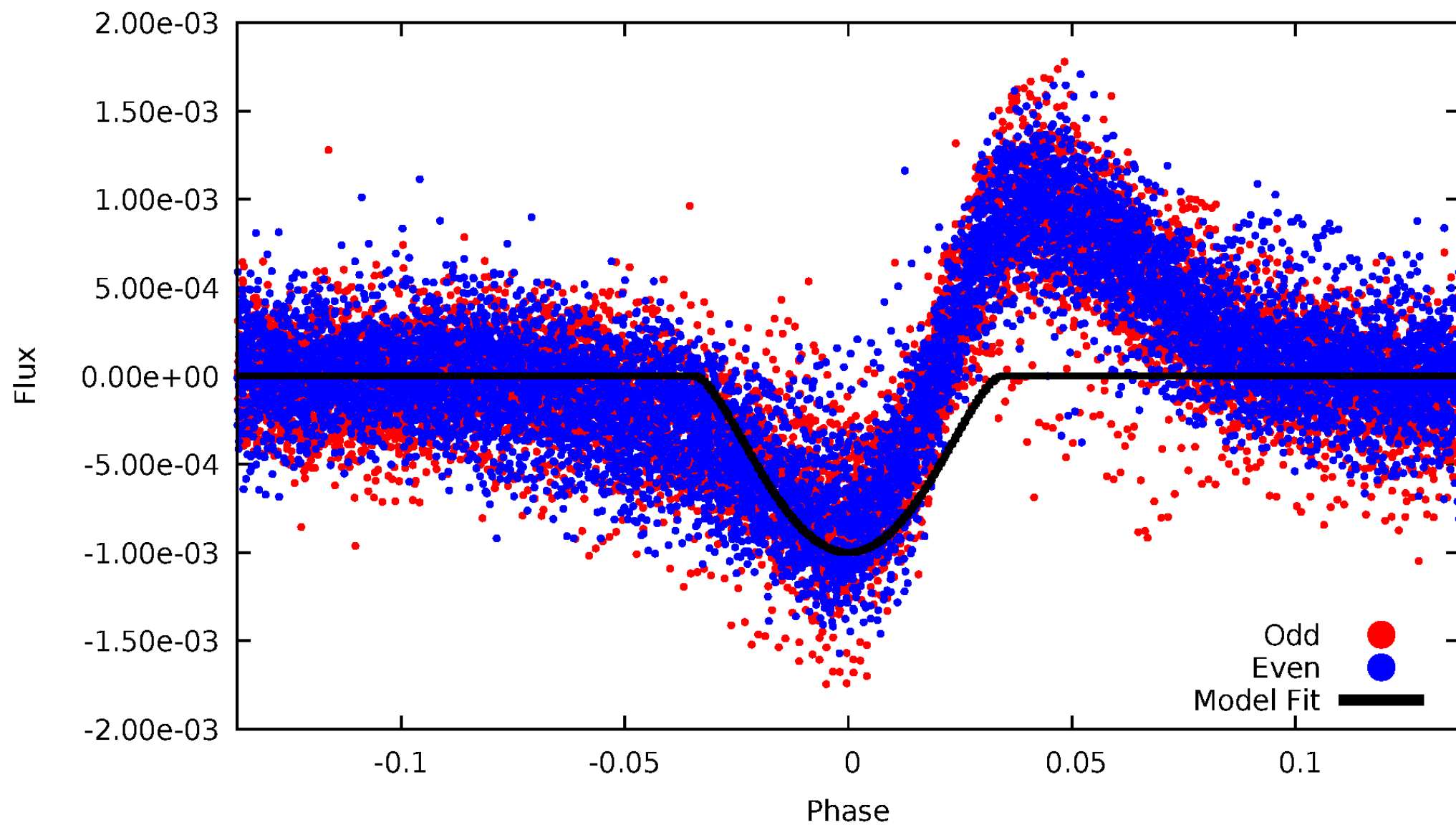


TCE 011568657-01



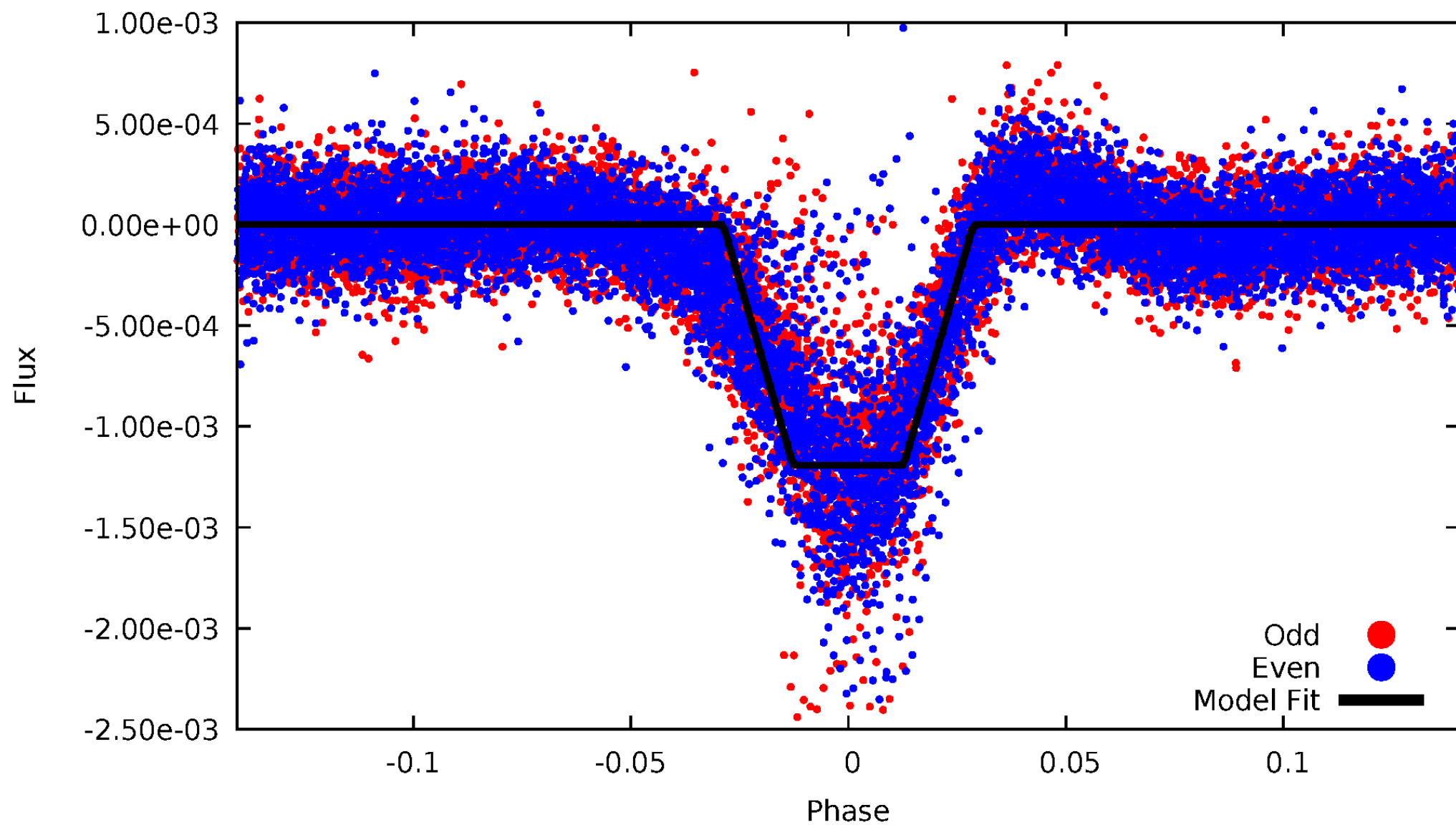
DV Odd/Even

TCE 011568657-01



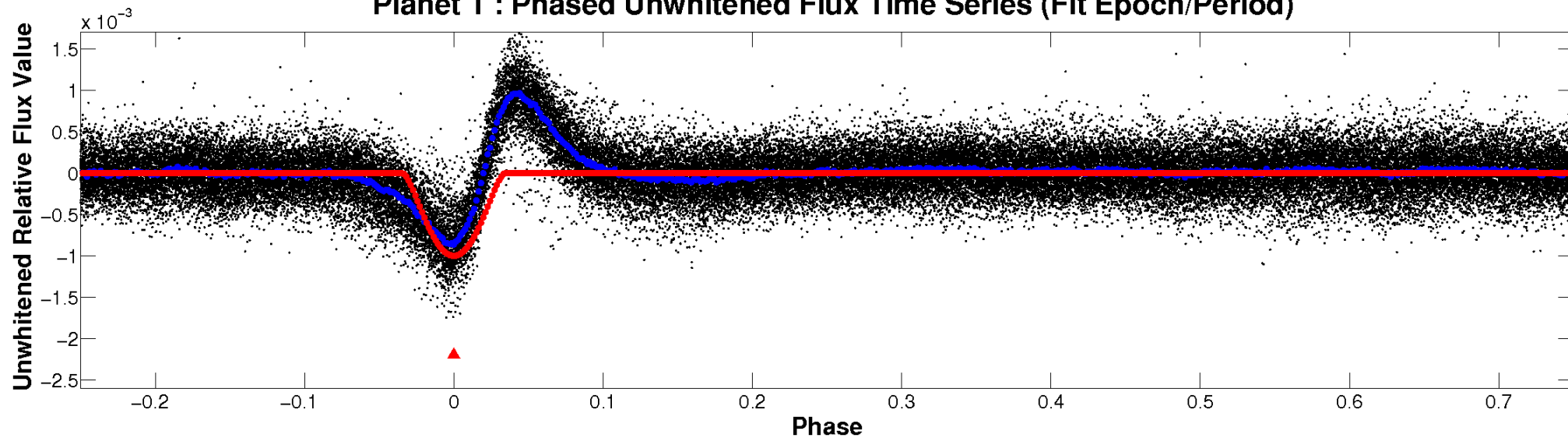
ALT Odd/Even

TCE 011568657-01

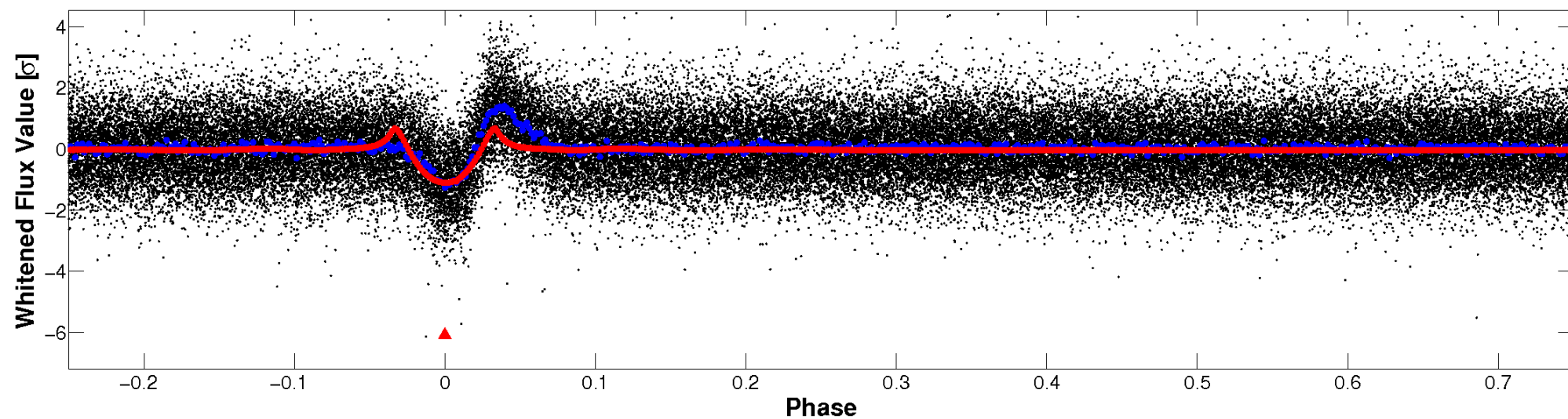


Non-Whitened Vs. Whitened Light Curve

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

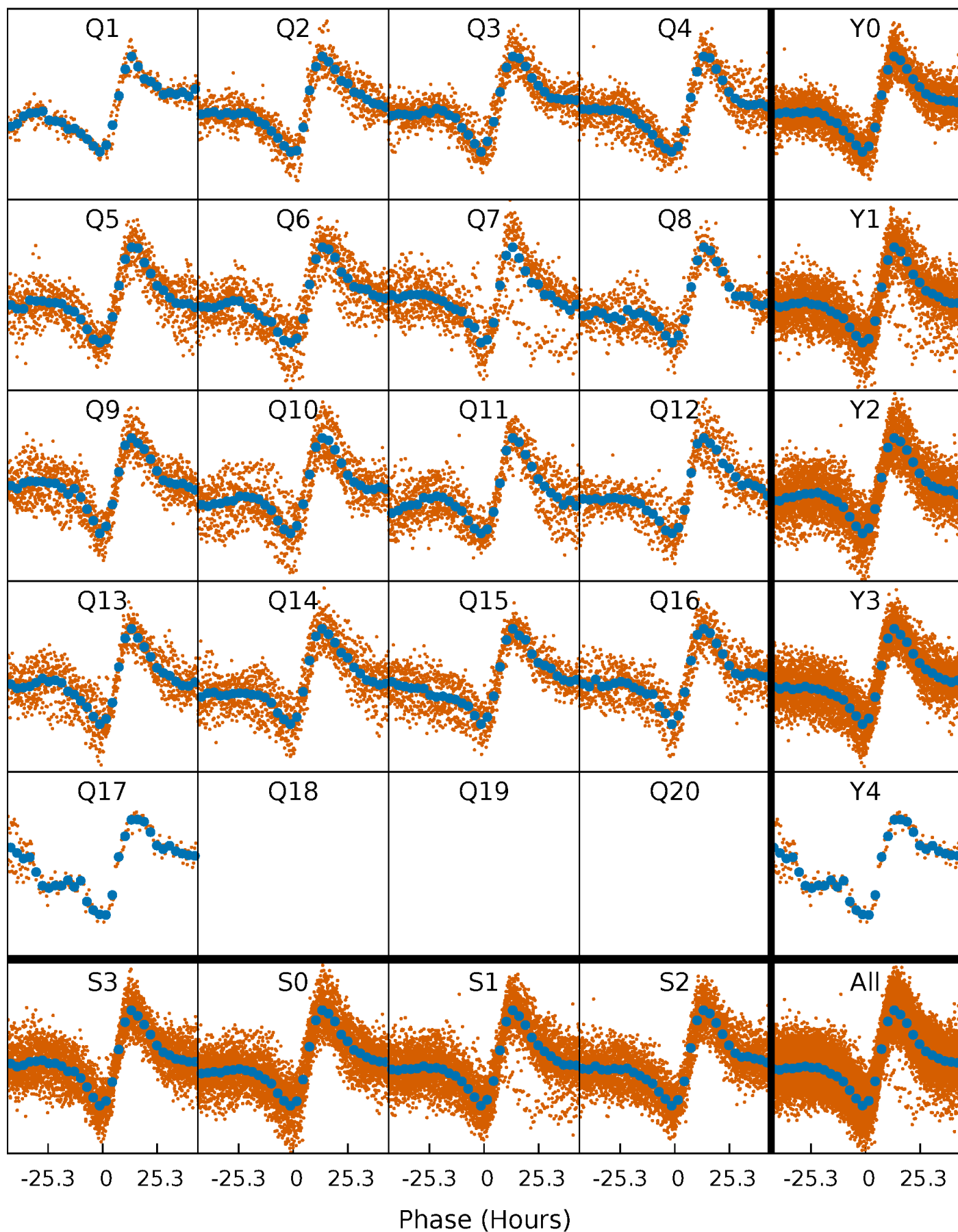


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



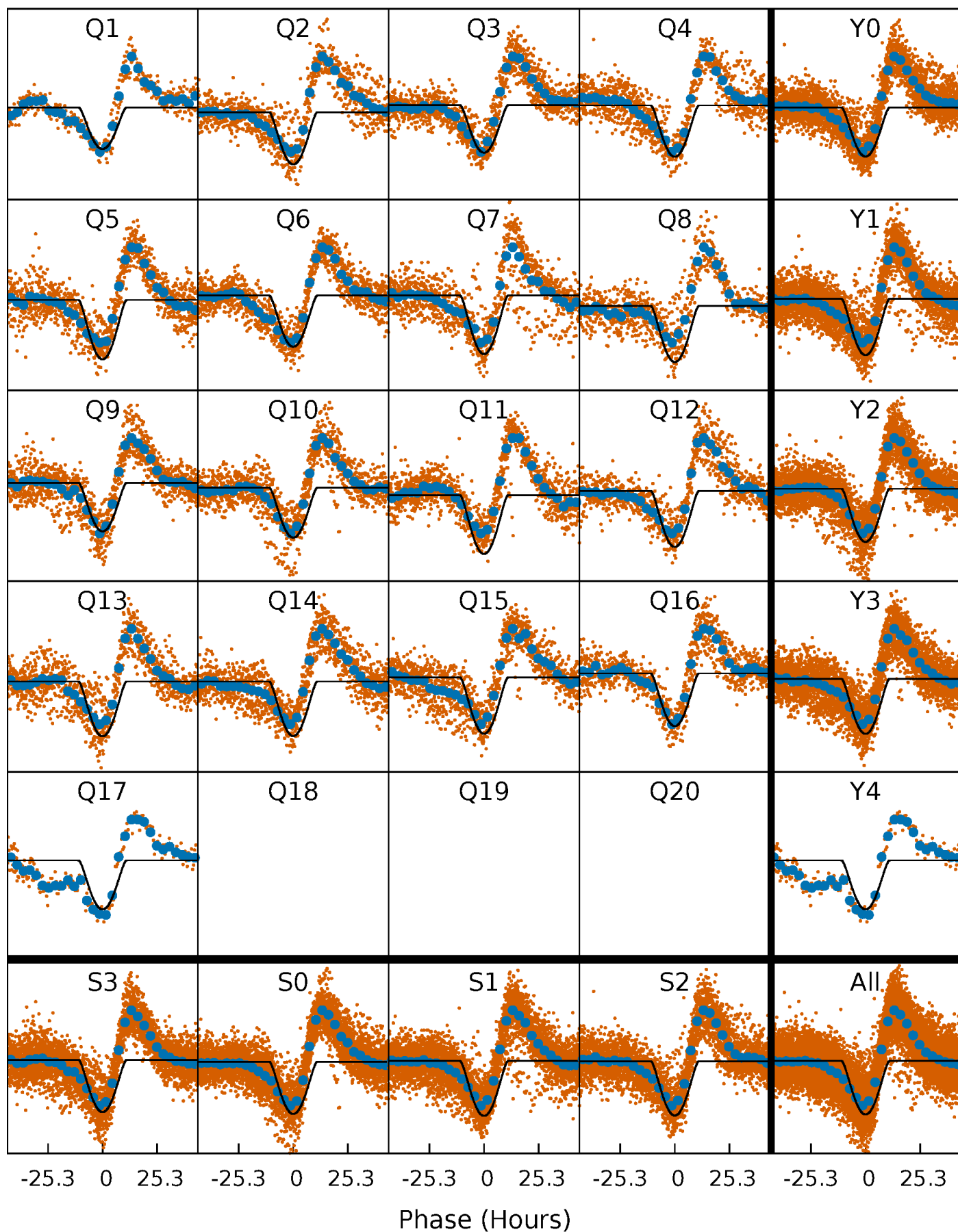
PDC Quarter-Phased Transit Curves

TCE 011568657-01 P= 13.476374 Days $T_0=140.944427$ (BKJD)



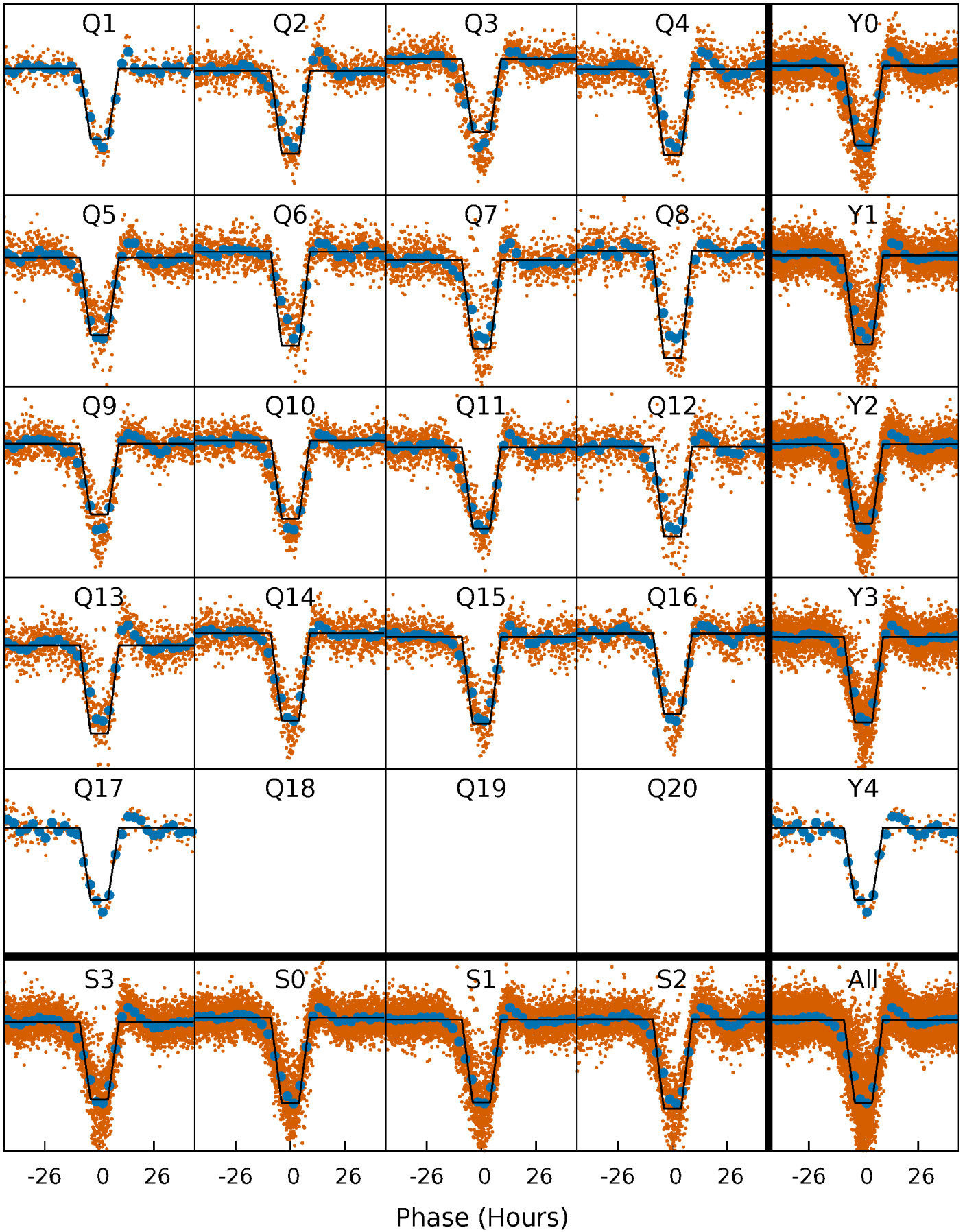
DV Quarter-Phased Transit Curves

TCE 011568657-01 P= 13.476374 Days $T_0=140.944427$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

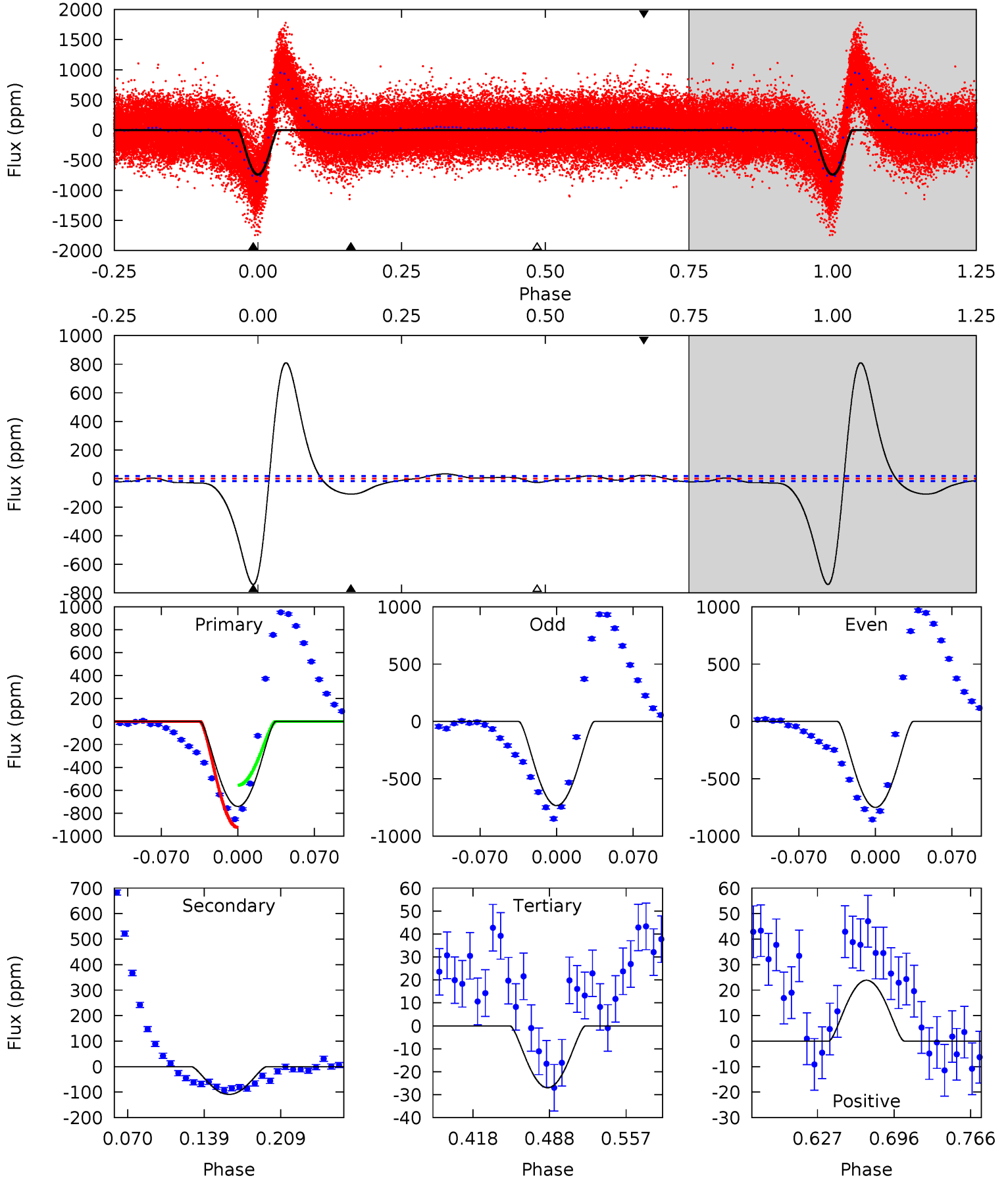
TCE 011568657-01 P= 13.476328 Days $T_0=140.947251$ (BKJD)



DV Model-Shift Uniqueness Test

011568657-01, P = 13.476374 Days, E = 127.468053 Days

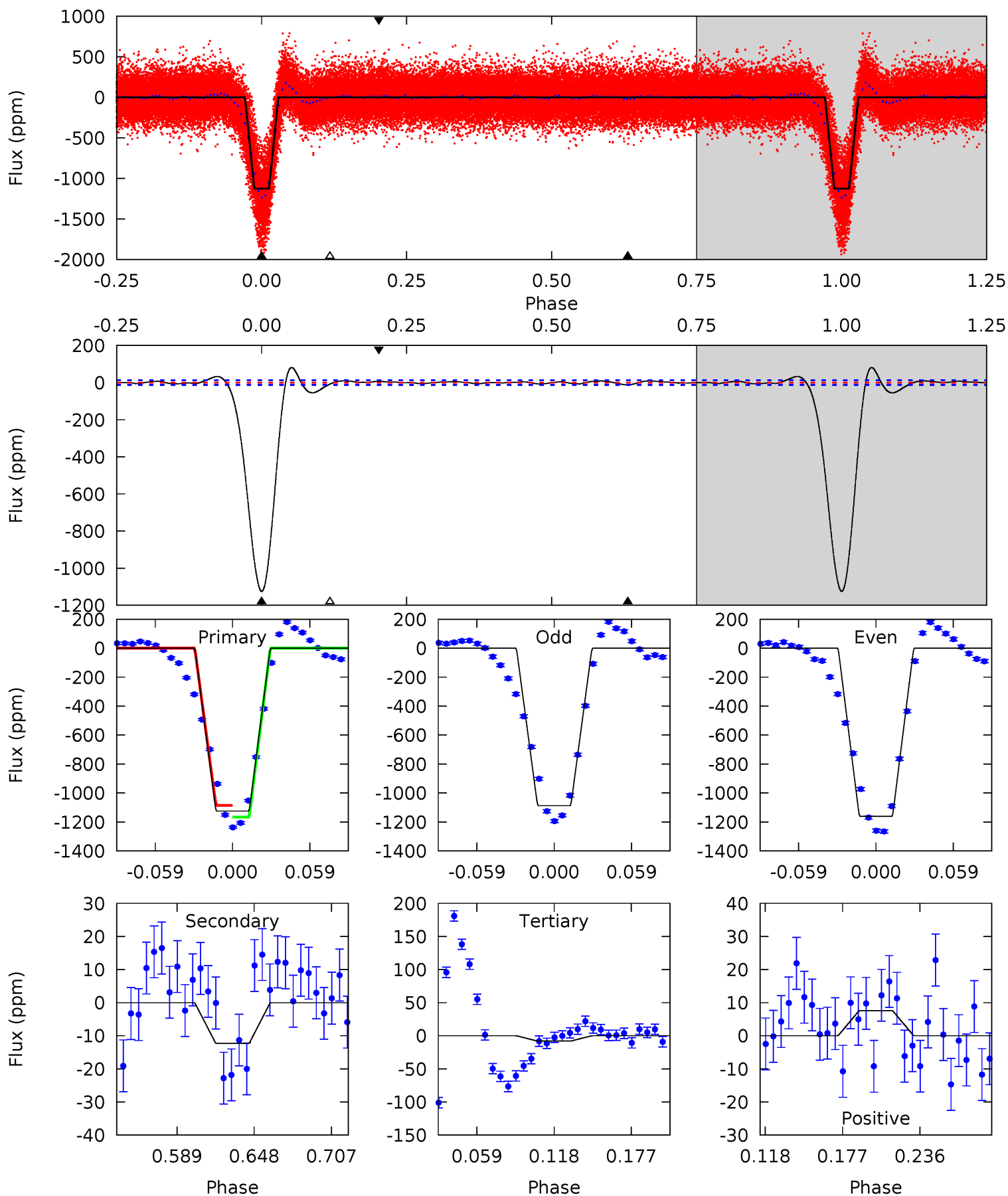
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
191.1	28.1	6.96	6.16	4.64	1.81	22.6	184.2	185.0	21.1	22.0	2.07	0.97	0.52	48.3



Alt Model-Shift Uniqueness Test

011568657-01, P = 13.476328 Days, E = 127.470923 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
423.2	4.64	3.03	2.86	4.67	1.89	4.58	420.2	420.3	1.61	1.78	13.8	0.99	0.07	15.3



Stellar Parameters For KIC 011568657

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6567^{+177}_{-197}	$3.560^{+0.368}_{-0.092}$	$-0.280^{+0.350}_{-0.250}$	$3.511^{+0.365}_{-1.461}$	$1.633^{+0.208}_{-0.387}$	$0.053^{+0.158}_{-0.016}$
	+3%/-3%	+10%/-3%	+125%/-89%	+10%/-42%	+13%/-24%	+297%/-29%
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 011568657-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-109 ± 4	$19.52^{+5.49}_{-5.63}$	2065^{+114}_{-196}	3333^{+306}_{-237}	$2.652^{+2.465}_{-1.029}$
Alt.	-12 ± 3	$12.13^{+4.95}_{-4.82}$	2057^{+124}_{-200}	2663^{+513}_{-462}	$0.789^{+1.429}_{-0.392}$

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 $A_{\text{obs}} \gg 1.0$

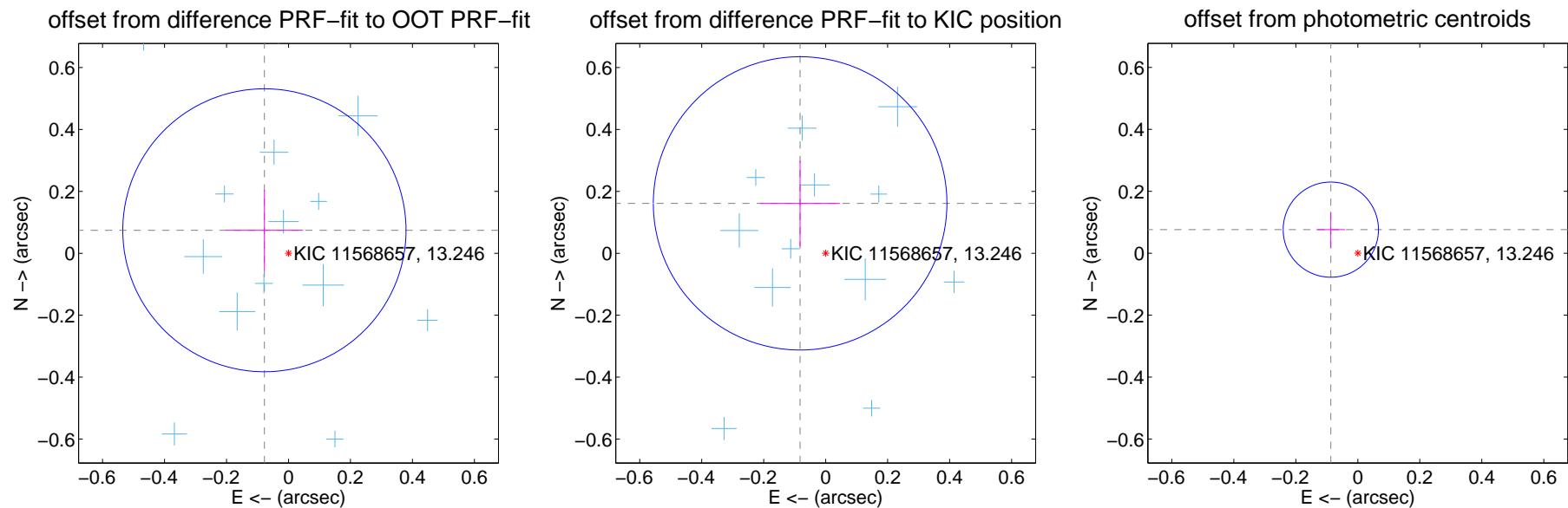
DV Centroid Data

Supplemental centroid analysis for 011568657-01. Kepler magnitude: 13.25. Transit SNR 48.49

There are 17 quarters with good PRF difference image offsets

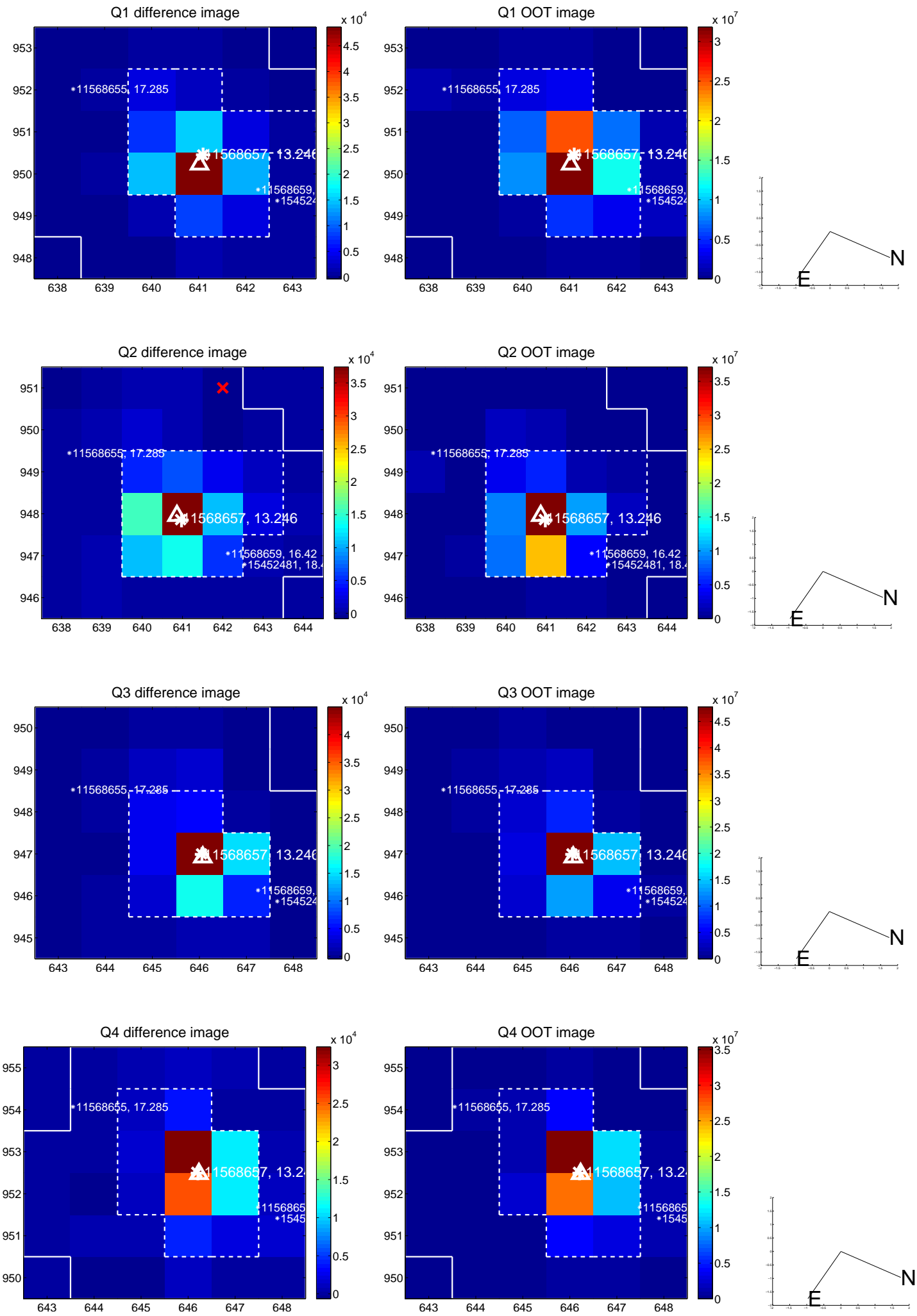
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.108 ± 0.152	0.71	0.078 ± 0.125	0.074 ± 0.131
PRF-fit source offset from KIC position	0.181 ± 0.158	1.15	0.082 ± 0.128	0.161 ± 0.138
photometric centroid source offset	0.12 ± 0.05	2.26	0.09 ± 0.05	0.08 ± 0.06

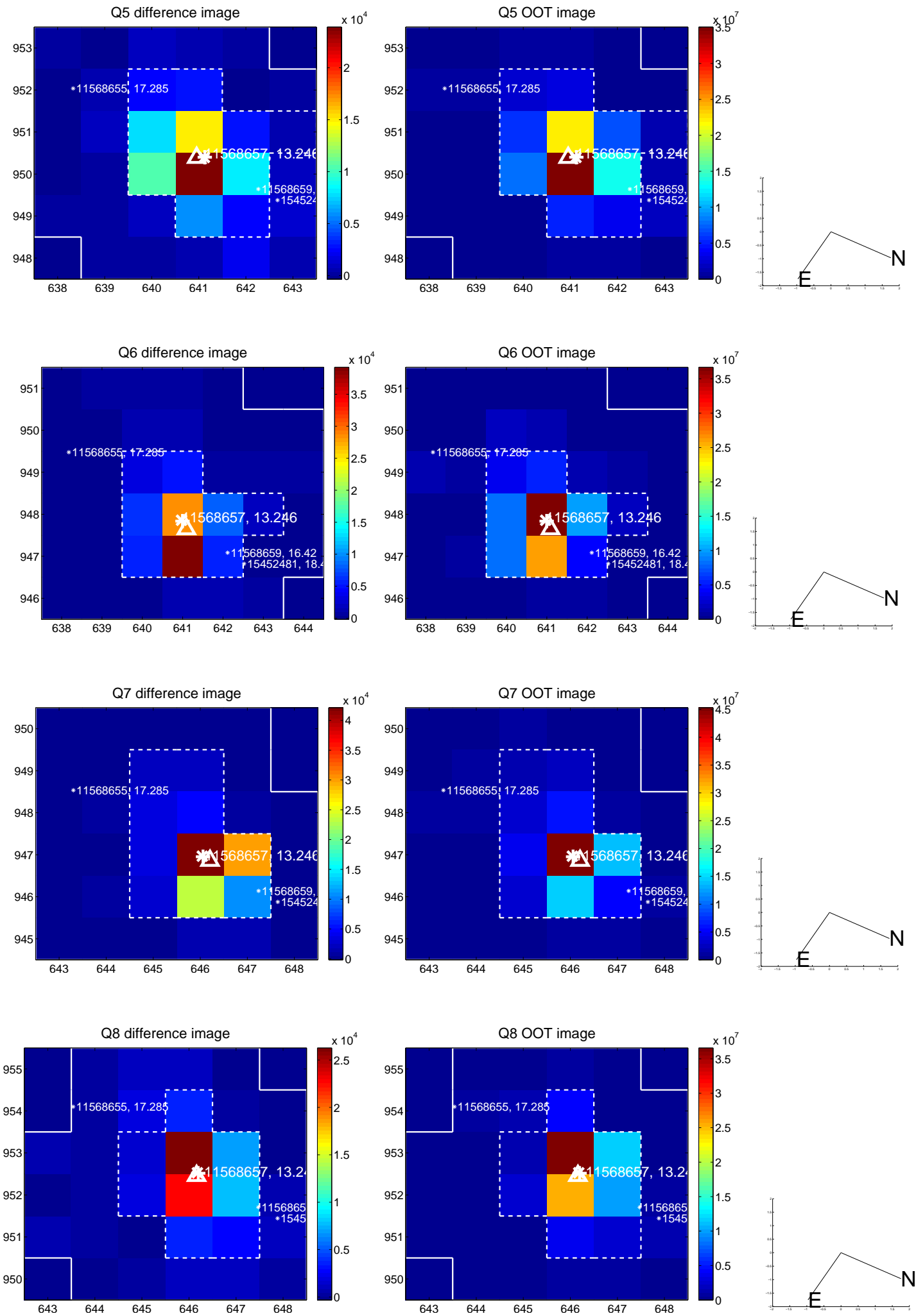


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

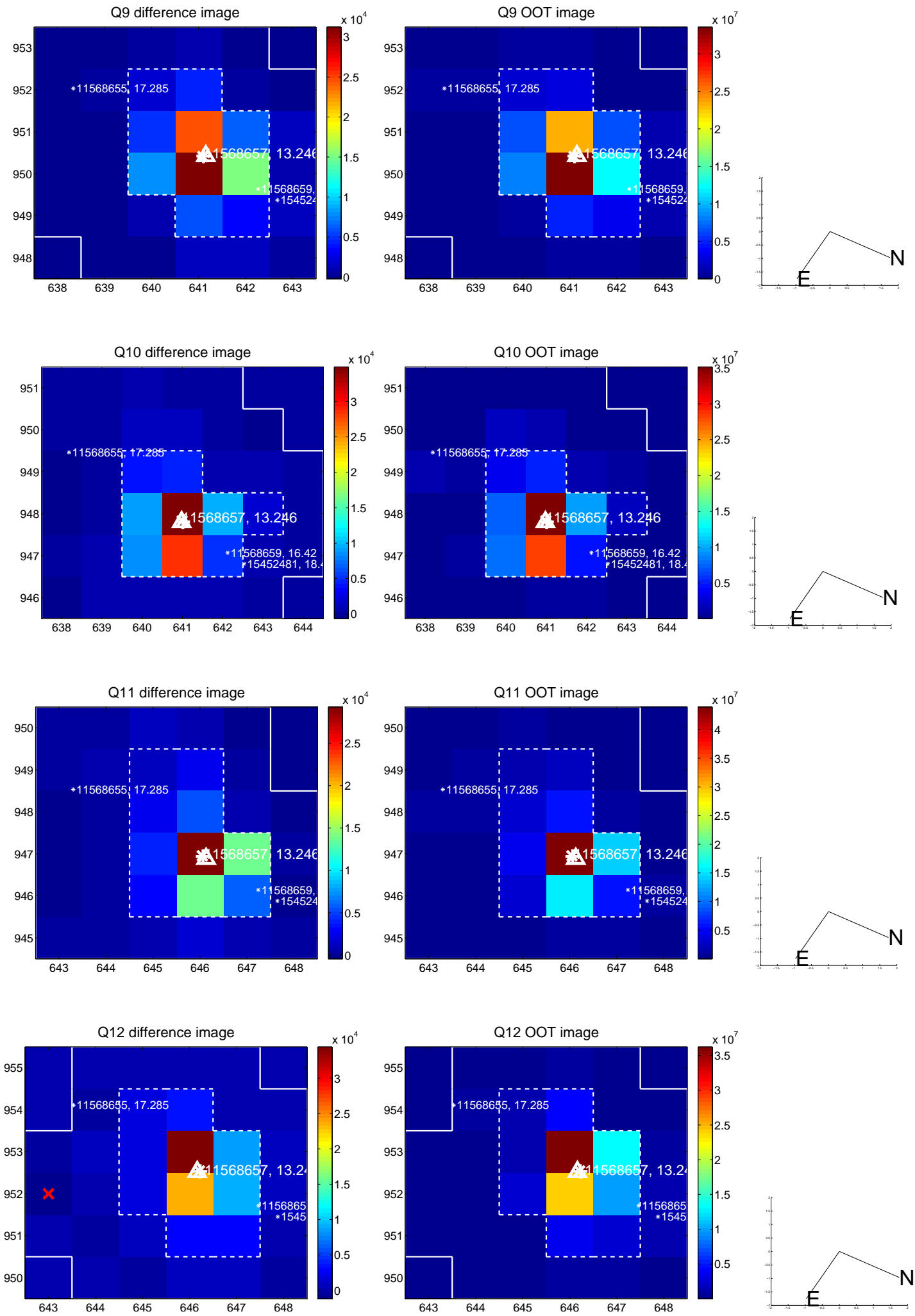
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



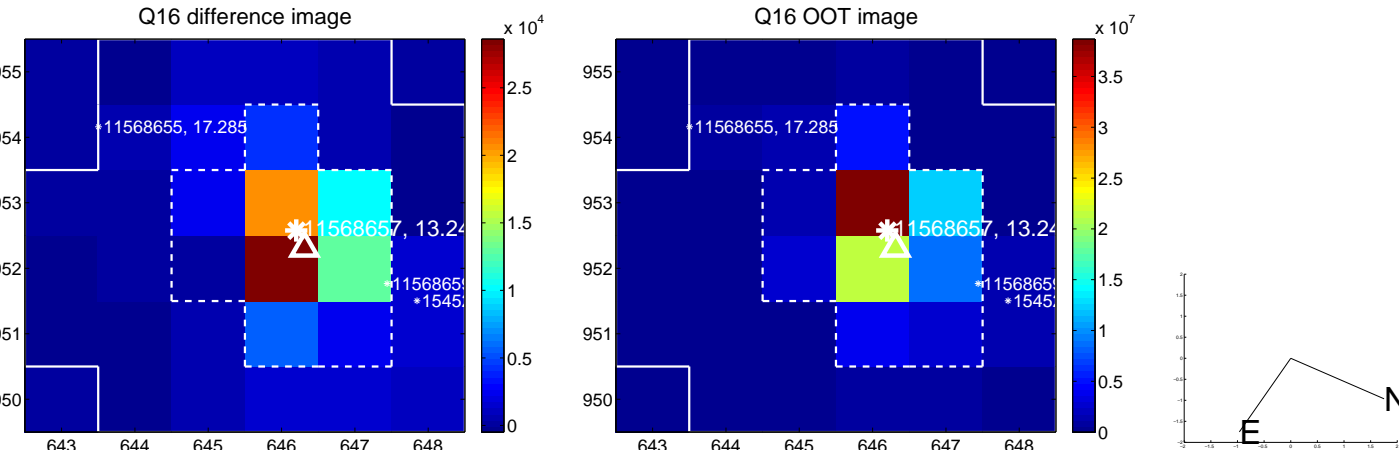
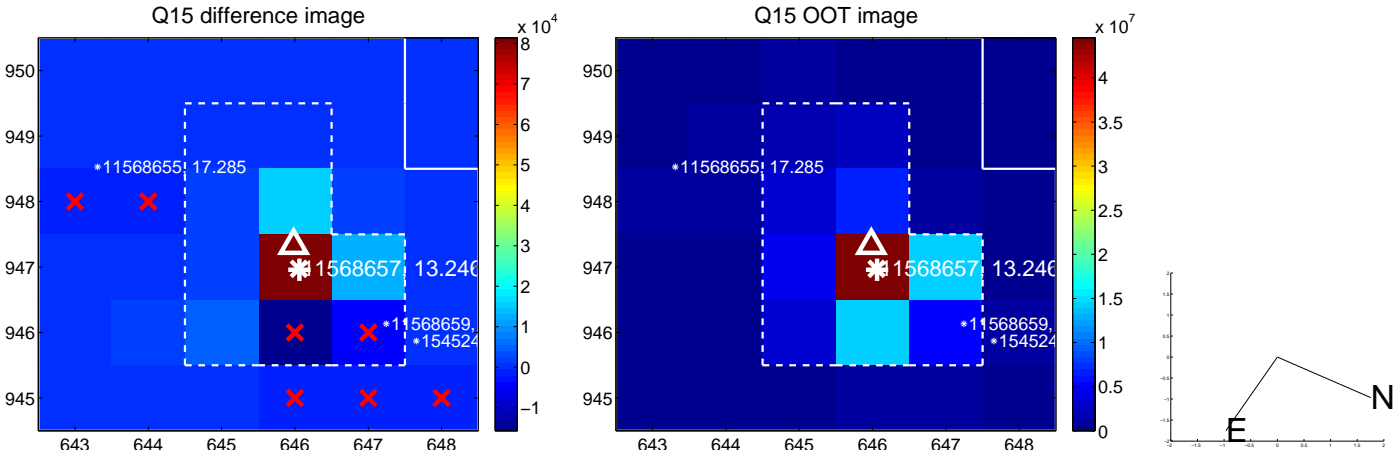
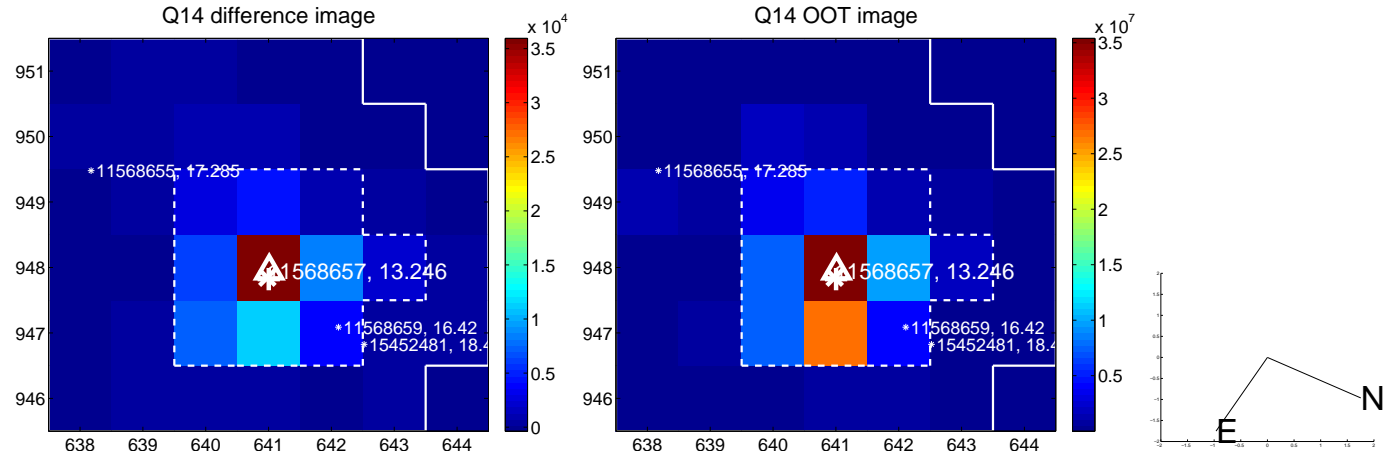
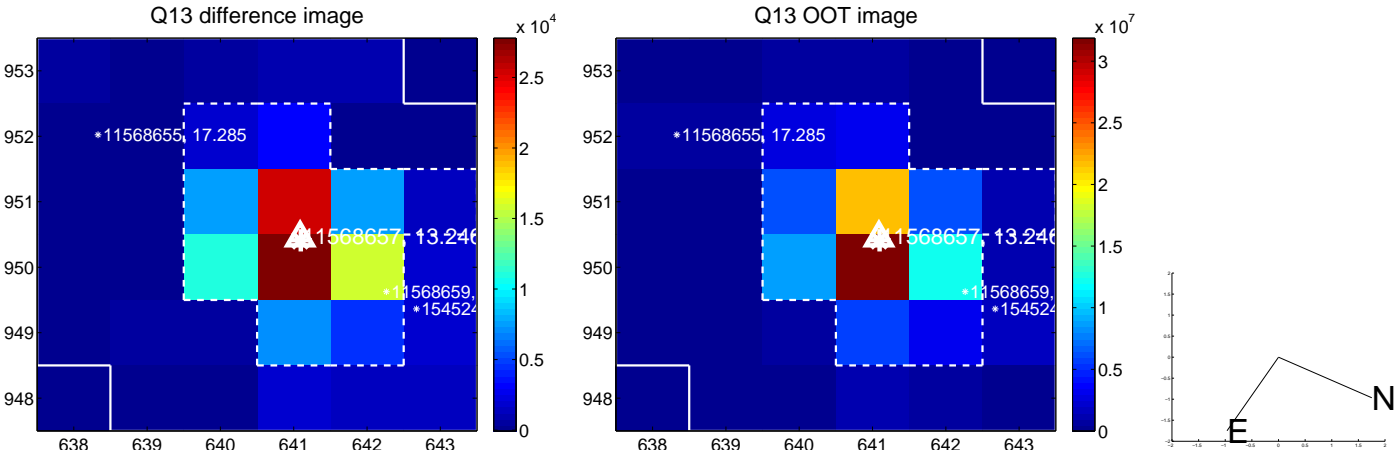
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



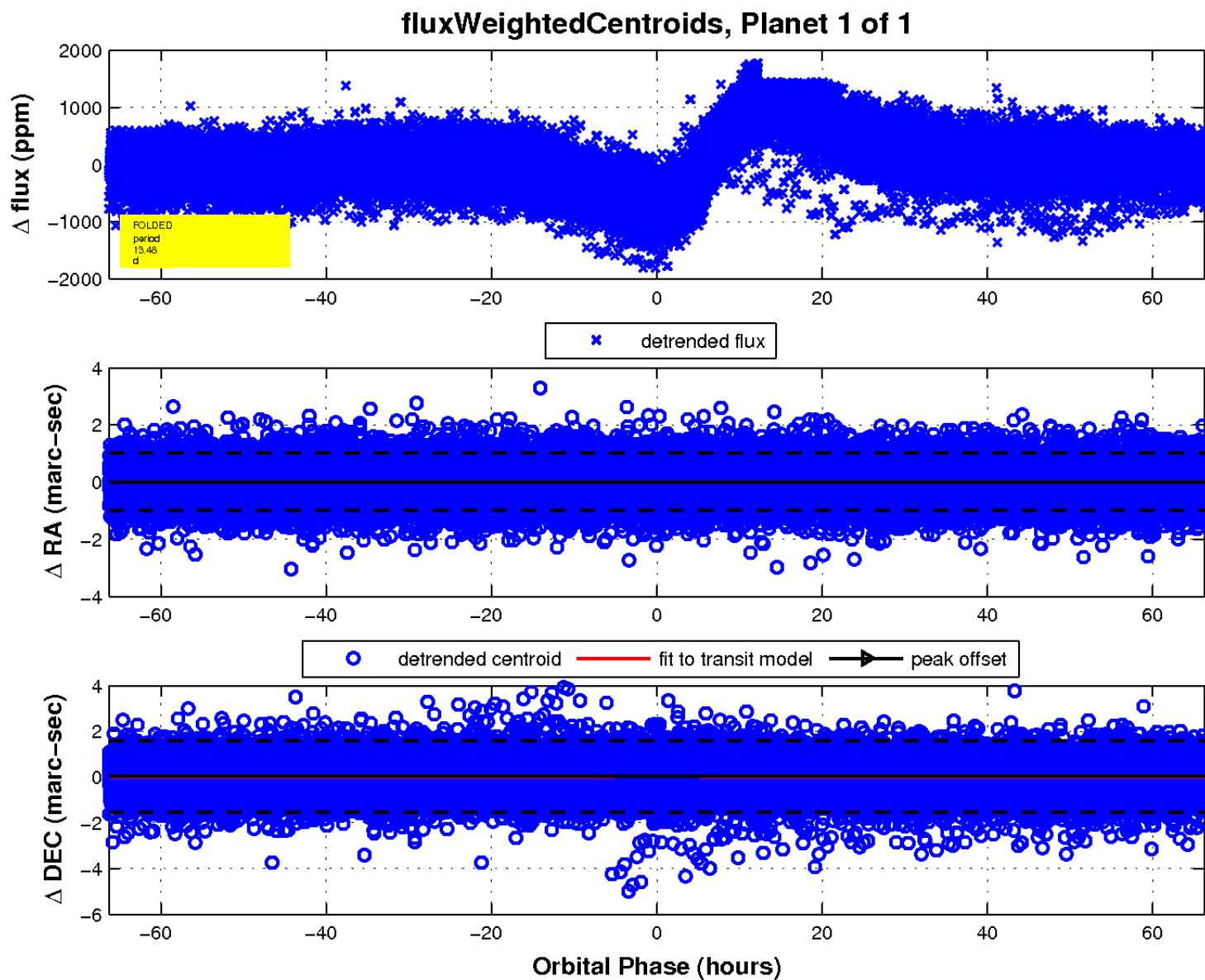
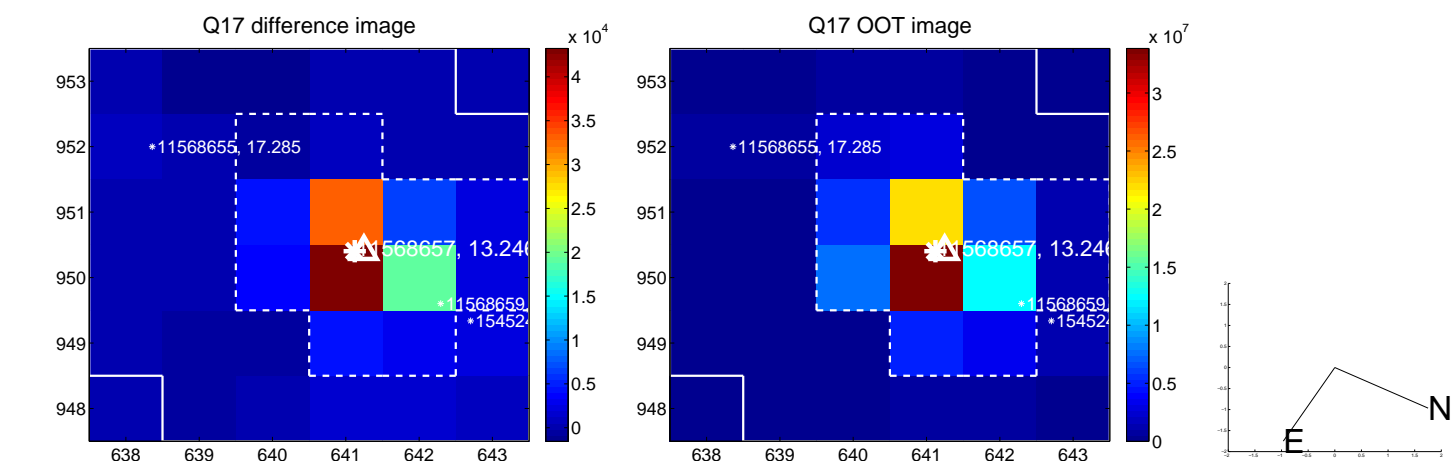
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

