

KIC 010482160

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})
010482160-01	OBS	1170.01	7.343712	137.301189	544.9	1.262	25.6	30.6	0.76	5757	2.04	117.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010482160-01	OBS	PC	0.96	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.

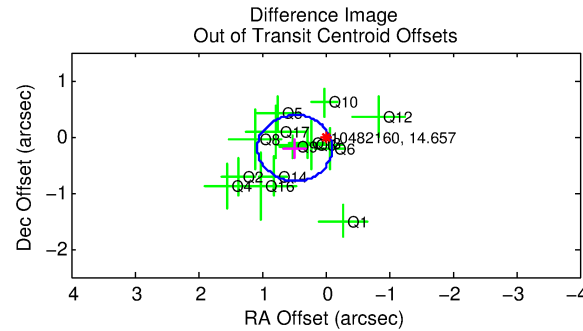
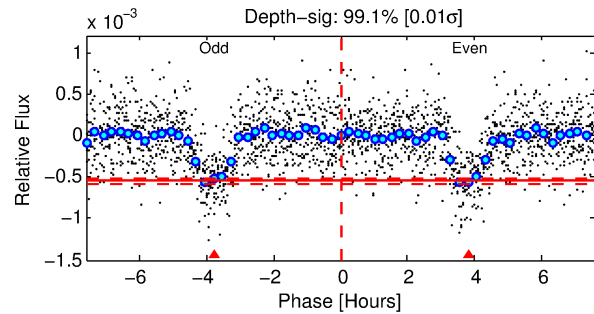
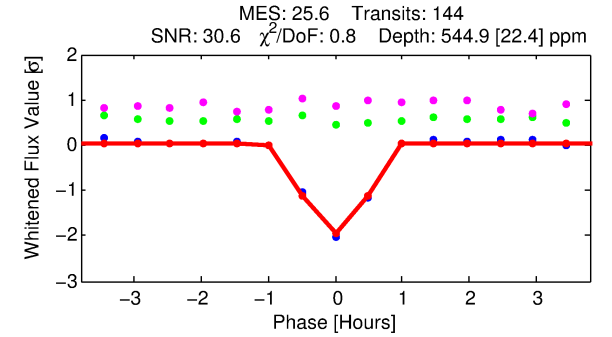
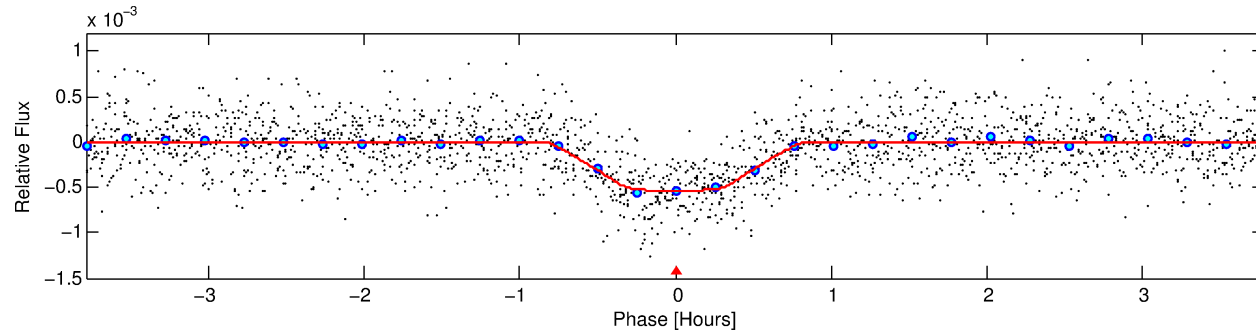
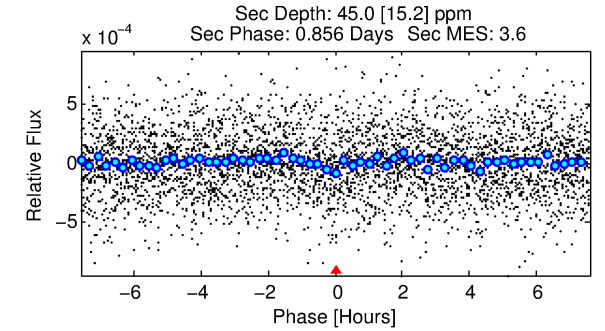
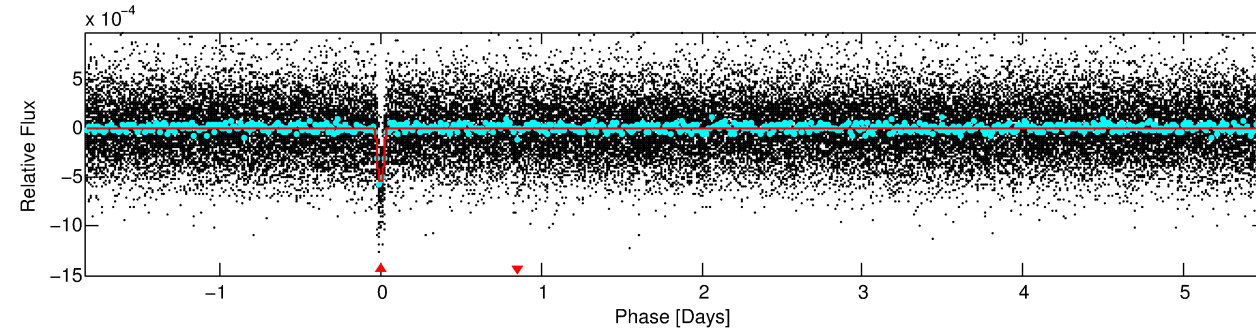
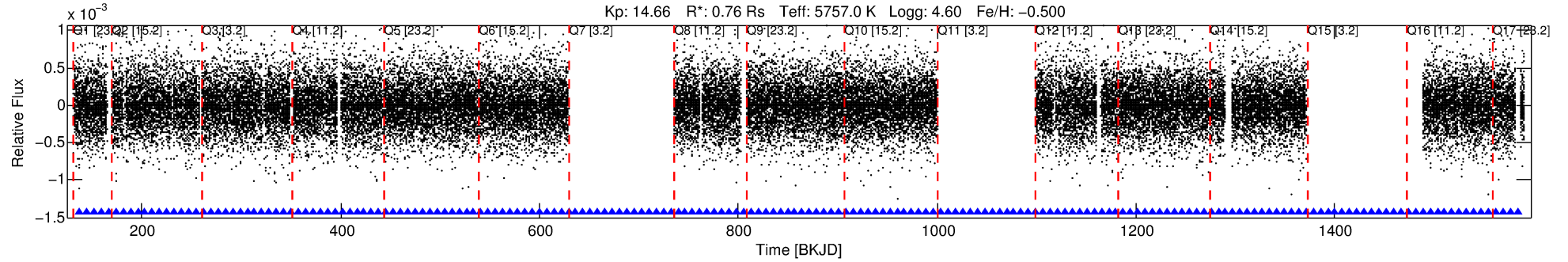
Ephemeris Match Information For 010482160-01

No Significant Match Found

DV One-Page Summary

KIC: 10482160 Candidate: 1 of 1 Period: 7.344 d

KOI: K01170.01 Corr: 0.953



DV Fit Results:

Period = 7.34371 [0.00001] d
Epoch = 137.3012 [0.0011] BKJD
Rp/R* = 0.0245 [0.0070]
a/R* = 25.35 [34.77]
b = 0.85 [0.45]
Seff = 117.61 [33.69]
Teff = 840 [60] K
Rp = 2.04 [0.73] Re
a = 0.0697 [0.0128] AU
Ag = 28.98 [20.64] [1.36σ]
Teffp = 3012 [504] K [4.28σ]

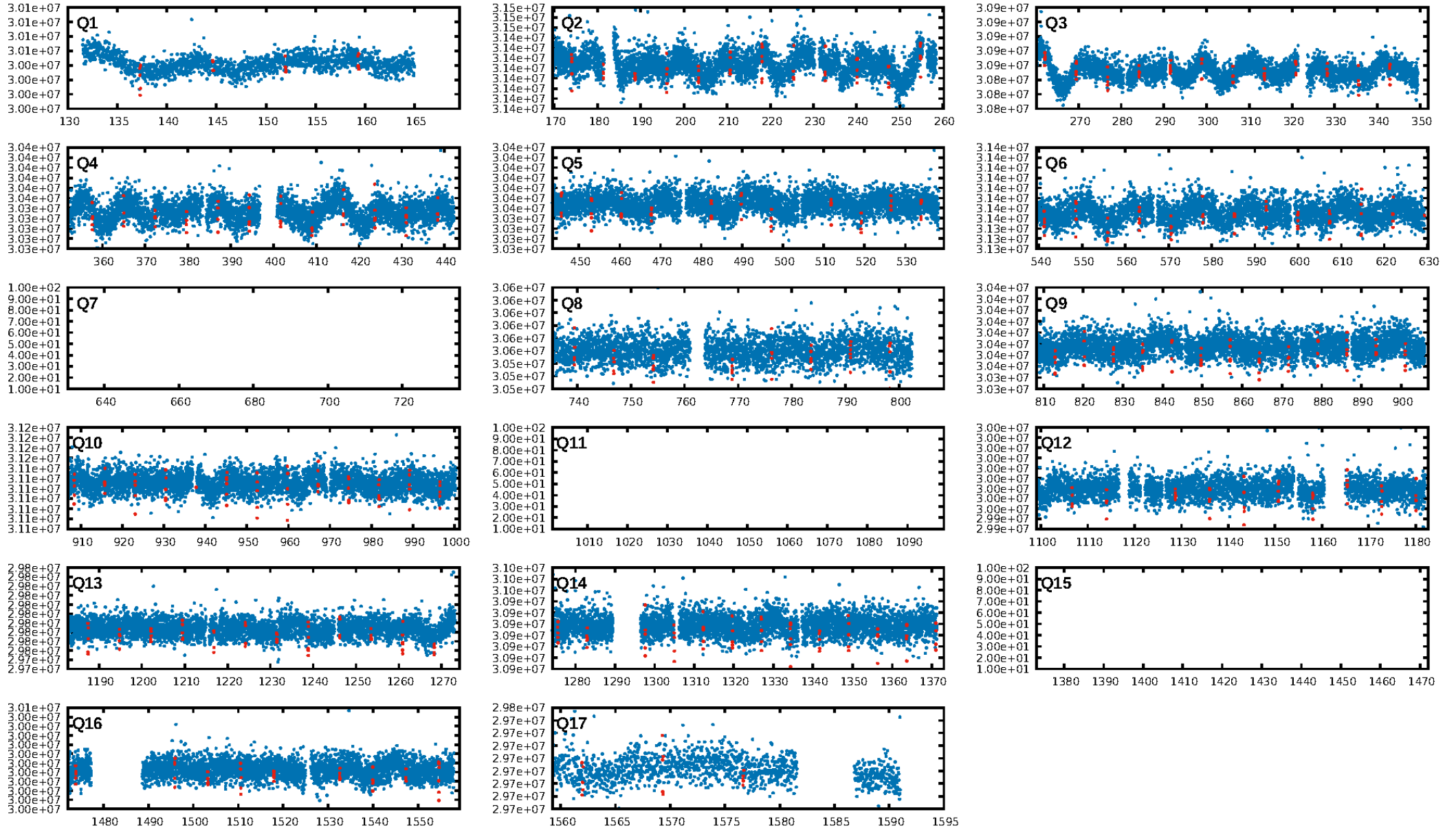
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.13e-140
RollingBand-fgt: 1.00 [137/137]
GhostDiagnostic-chr: 3.207
Centroid-sig: 0.0%
Centroid-so: 1.257 arcsec [2.97σ]
OotOffset-rm: 0.523 arcsec [2.67σ]
KicOffset-rm: 0.623 arcsec [3.29σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

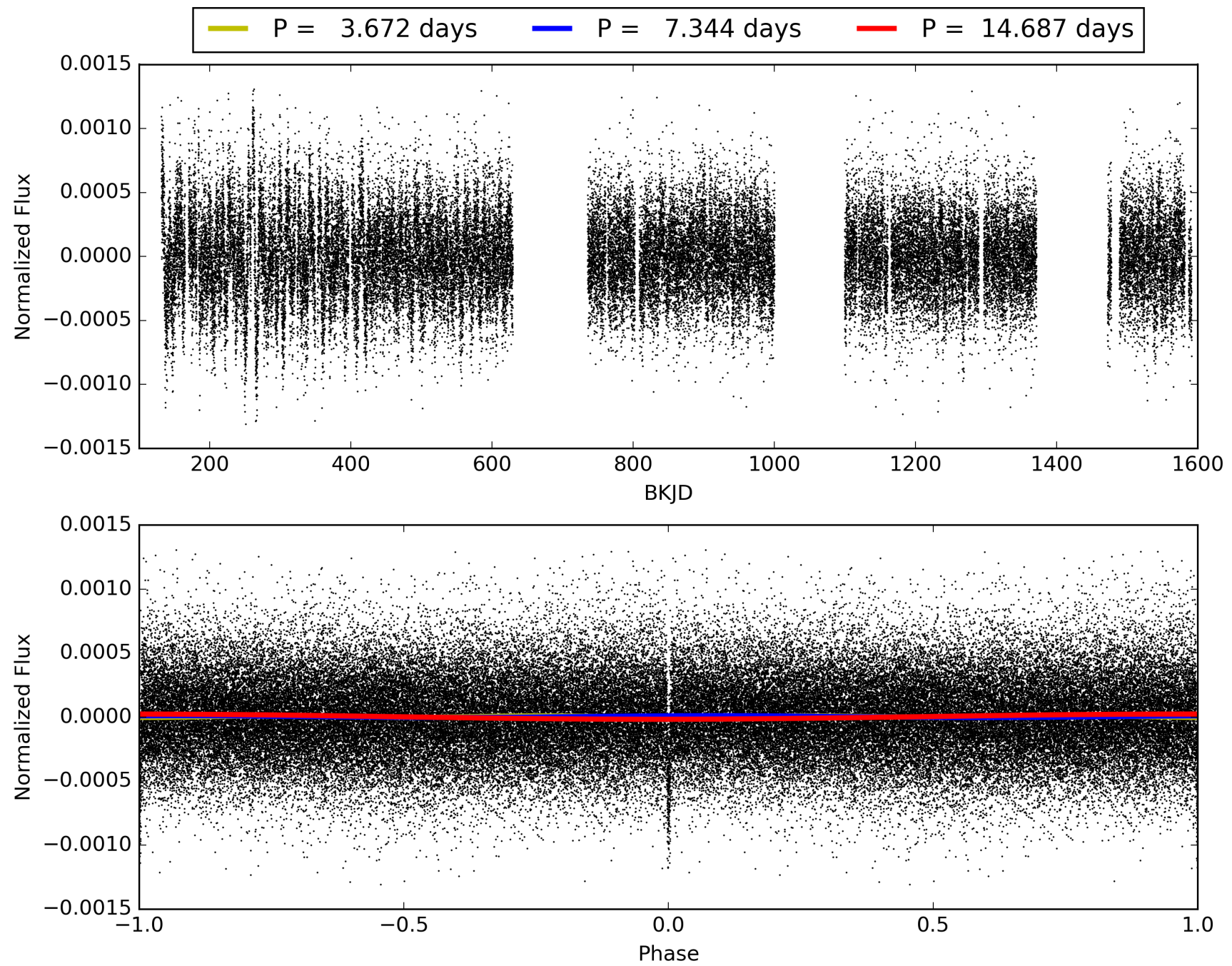
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:29:44 Z

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

TCE 010482160-01, PDC Light Curves

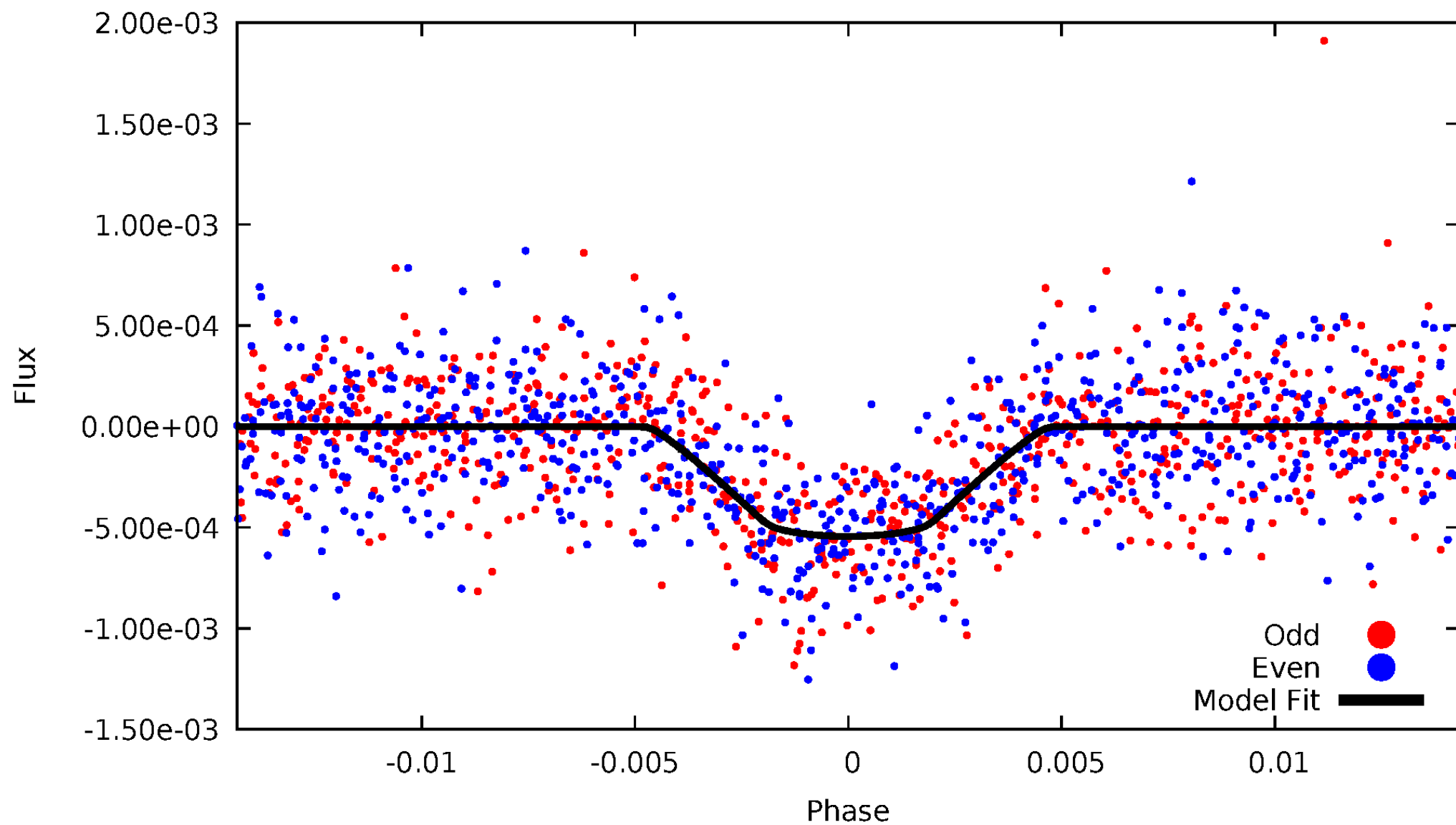


TCE 010482160-01



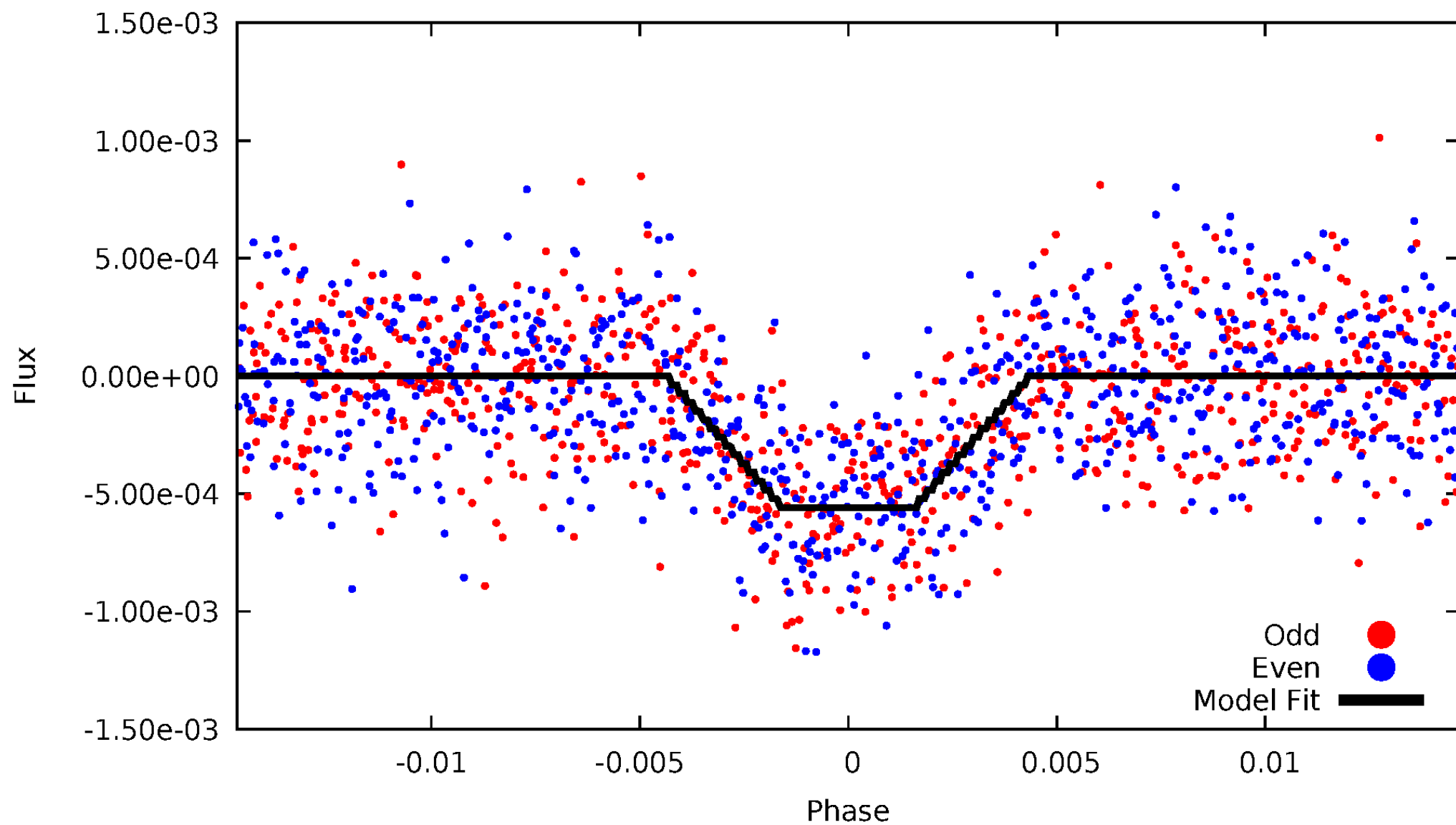
DV Odd/Even

TCE 010482160-01



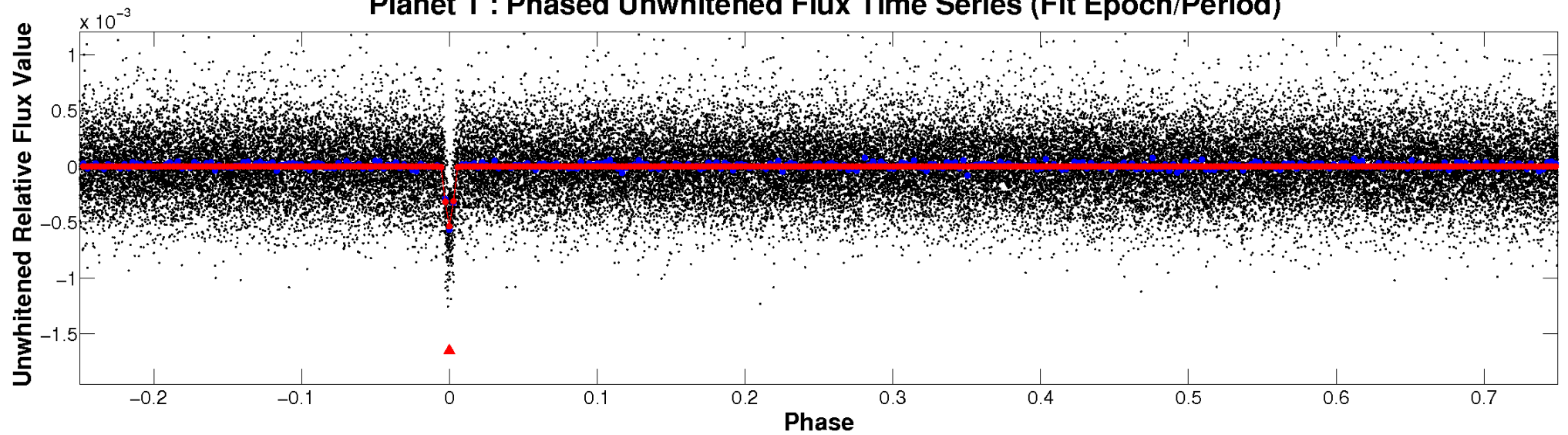
ALT Odd/Even

TCE 010482160-01

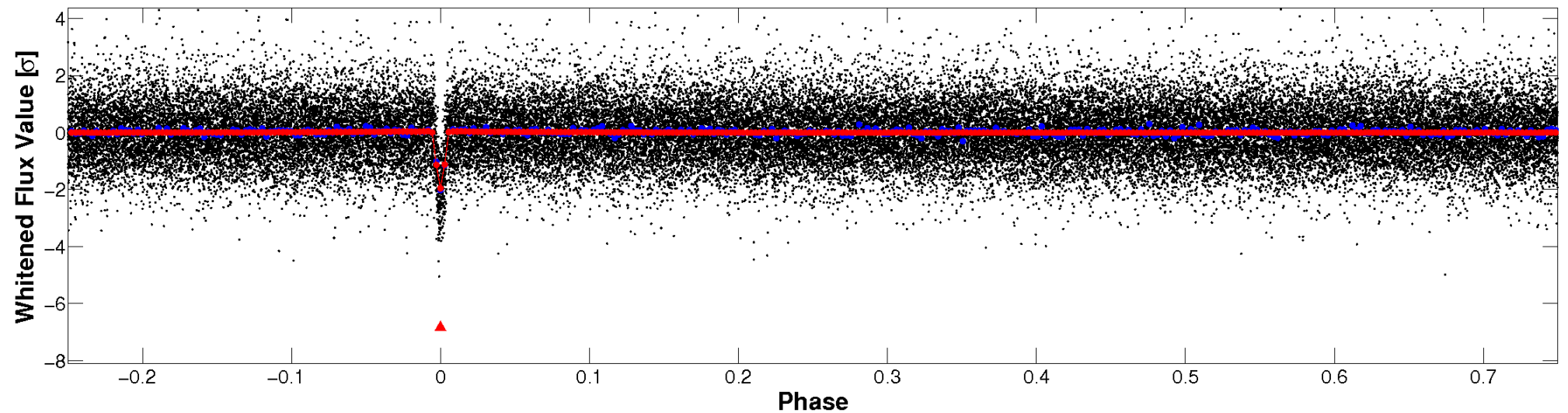


Non-Whitened Vs. Whitened Light Curve

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

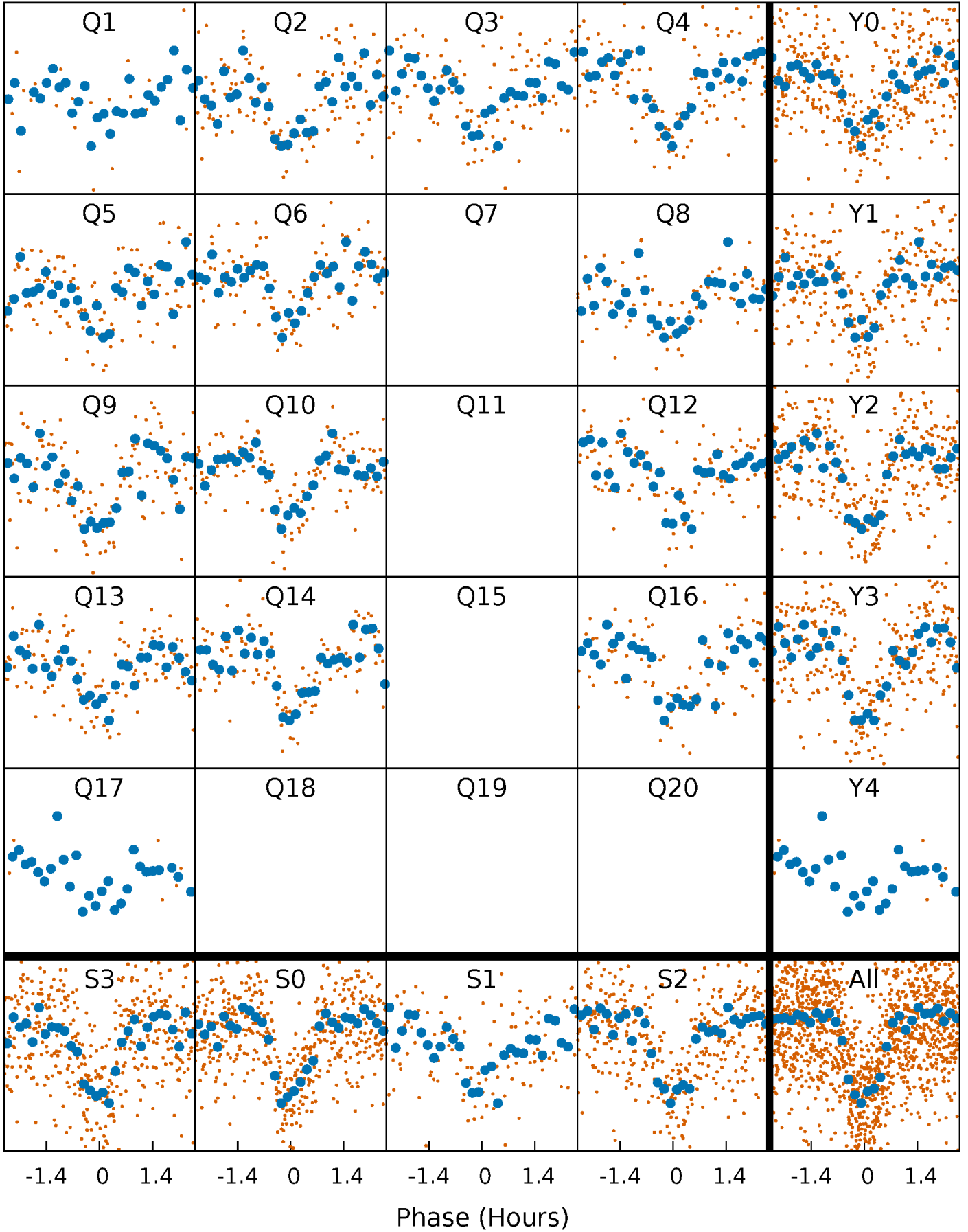


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



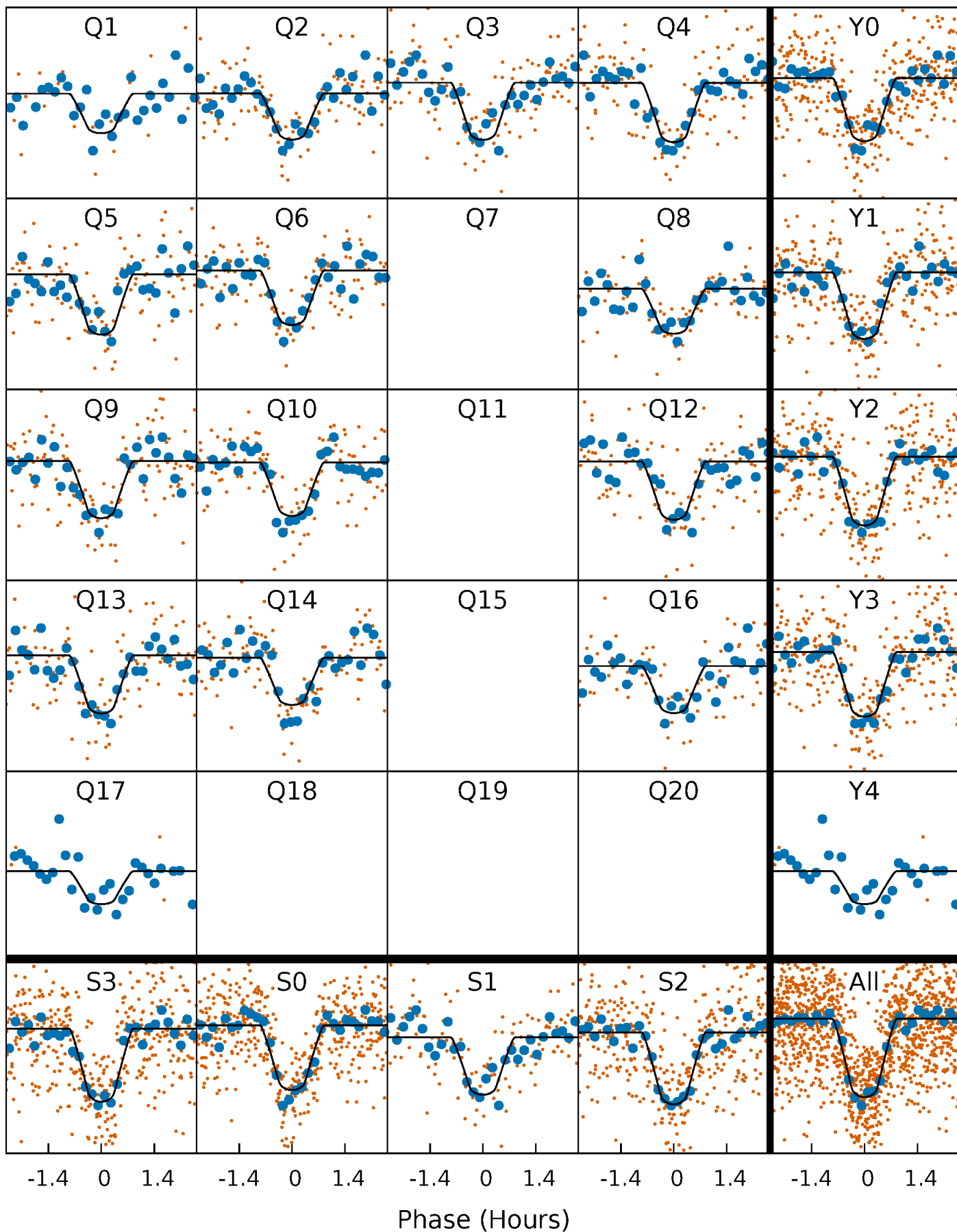
PDC Quarter-Phased Transit Curves

TCE 010482160-01 P= 7.343712 Days $T_0=137.301189$ (BKJD)



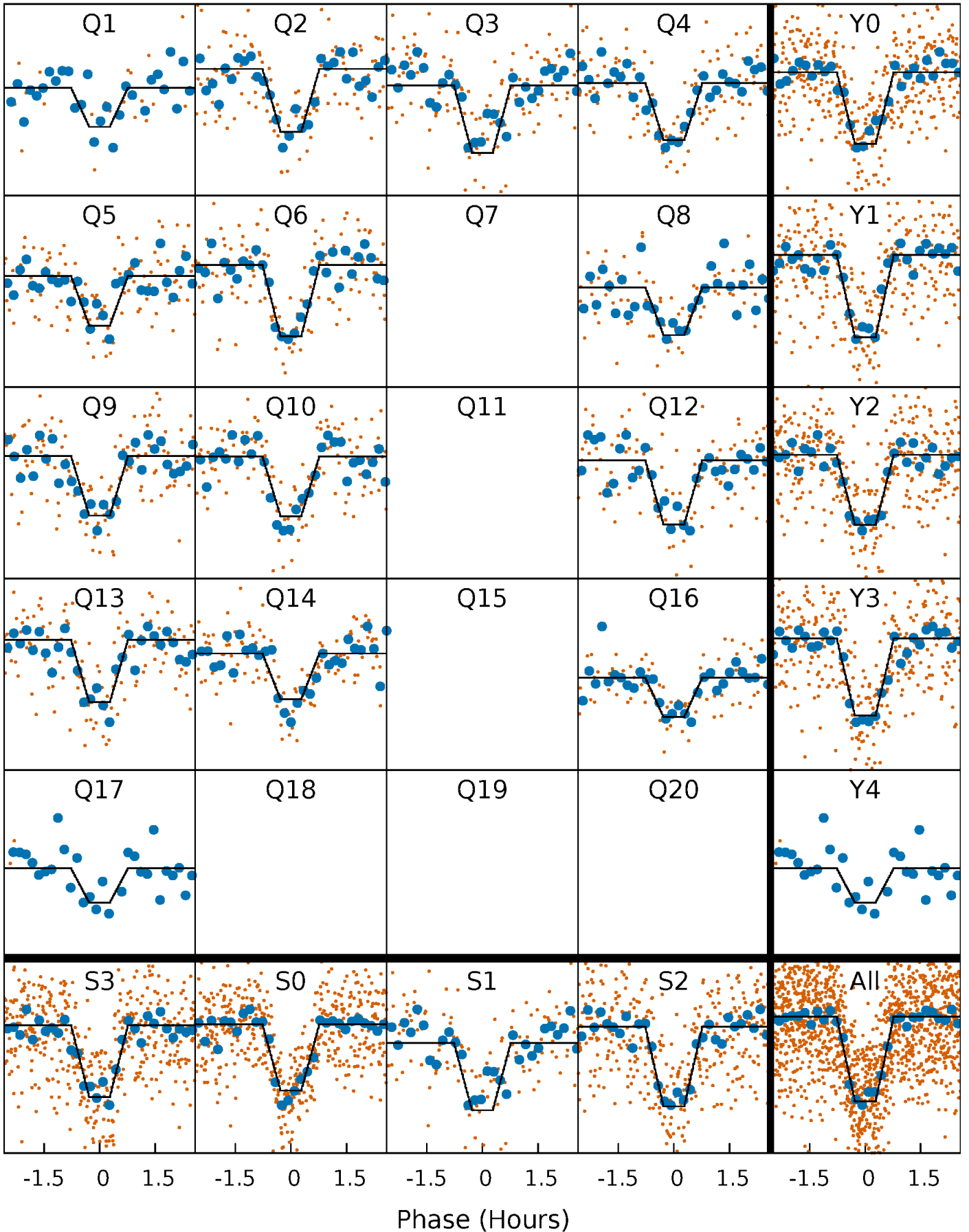
DV Quarter-Phased Transit Curves

TCE 010482160-01 P= 7.343712 Days $T_0=137.301189$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

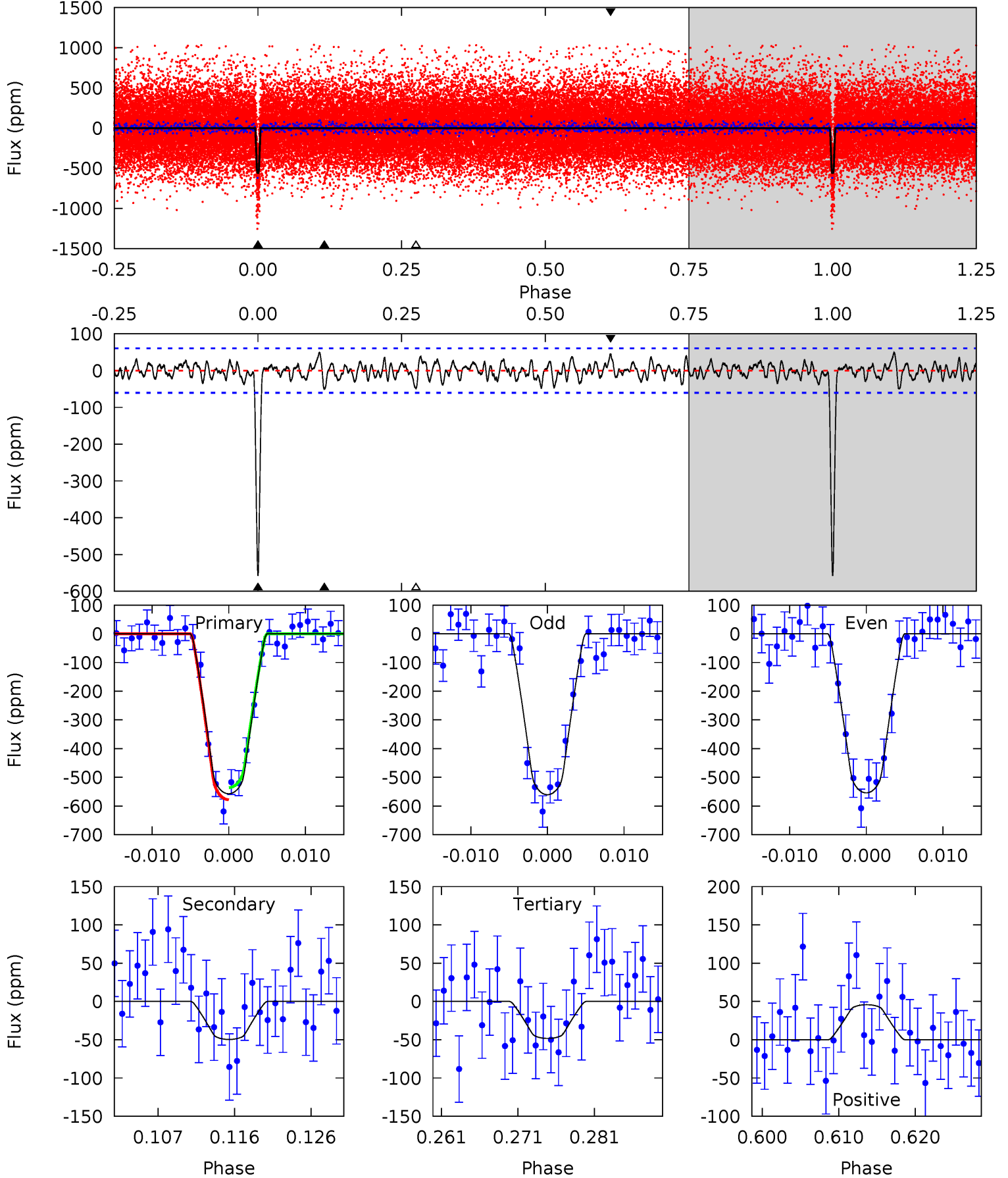
TCE 010482160-01 P= 7.343723 Days $T_0=137.300440$ (BKJD)



DV Model-Shift Uniqueness Test

010482160-01, P = 7.343712 Days, E = 129.957477 Days

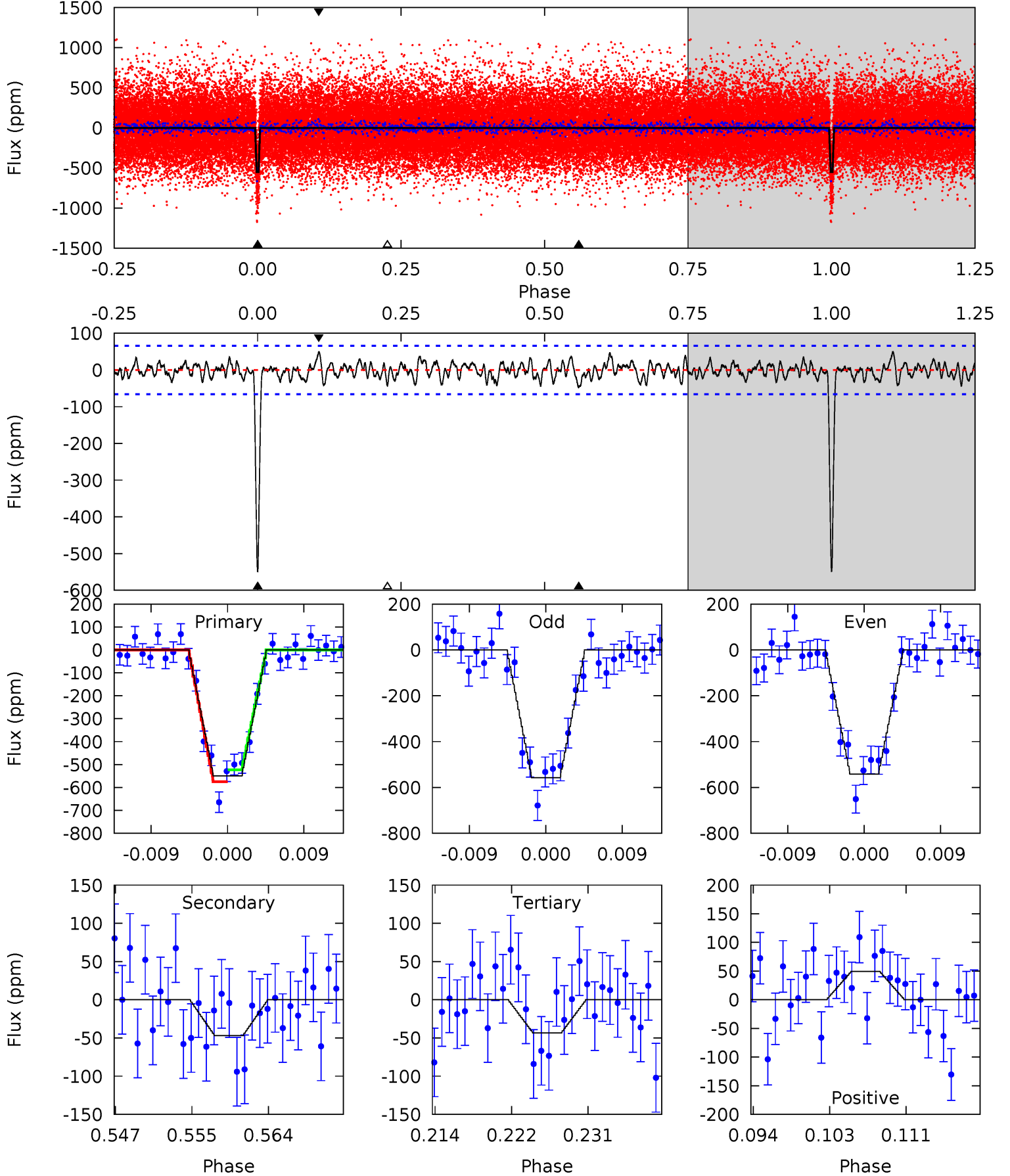
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.3	4.13	4.02	3.80	5.03	2.59	1.40	42.3	42.5	0.11	0.32	0.26	1.01	0.08	1.75



Alt Model-Shift Uniqueness Test

010482160-01, P = 7.343723 Days, E = 129.956717 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.0	3.59	3.32	3.79	5.06	2.63	1.31	38.7	38.3	0.27	-0.19	0.58	0.98	0.08	1.99



Stellar Parameters For KIC 010482160

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5757^{+155}_{-155}	$4.597^{+0.036}_{-0.144}$	$-0.500^{+0.350}_{-0.250}$	$0.762^{+0.168}_{-0.056}$	$0.865^{+0.087}_{-0.096}$	$2.751^{+0.392}_{-1.136}$
	+3%/-3%	+1%/-3%	+70%/-50%	+22%/-7%	+10%/-11%	+14%/-41%
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 010482160-01 / KOI 1170.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-50 ± 12	$2.10^{+0.63}_{-0.66}$	1195^{+63}_{-52}	3561^{+496}_{-299}	30^{+33}_{-13}
Alt.	-47 ± 13	$2.10^{+0.63}_{-0.64}$	1194^{+66}_{-46}	3546^{+450}_{-349}	29^{+31}_{-13}

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

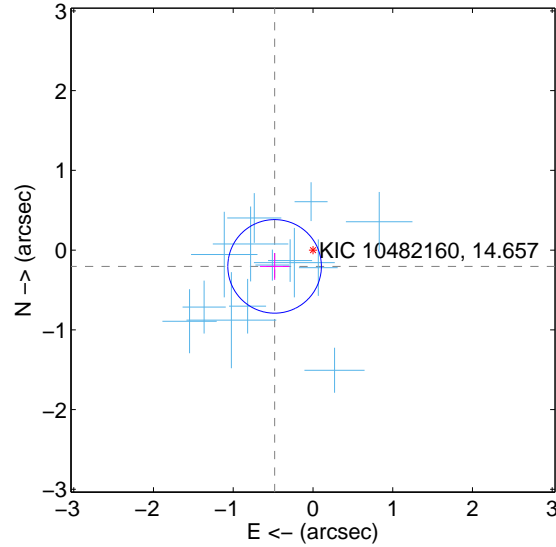
Supplemental centroid analysis for 010482160-01. Kepler magnitude: 14.66. Transit SNR 30.63

There are 14 quarters with good PRF difference image offsets

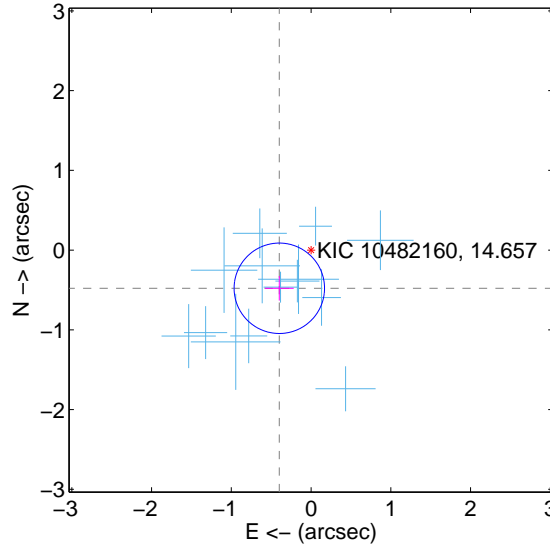
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.523 ± 0.196	2.67	0.481 ± 0.184	-0.204 ± 0.168
PRF-fit source offset from KIC position	0.623 ± 0.189	3.29	0.398 ± 0.180	-0.479 ± 0.154
photometric centroid source offset	1.26 ± 0.42	2.97	1.24 ± 0.42	-0.21 ± 0.43

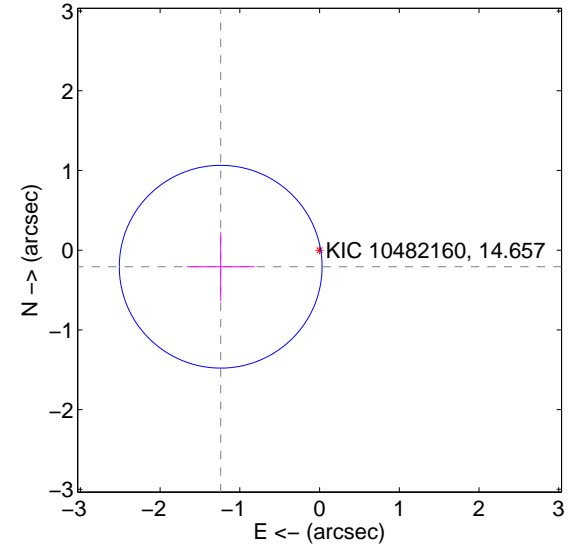
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

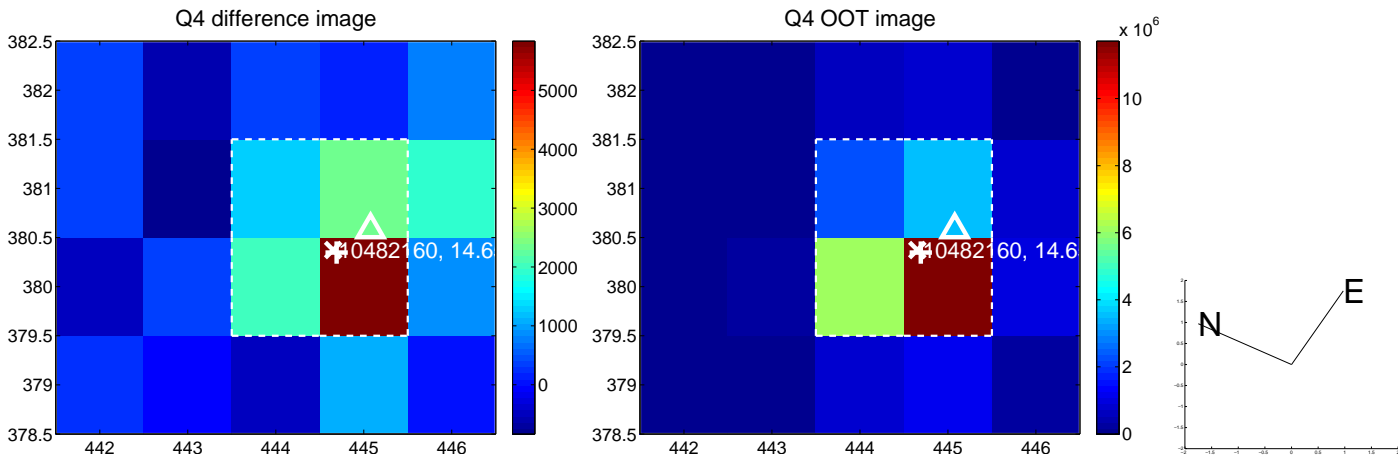
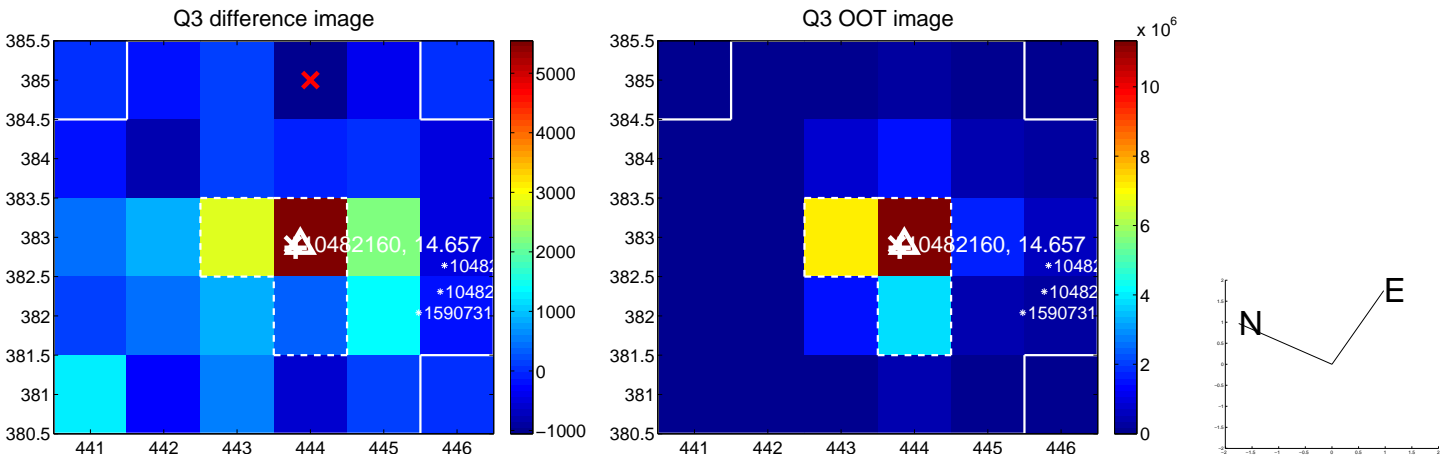
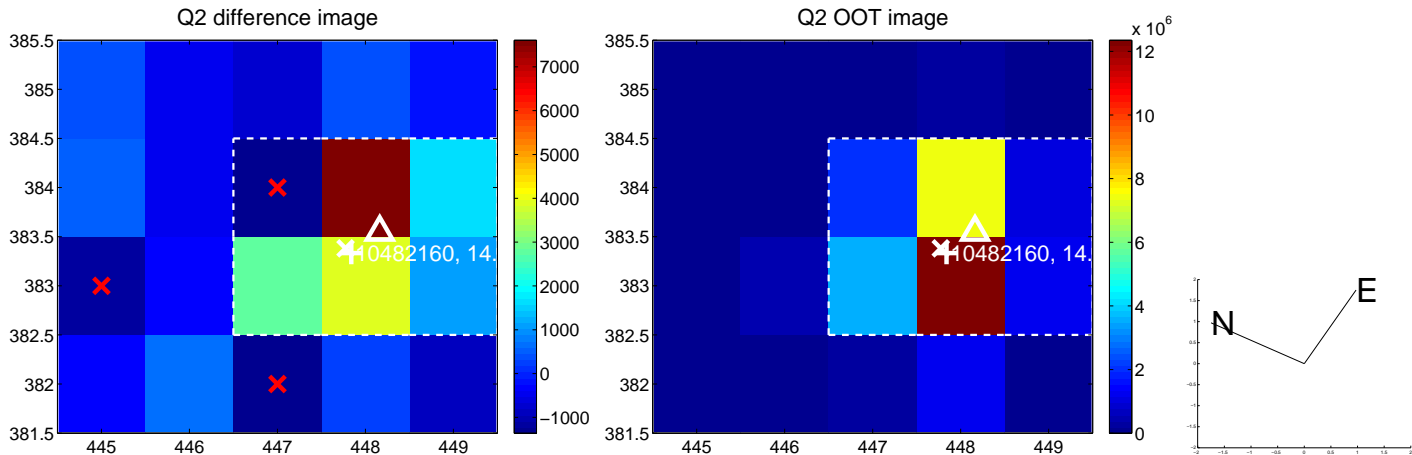
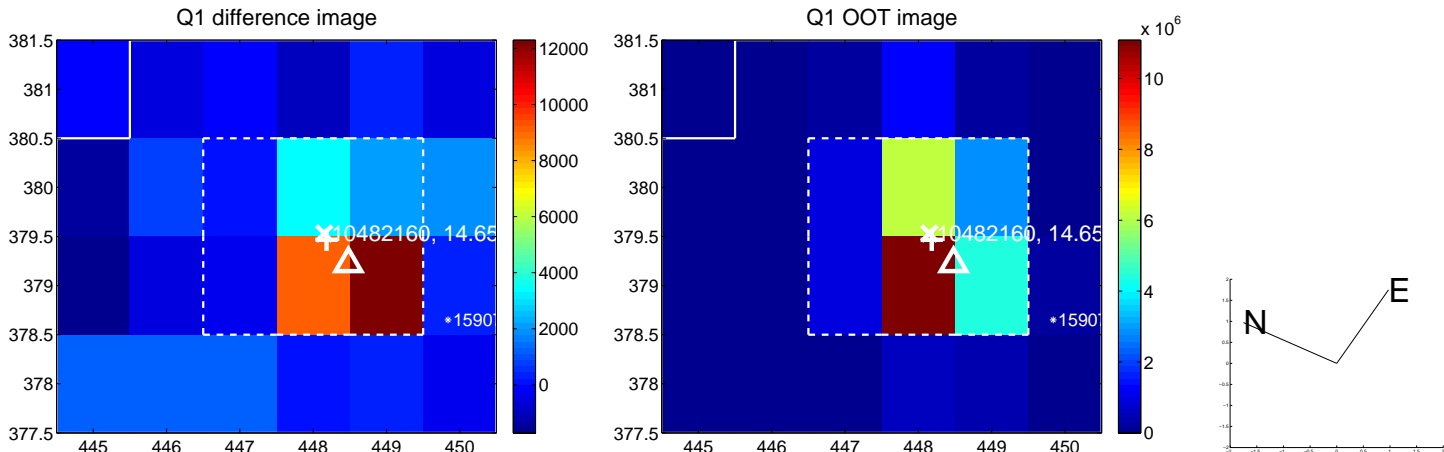


offset from photometric centroids

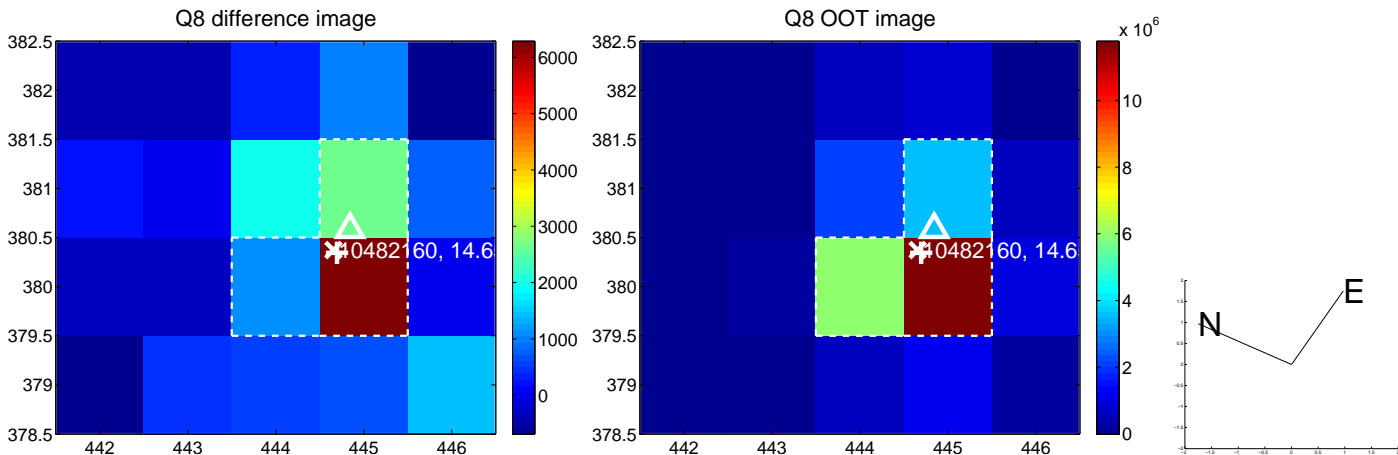
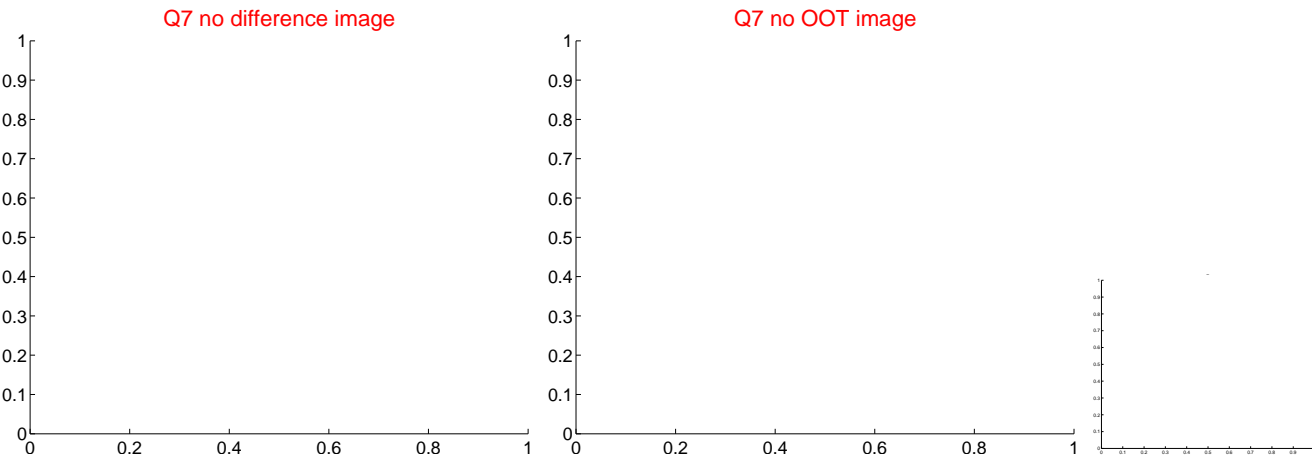
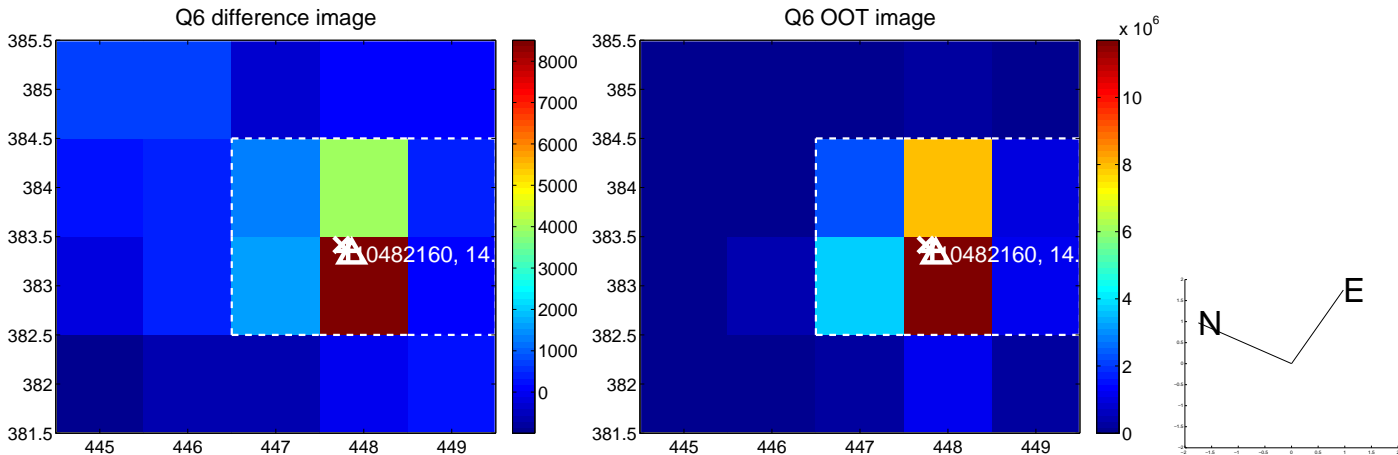
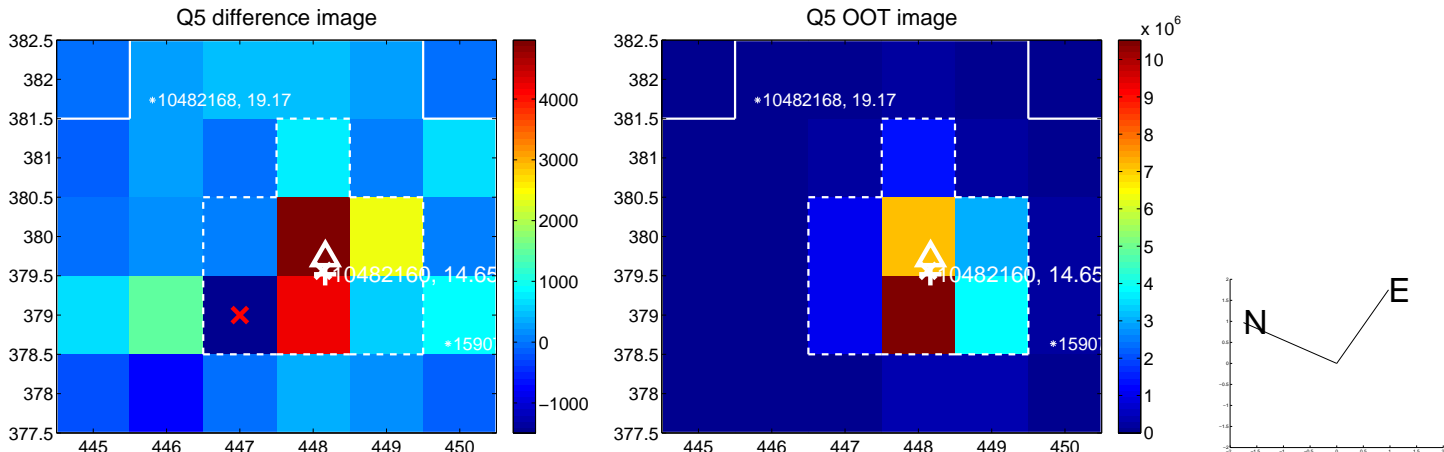


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

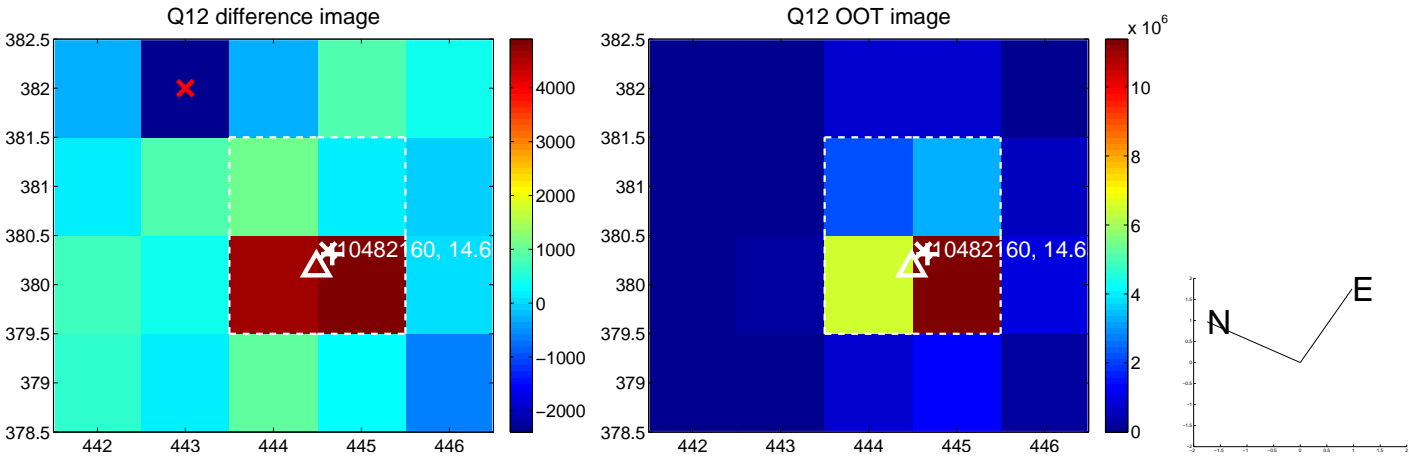
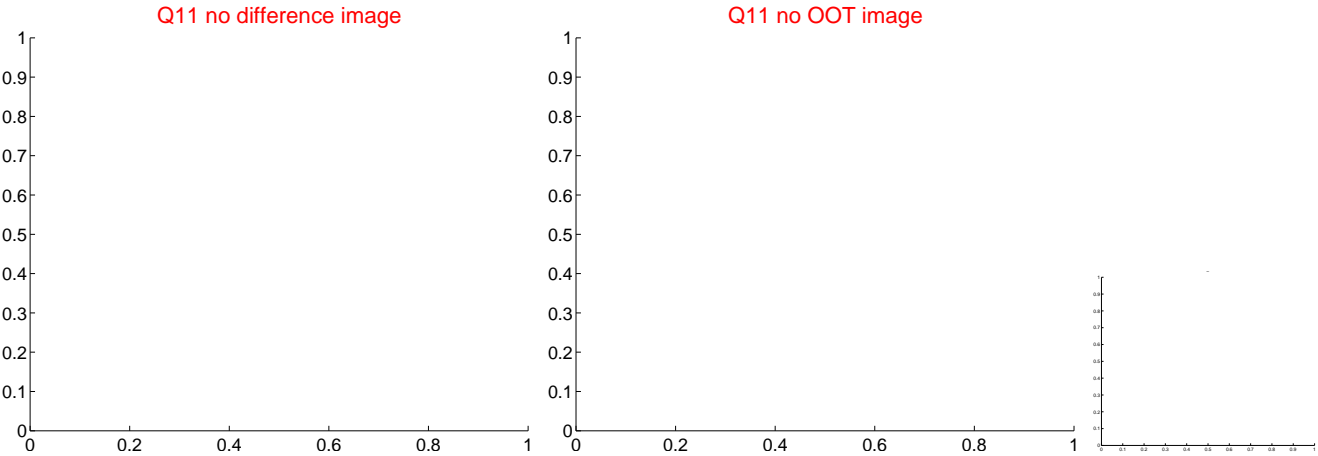
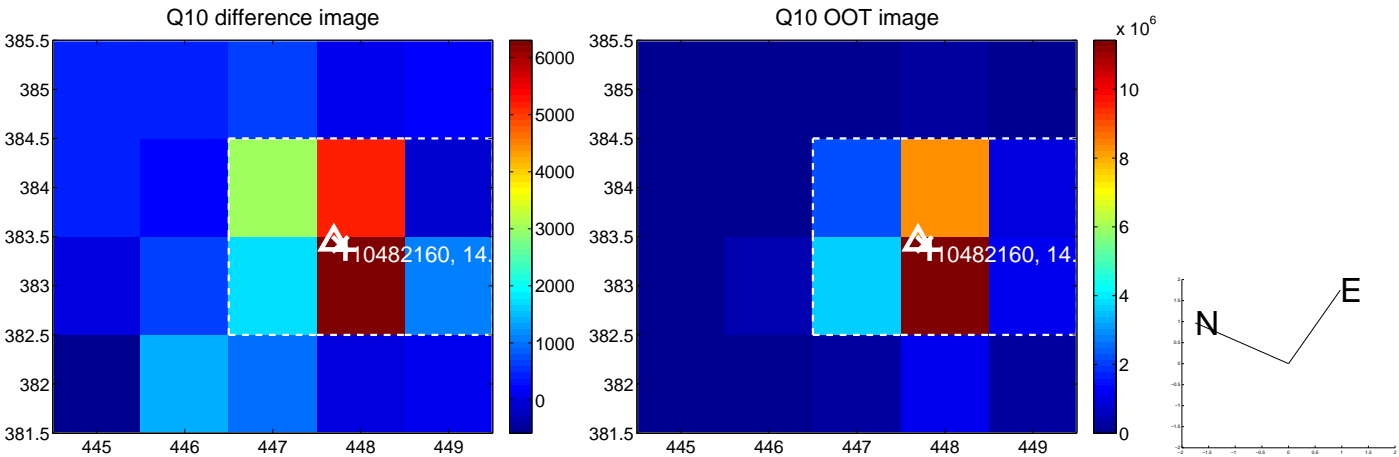
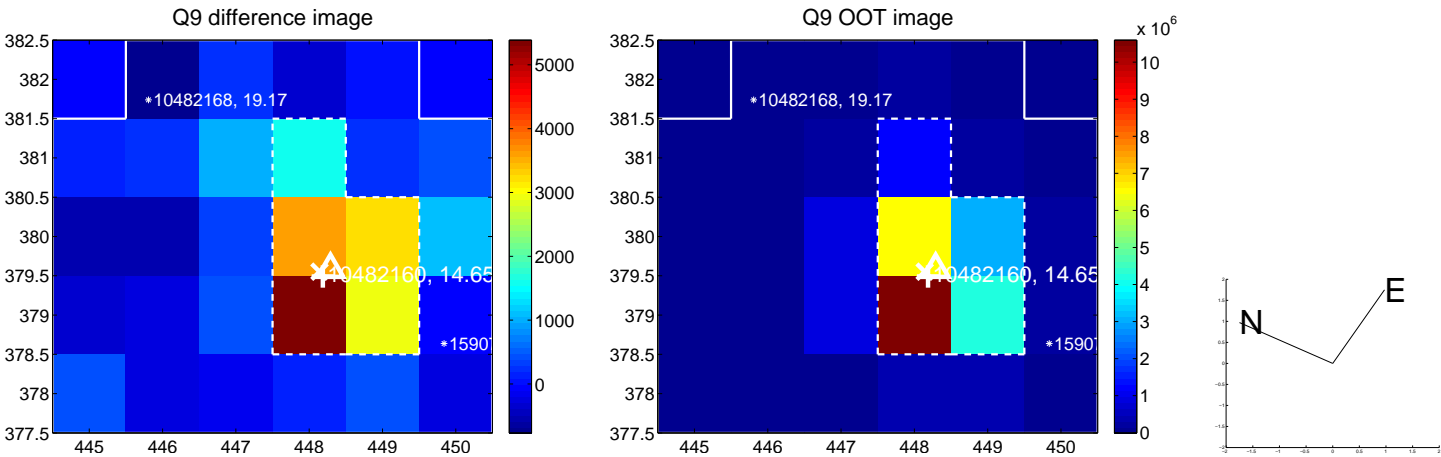
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



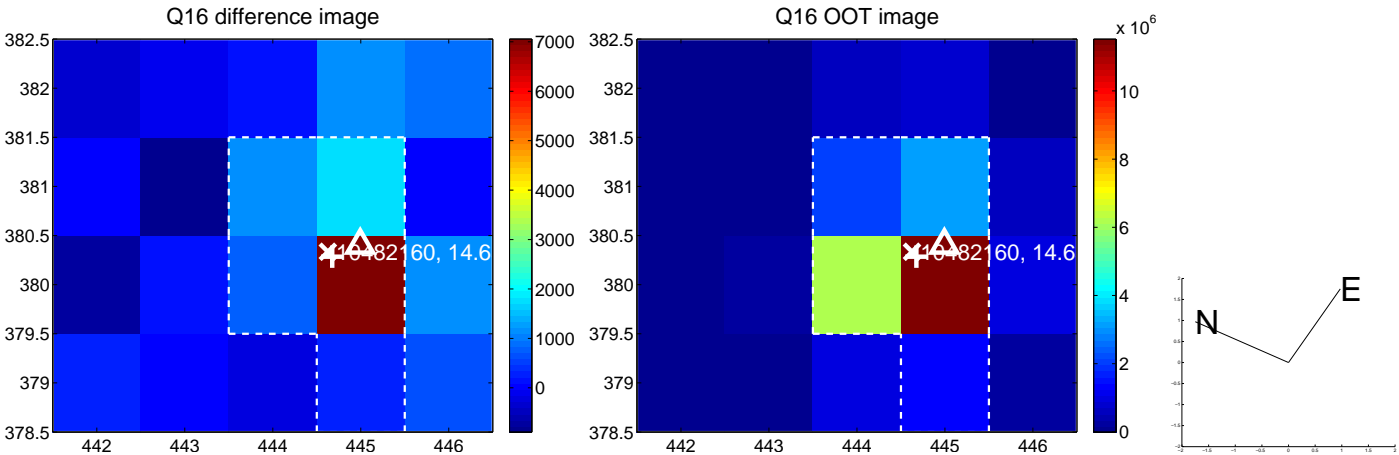
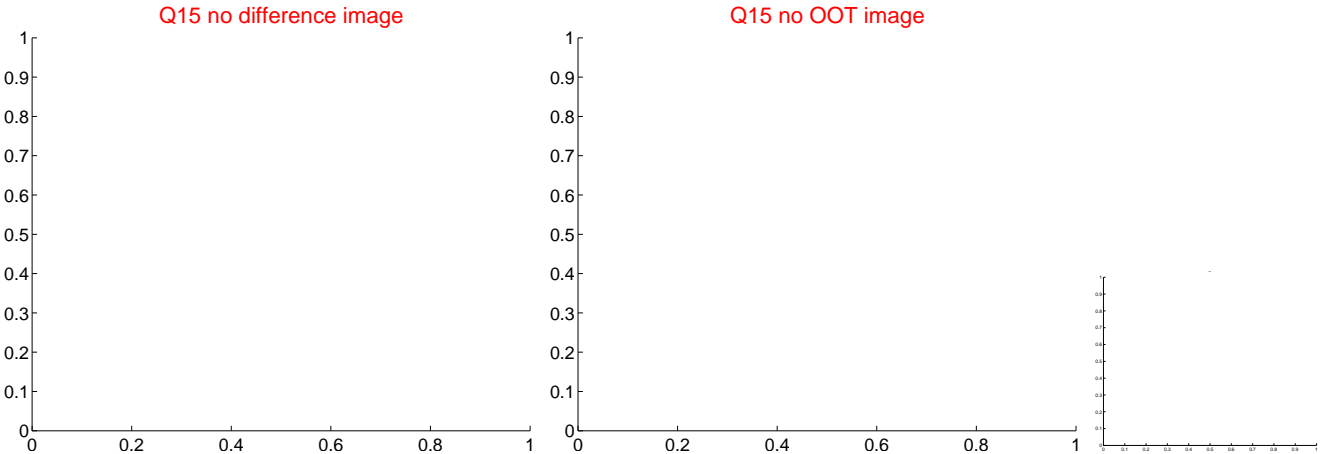
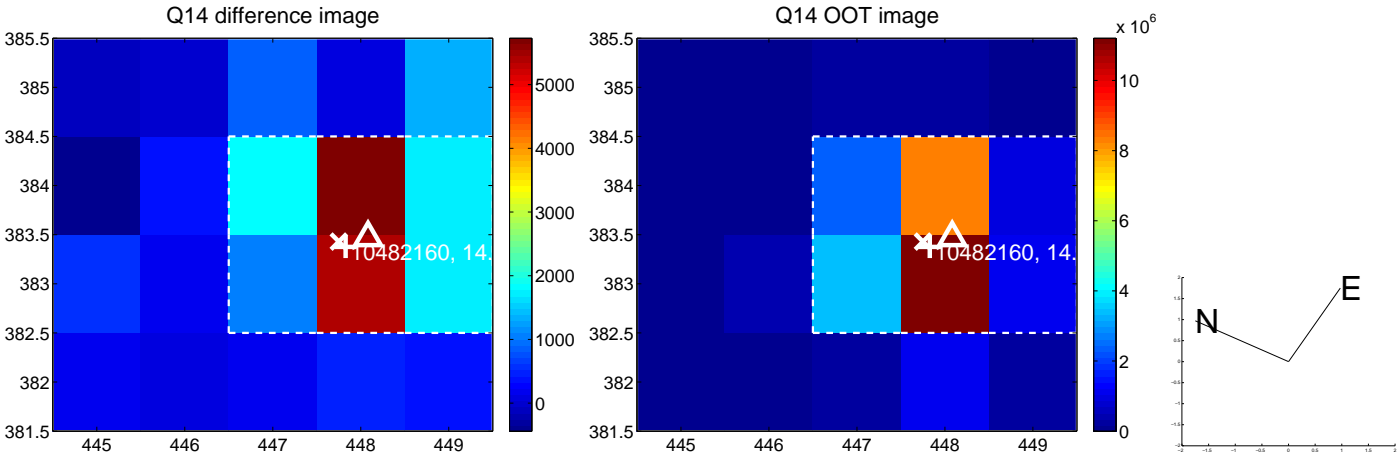
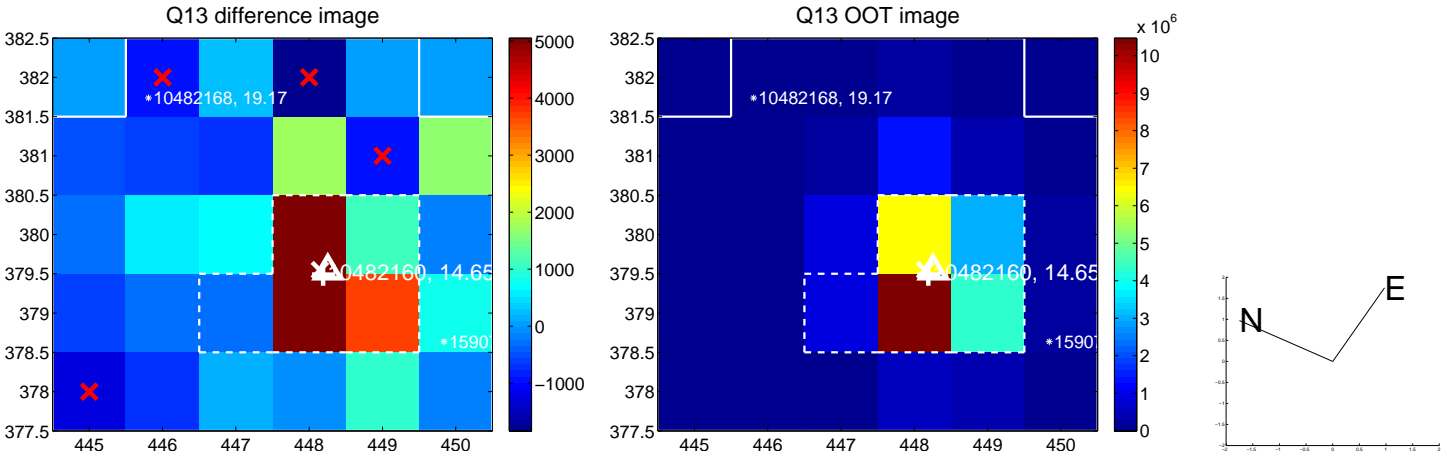
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



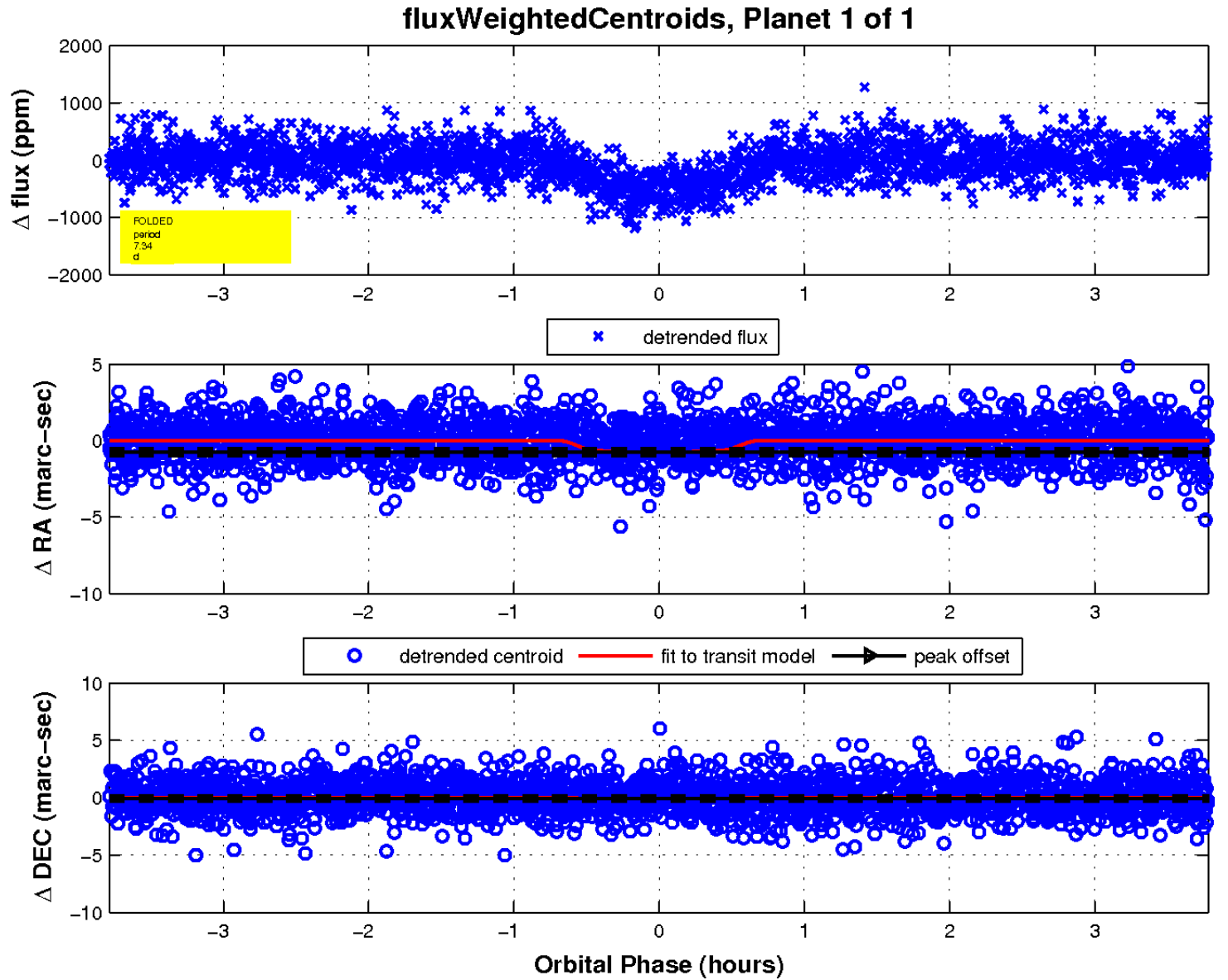
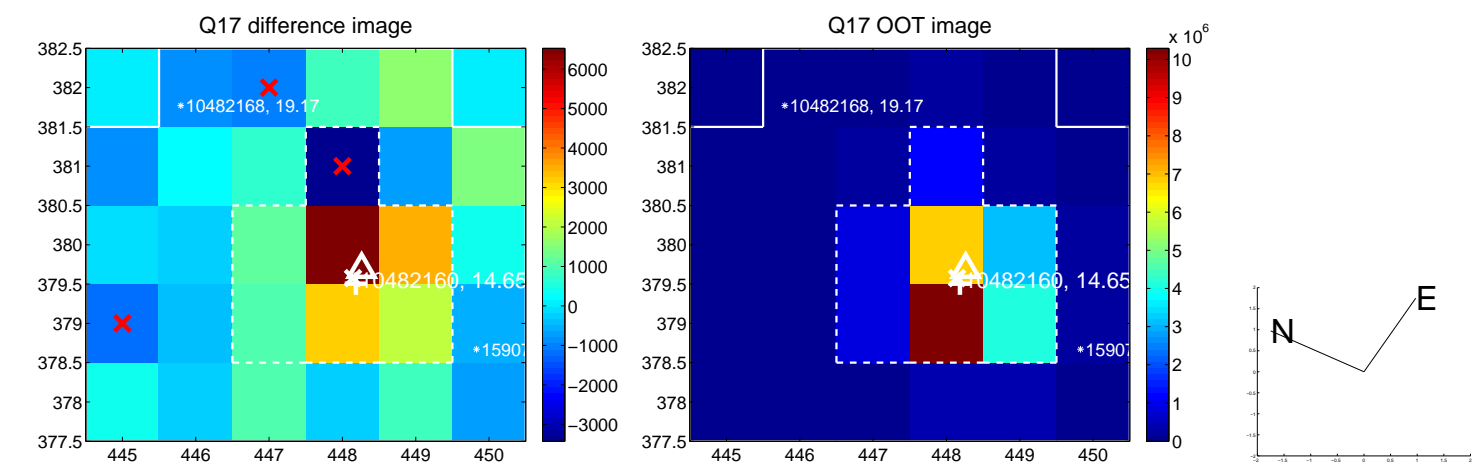
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

