

KIC 011564957

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})
011564957-01	OBS	No	464.842158	420.133806	582.0	3.210	7.7	6.3	1.00	5780	2.63	0.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011564957-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS

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

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

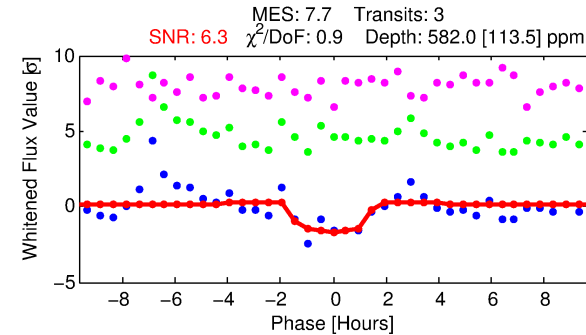
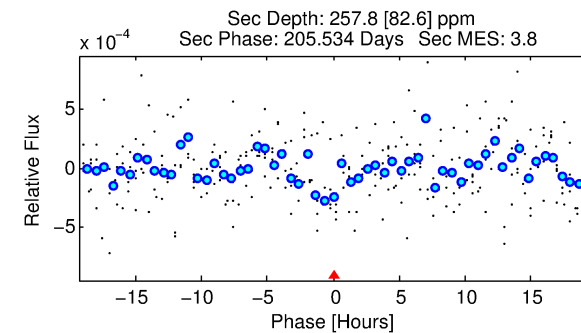
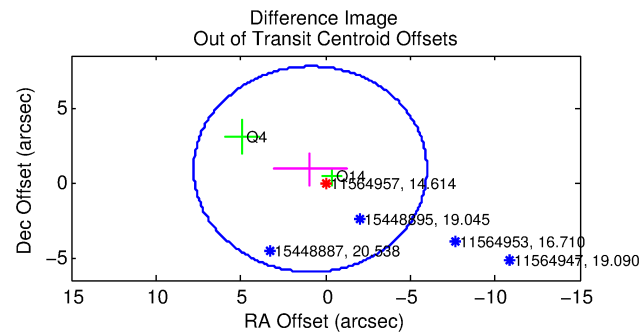
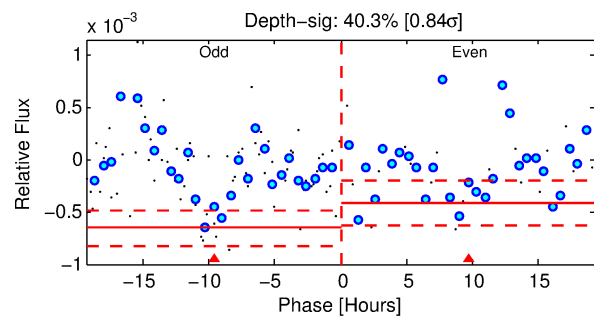
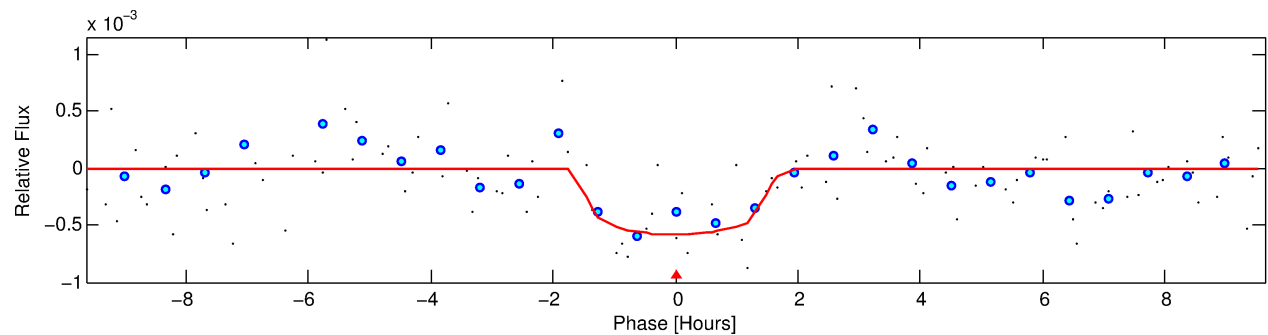
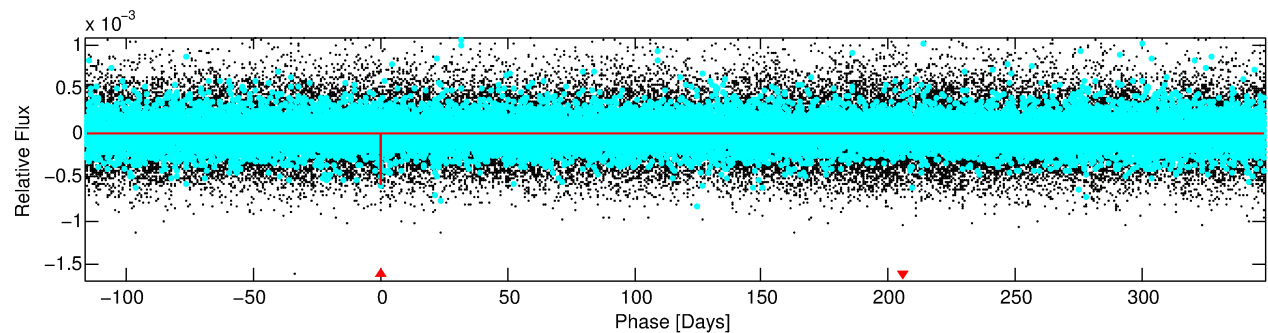
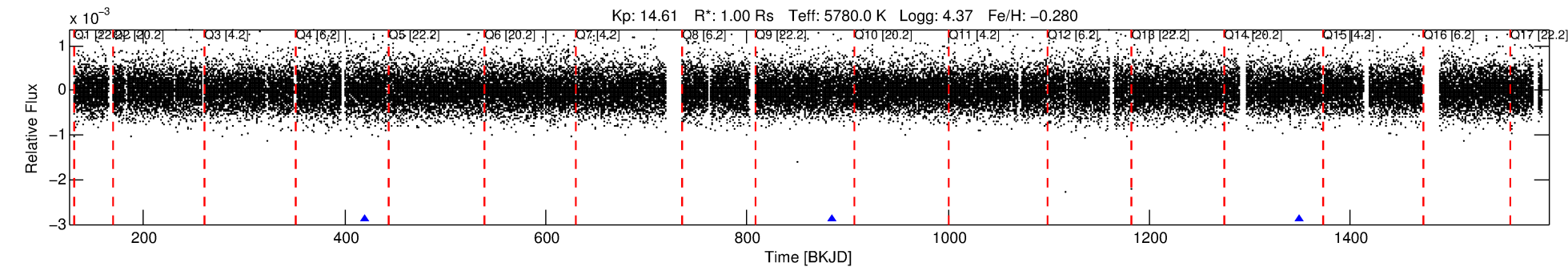
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011564957-01

No Significant Match Found

DV One-Page Summary

KIC: 11564957 Candidate: 1 of 1 Period: 464.842 d



DV Fit Results:

Period = 464.84216 [0.00878] d
Epoch = 420.1338 [0.0104] BKJD
Rp/R* = 0.0241 [0.0435]
a/R* = 763.74 [6416.28]
b = 0.76 [4.81]
Seff = 0.80 [0.29]
Teq = 241 [22] K
Rp = 2.63 [4.81] Re
a = 1.1182 [0.2625] AU
Ag = 25637.09 [93495.57] [0.27 σ]
Teffp = 4720 [4286] K [1.04 σ]

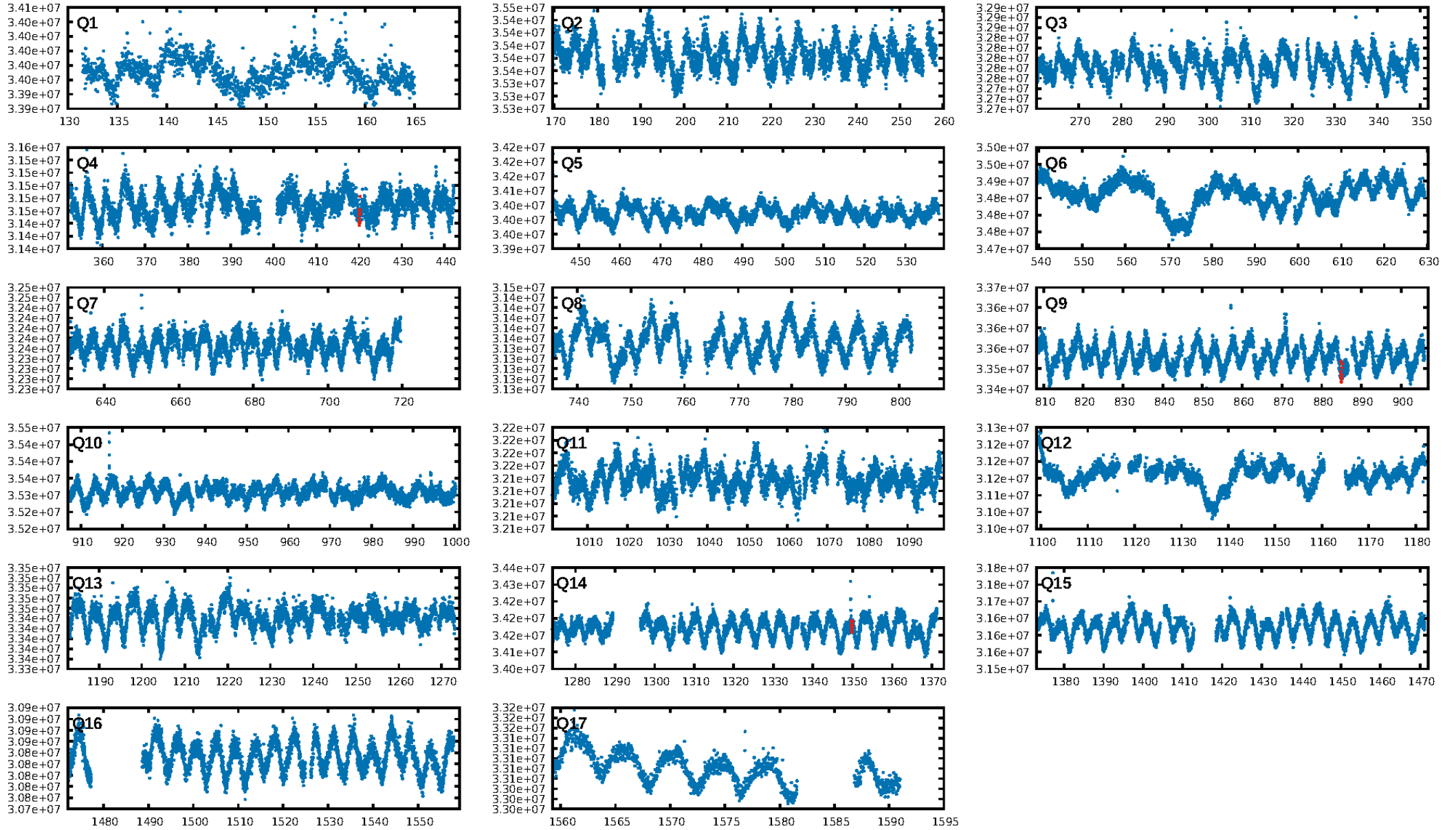
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 28.7%
ModelChiSquareGof-sig: 93.8%
Bootstrap-pfa: 2.40e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 18.17
Centroid-sig: 63.9%
Centroid-so: 0.674 arcsec [0.34 σ]
OotOffset-rm: 1.259 arcsec [0.55 σ]
KicOffset-rm: 0.888 arcsec [0.43 σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

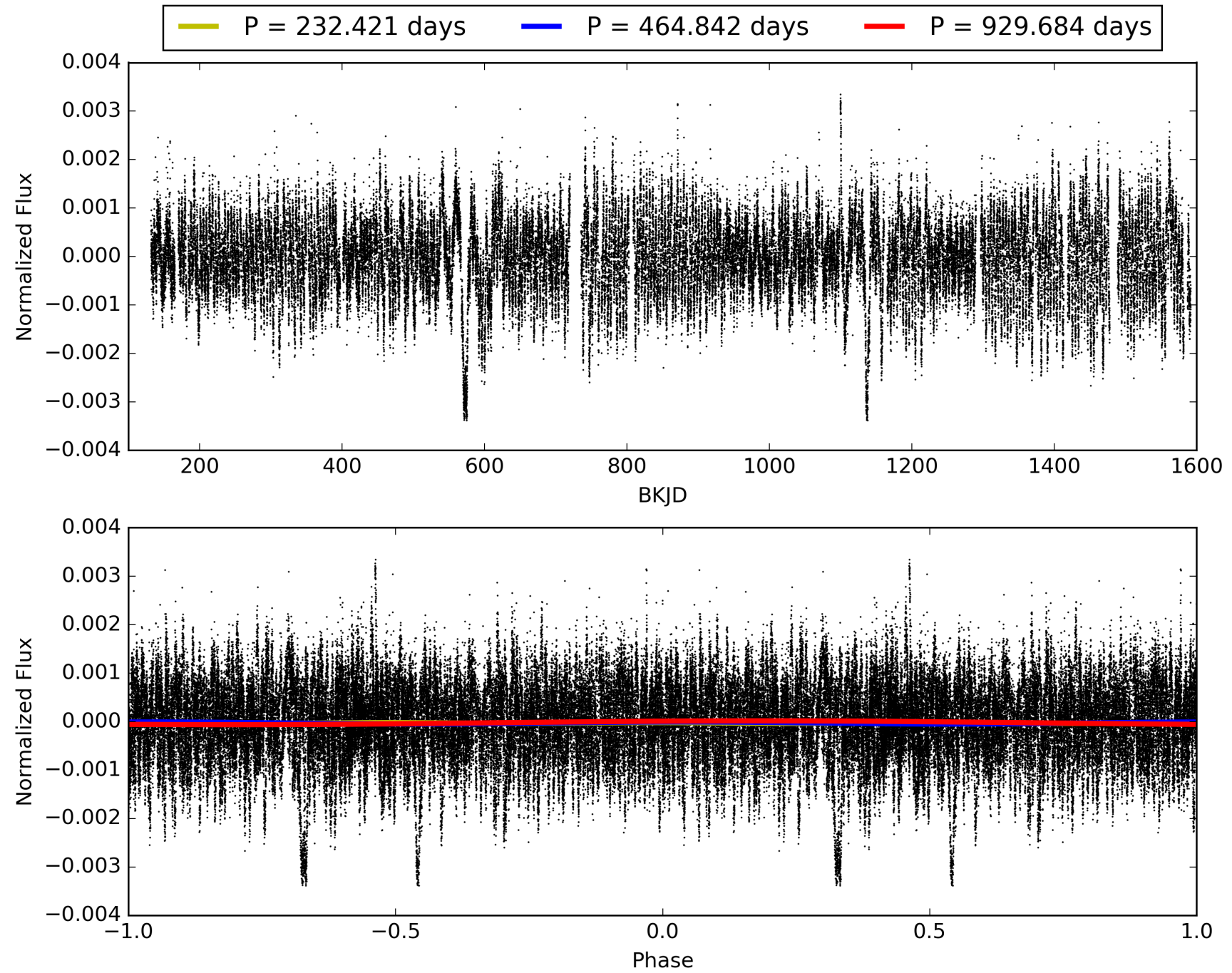
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:51:09 Z

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

TCE 011564957-01, PDC Light Curves

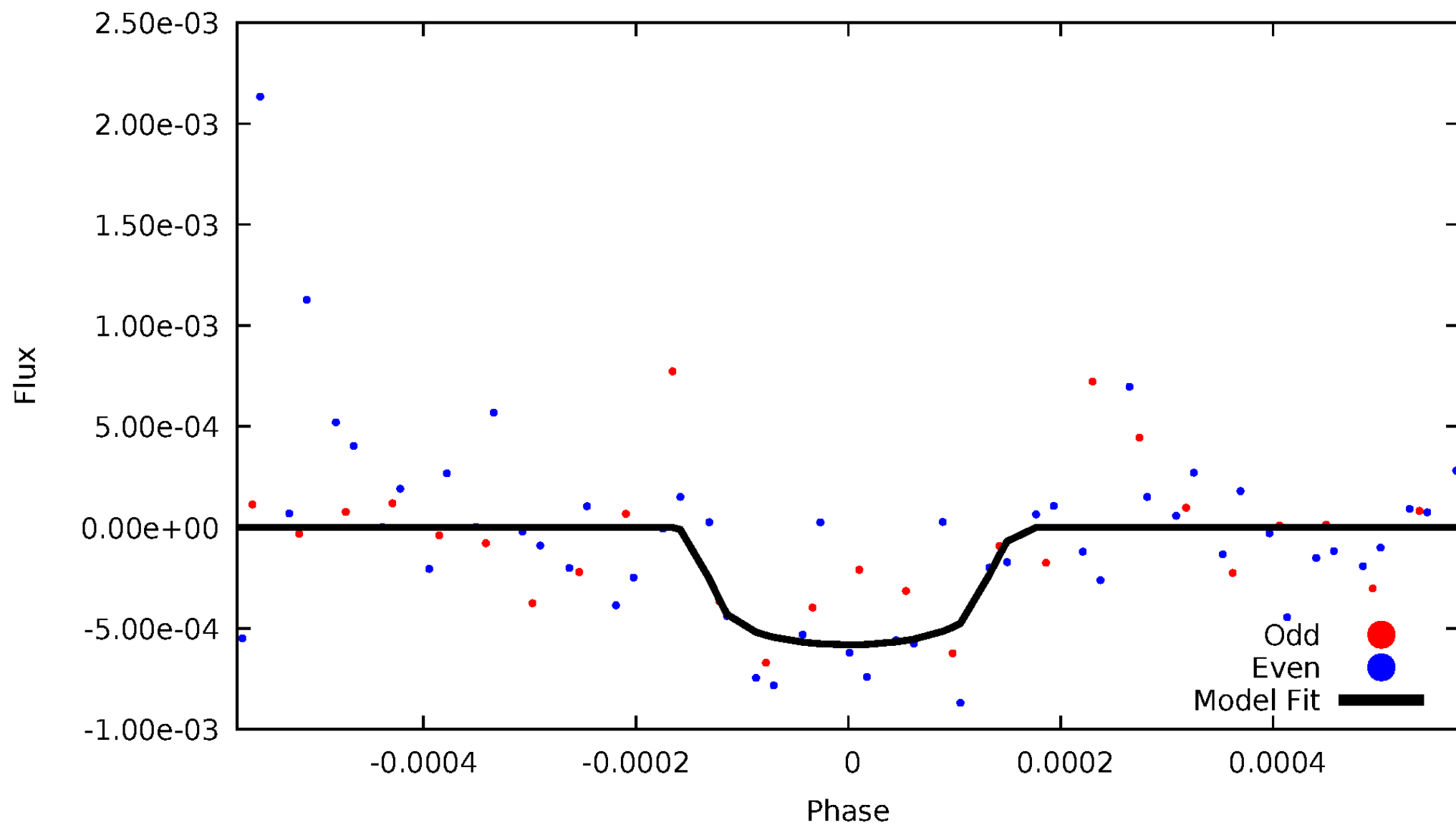


TCE 011564957-01



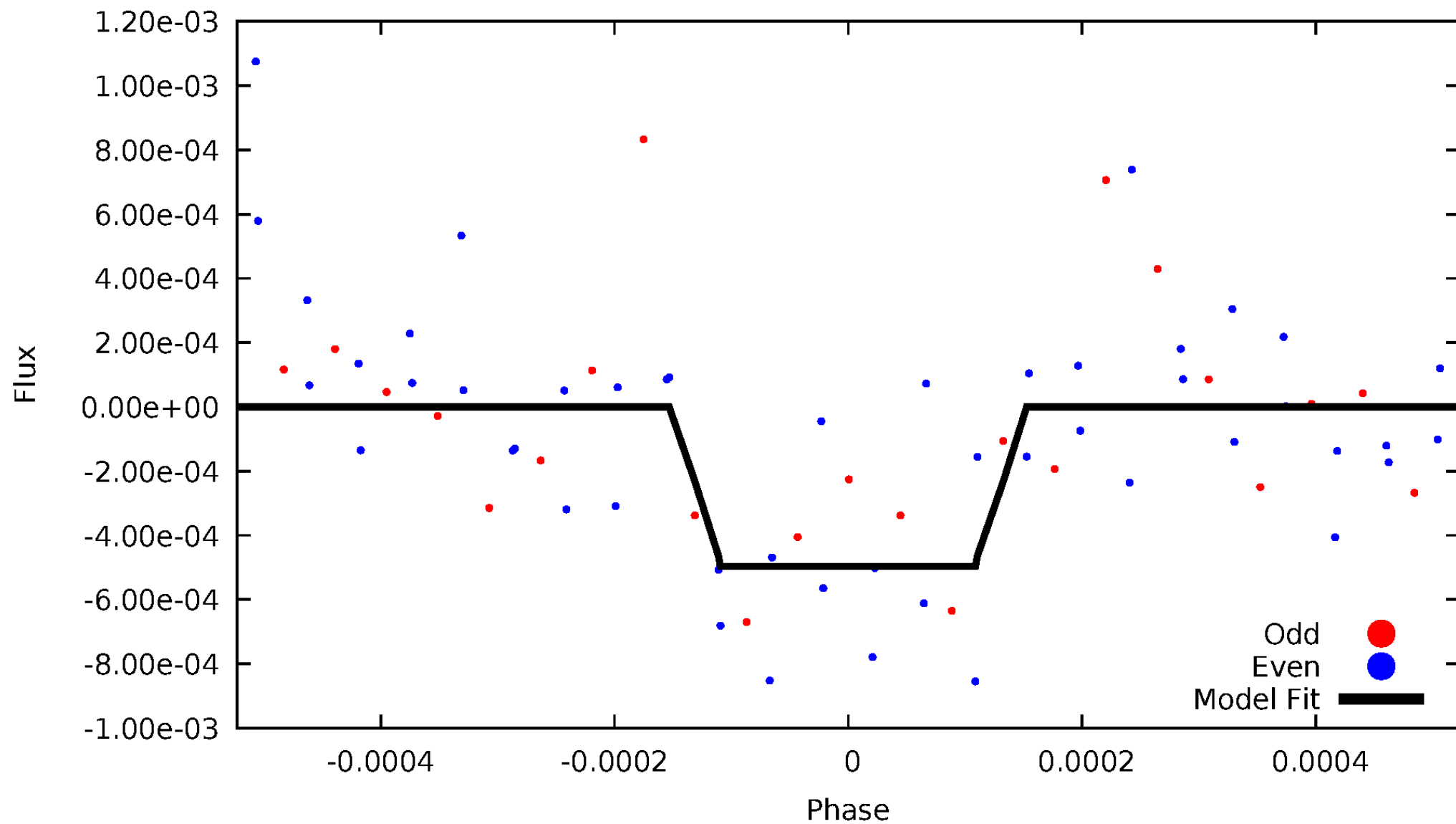
DV Odd/Even

TCE 011564957-01



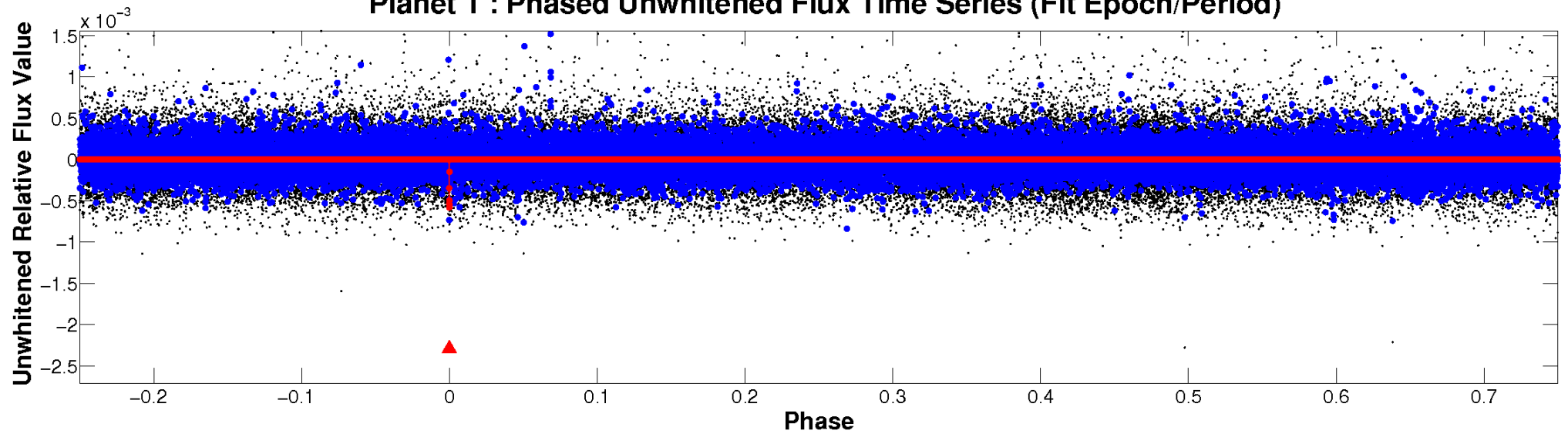
ALT Odd/Even

TCE 011564957-01

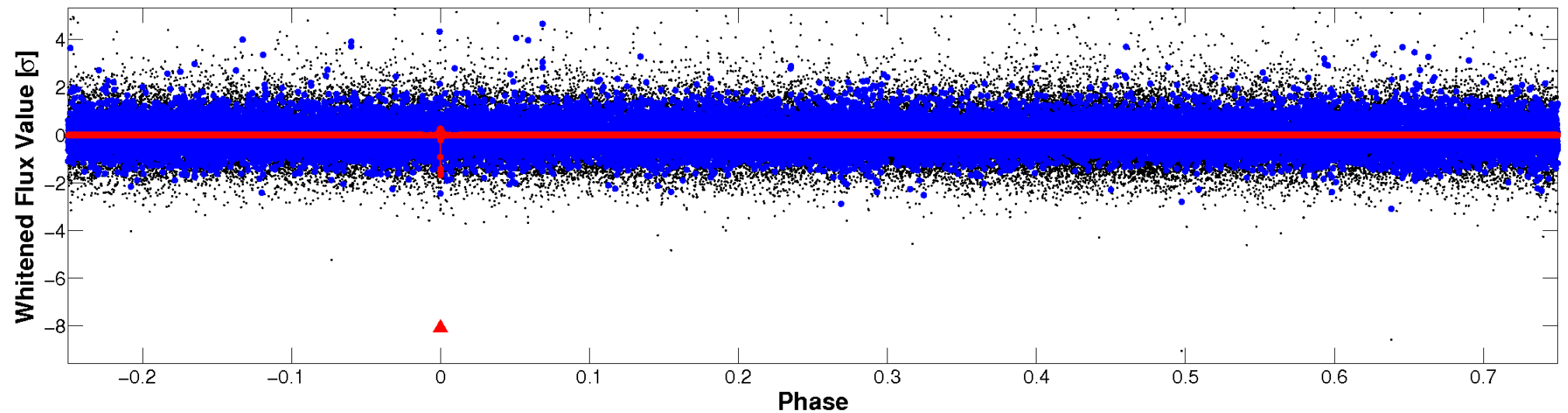


Non-Whitened Vs. Whitened Light Curve

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

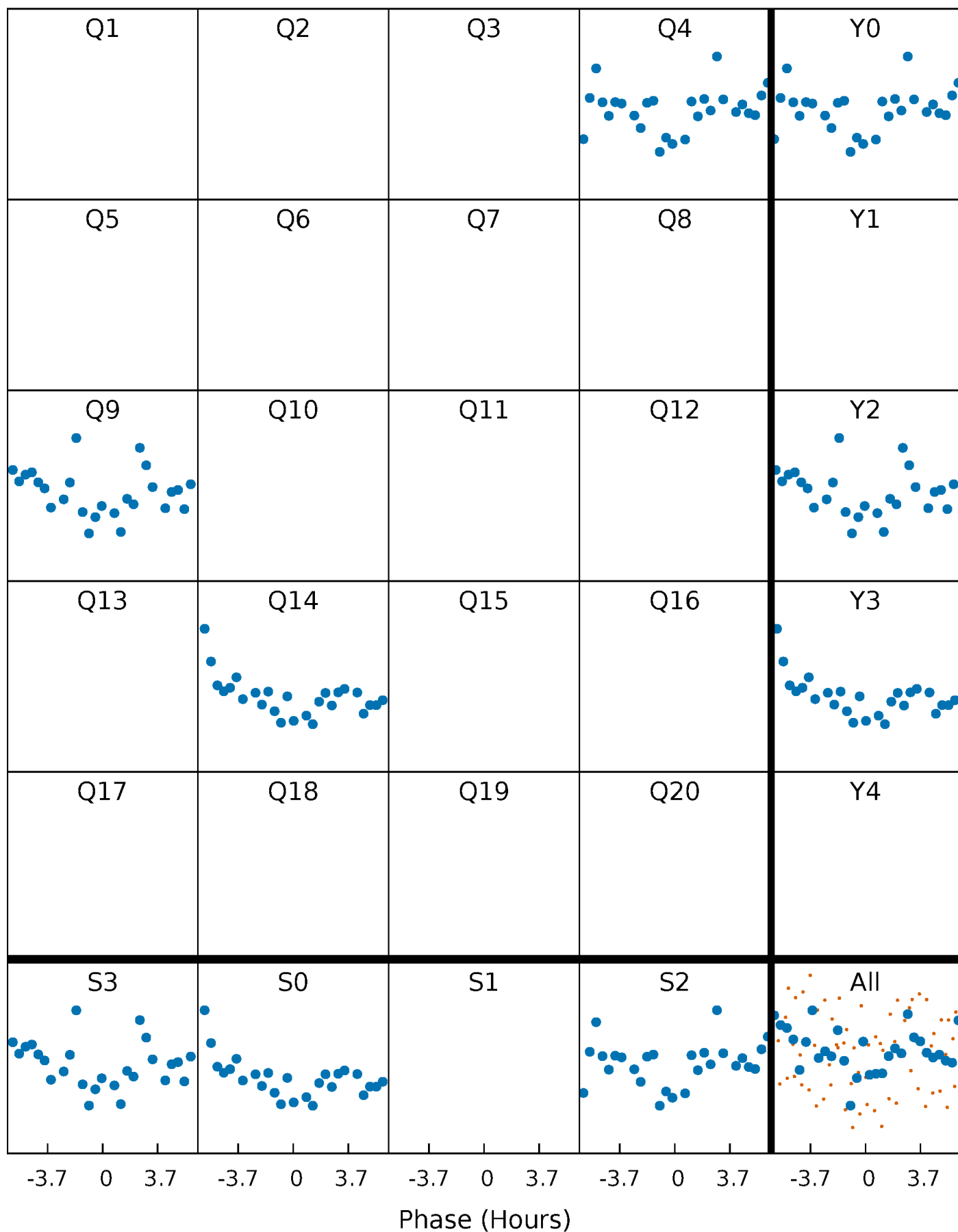


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



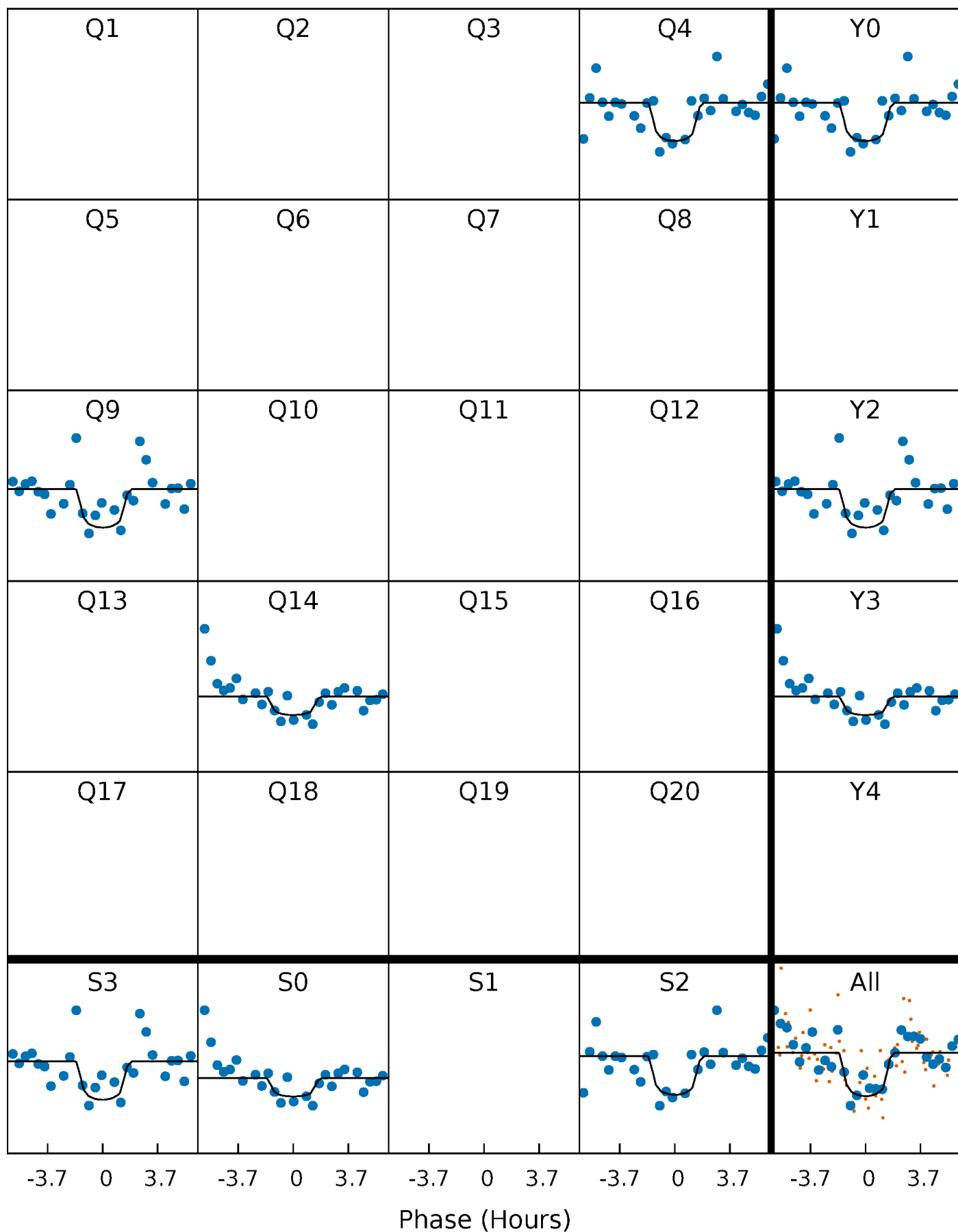
PDC Quarter-Phased Transit Curves

TCE 011564957-01 P=464.842158 Days $T_0=420.133806$ (BKJD)



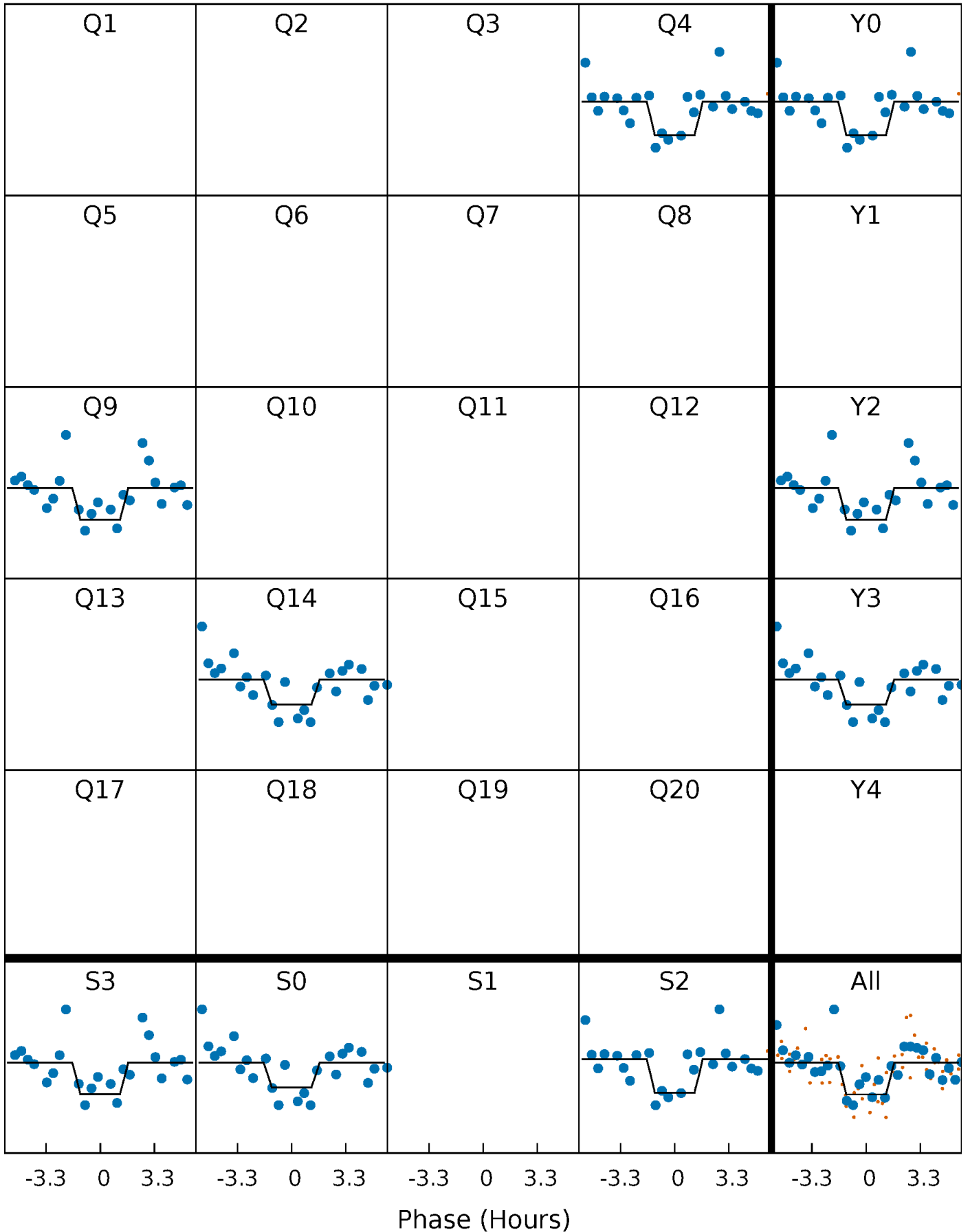
DV Quarter-Phased Transit Curves

TCE 011564957-01 P=464.842158 Days $T_0=420.133806$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

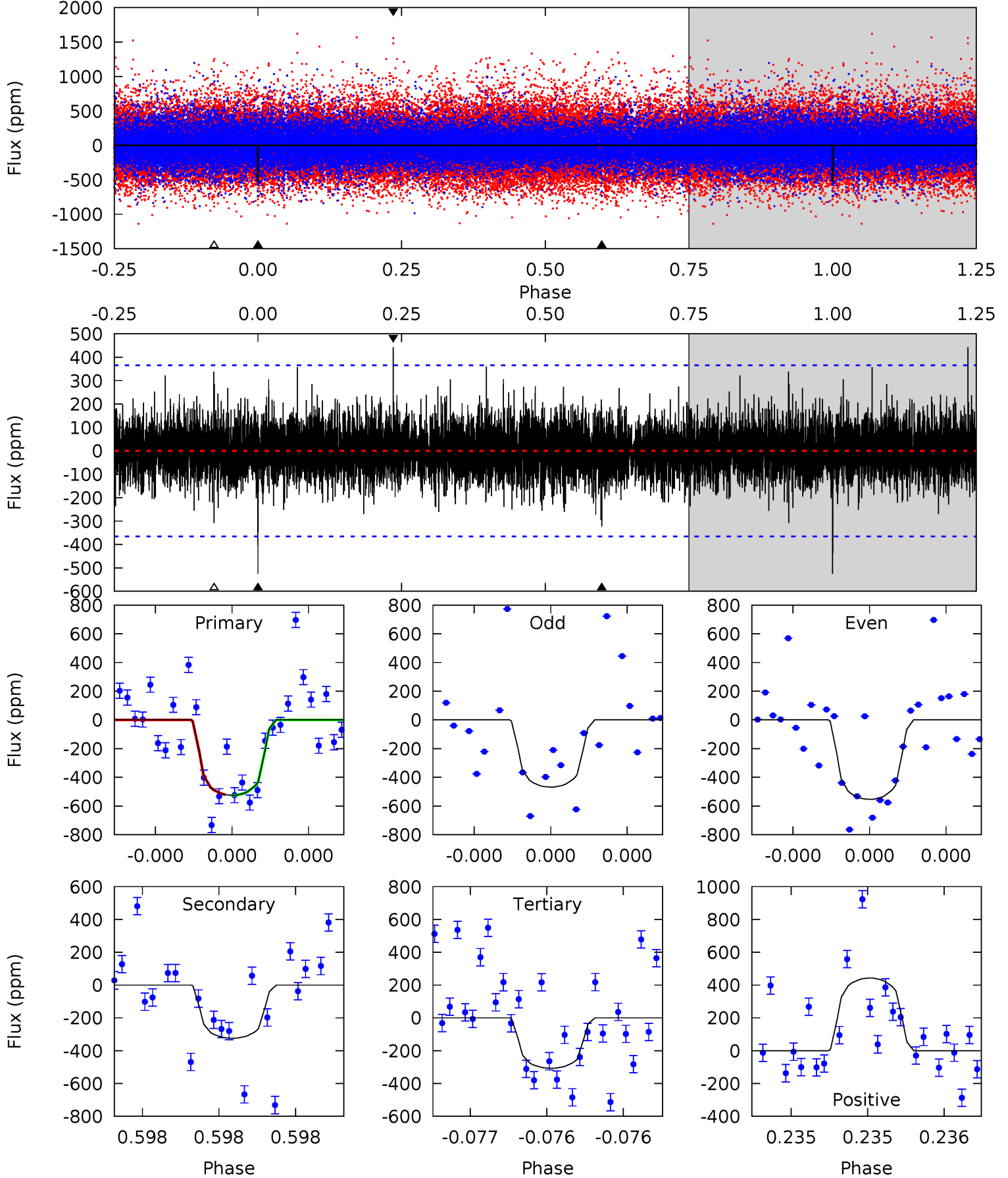
TCE 011564957-01 P=464.836245 Days $T_0=420.144215$ (BKJD)



DV Model-Shift Uniqueness Test

011564957-01, P = 464.842158 Days, E = 420.133806 Days

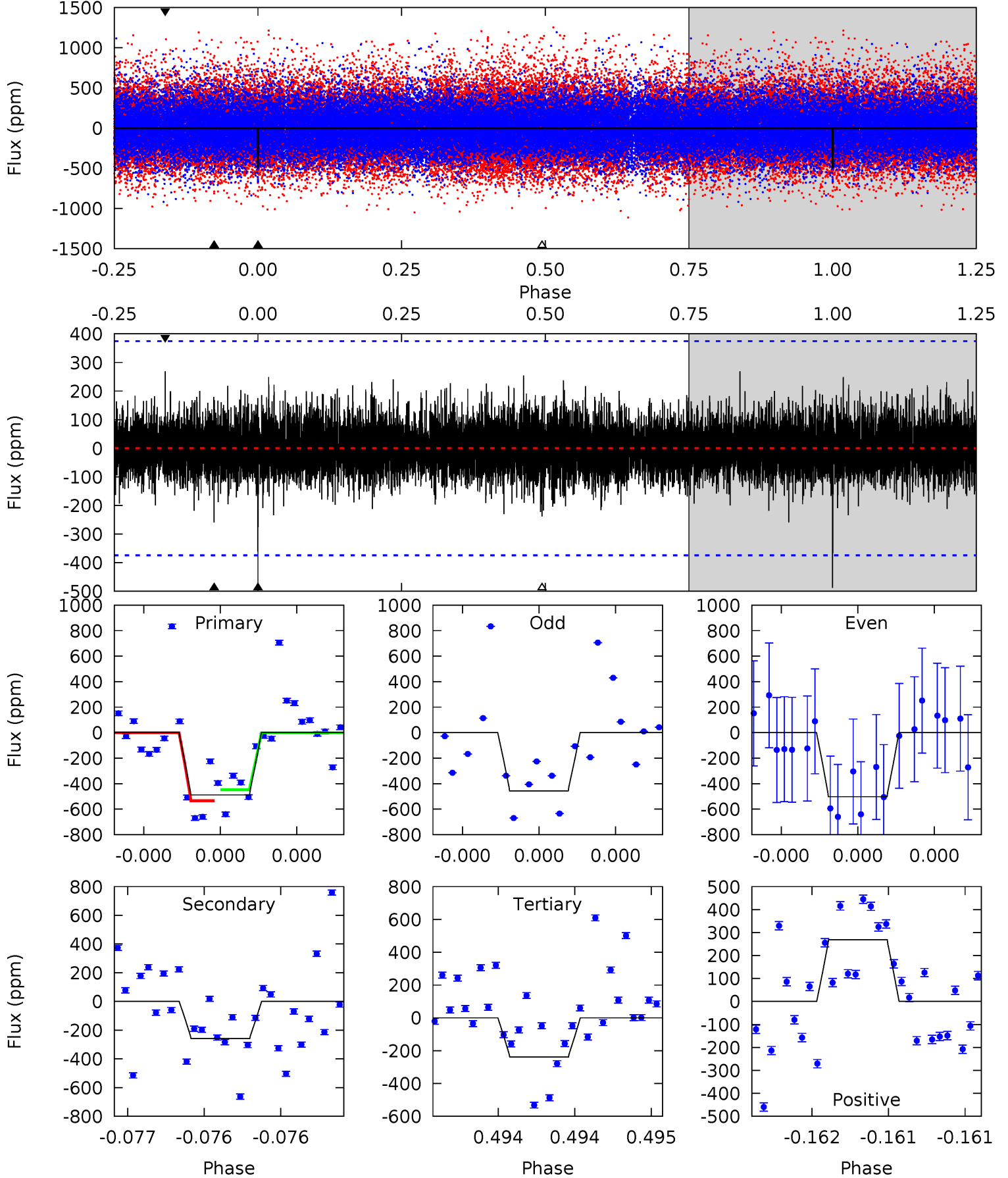
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.14	5.02	4.75	6.85	5.66	3.61	1.21	3.38	1.28	0.27	-1.83	0.63	1.06	0.46	0.04



Alt Model-Shift Uniqueness Test

011564957-01, P = 464.836245 Days, E = 420.144215 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.39	3.91	3.61	4.08	5.67	3.63	0.96	3.78	3.32	0.30	-0.16	0.33	1.07	0.36	0.65



Stellar Parameters For KIC 011564957

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5780^{+155}_{-155}	$4.373^{+0.153}_{-0.187}$	$-0.280^{+0.300}_{-0.300}$	$1.001^{+0.279}_{-0.186}$	$0.864^{+0.120}_{-0.080}$	$1.213^{+0.894}_{-0.598}$
	+3%/-3%	+3%/-4%	+107%/-107%	+28%/-19%	+14%/-9%	+74%/-49%
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 011564957-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-324 ± 65	$4.41^{+4.16}_{-2.93}$	337^{+25}_{-19}	4102^{+2415}_{-771}	11197^{+83055}_{-8215}
Alt.	-258 ± 66	$4.35^{+4.00}_{-2.99}$	339^{+23}_{-21}	3990^{+2661}_{-756}	9586^{+84321}_{-7159}

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

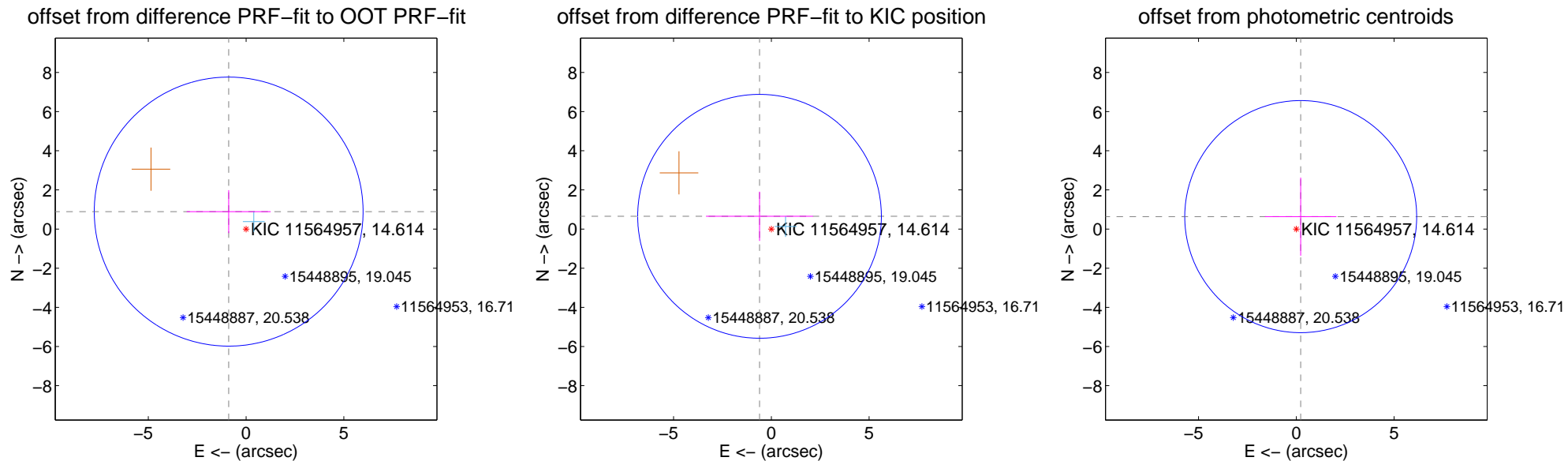
DV Centroid Data

Supplemental centroid analysis for 011564957-01. Kepler magnitude: 14.61. Transit SNR 6.30

There are 1 quarters with good PRF difference image offsets

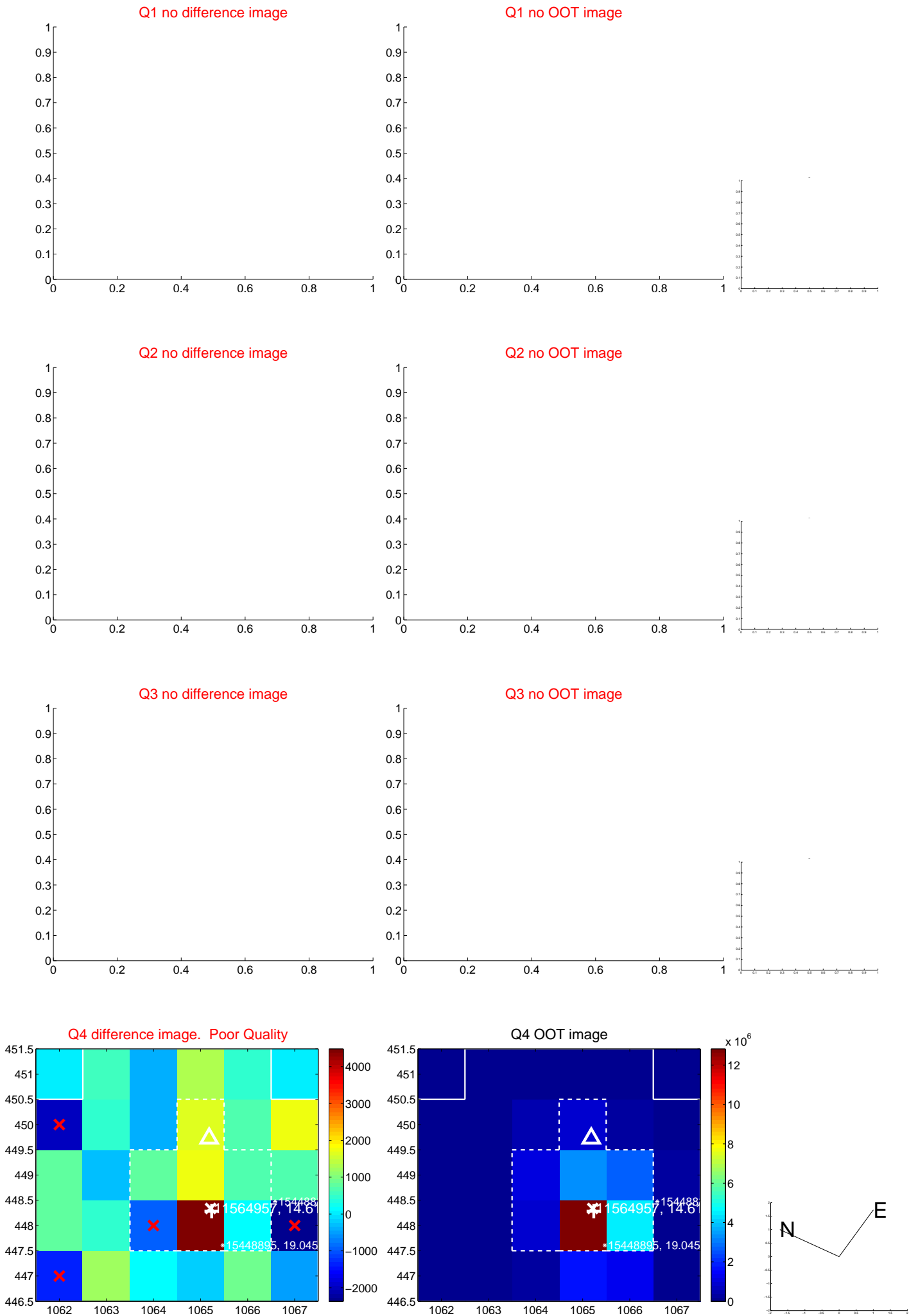
The direct PRF centroid is offset from the target star catalog position by about 0.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.259 ± 2.291	0.55	0.889 ± 2.147	0.891 ± 1.095
PRF-fit source offset from KIC position	0.888 ± 2.076	0.43	0.604 ± 2.737	0.651 ± 1.258
photometric centroid source offset	0.67 ± 1.98	0.34	-0.23 ± 1.83	0.64 ± 1.99



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.

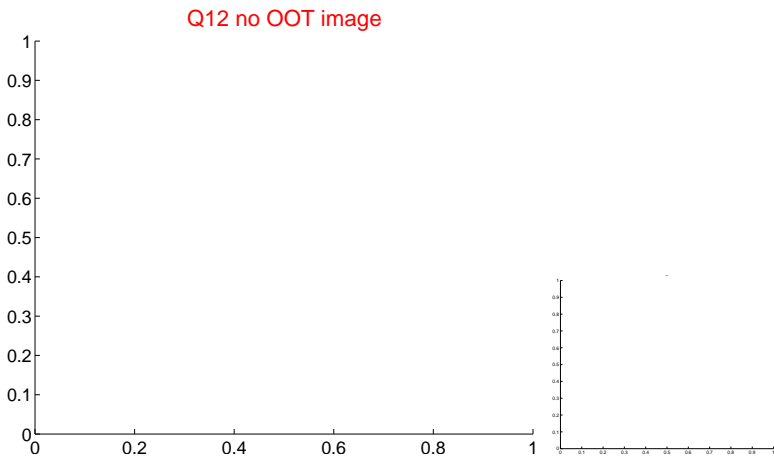
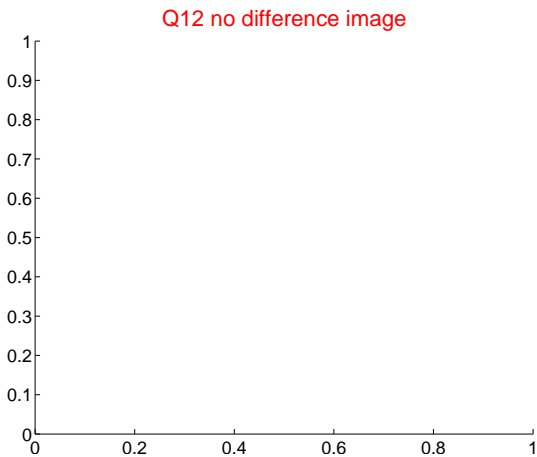
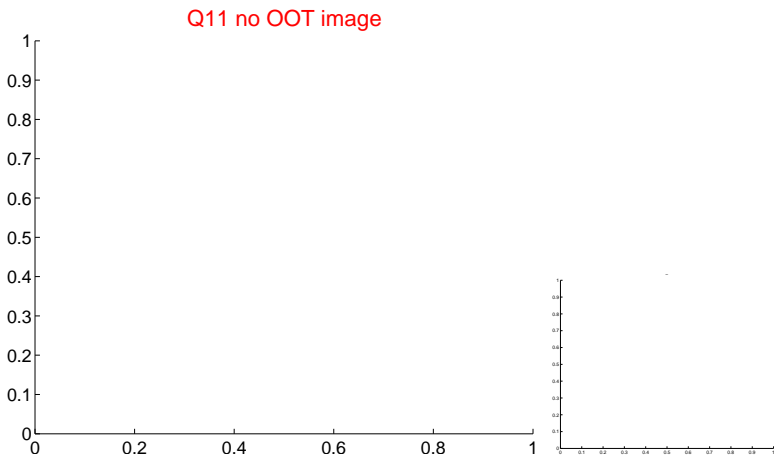
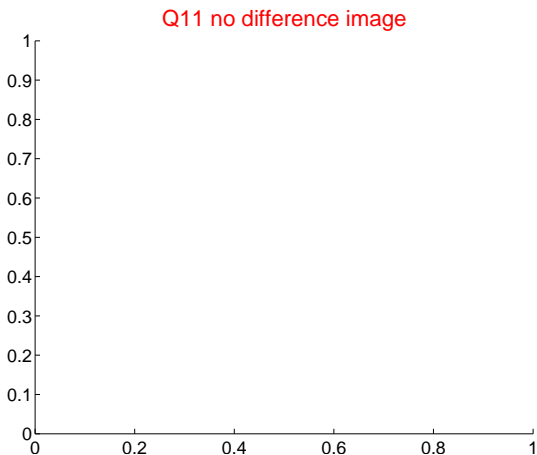
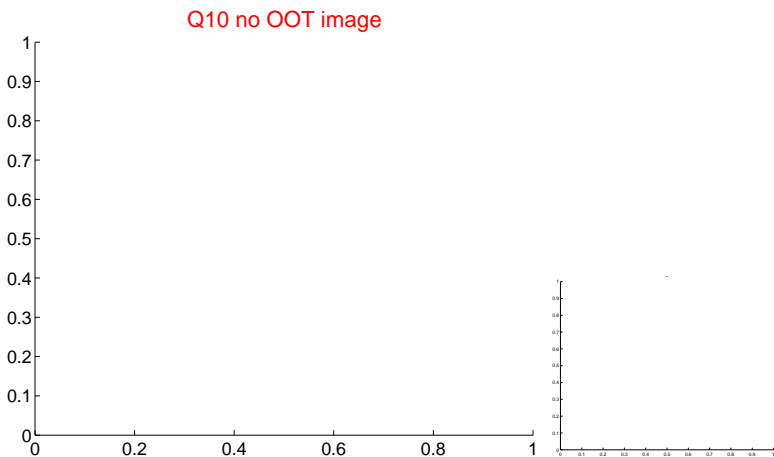
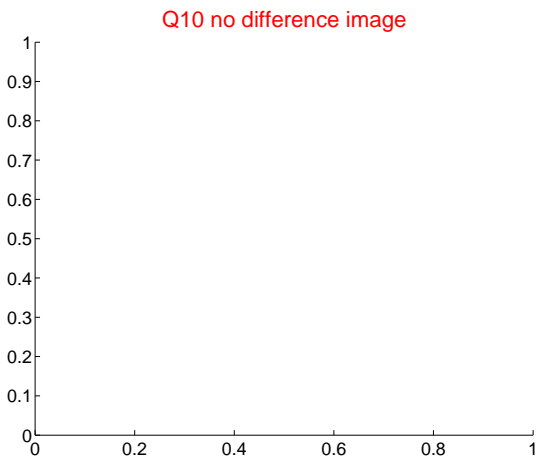
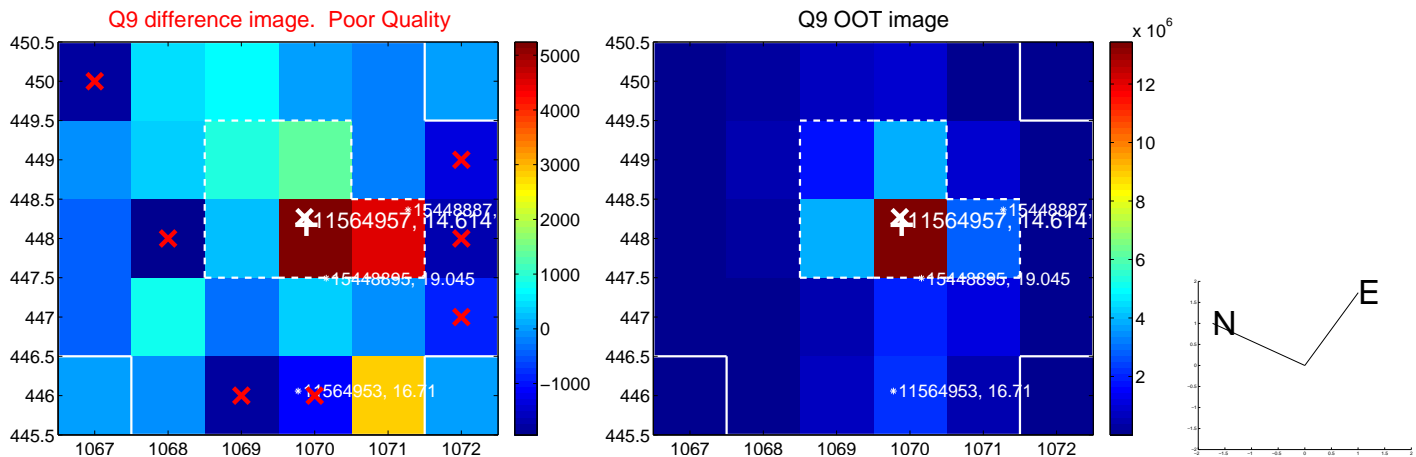
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



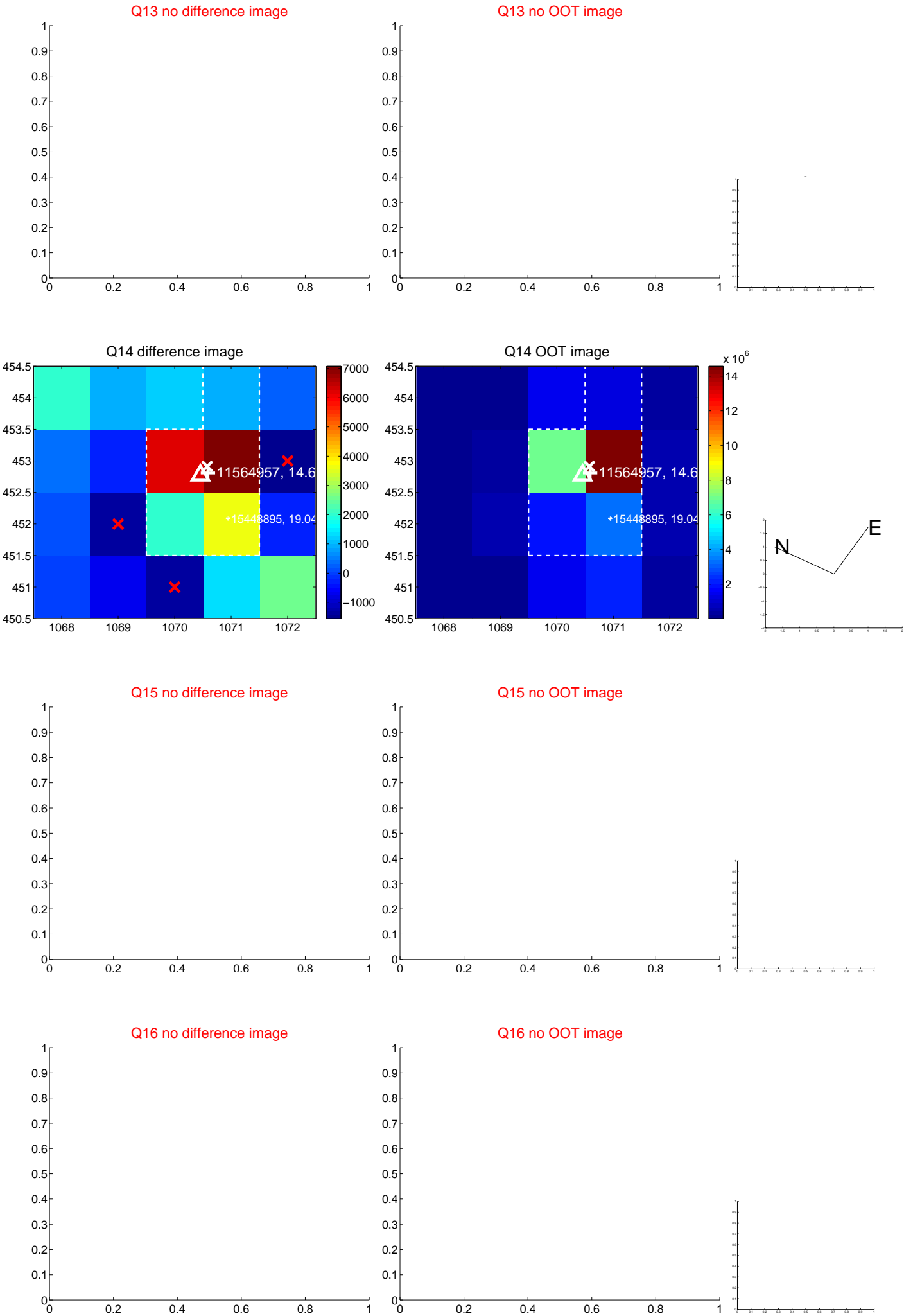
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



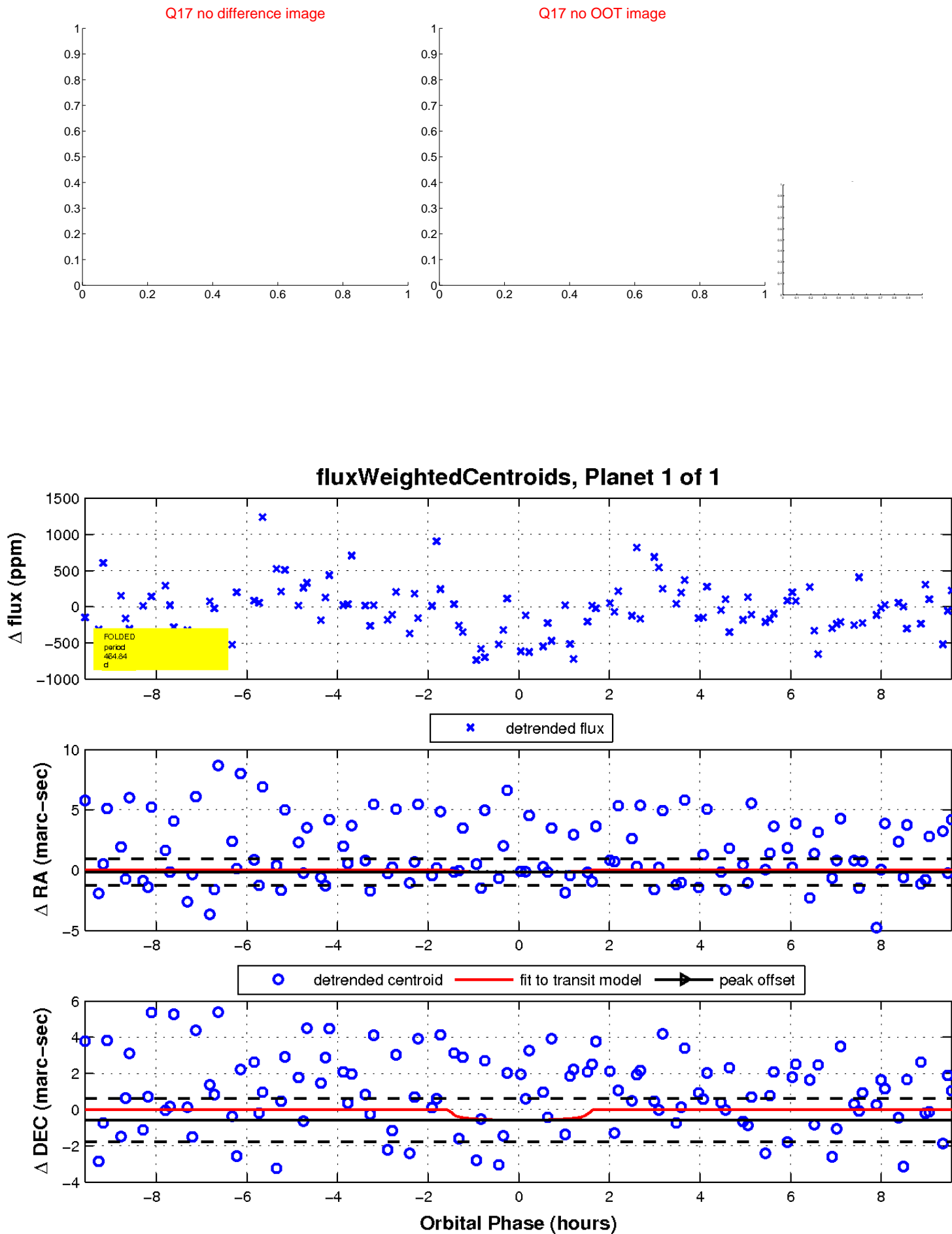
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

