

KIC 006182508

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})
006182508-01	OBS	8261.01	85.977485	159.307412	1290.4	2.083	7.4	8.8	0.45	3710	1.72	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006182508-01	OBS	FP	0.13	1	0	0	0	MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

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

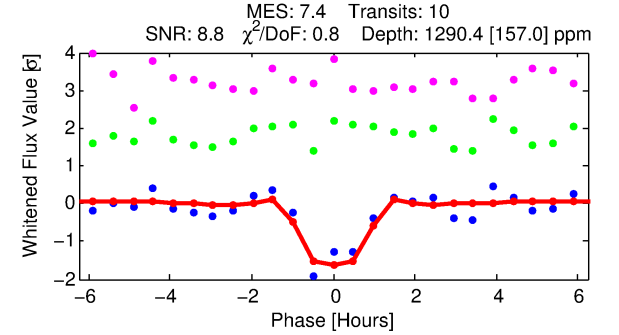
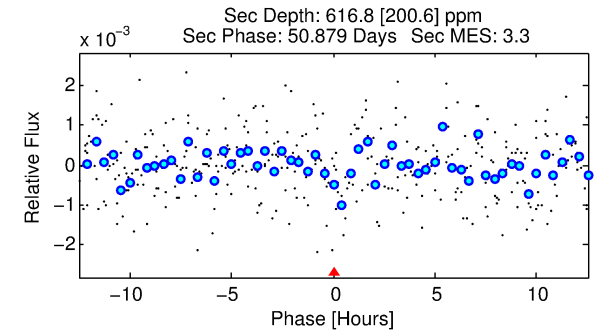
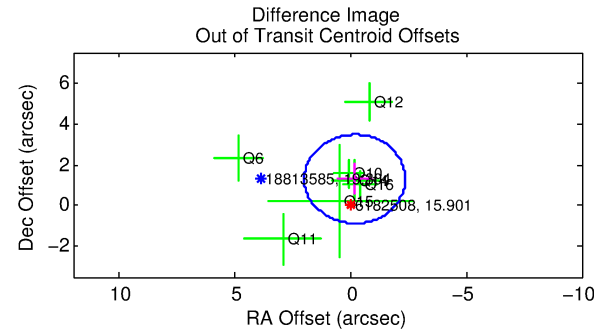
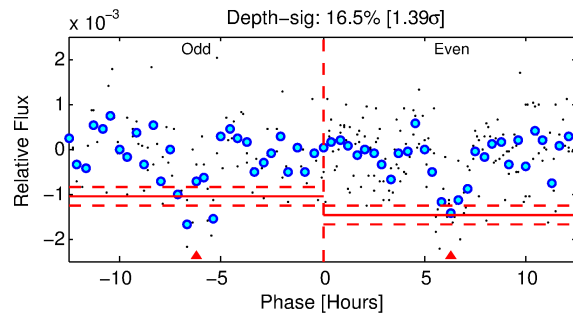
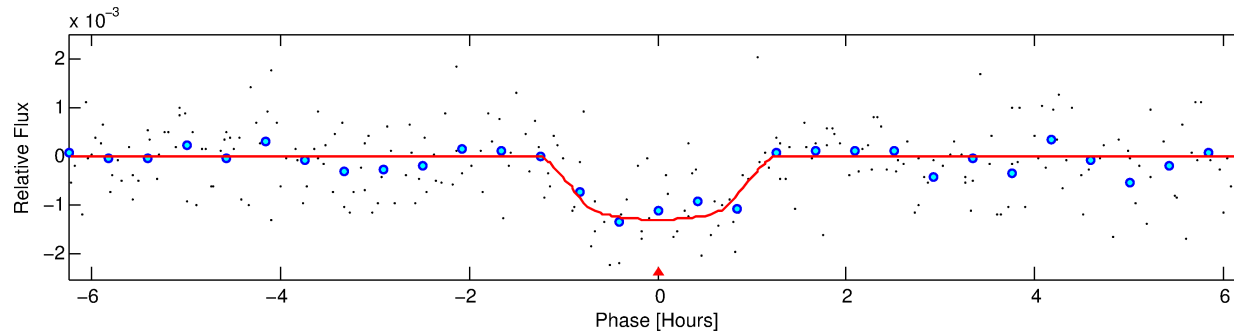
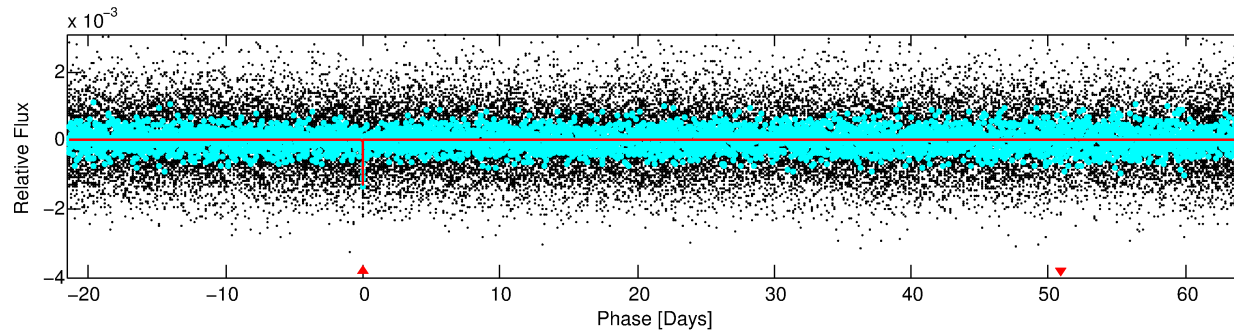
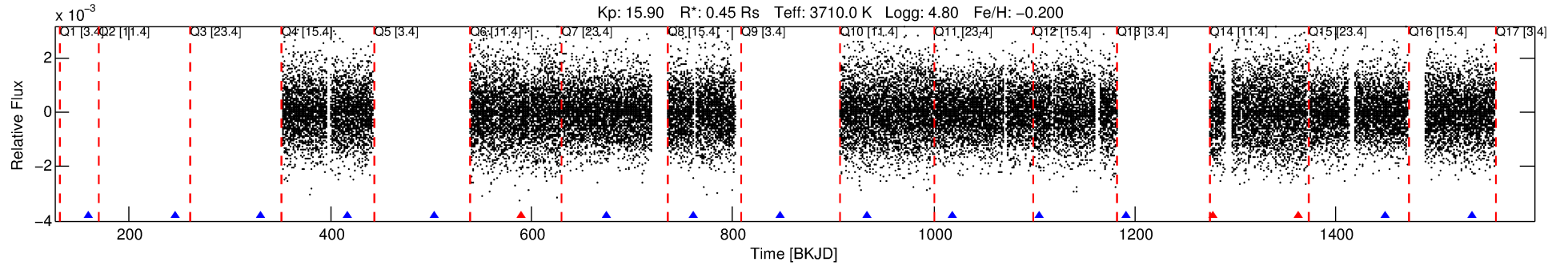
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006182508-01

No Significant Match Found

DV One-Page Summary

KIC: 6182508 Candidate: 1 of 1 Period: 85.977 d



DV Fit Results:

Period = 85.97749 [0.00072] d
Epoch = 159.3074 [0.0082] BKJD
Rp/R* = 0.0348 [0.0750]
a/R* = 249.82 [2532.82]
b = 0.67 [8.52]
Seff = 0.40 [0.06]
Teq = 202 [8] K
Rp = 1.72 [3.71] Re
a = 0.2958 [0.0262] AU
Ag = 10052.54 [43415.84] [0.23 σ]
Teff = 3132 [3381] K [0.87 σ]

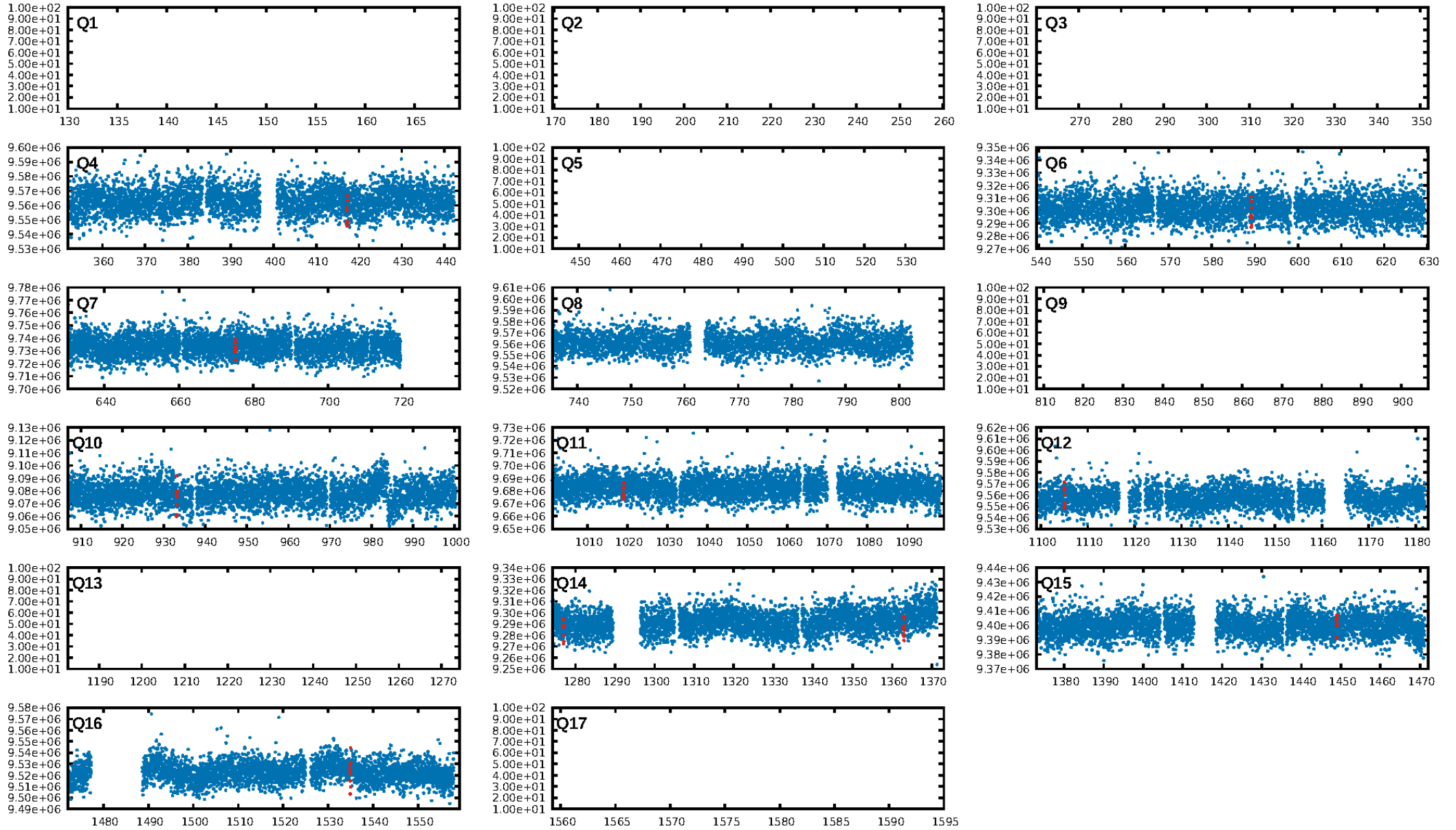
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 49.0%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 1.05e-13
RollingBand-fgt: 0.70 [7/10]
GhostDiagnostic-chr: 2.132
Centroid-sig: 39.3%
Centroid-so: 1.320 arcsec [0.87 σ]
OotOffset-rm: 1.307 arcsec [1.80 σ]
OotOffset-st: 3/2/2/0 [7]
KicOffset-rm: 1.513 arcsec [1.96 σ]
KicOffset-st: 3/2/2/0 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 1.00 [9/9]

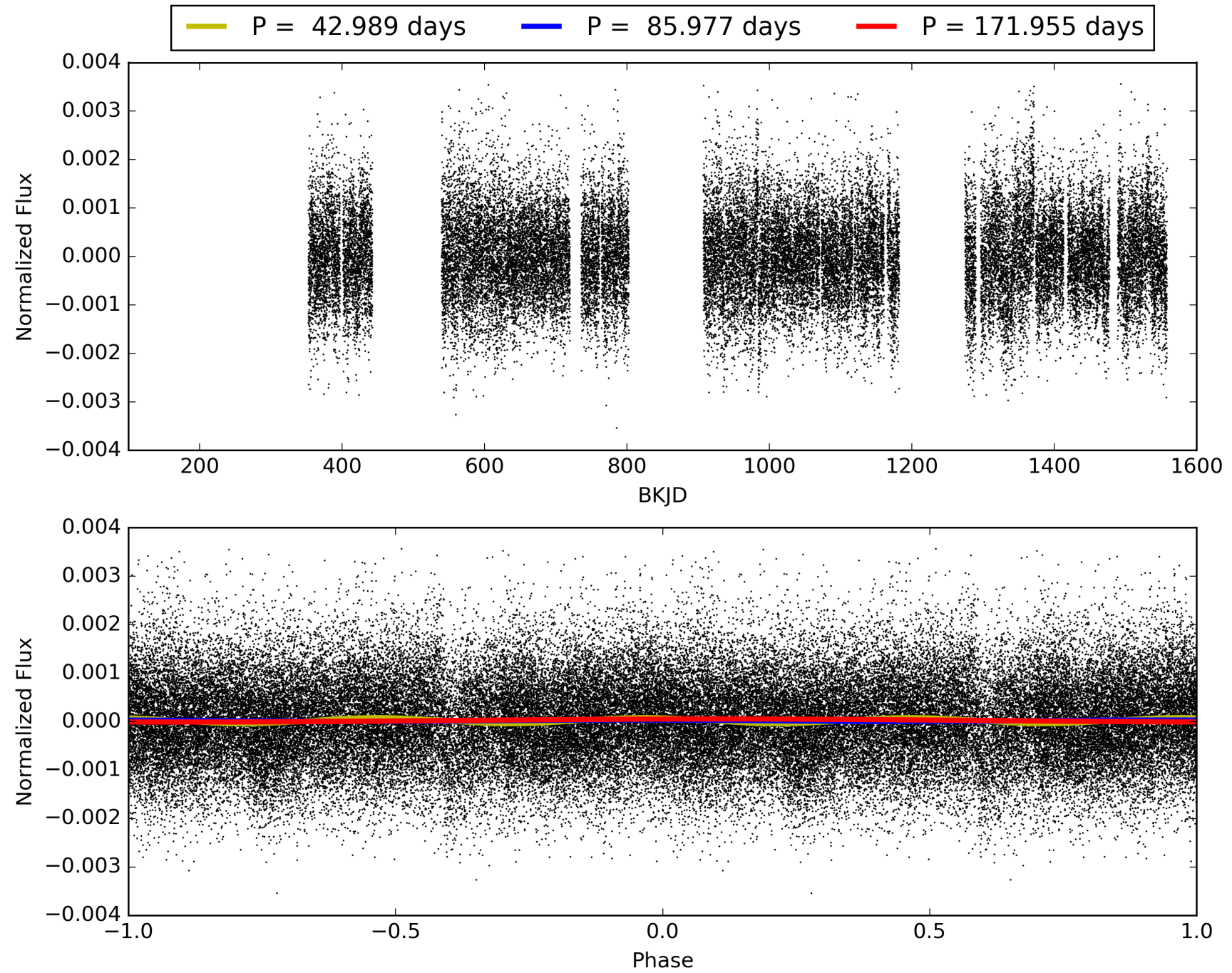
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:19:46 Z

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

TCE 006182508-01, PDC Light Curves

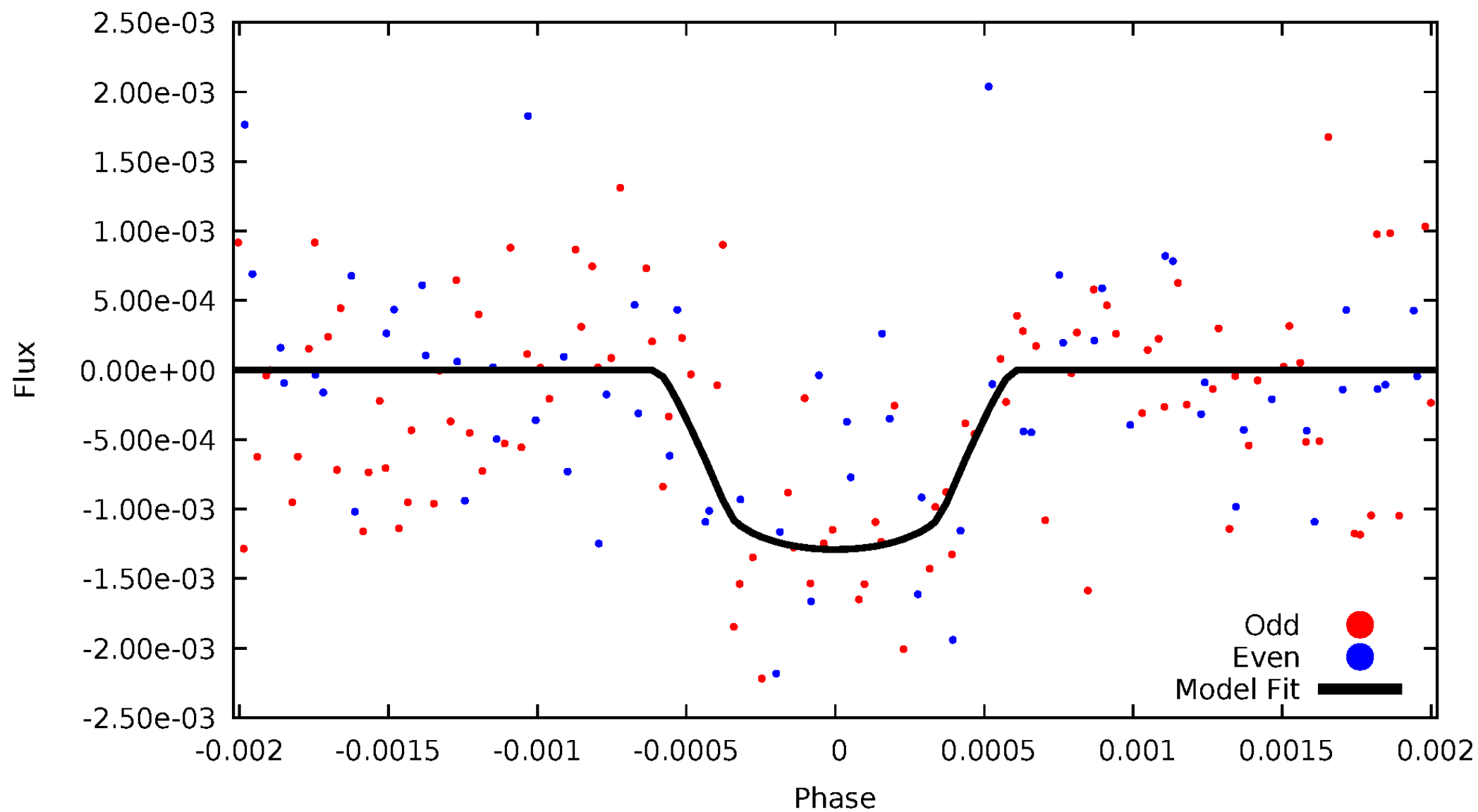


TCE 006182508-01



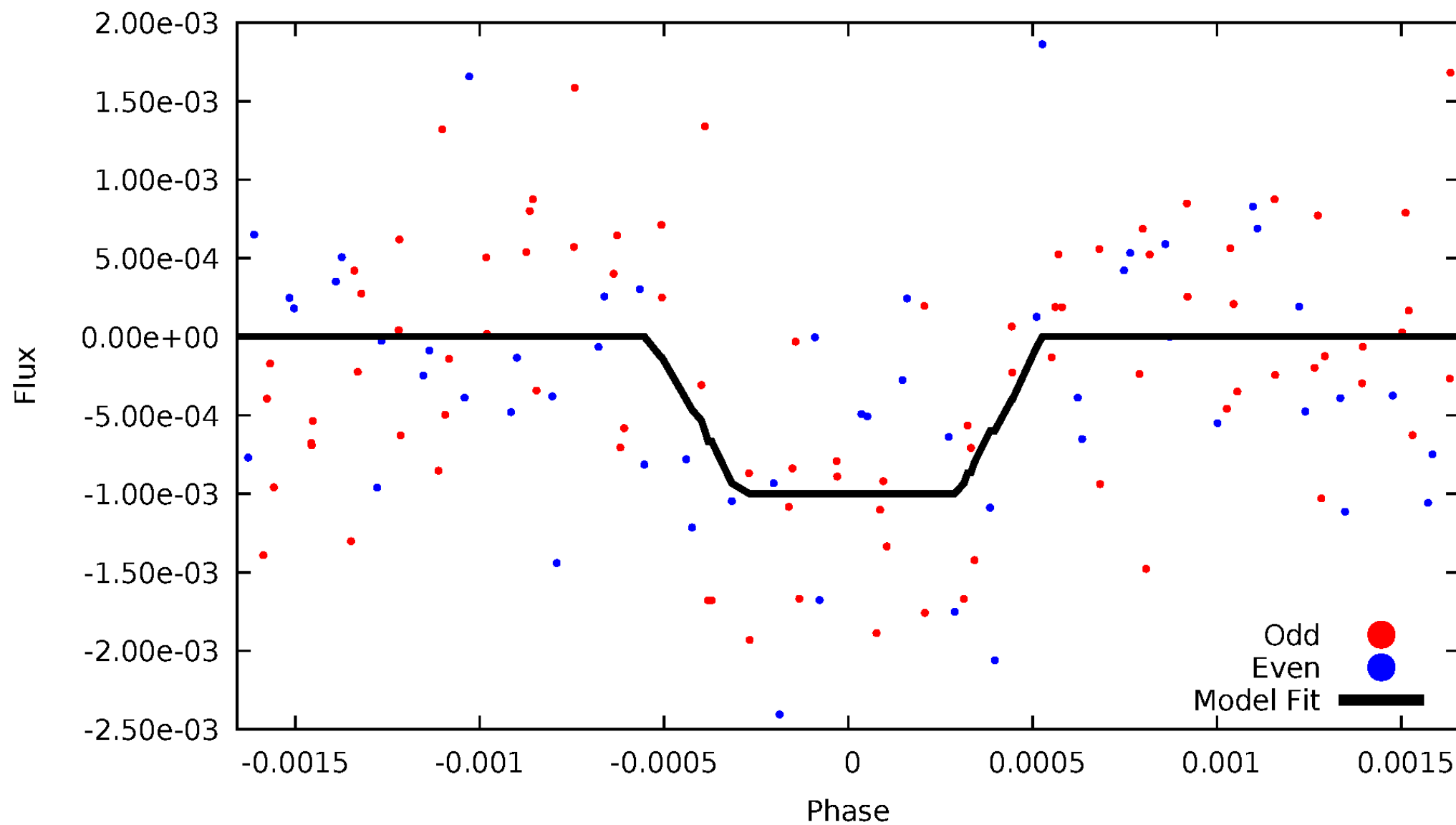
DV Odd/Even

TCE 006182508-01



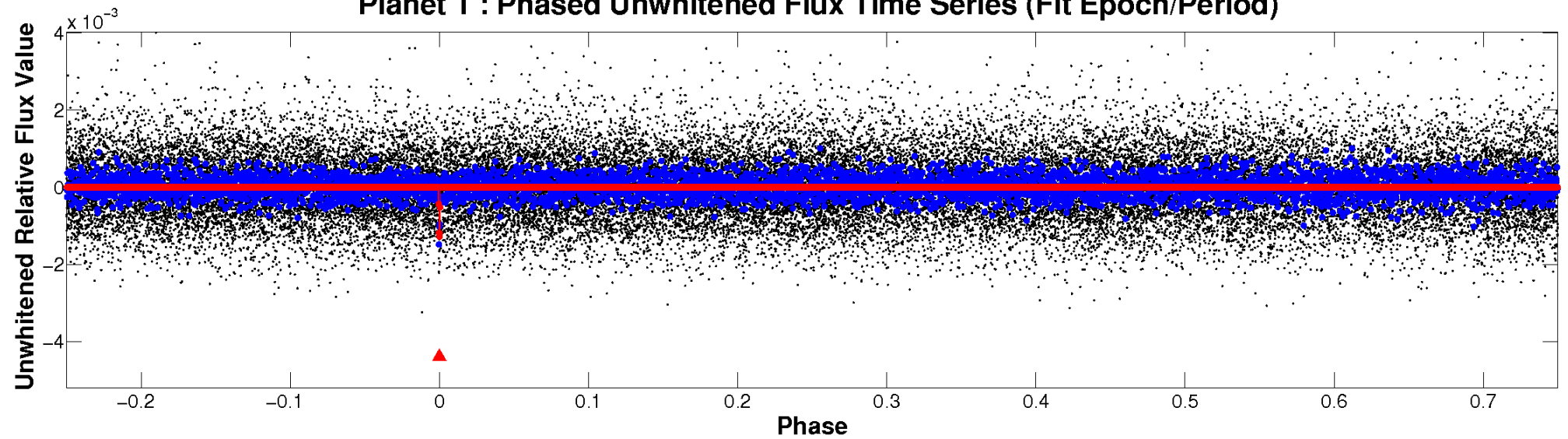
ALT Odd/Even

TCE 006182508-01

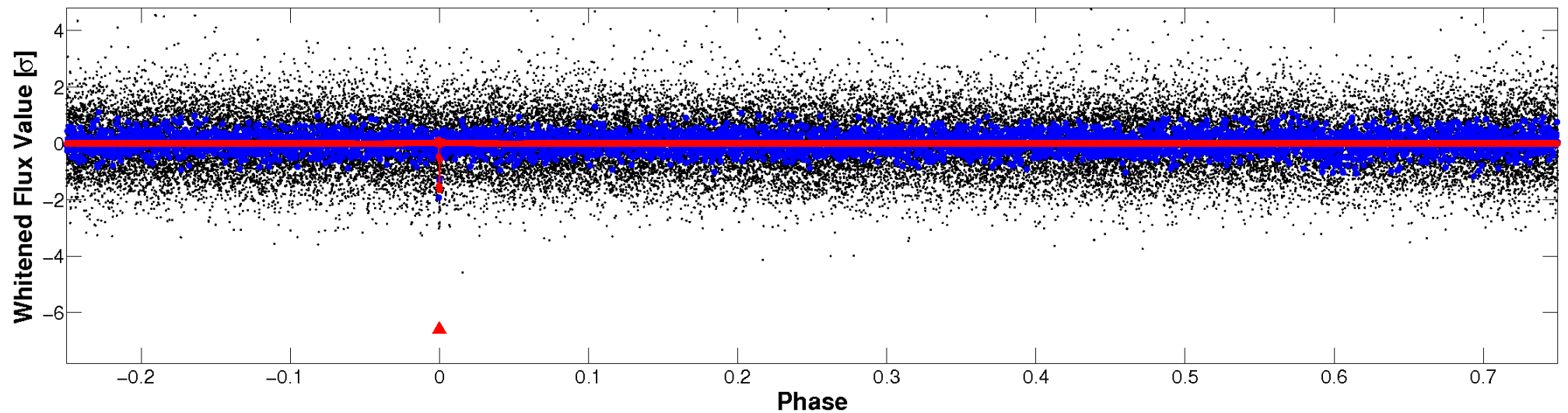


Non-Whitened Vs. Whitened Light Curve

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

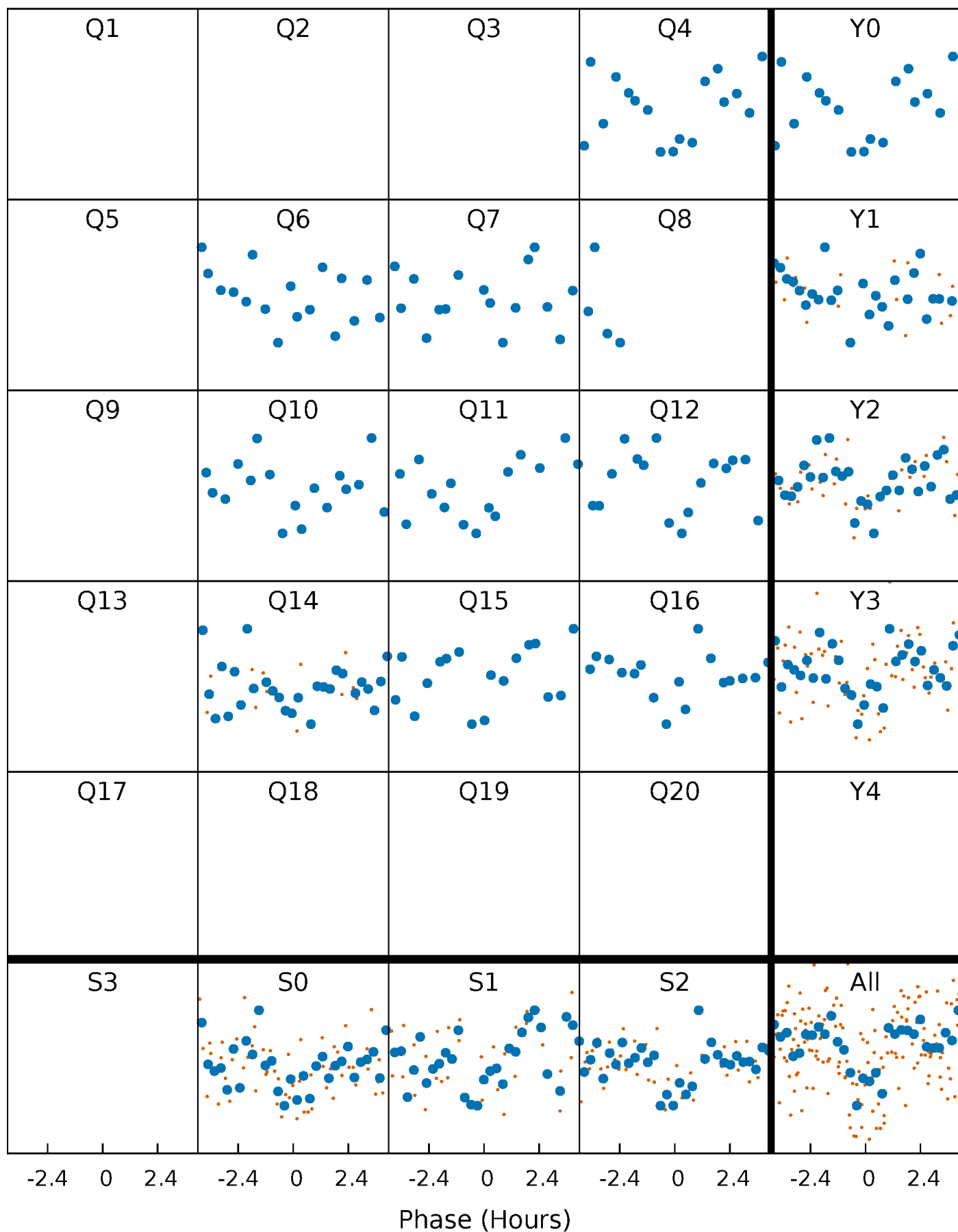


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



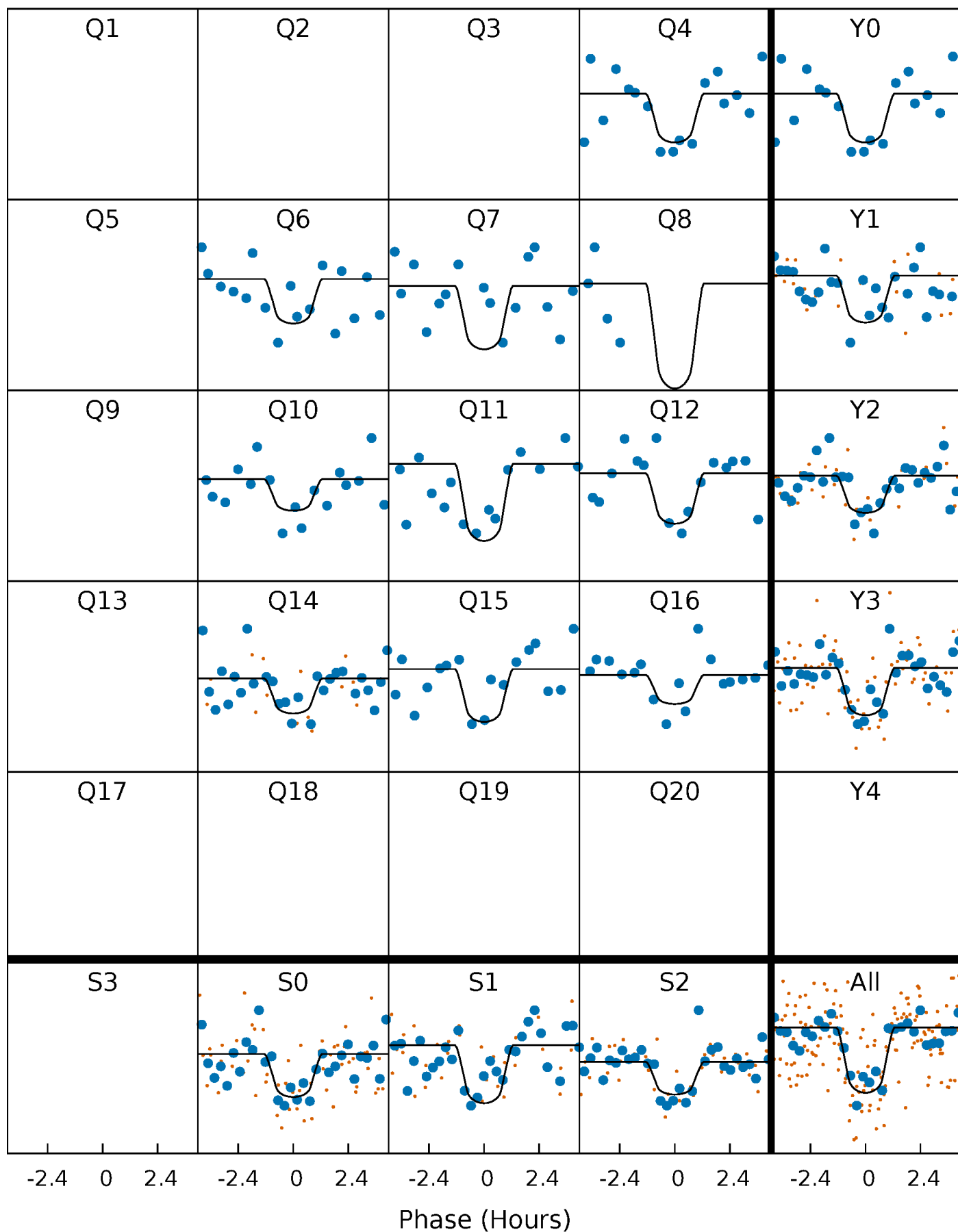
PDC Quarter-Phased Transit Curves

TCE 006182508-01 P= 85.977485 Days $T_0=159.307412$ (BKJD)



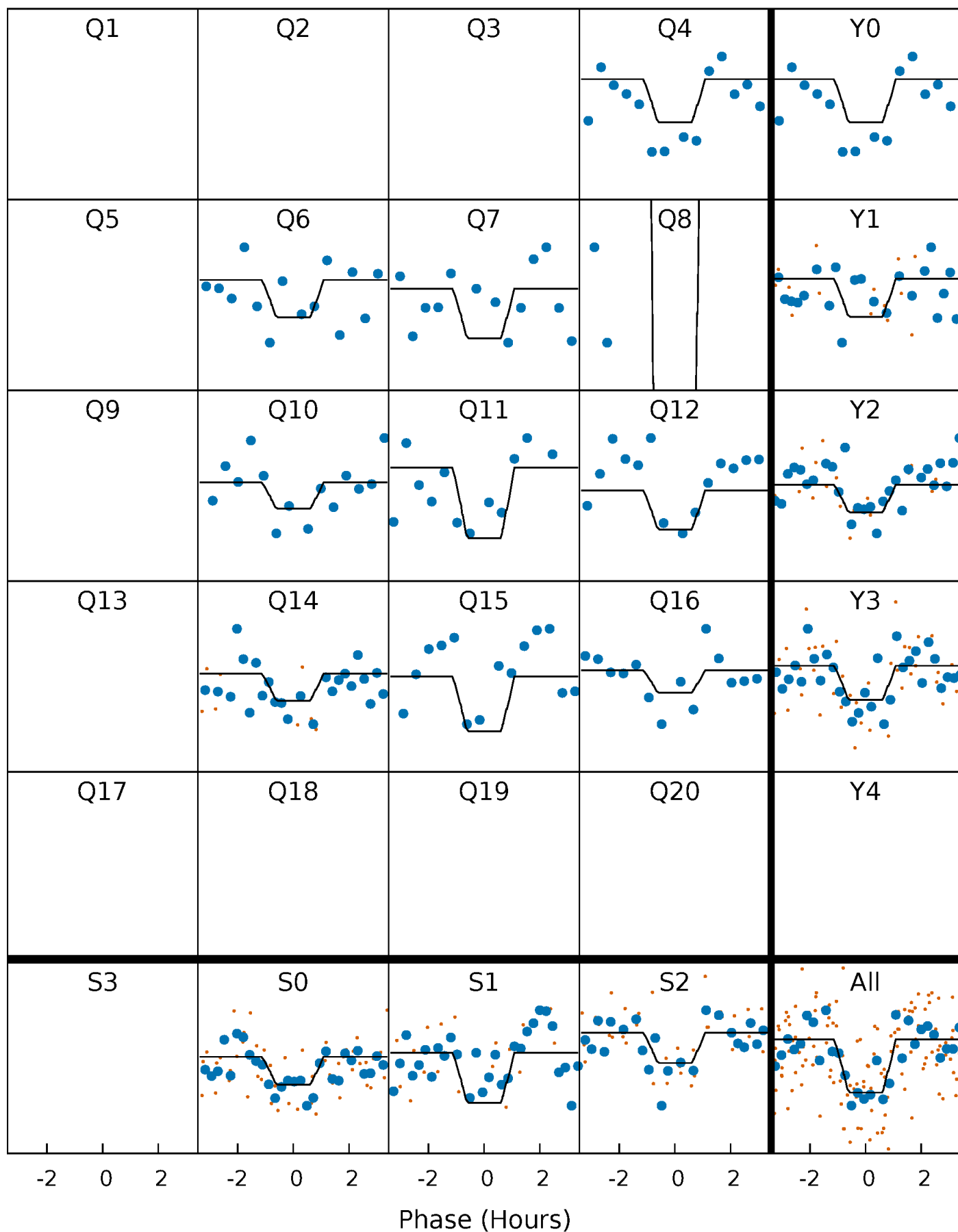
DV Quarter-Phased Transit Curves

TCE 006182508-01 P= 85.977485 Days $T_0=159.307412$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

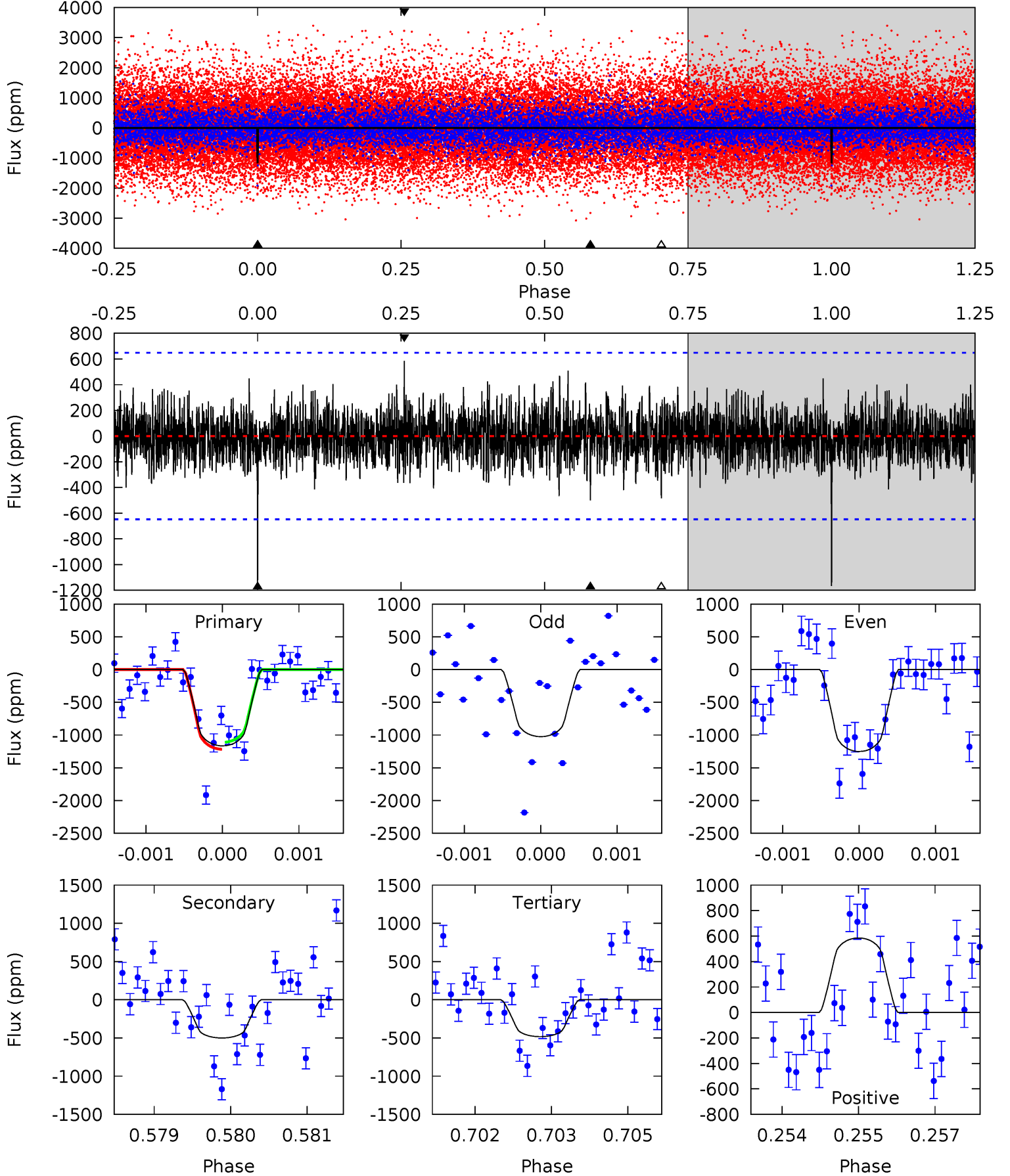
TCE 006182508-01 P= 85.977080 Days $T_0=159.312892$ (BKJD)



DV Model-Shift Uniqueness Test

006182508-01, P = 85.977485 Days, E = 159.307412 Days

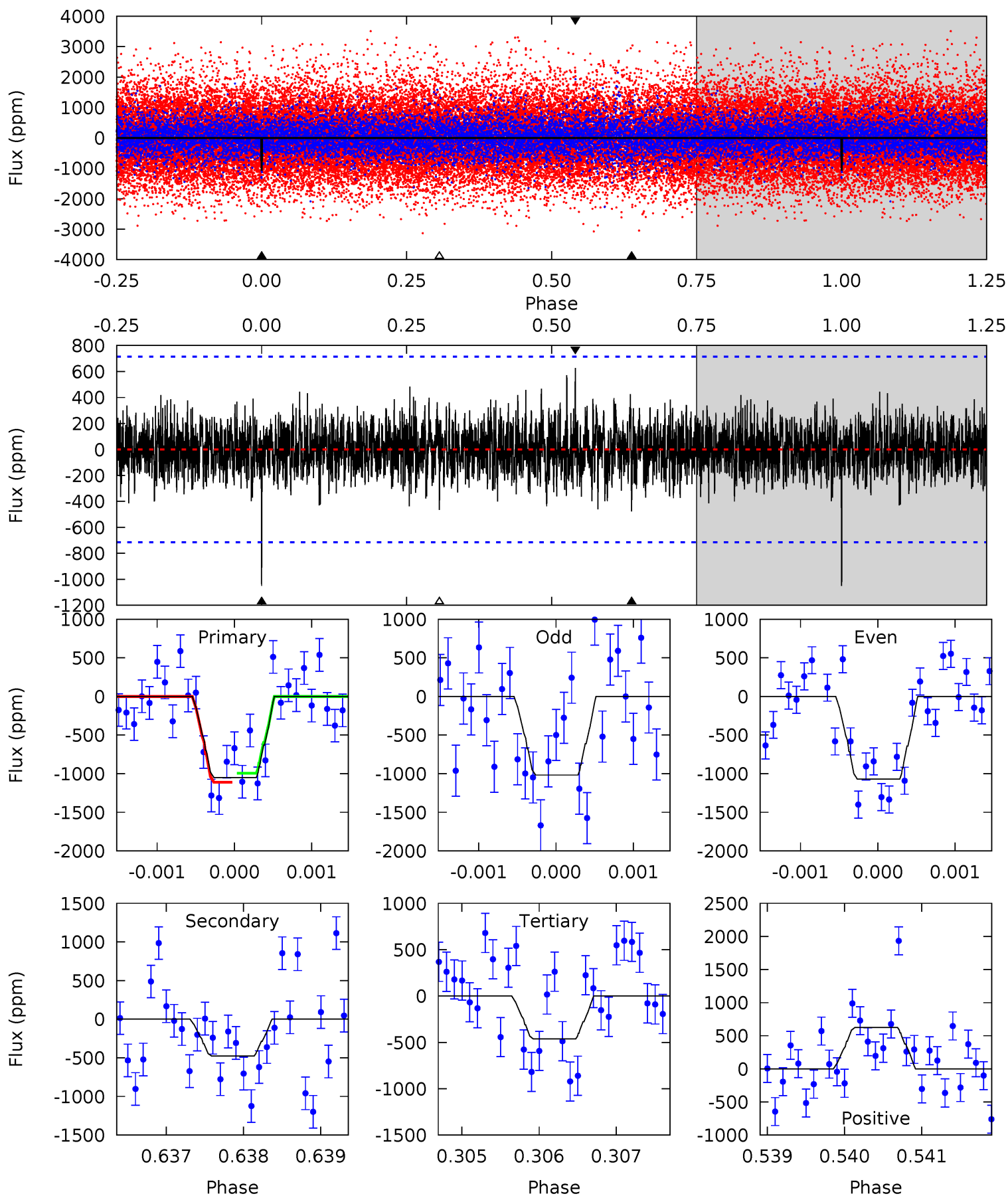
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.75	4.18	4.04	4.89	5.42	3.24	1.19	5.71	4.85	0.15	-0.71	0.94	1.03	0.33	0.45



Alt Model-Shift Uniqueness Test

006182508-01, $P = 85.977080$ Days, $E = 159.312892$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.01	3.63	3.53	4.78	5.45	3.29	1.10	4.47	3.23	0.10	-1.14	0.20	1.05	0.37	0.44



Stellar Parameters For KIC 006182508

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3710^{+81}_{-89}	$4.797^{+0.054}_{-0.036}$	$-0.200^{+0.100}_{-0.100}$	$0.452^{+0.036}_{-0.053}$	$0.467^{+0.034}_{-0.051}$	$7.141^{+2.032}_{-1.100}$
	+2%/-2%	+1%/-1%	+50%/-50%	+8%/-12%	+7%/-11%	+28%/-15%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006182508-01 / KOI 8261.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-500 ± 120	$2.96^{+3.13}_{-1.94}$	281^{+8}_{-9}	2752^{+1018}_{-455}	2669^{+19657}_{-2034}
Alt.	-477 ± 131	$3.14^{+2.84}_{-2.23}$	282^{+8}_{-8}	2701^{+1178}_{-395}	2247^{+24864}_{-1623}

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 $A_{obs} \gg 1.0$

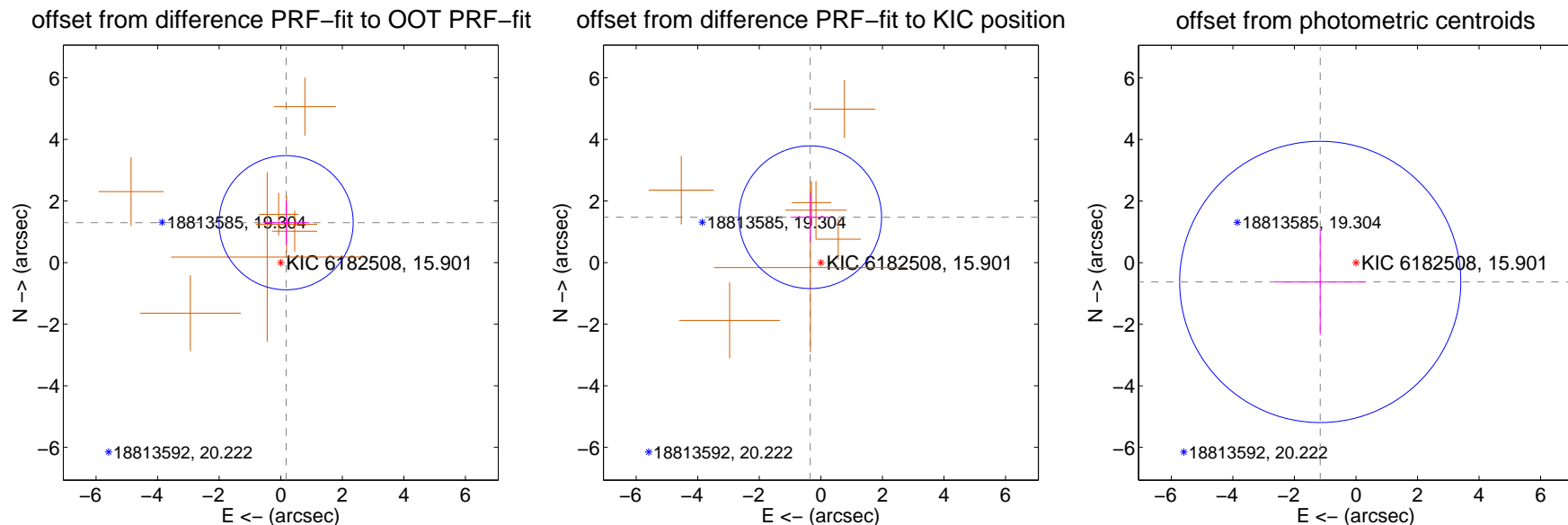
DV Centroid Data

Supplemental centroid analysis for 006182508-01. Kepler magnitude: 15.90. Transit SNR 8.78

There are 0 quarters with good PRF difference image offsets

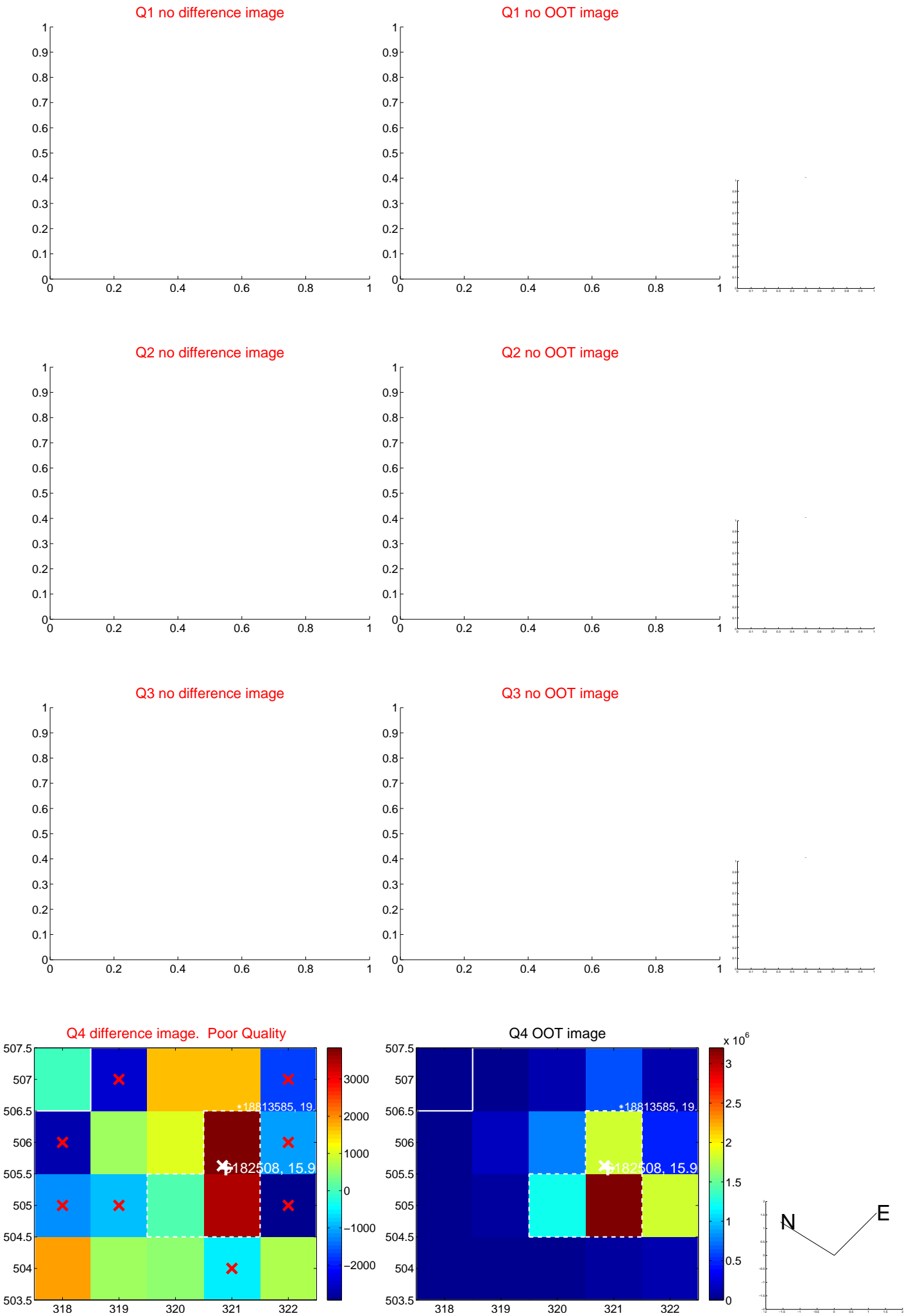
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.307 ± 0.726	1.80	-0.174 ± 0.755	1.296 ± 0.723
PRF-fit source offset from KIC position	1.513 ± 0.773	1.96	0.345 ± 0.641	1.474 ± 0.779
photometric centroid source offset	1.32 ± 1.52	0.87	1.16 ± 1.46	-0.63 ± 1.72

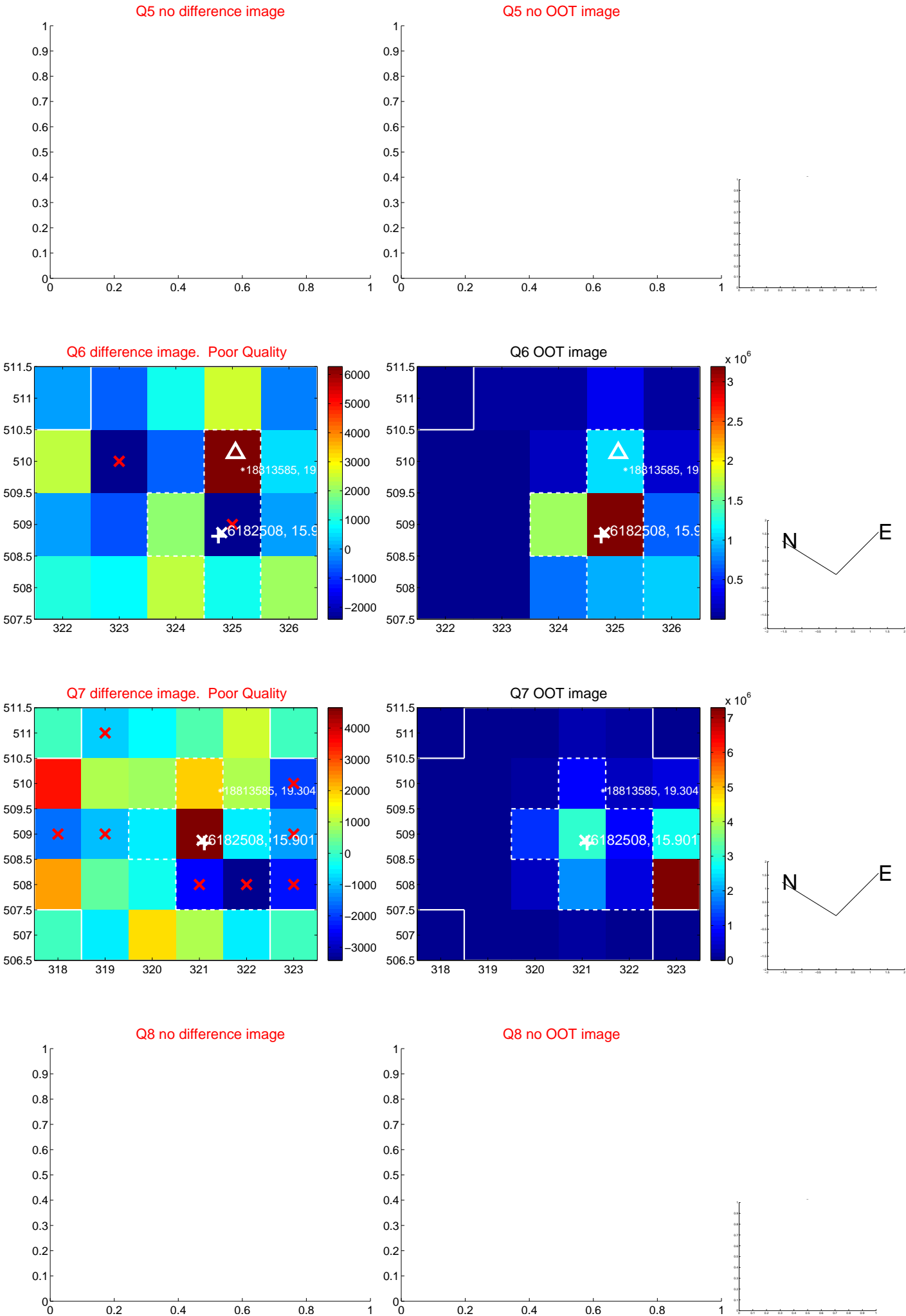


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

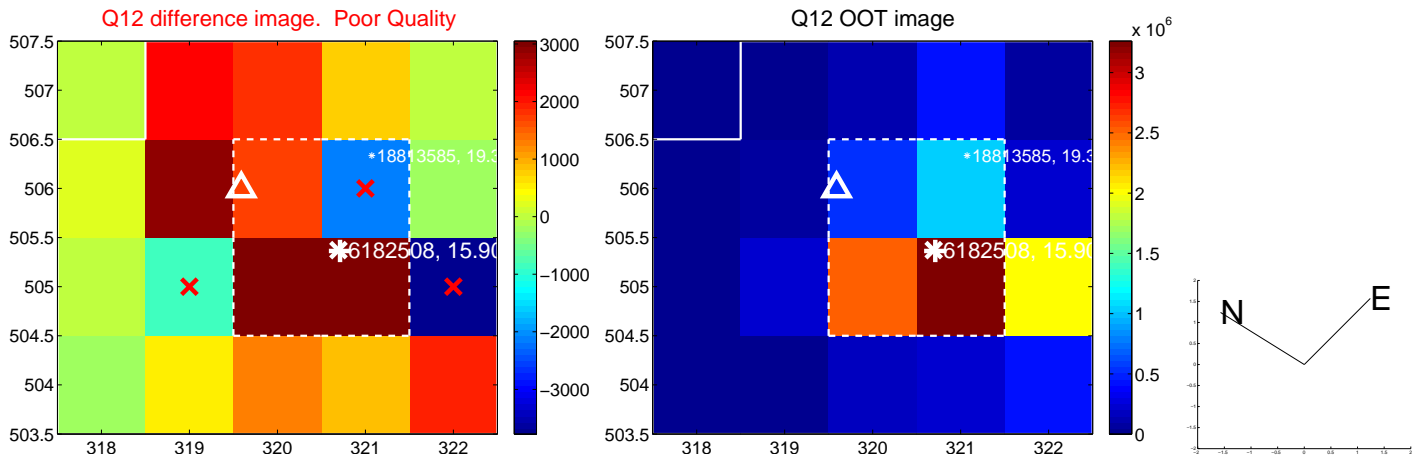
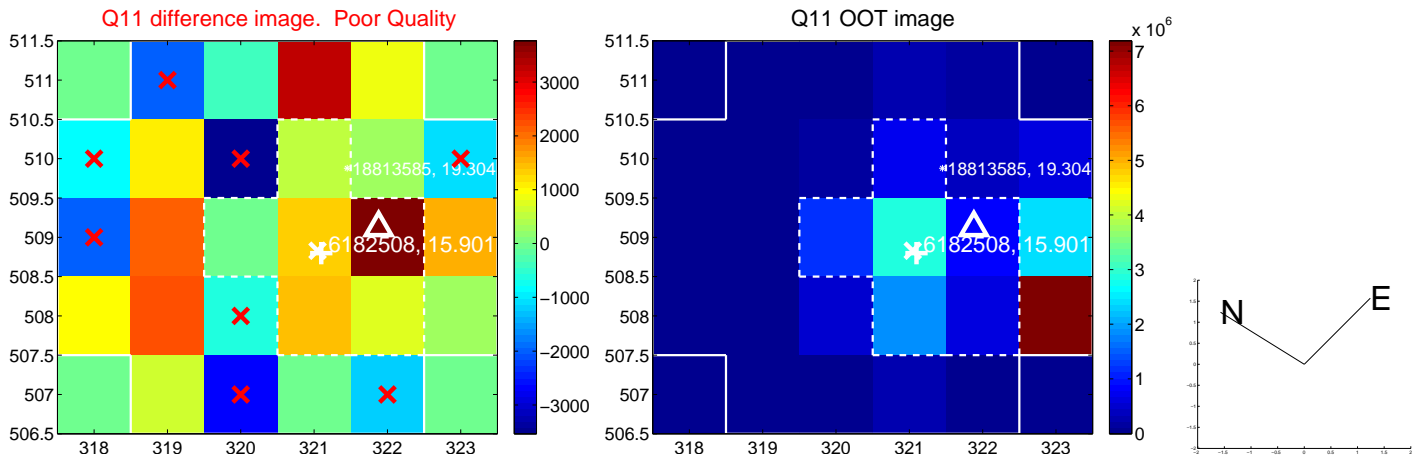
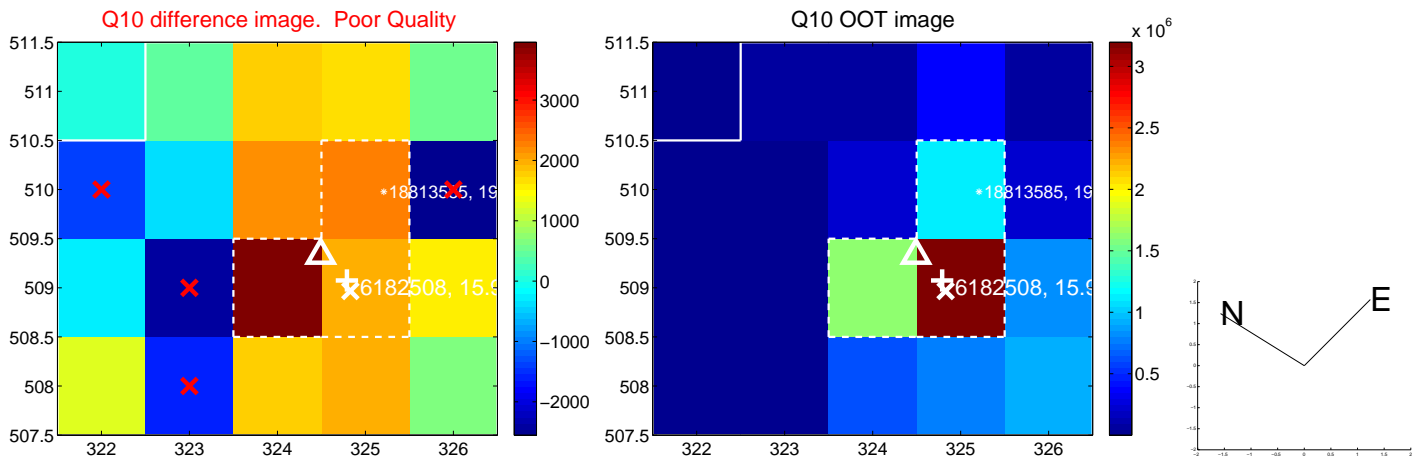
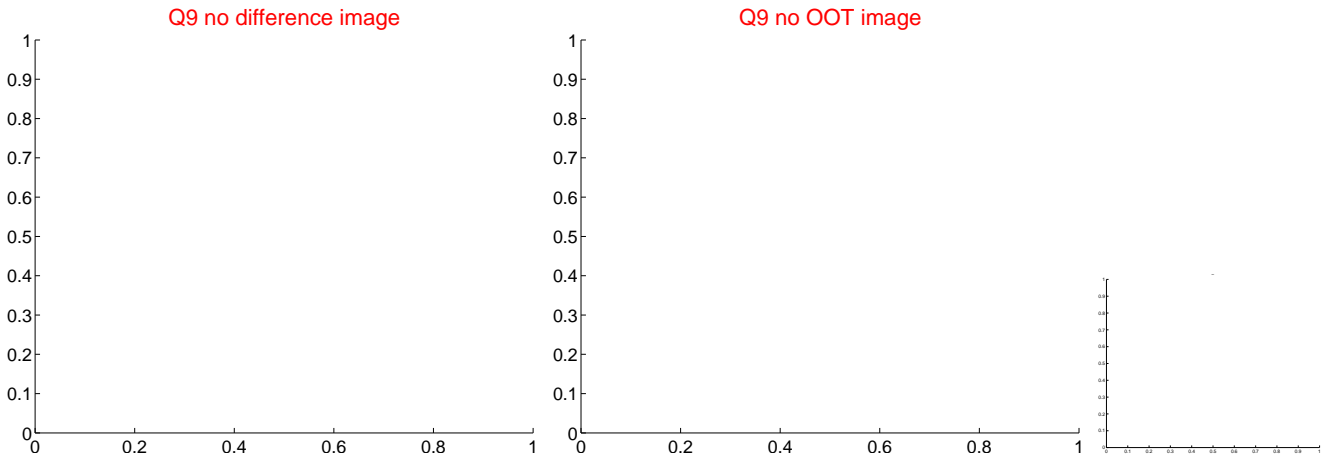
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



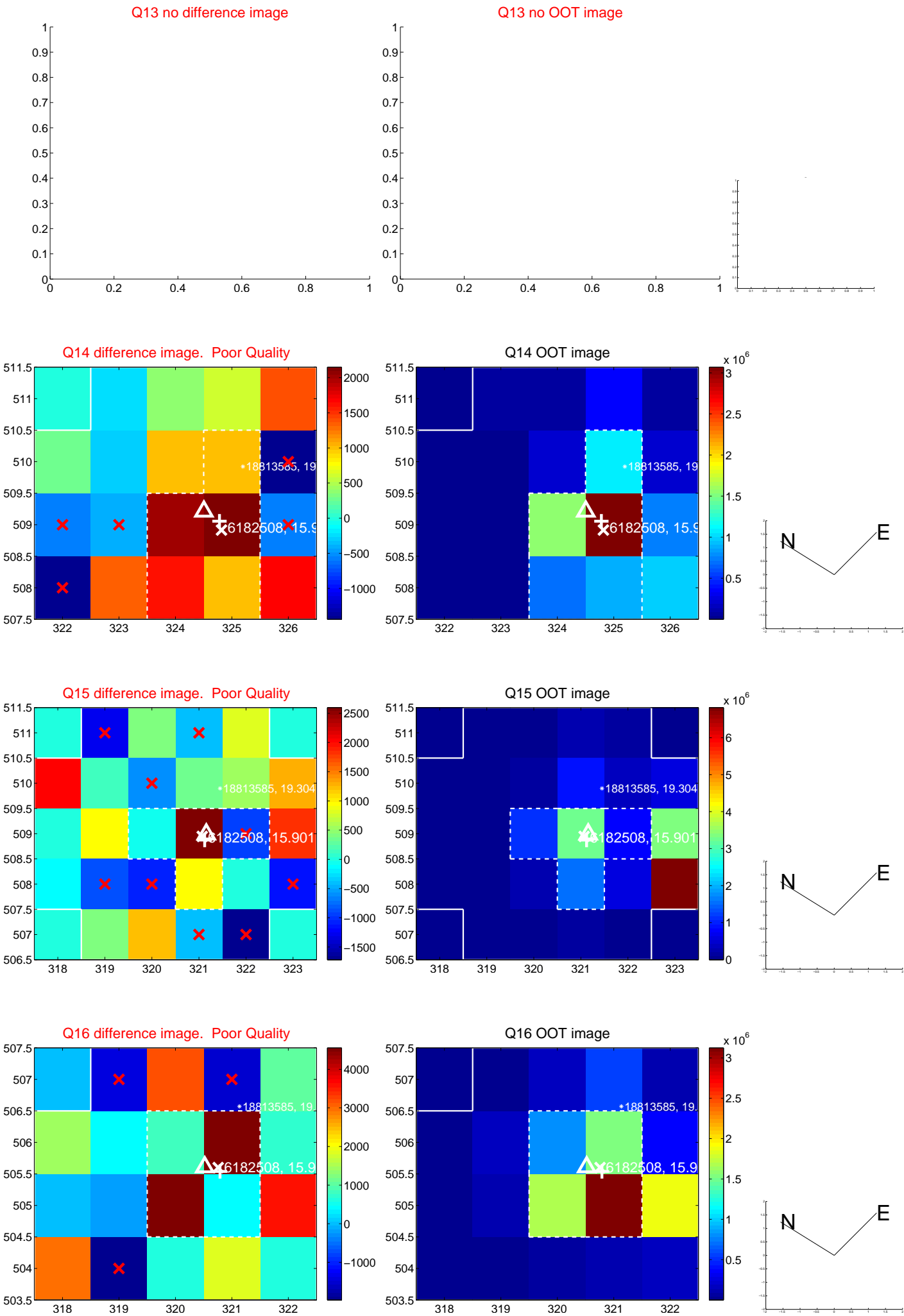
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



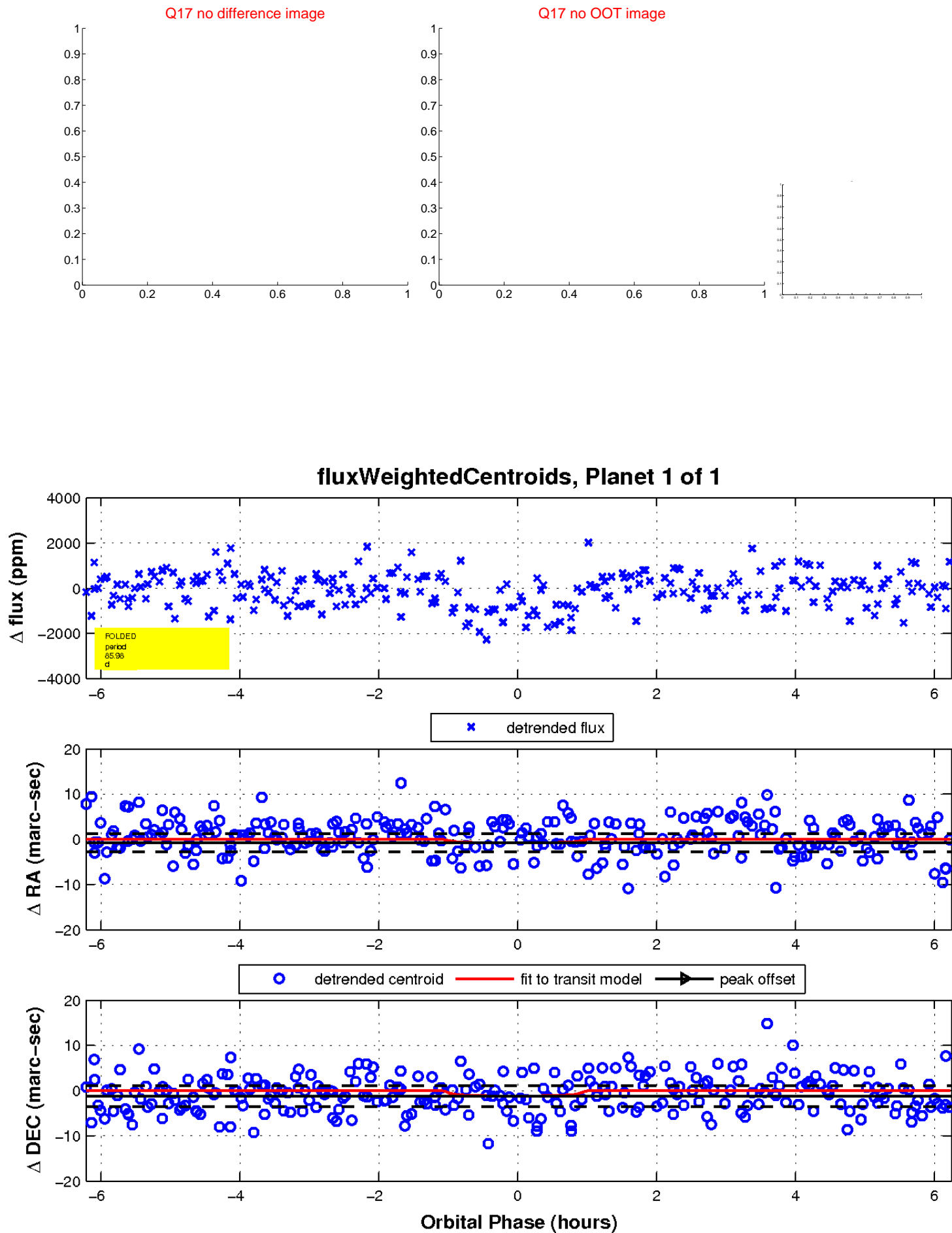
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

