

KIC 006366559

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})
006366559-01	OBS	5274.01	55.757776	160.010599	122.0	2.647	7.2	7.0	1.40	5413	1.89	19.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006366559-01	OBS	FP	0.33	1	0	0	0	MOD_NONUNIQ_ALT

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.

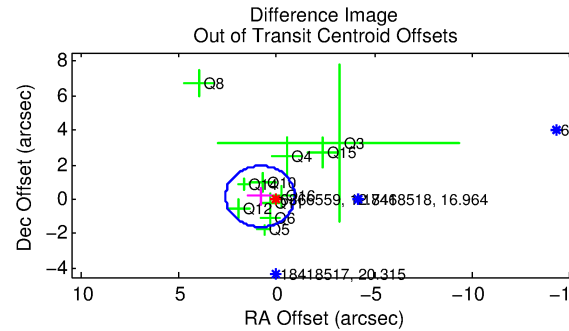
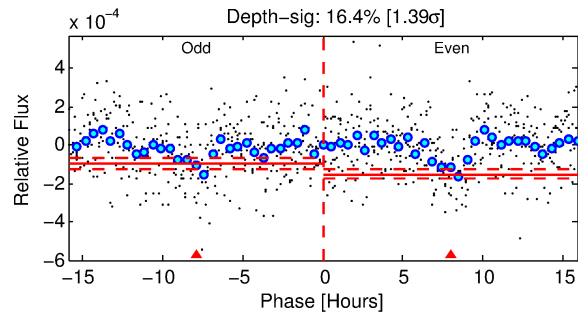
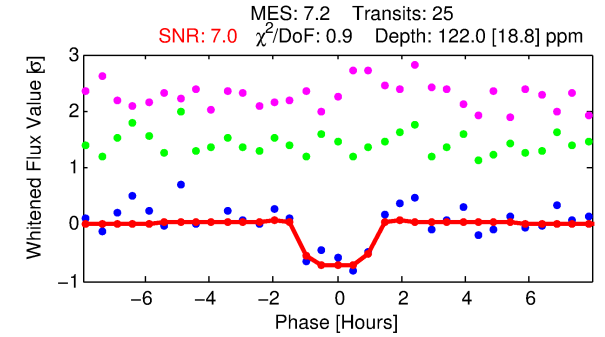
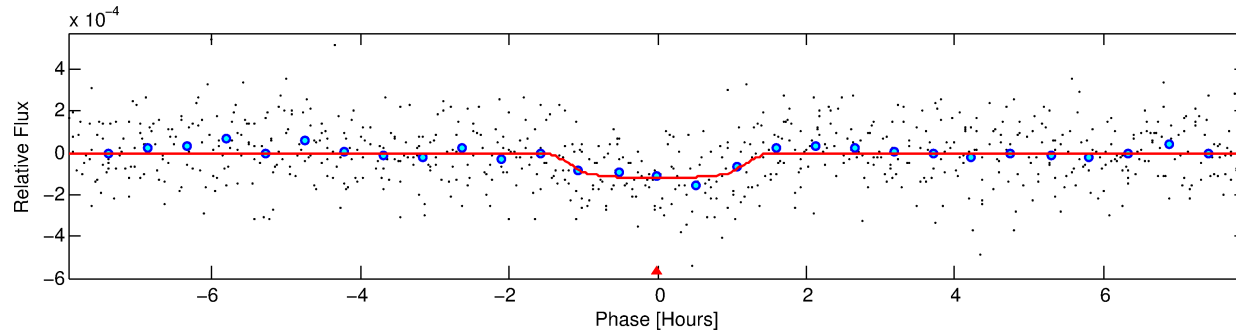
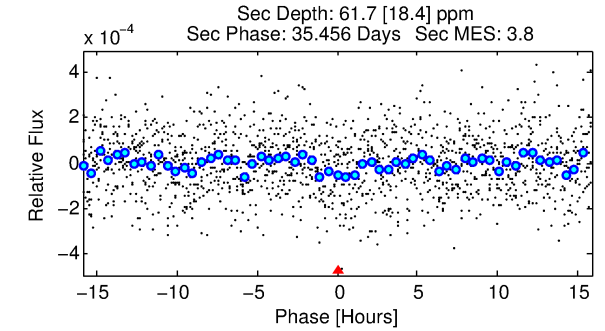
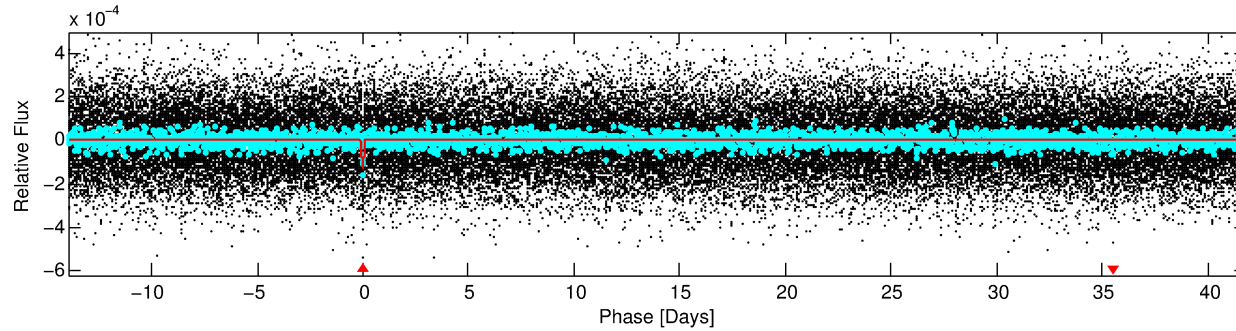
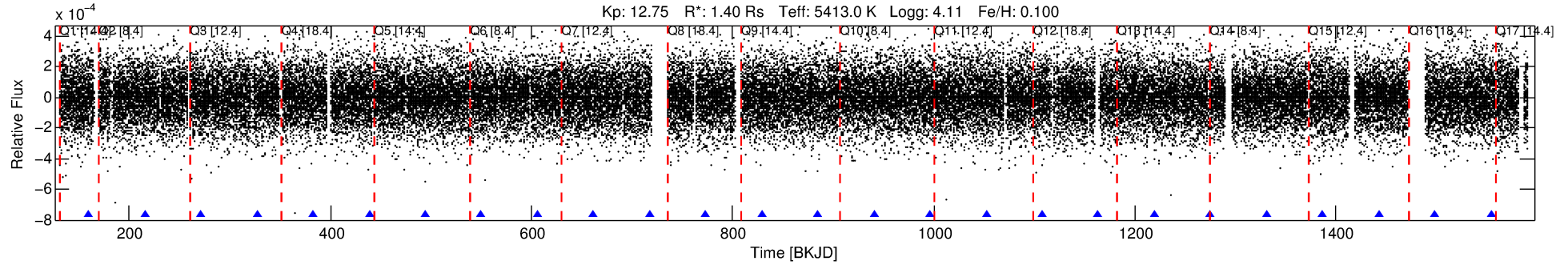
Ephemeris Match Information For 006366559-01

No Significant Match Found

DV One-Page Summary

KIC: 6366559 Candidate: 1 of 1 Period: 55.758 d

KOI: K05274.01 Corr: 0.961



DV Fit Results:

Period = 55.75778 [0.00055] d
Epoch = 160.0106 [0.0078] BKJD
Rp/R* = 0.0124 [0.0103]
a/R* = 70.58 [264.01]
b = 0.91 [0.70]
Seff = 19.63 [8.95]
Teq = 537 [61] K
Rp = 1.89 [1.67] Re
a = 0.2777 [0.0773] AU
Ag = 731.36 [1281.71] [0.57σ]
Teffp = 4316 [1829] K [2.06σ]

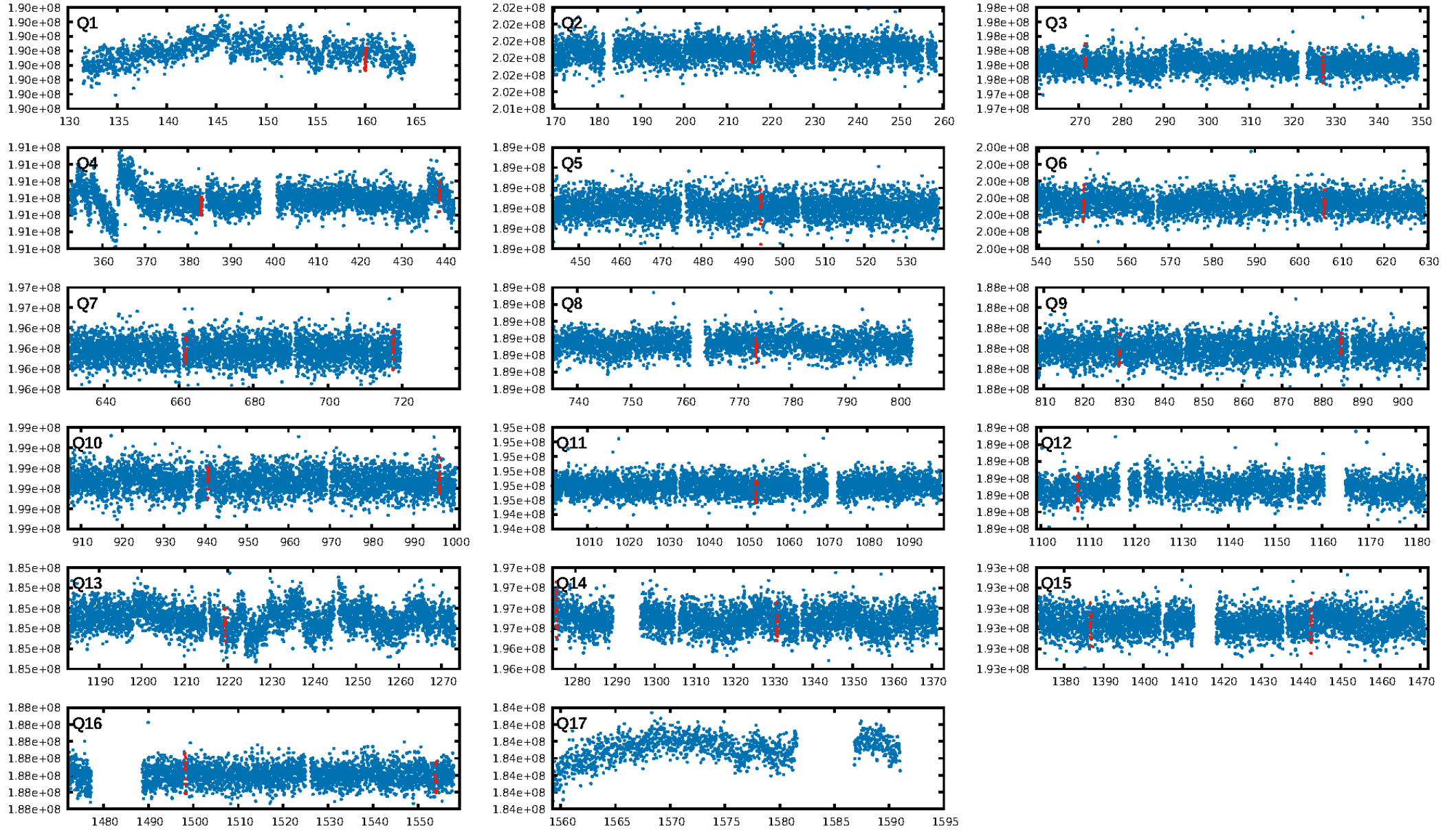
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 76.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.04e-12
RollingBand-fgt: 1.00 [24/24]
GhostDiagnostic-chr: -13.1
Centroid-sig: 30.1%
Centroid-so: 0.529 arcsec [0.55σ]
OotOffset-rm: 0.854 arcsec [1.45σ]
KicOffset-rm: 0.748 arcsec [1.26σ]
OotOffset-st: 3/3/4/1 [11]
KicOffset-st: 3/3/4/1 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 1.00 [16/16]

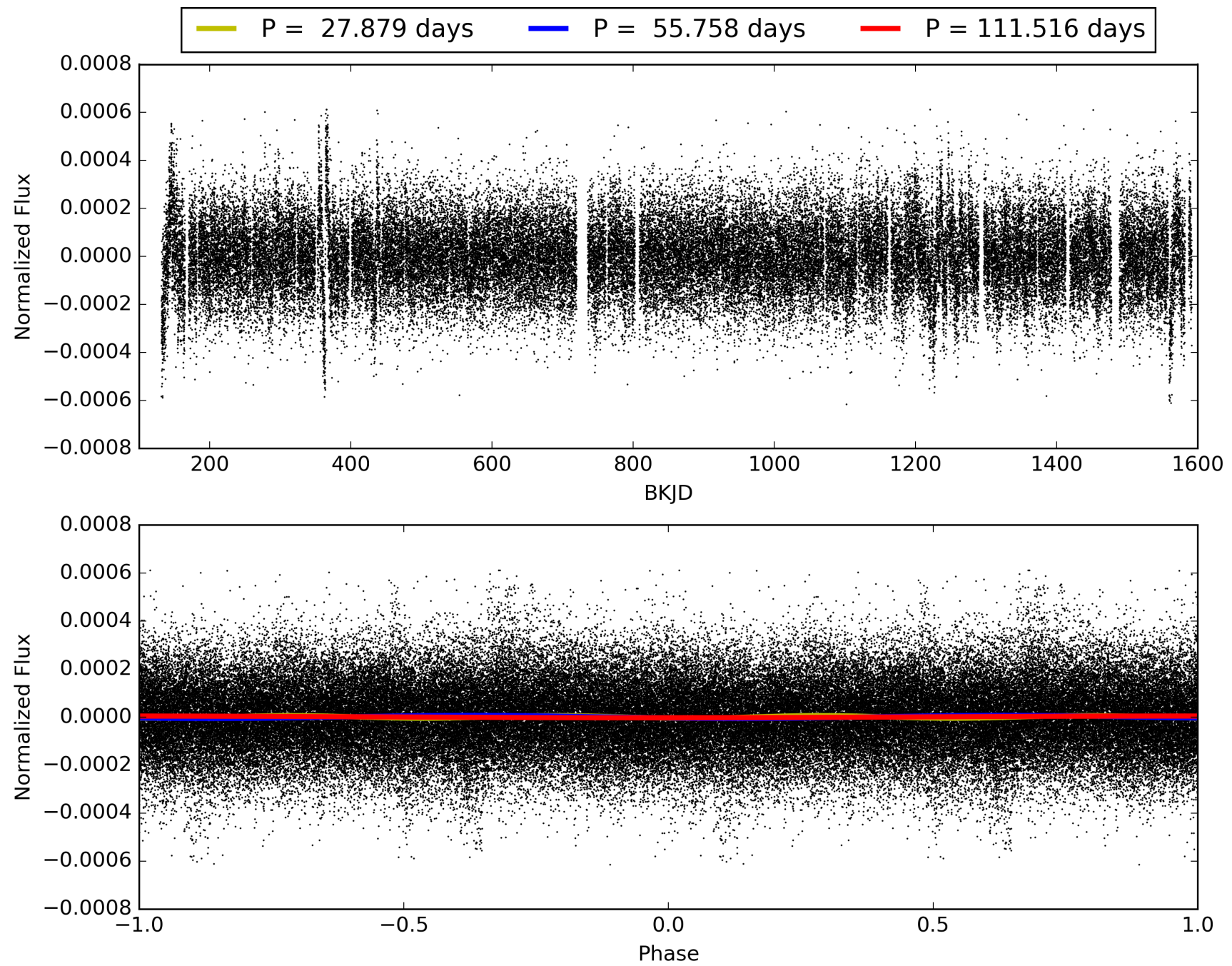
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:59:14 Z

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

TCE 006366559-01, PDC Light Curves

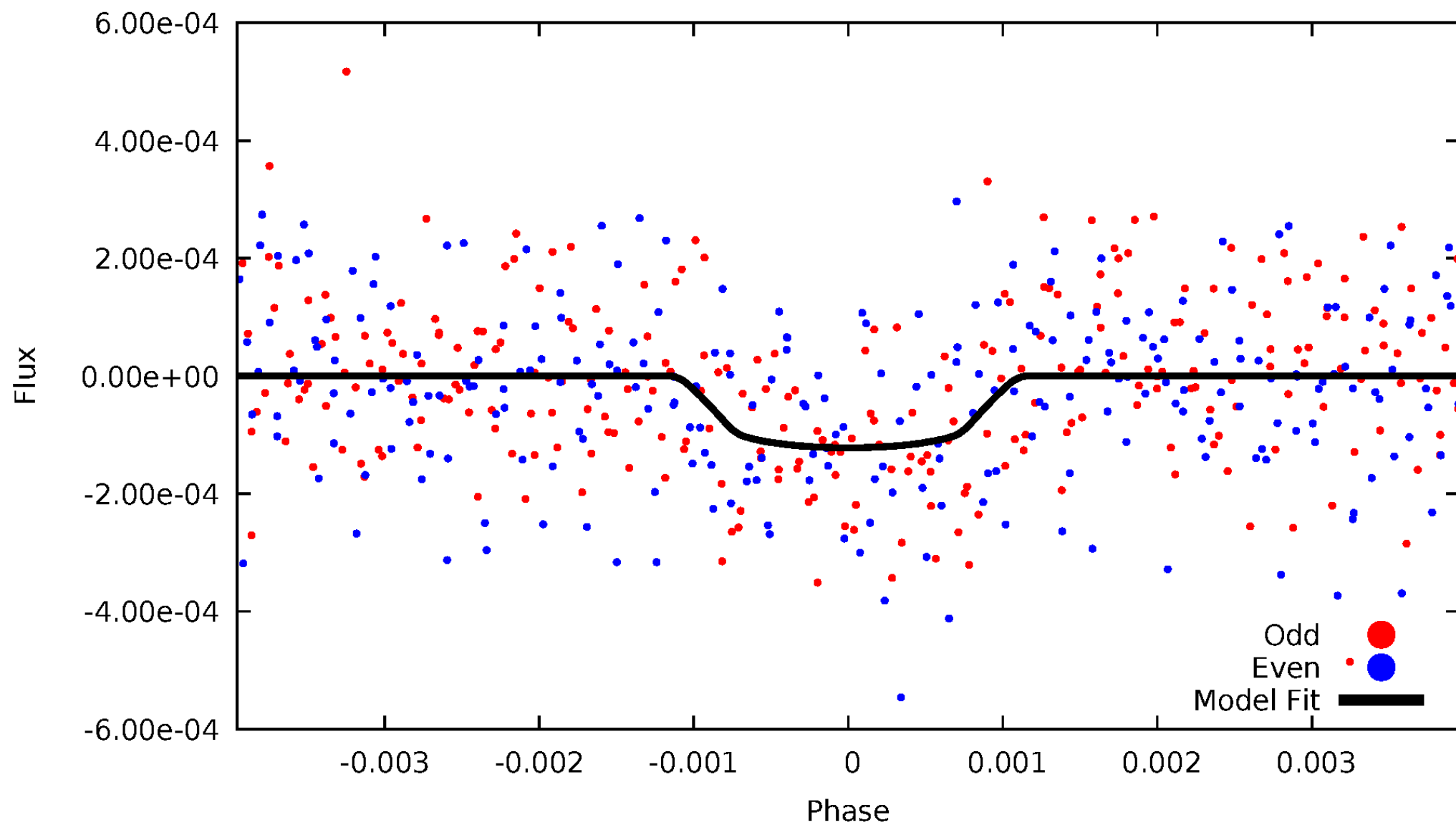


TCE 006366559-01



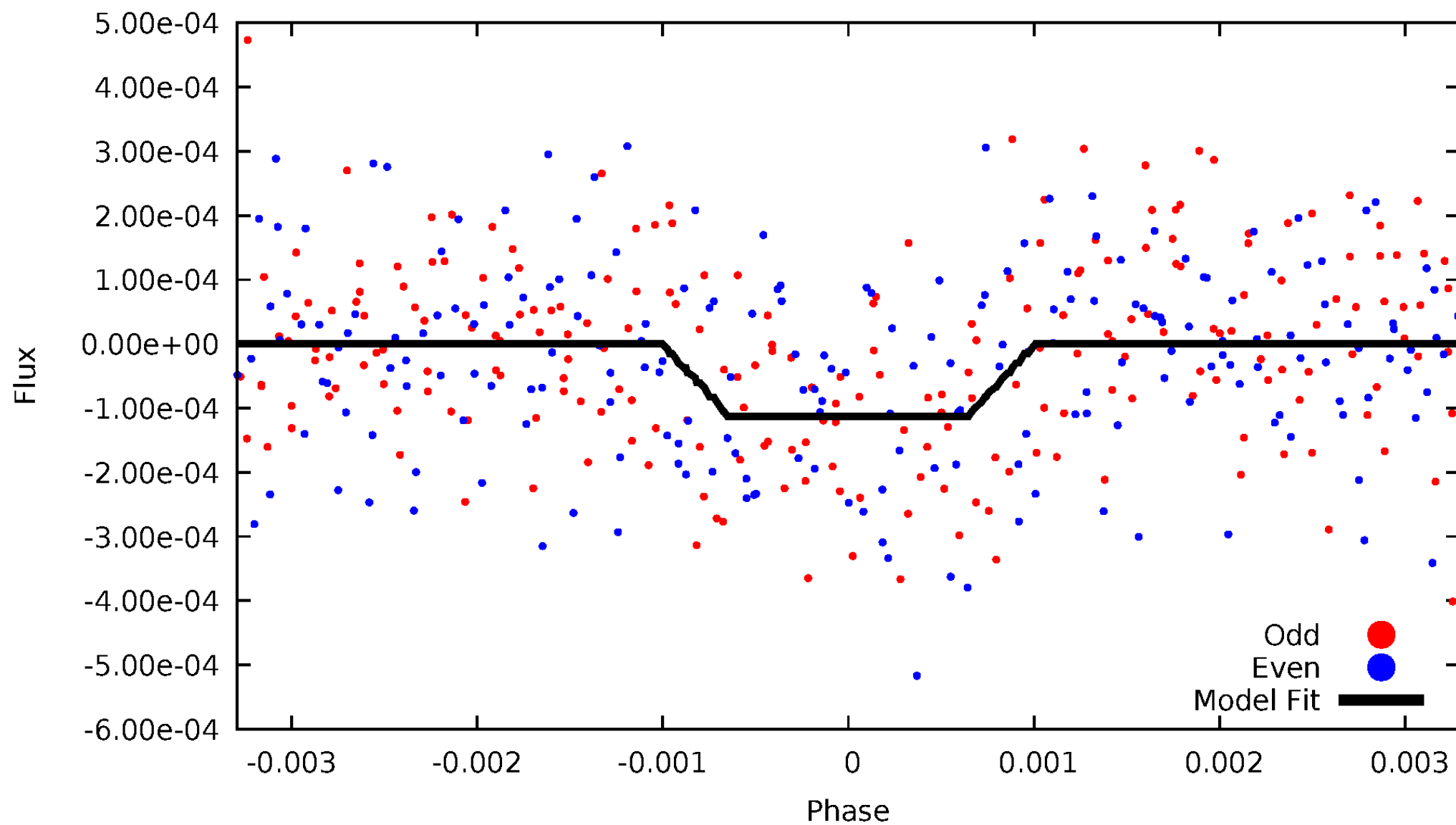
DV Odd/Even

TCE 006366559-01



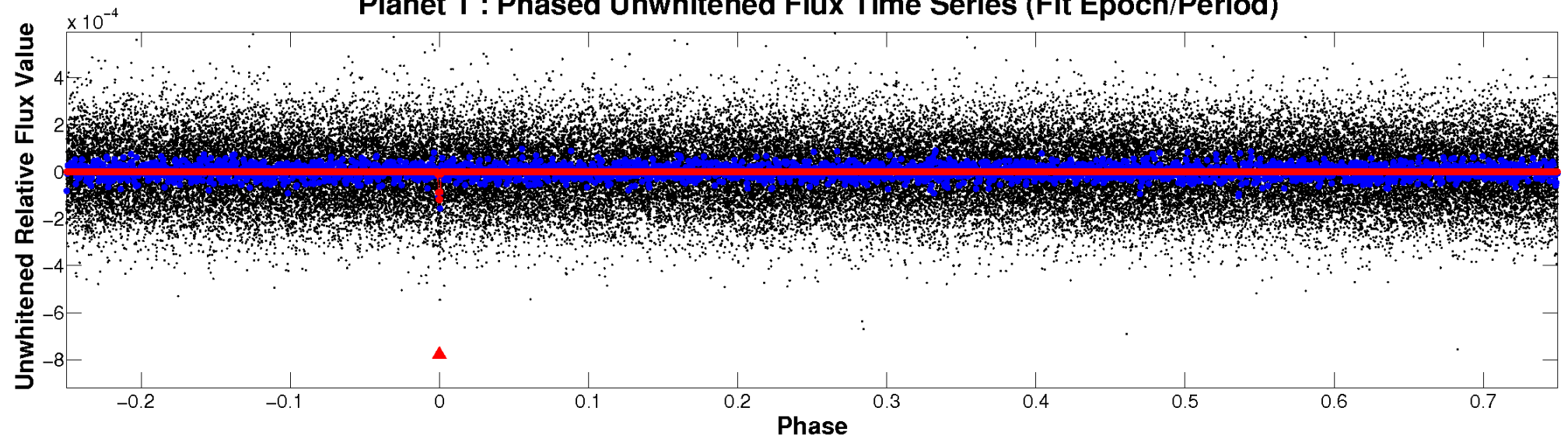
ALT Odd/Even

TCE 006366559-01

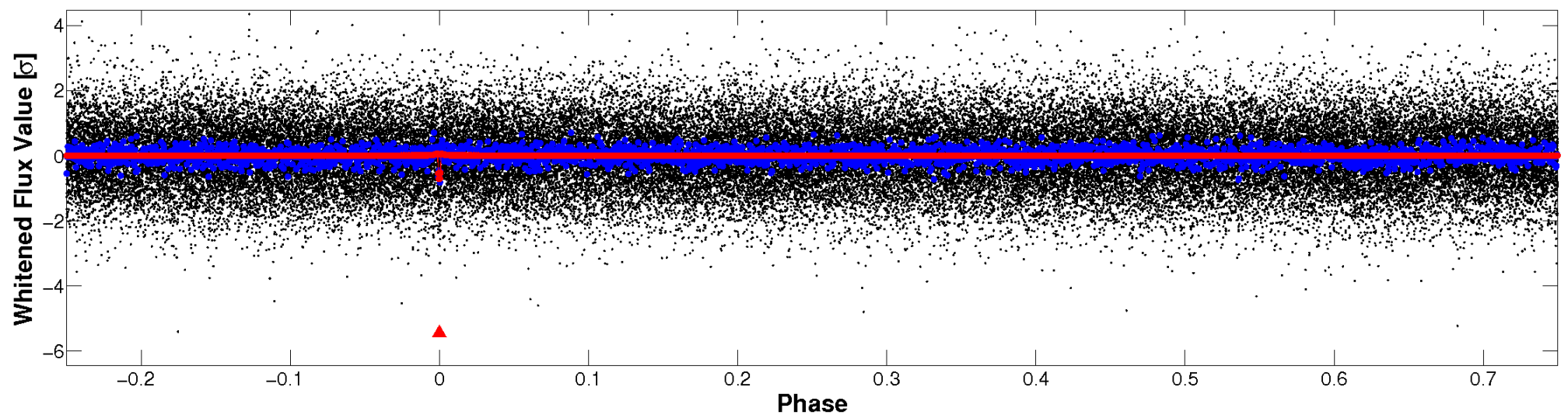


Non-Whitened Vs. Whitened Light Curve

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

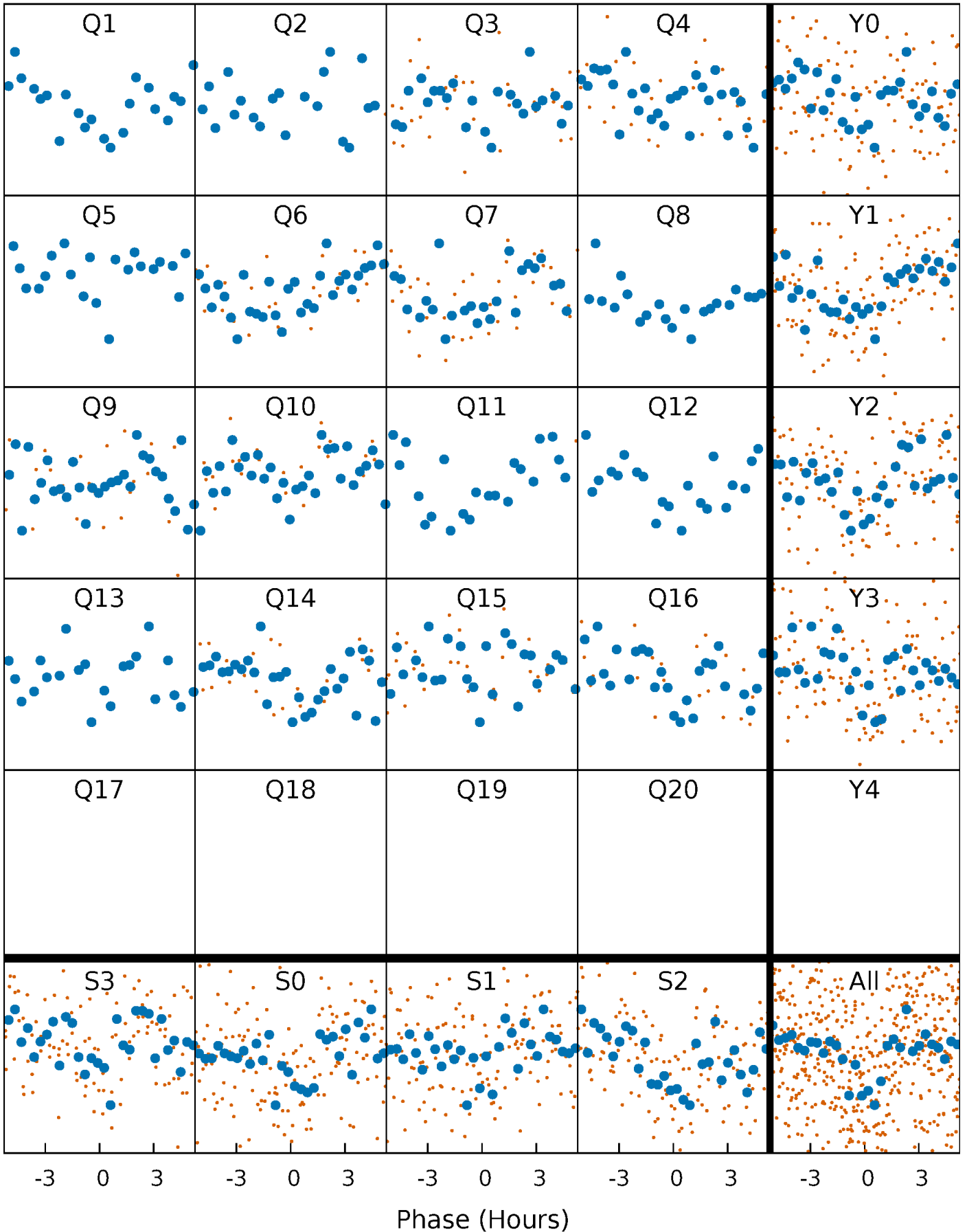


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



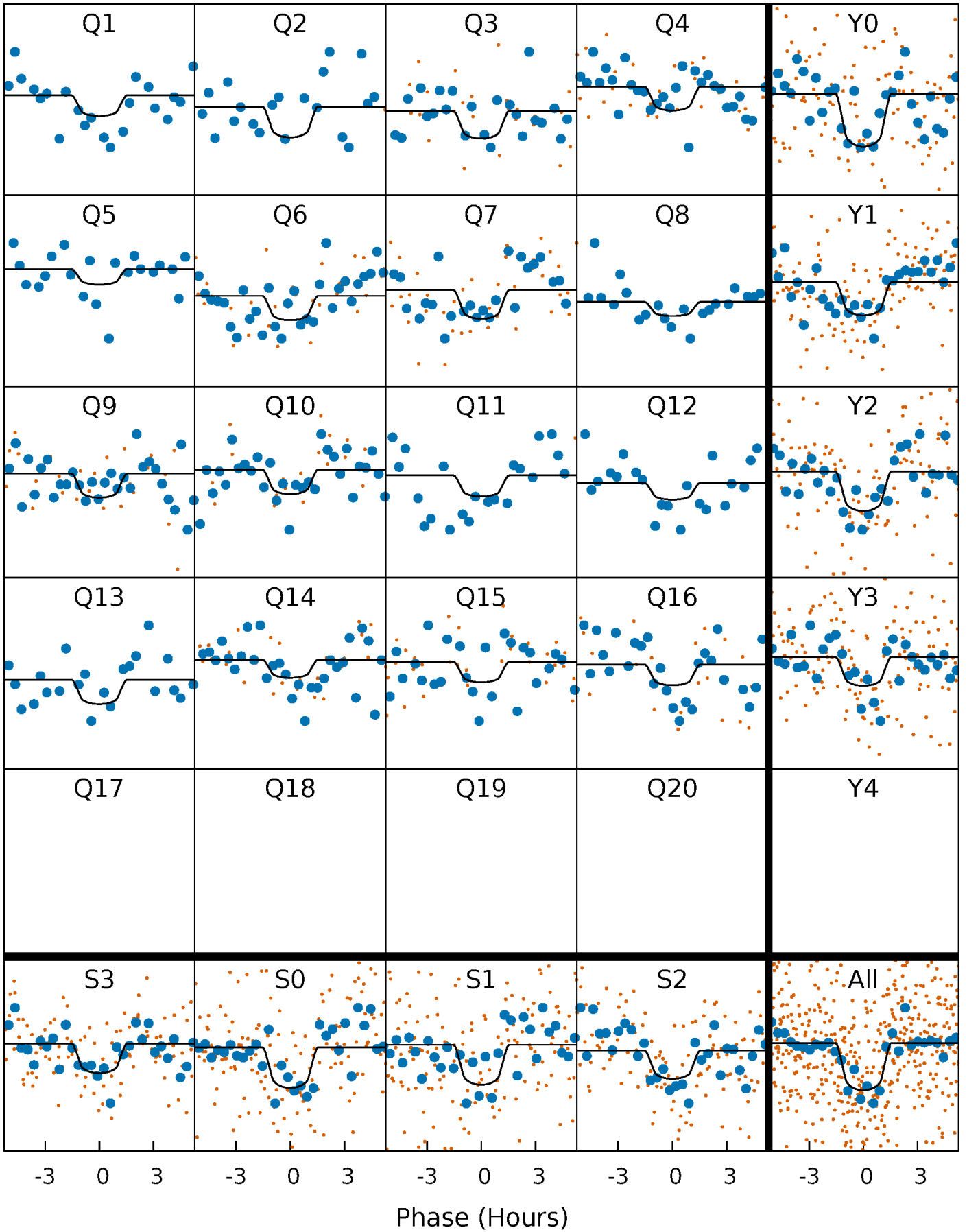
PDC Quarter-Phased Transit Curves

TCE 006366559-01 P= 55.757776 Days $T_0=160.010599$ (BKJD)



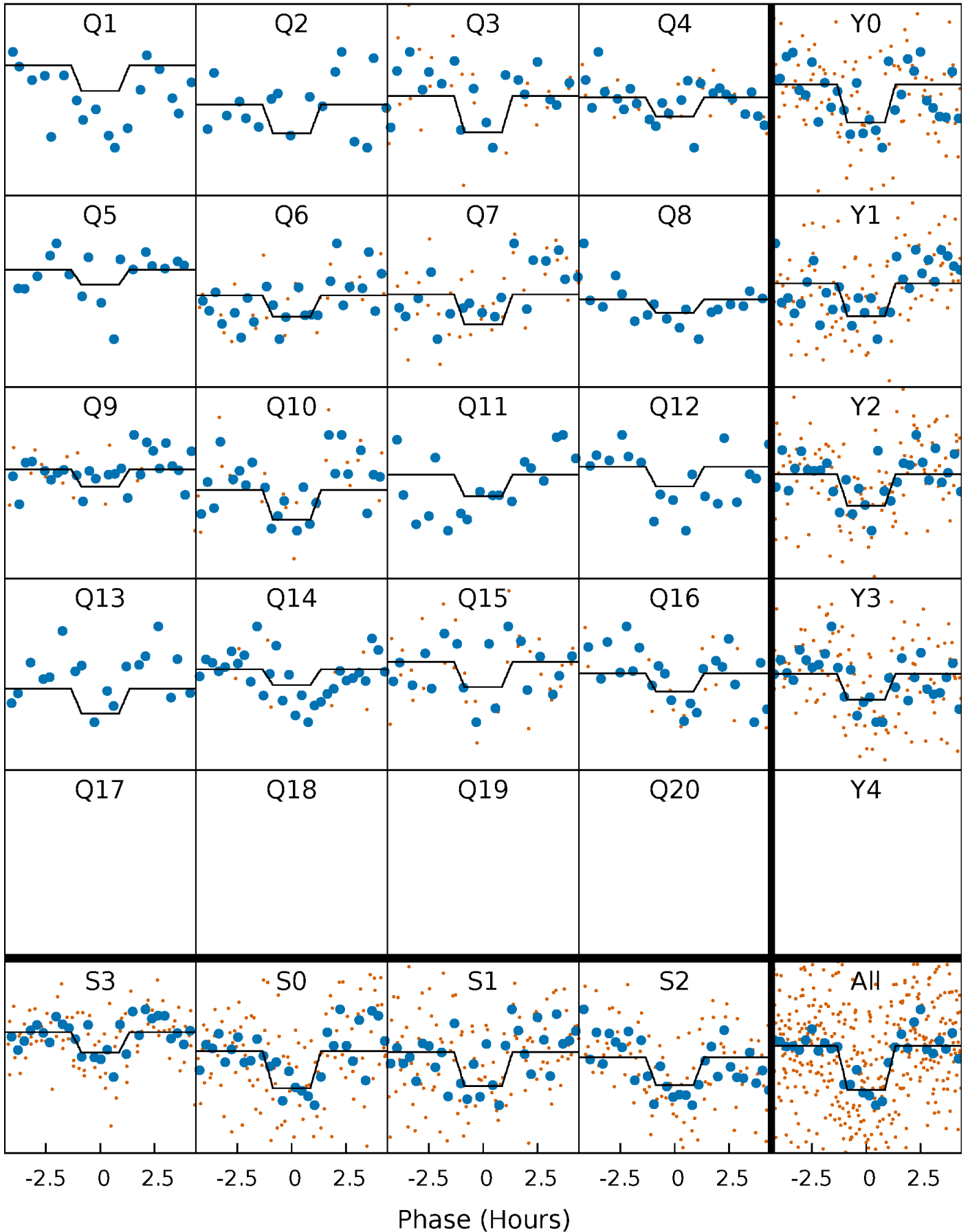
DV Quarter-Phased Transit Curves

TCE 006366559-01 P= 55.757776 Days $T_0=160.010599$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

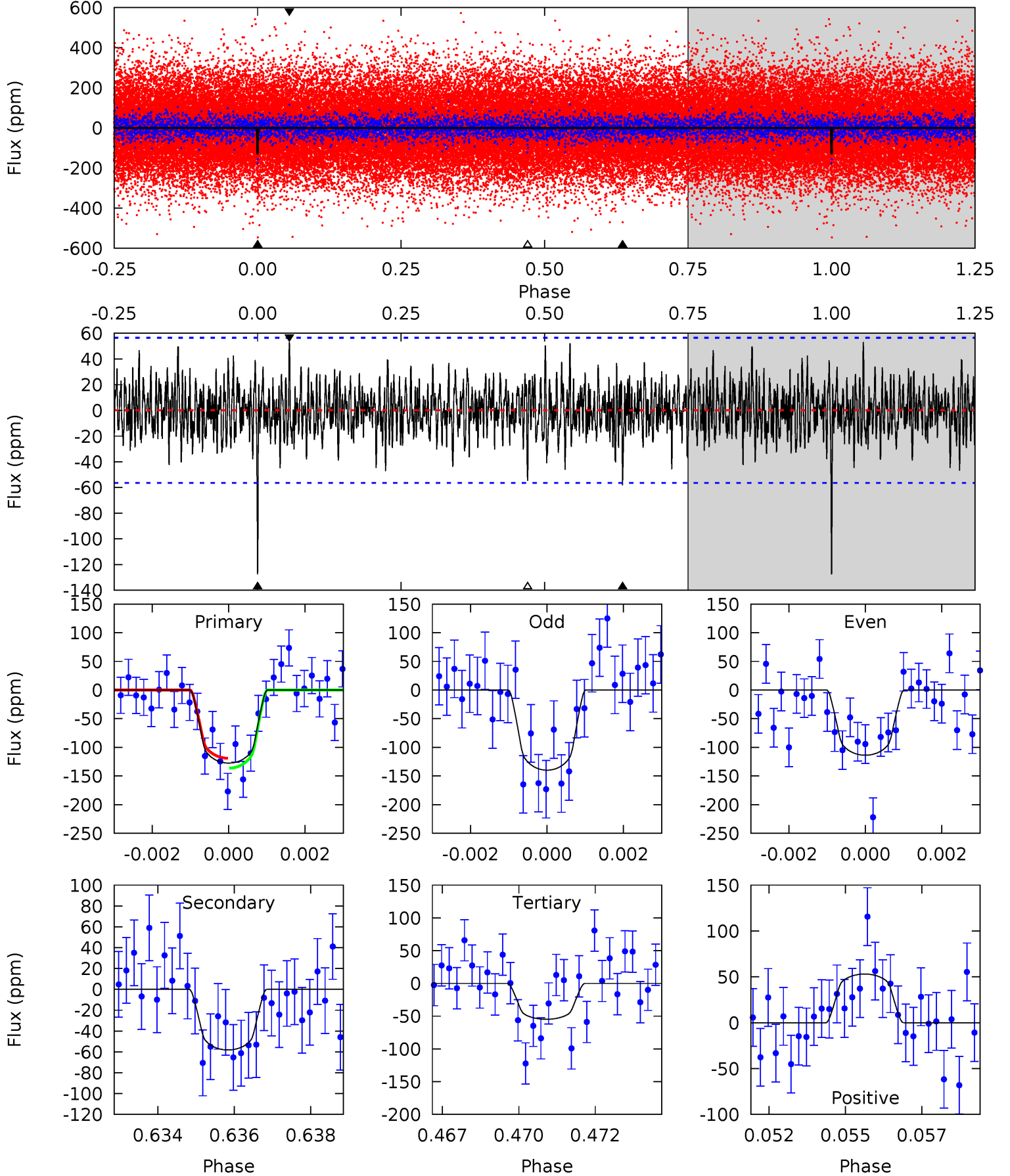
TCE 006366559-01 P= 55.757930 Days $T_0=160.008068$ (BKJD)



DV Model-Shift Uniqueness Test

006366559-01, P = 55.757776 Days, E = 104.252823 Days

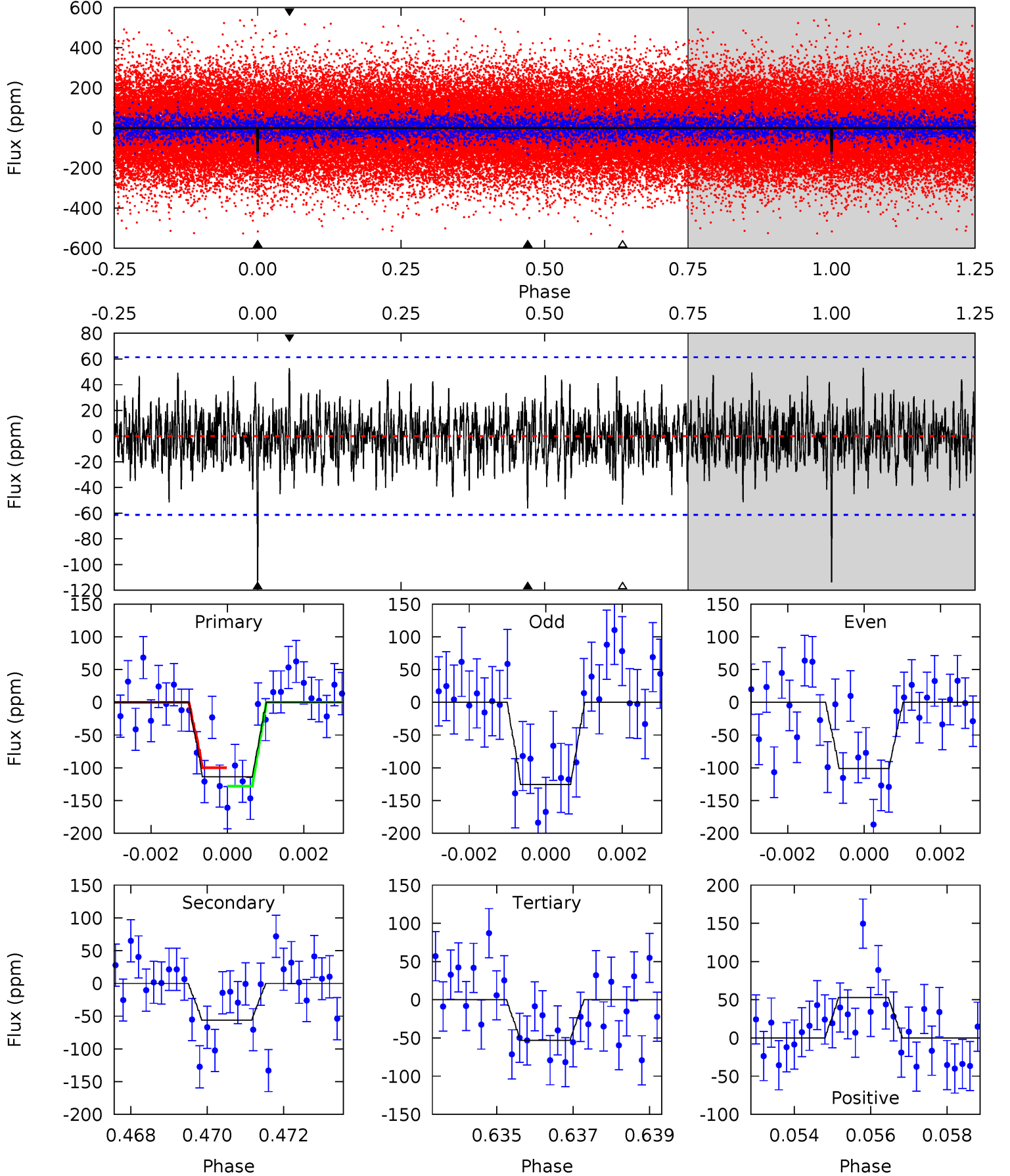
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	5.47	5.15	4.98	5.30	3.05	1.49	6.83	6.99	0.32	0.48	1.23	0.98	0.29	0.81



Alt Model-Shift Uniqueness Test

006366559-01, P = 55.757930 Days, E = 104.250138 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.89	4.89	4.63	4.60	5.33	3.09	1.36	5.26	5.29	0.26	0.29	1.06	0.83	0.32	1.22



Stellar Parameters For KIC 006366559

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5413^{+97}_{-65}	$4.107^{+0.266}_{-0.114}$	$0.100^{+0.200}_{-0.100}$	$1.403^{+0.266}_{-0.398}$	$0.918^{+0.073}_{-0.042}$	$0.468^{+0.672}_{-0.179}$
	+2%/-1%	+6%/-3%	+200%/-100%	+19%/-28%	+8%/-5%	+143%/-38%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 006366559-01 / KOI 5274.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-58 ± 11	$1.97^{+1.52}_{-1.12}$	747^{+39}_{-58}	4311^{+2022}_{-757}	618^{+2967}_{-417}
Alt.	-56 ± 12	$1.84^{+1.43}_{-1.20}$	744^{+40}_{-64}	4377^{+2613}_{-797}	718^{+5011}_{-499}

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

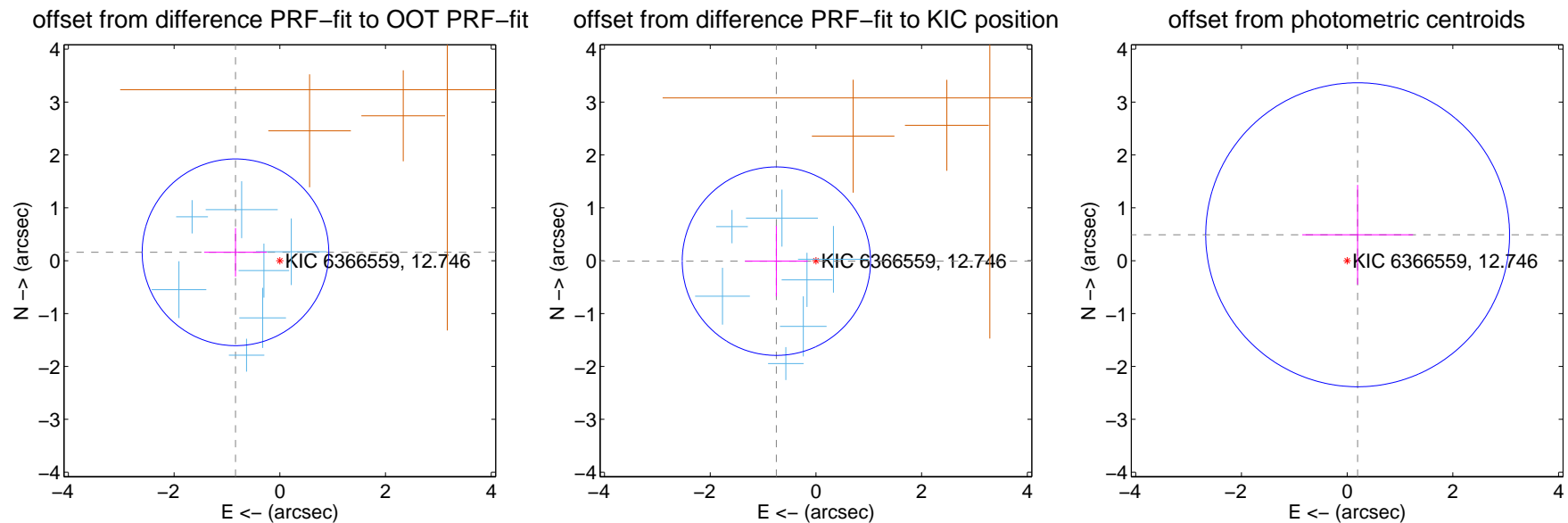
DV Centroid Data

Supplemental centroid analysis for 006366559-01. Kepler magnitude: 12.75. Transit SNR 7.03

There are 7 quarters with good PRF difference image offsets

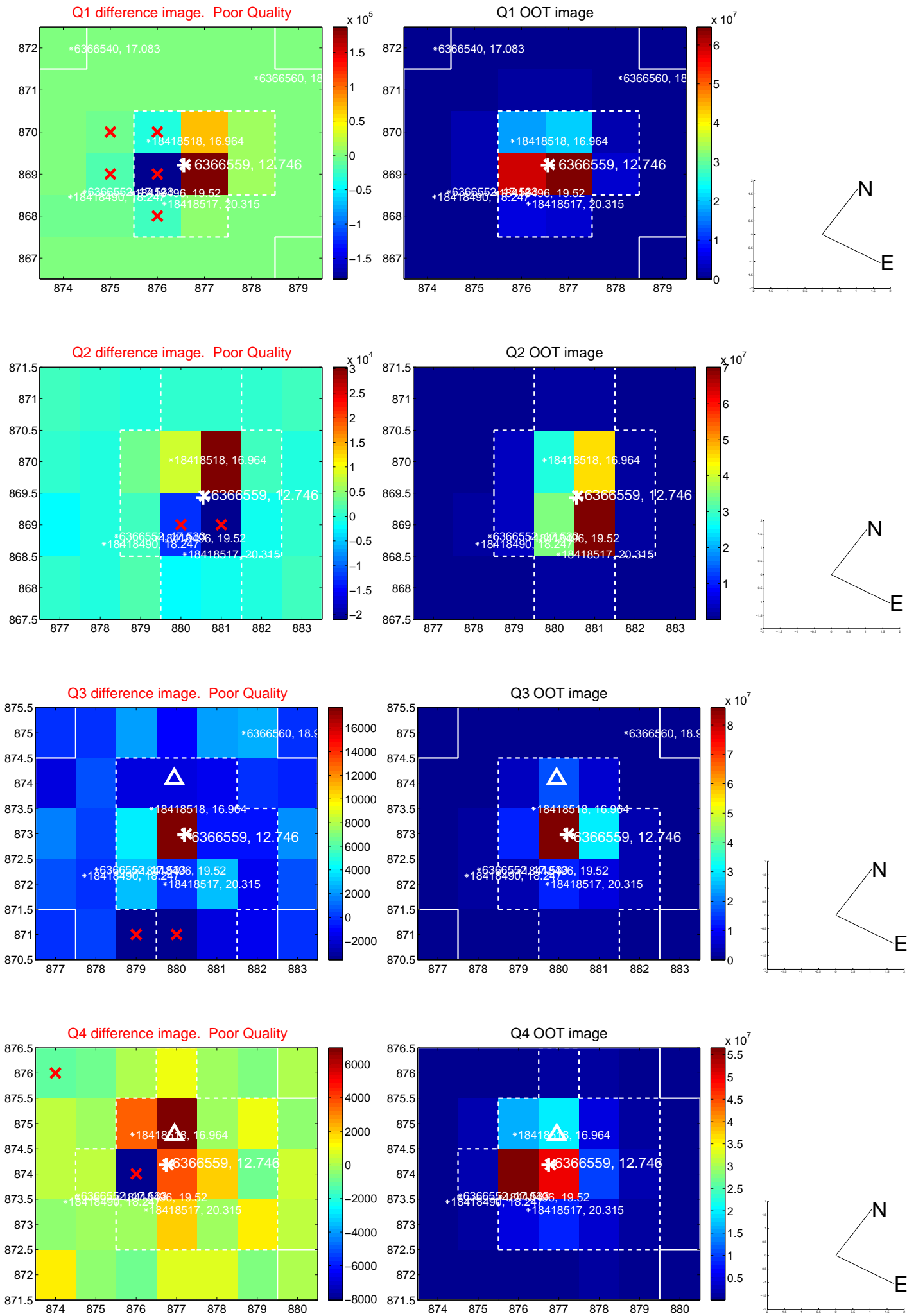
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.854 ± 0.589	1.45	0.839 ± 0.593	0.159 ± 0.458
PRF-fit source offset from KIC position	0.748 ± 0.594	1.26	0.748 ± 0.595	-0.009 ± 0.666
photometric centroid source offset	0.53 ± 0.96	0.55	-0.20 ± 1.05	0.49 ± 0.94

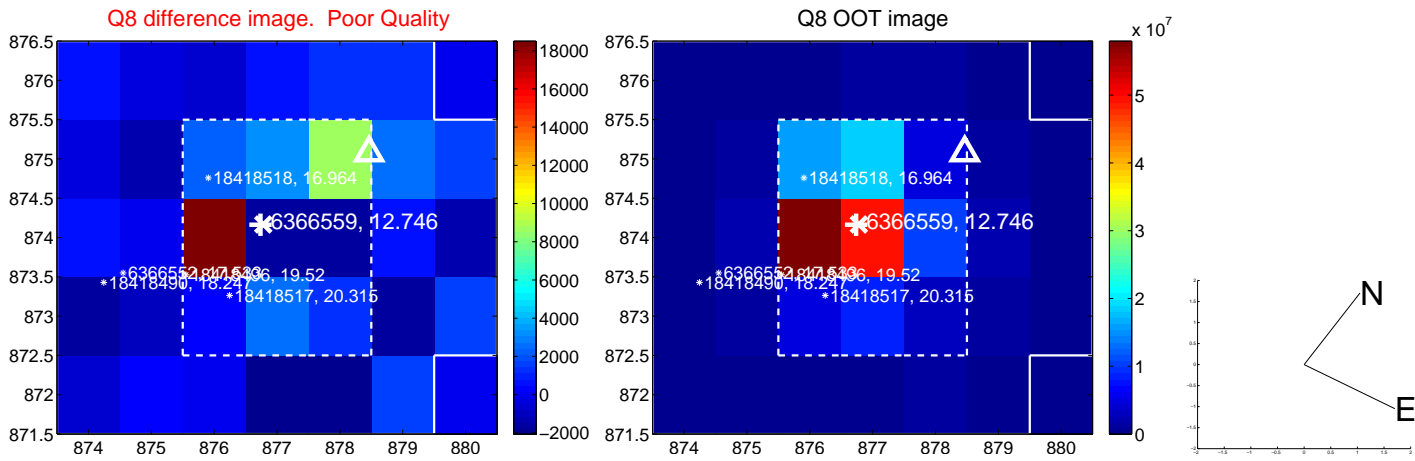
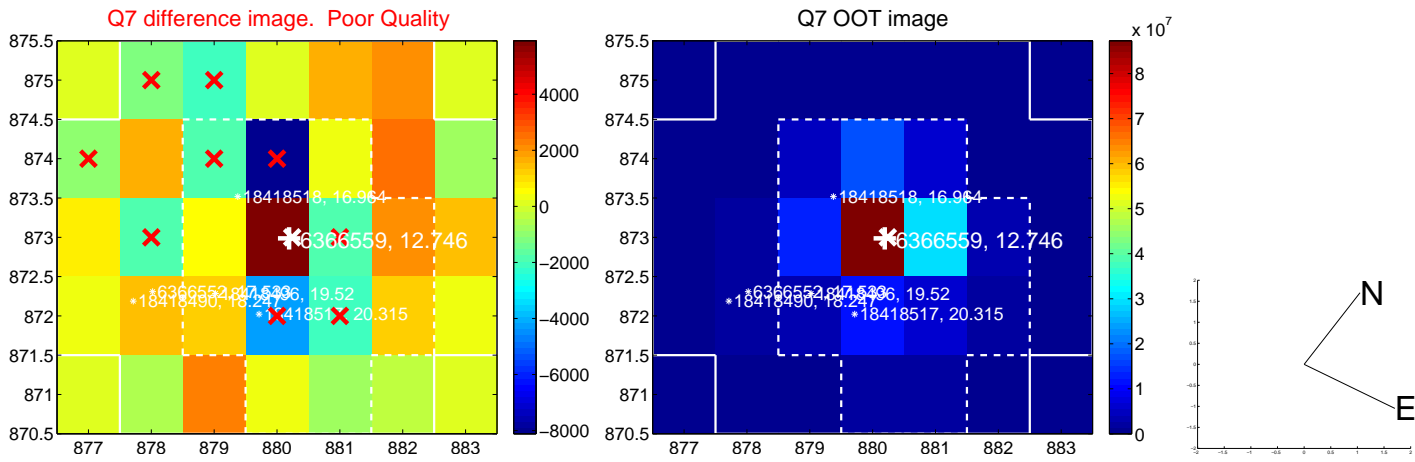
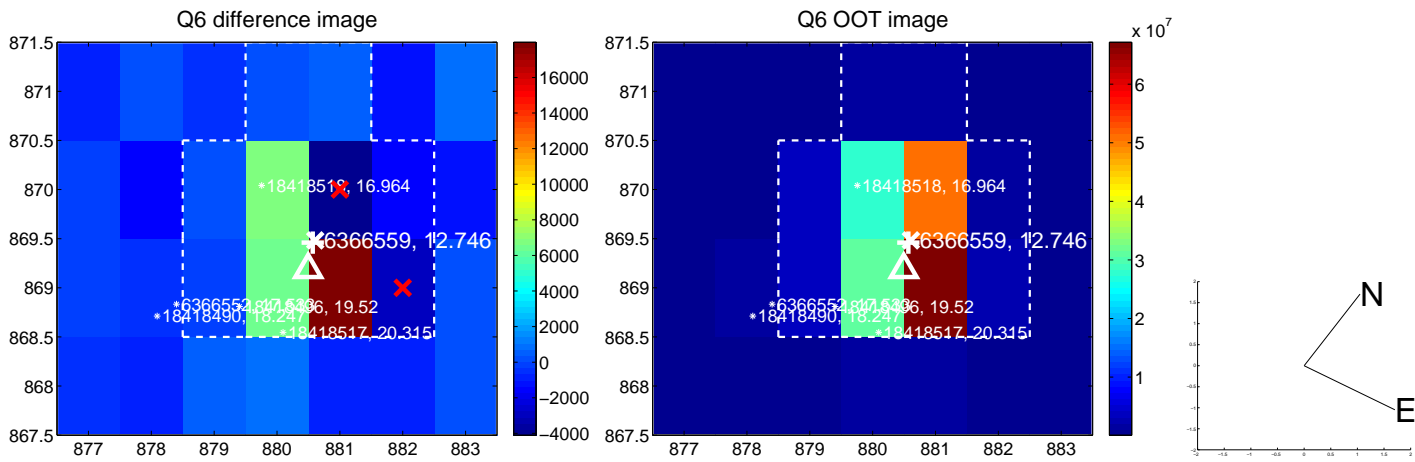
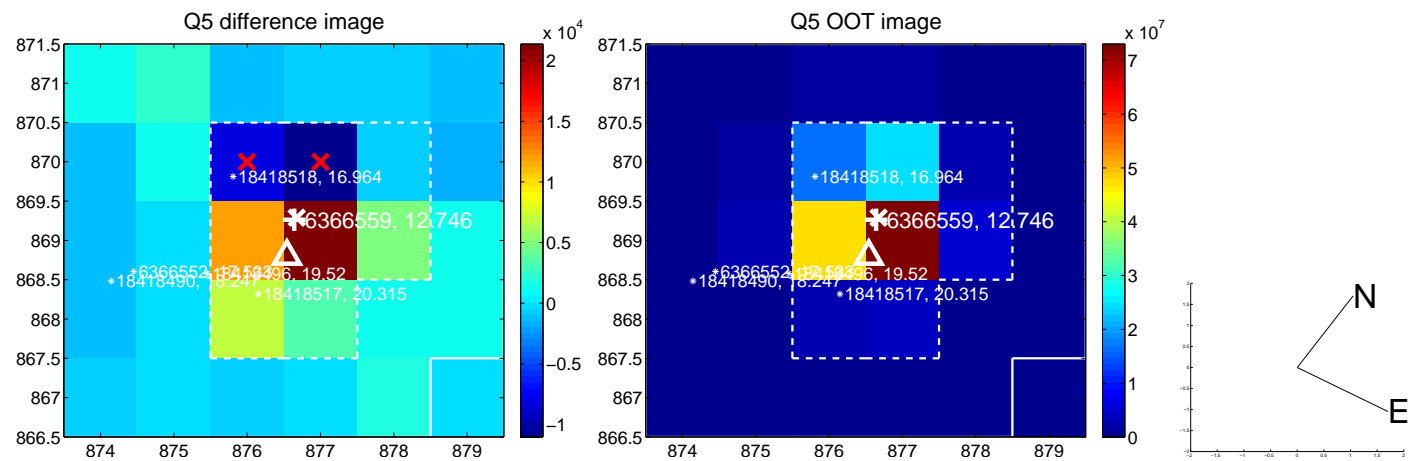


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

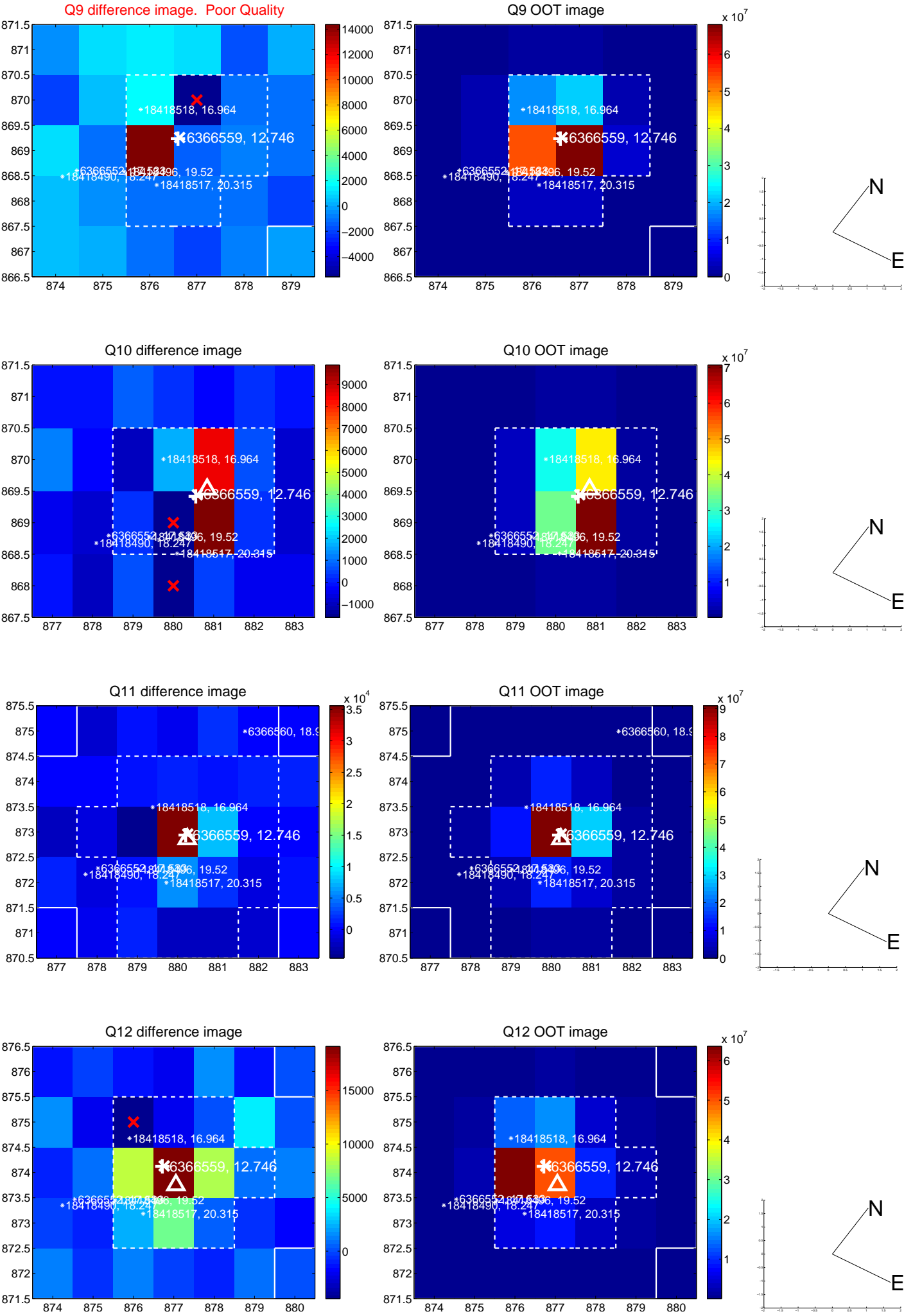
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



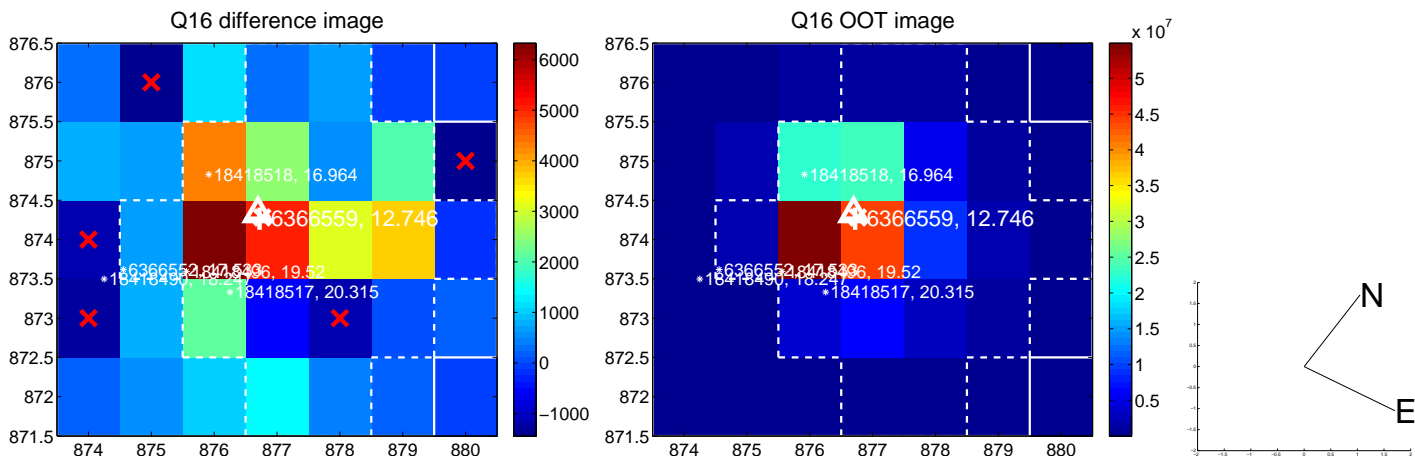
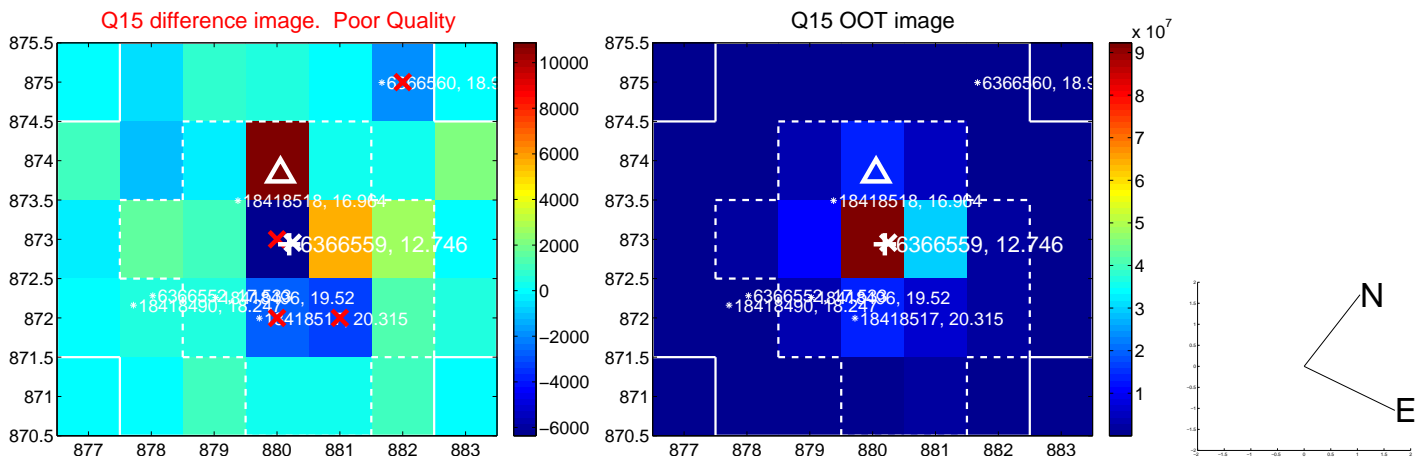
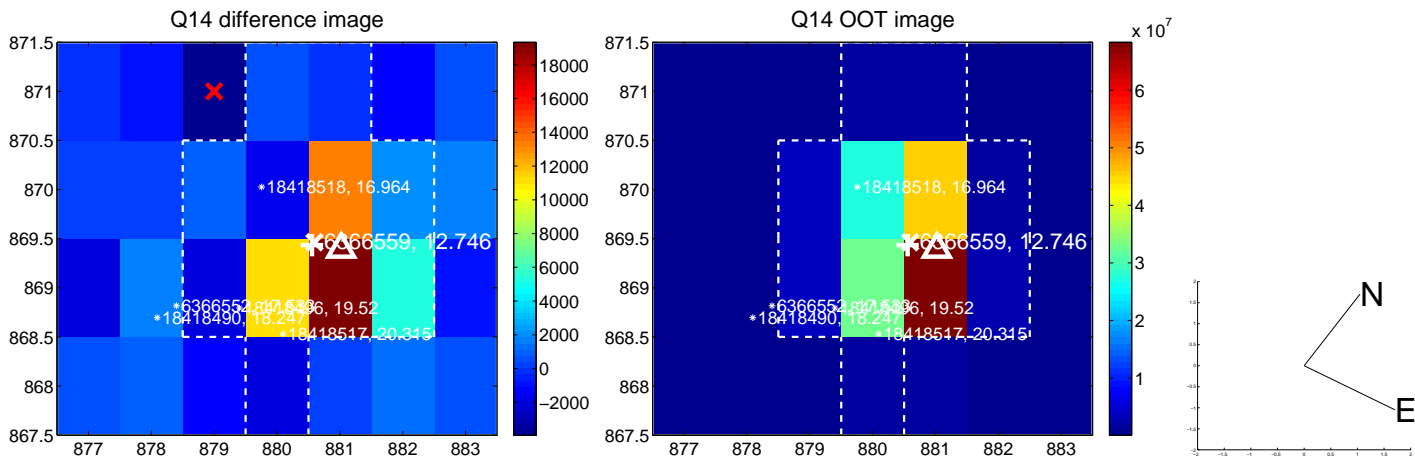
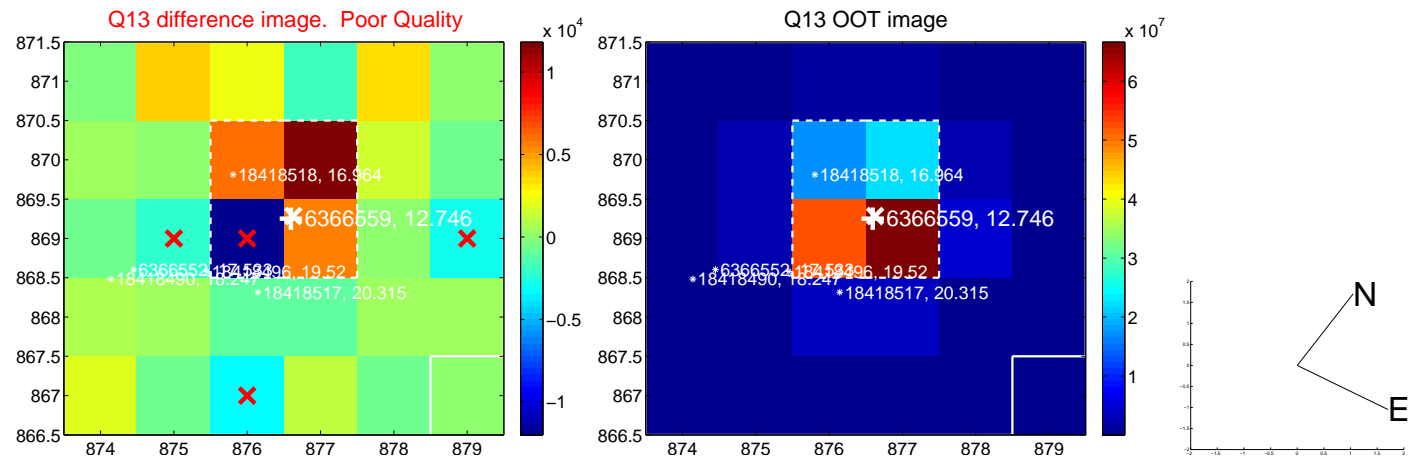
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



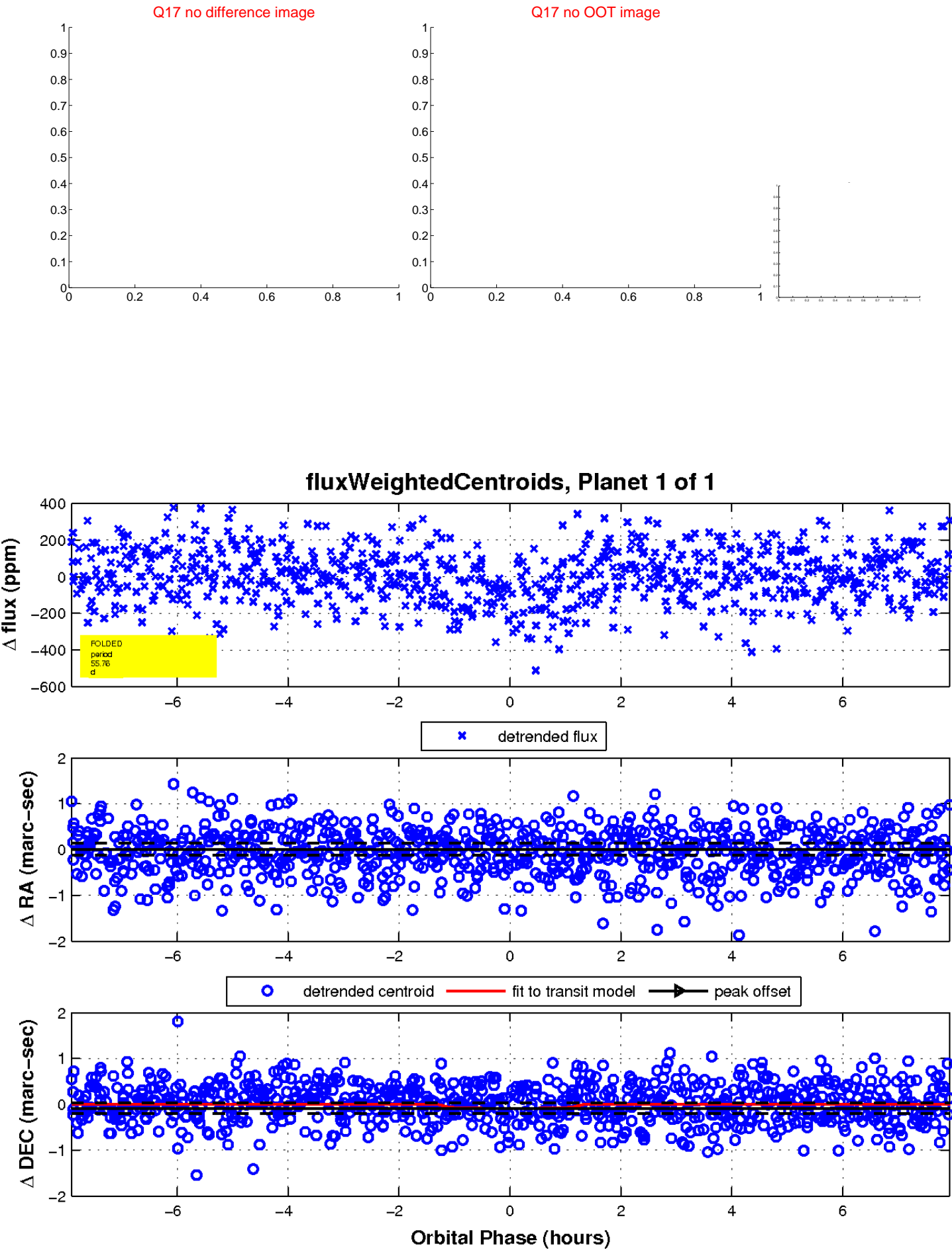
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

