

KIC 009673360

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})
009673360-01	OBS	No	2.284598	132.903941	5.3	6.579	8.4	6.7	1.00	5780	0.27	867.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009673360-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL —LPP_DV —MOD_NONUNIQ_DV —CENT_SATURATED

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

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

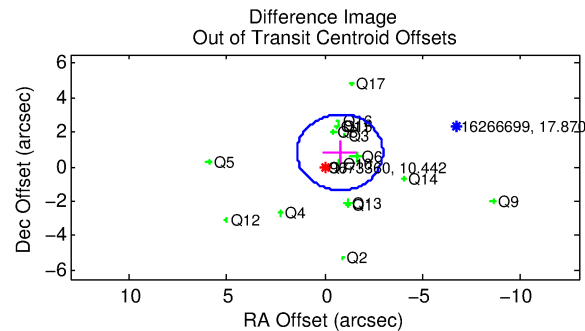
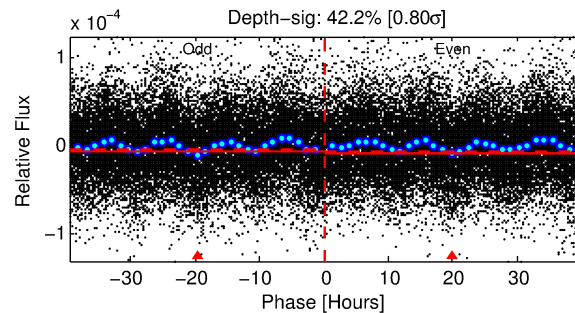
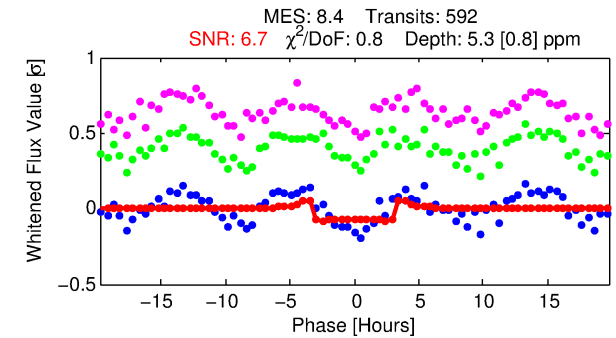
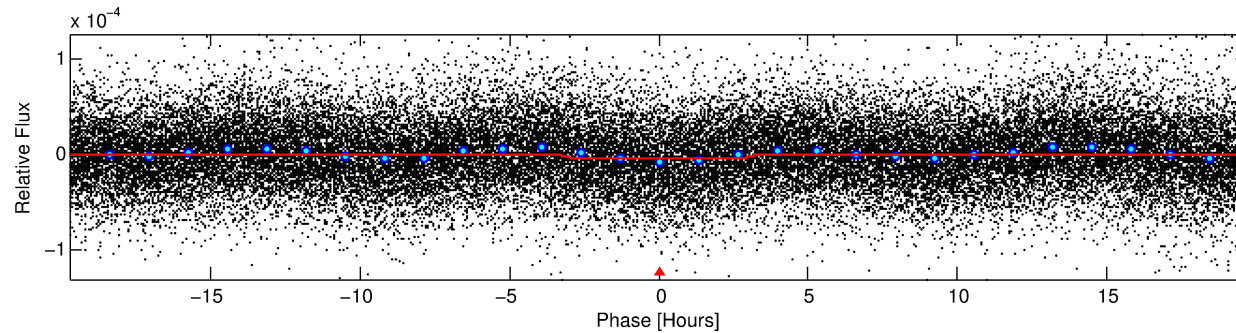
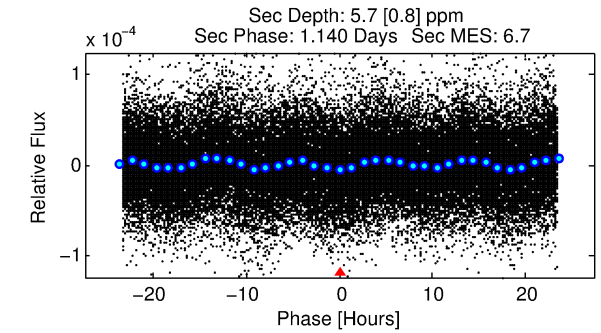
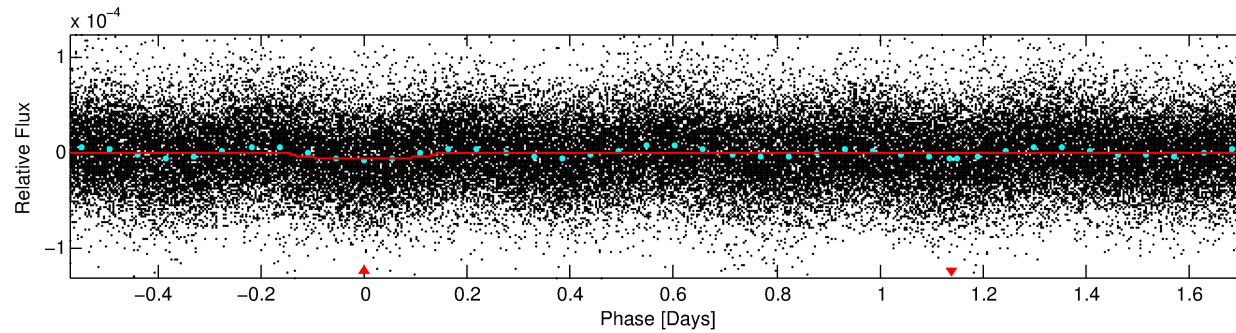
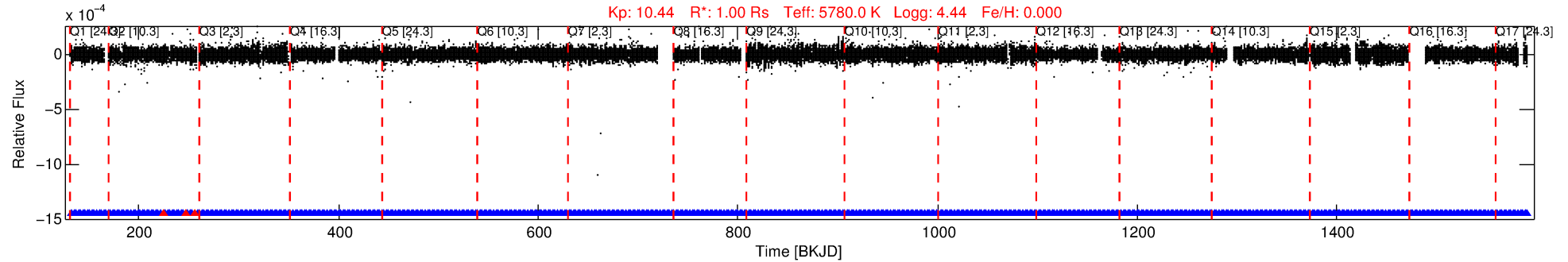
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009673360-01

No Significant Match Found

DV One-Page Summary

KIC: 9673360 Candidate: 1 of 1 Period: 2.285 d



DV Fit Results:

Period = 2.28460 [0.00002] d
Epoch = 132.9039 [0.0045] BKJD
Rp/R* = 0.0025 [0.0003]
a/R* = 1.55 [0.48]
b = 0.89 [0.13]
Seff = 867.35 [0.01]
Teq = 1384 [0] K
Rp = 0.27 [0.04] Re
a = 0.0340 [0.0000] AU
Ag = 50.21 [15.11] [3.26σ]
Teffp = 5695 [429] K [10.06σ]

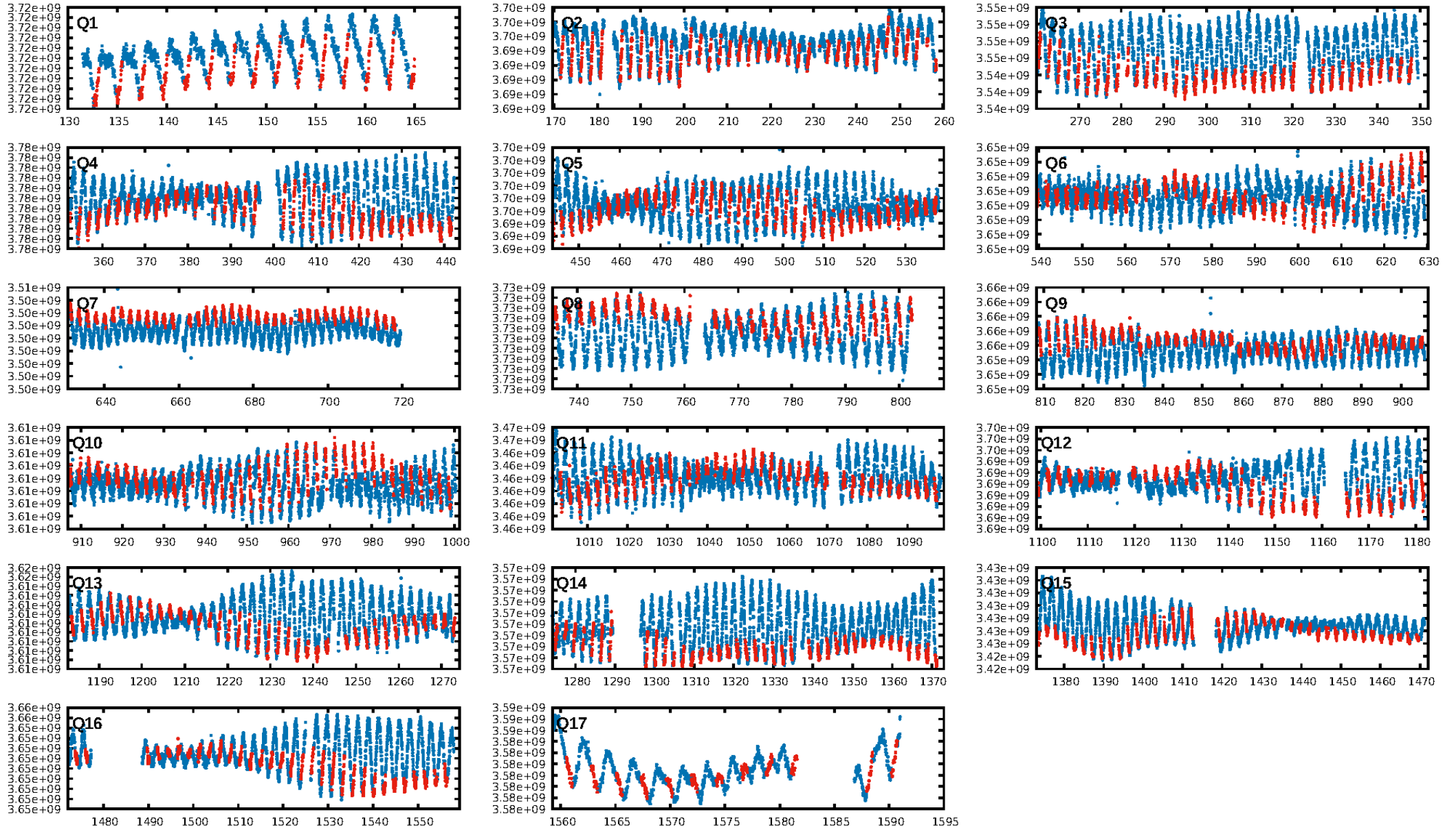
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.90e-13
RollingBand-fgt: 0.99 [562/565]
GhostDiagnostic-chr: N/A
Centroid-sig: 45.8%
Centroid-so: 3.297 arcsec [1.08σ]
OotOffset-rm: 1.142 arcsec [1.56σ]
KicOffset-rm: 0.734 arcsec [1.02σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

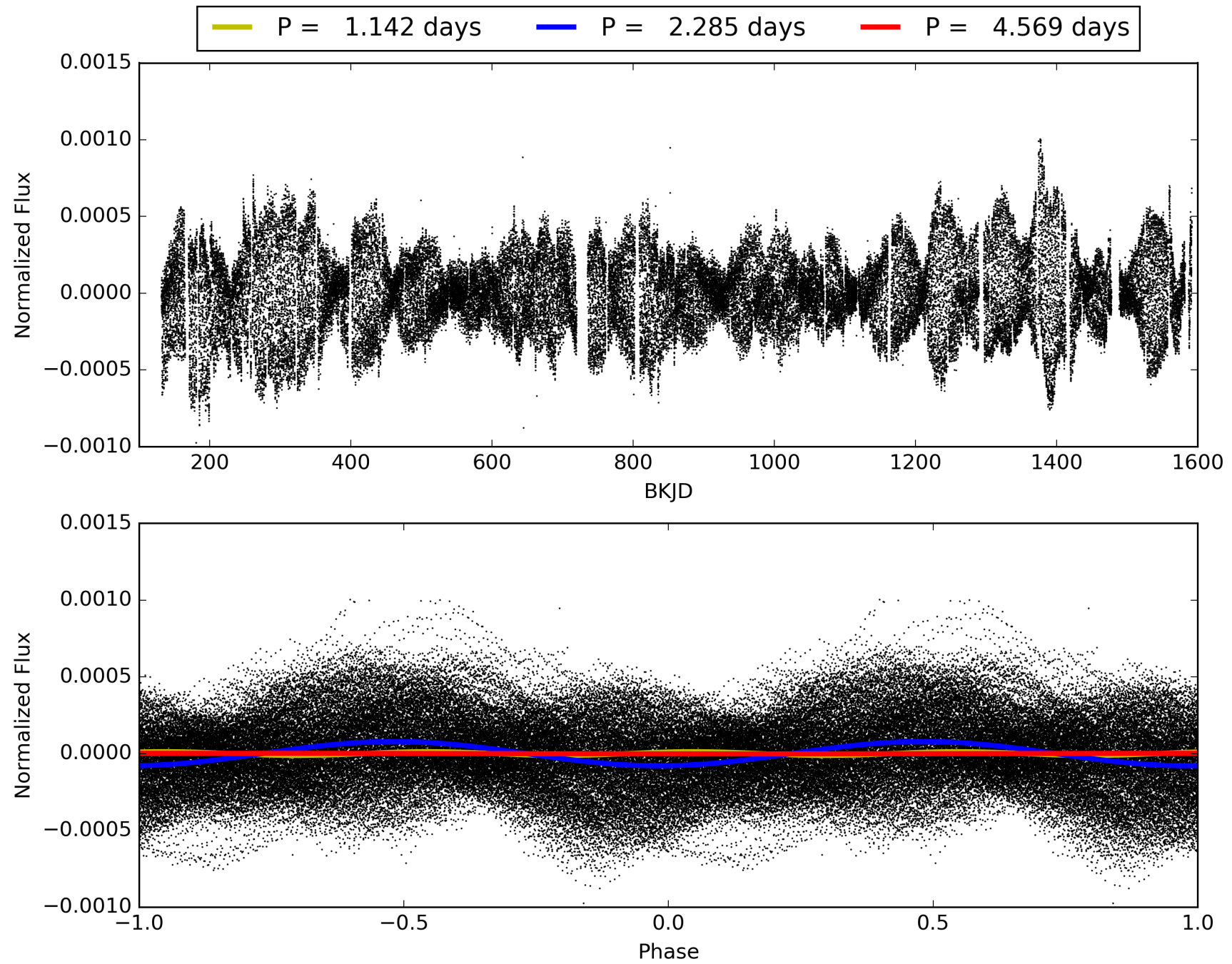
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:35:41 Z

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

TCE 009673360-01, PDC Light Curves

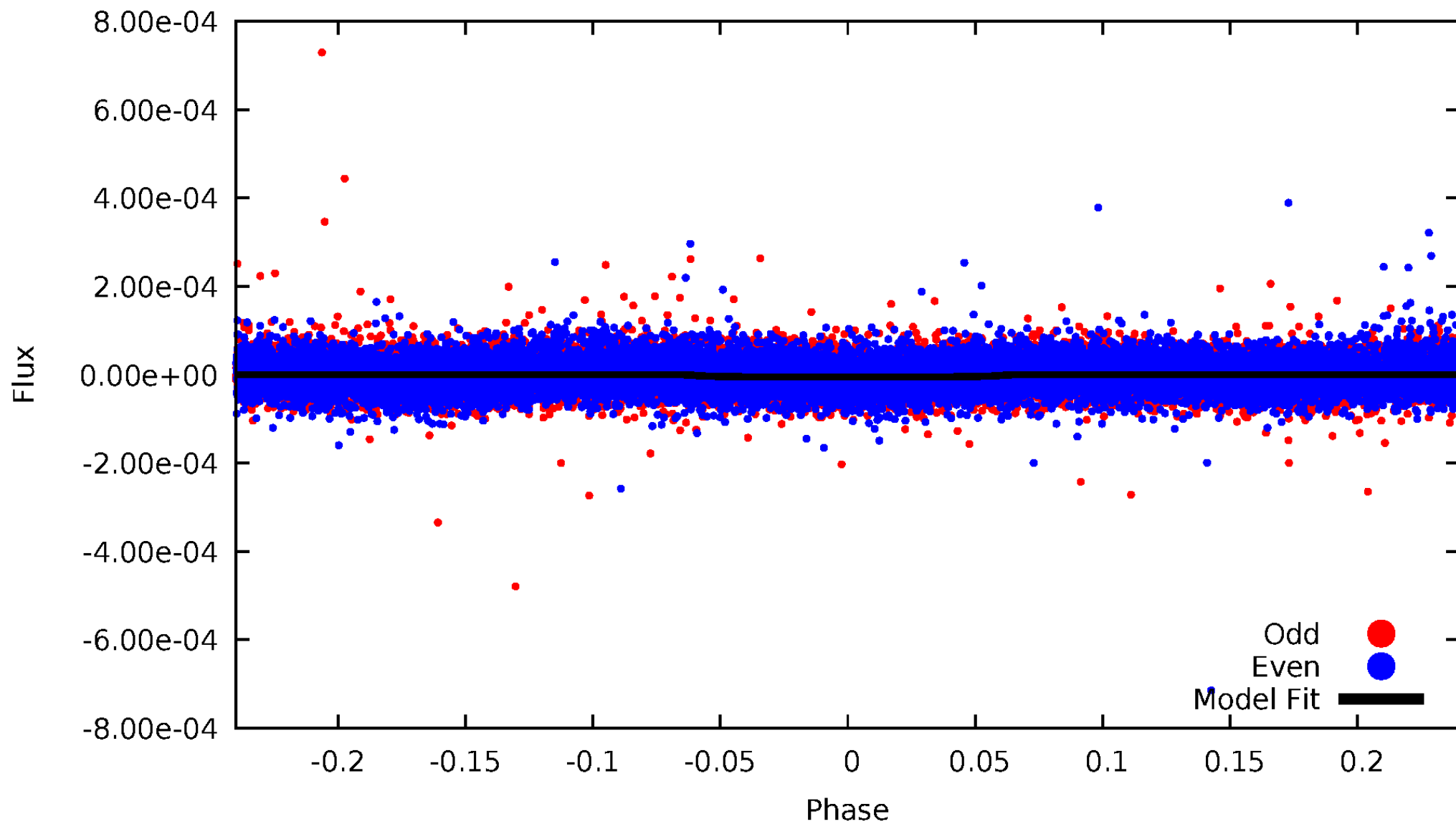


TCE 009673360-01



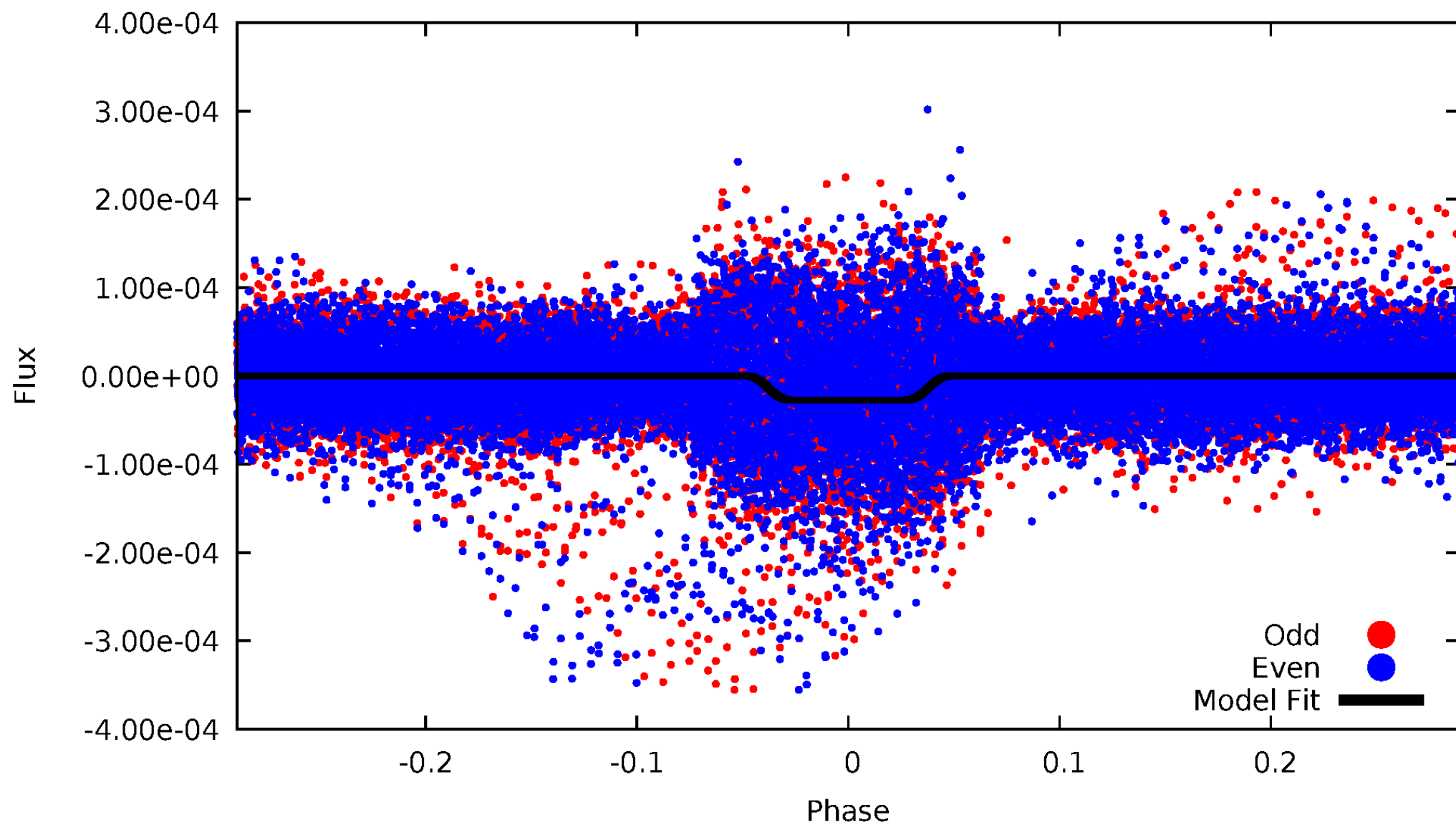
DV Odd/Even

TCE 009673360-01



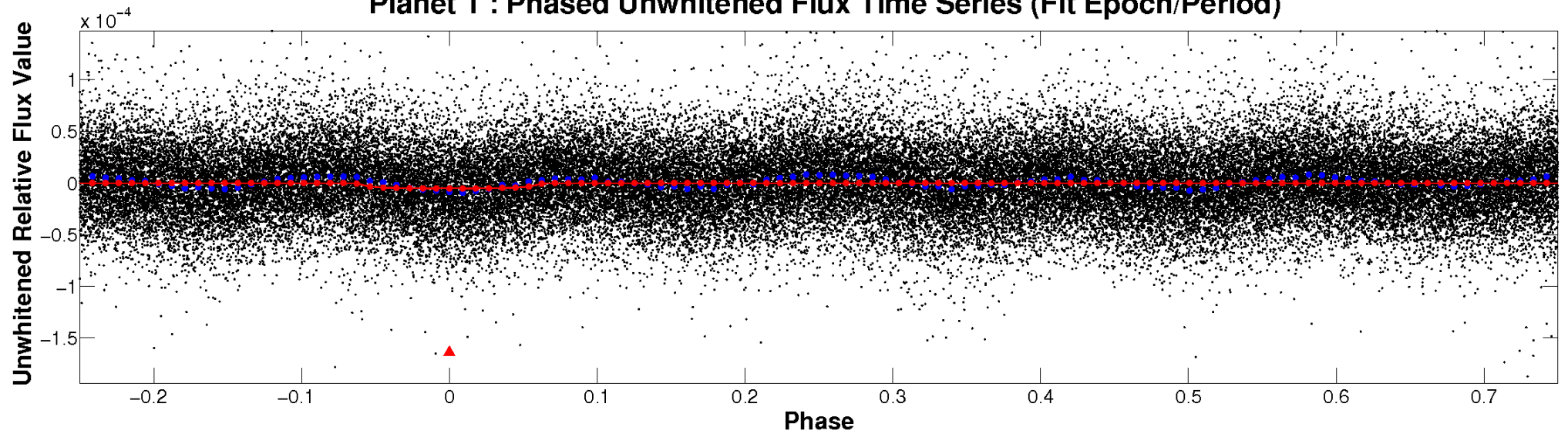
ALT Odd/Even

TCE 009673360-01

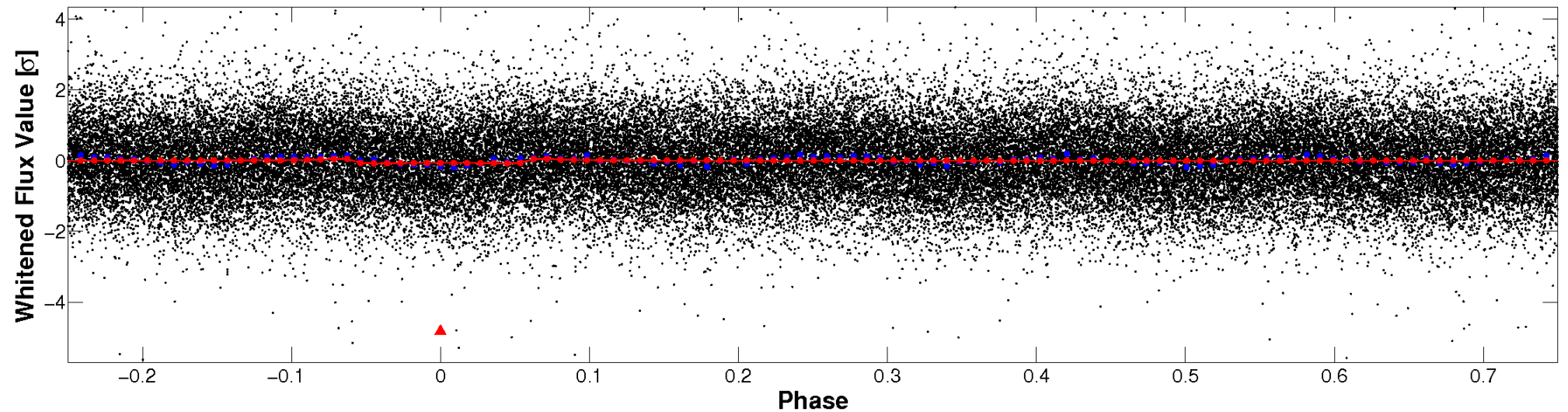


Non-Whitened Vs. Whitened Light Curve

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

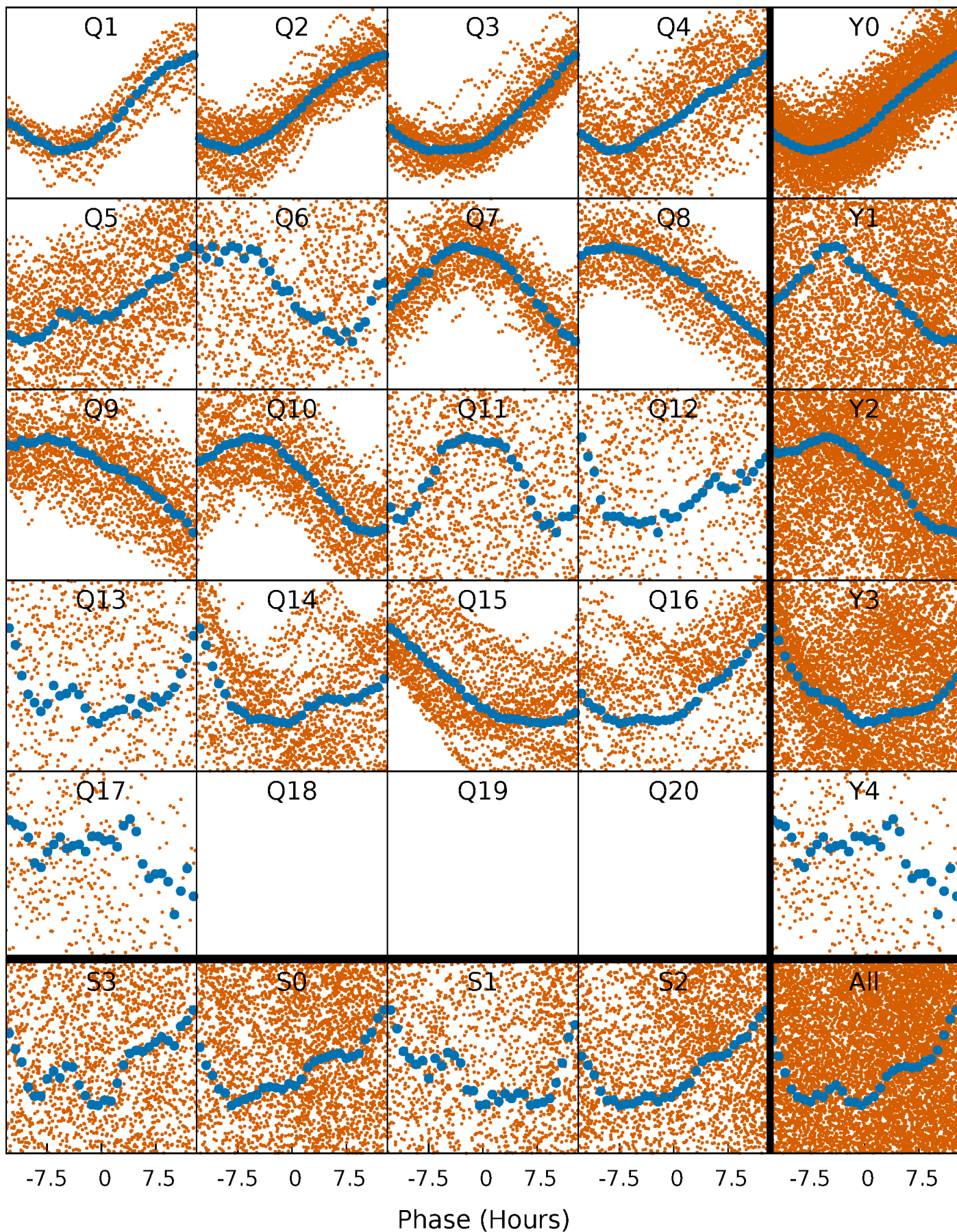


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



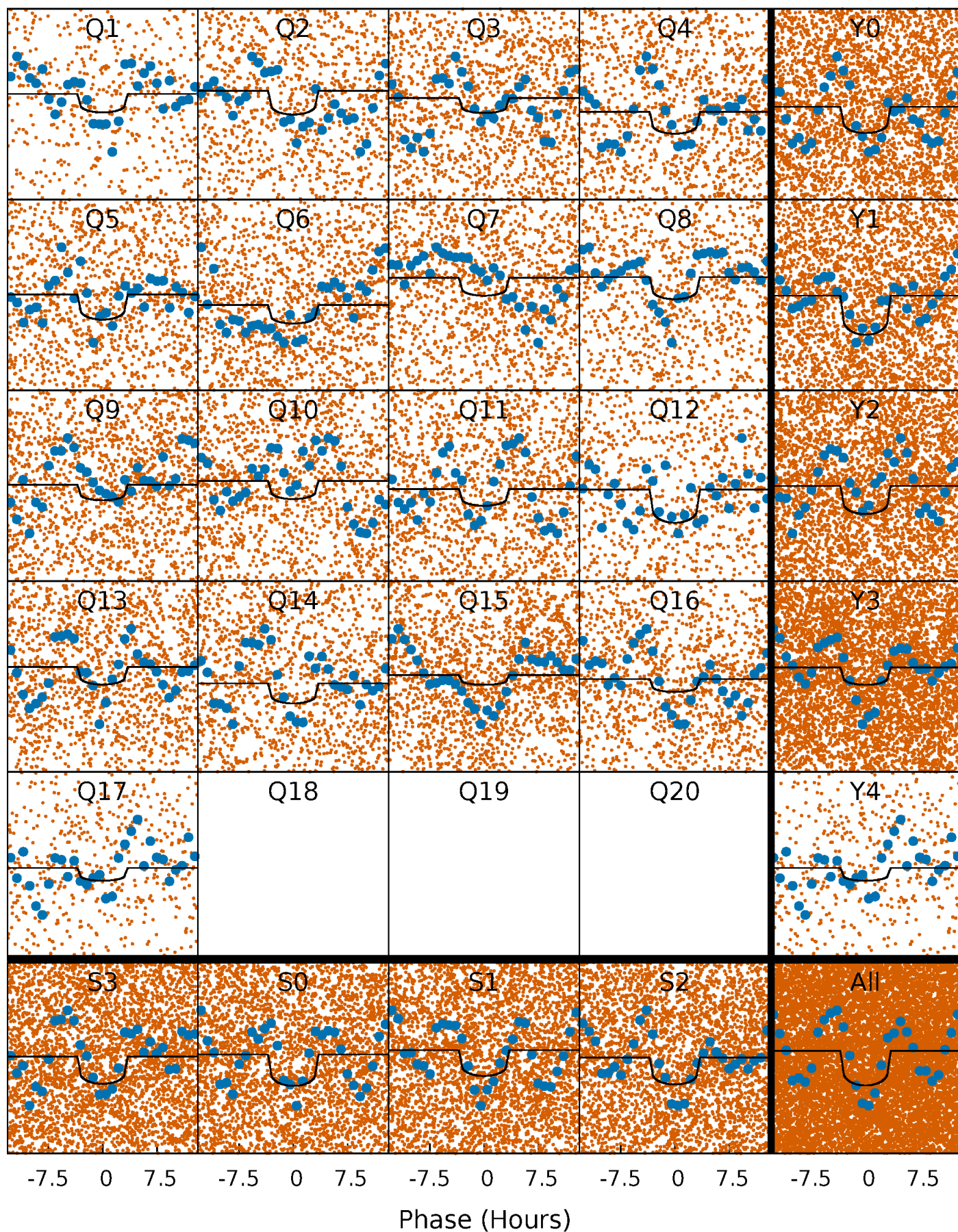
PDC Quarter-Phased Transit Curves

TCE 009673360-01 P= 2.284598 Days $T_0=132.903941$ (BKJD)



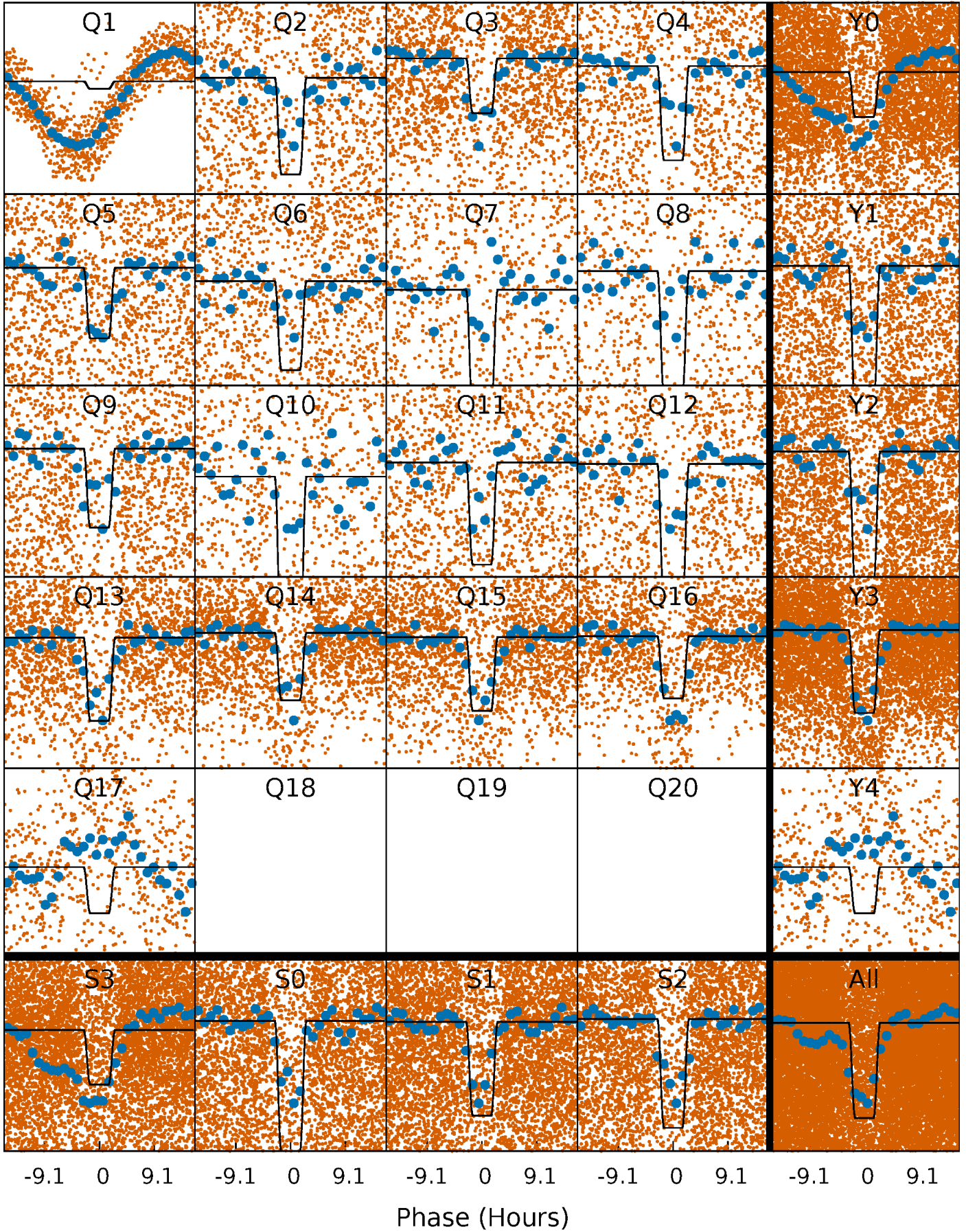
DV Quarter-Phased Transit Curves

TCE 009673360-01 P= 2.284598 Days $T_0=132.903941$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

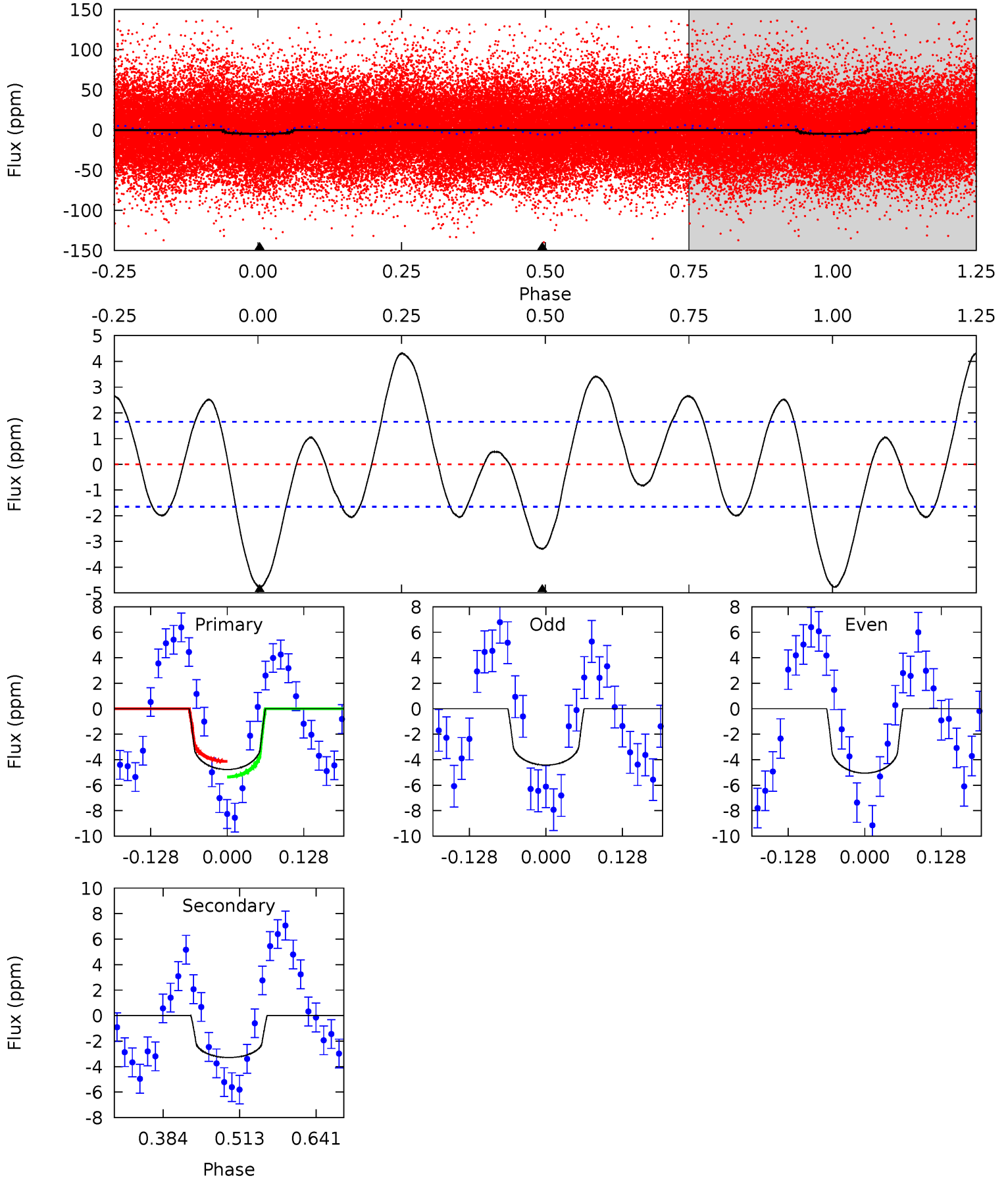
TCE 009673360-01 P= 2.284547 Days $T_0=132.913828$ (BKJD)



DV Model-Shift Uniqueness Test

009673360-01, P = 2.284598 Days, E = 130.619343 Days

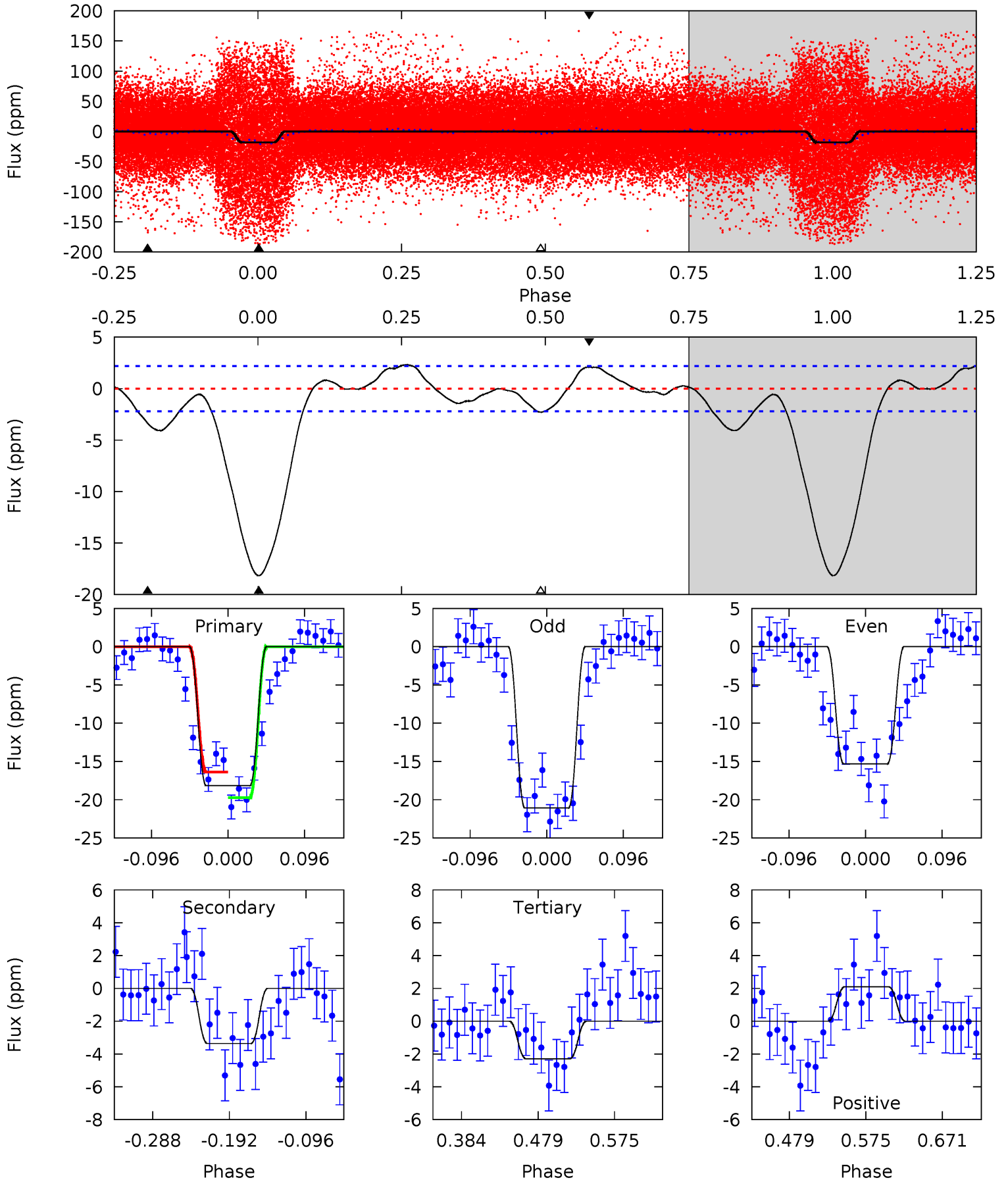
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	8.99	0	0	4.51	1.52	5.23	13.0	13.0	8.99	8.99	0.86	0.94	0.47	1.69



Alt Model-Shift Uniqueness Test

009673360-01, P = 2.284547 Days, E = 130.629281 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.8	6.99	4.77	4.37	4.57	1.67	2.42	33.0	33.4	2.22	2.62	5.99	1.09	0.11	3.48



Stellar Parameters For KIC 009673360

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 009673360-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 0	$0.27^{+0.04}_{-0.04}$	1937^{+90}_{-94}	5035^{+377}_{-343}	29^{+11}_{-7}
Alt.	-3 ± 0	$0.57^{+0.06}_{-0.05}$	1936^{+92}_{-90}	3772^{+154}_{-147}	$6.502^{+1.651}_{-1.216}$

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 $A_{obs} \gg 1.0$

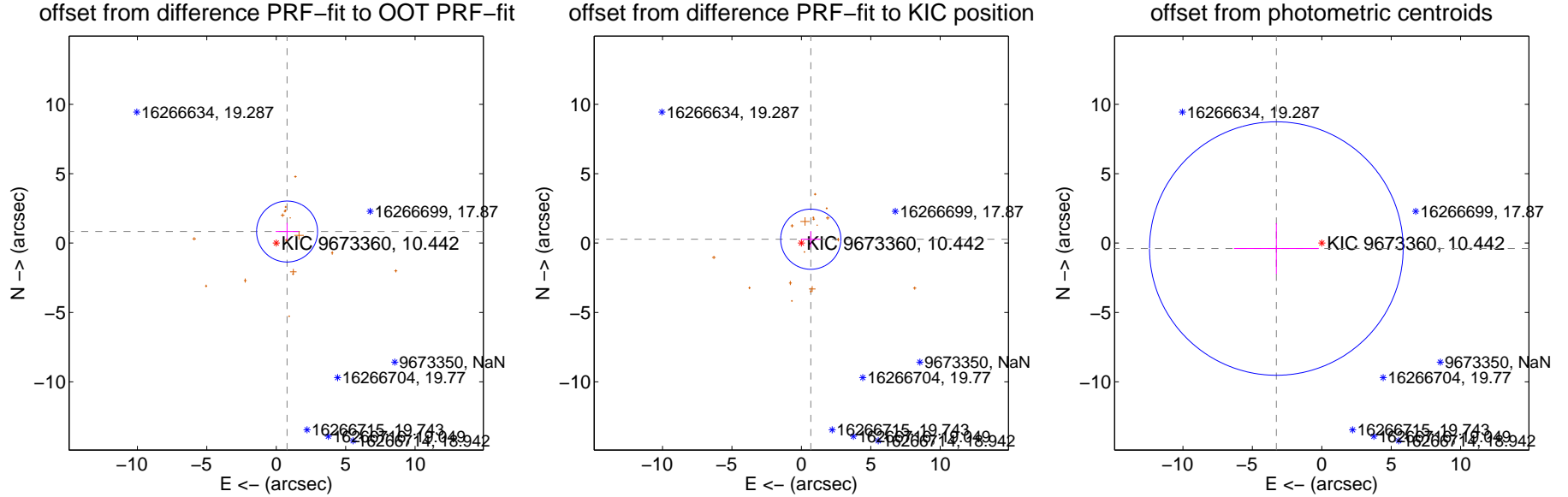
DV Centroid Data

Supplemental centroid analysis for 009673360-01. **Kepler magnitude: 10.44.** Transit SNR 6.67

There are 0 quarters with good PRF difference image offsets

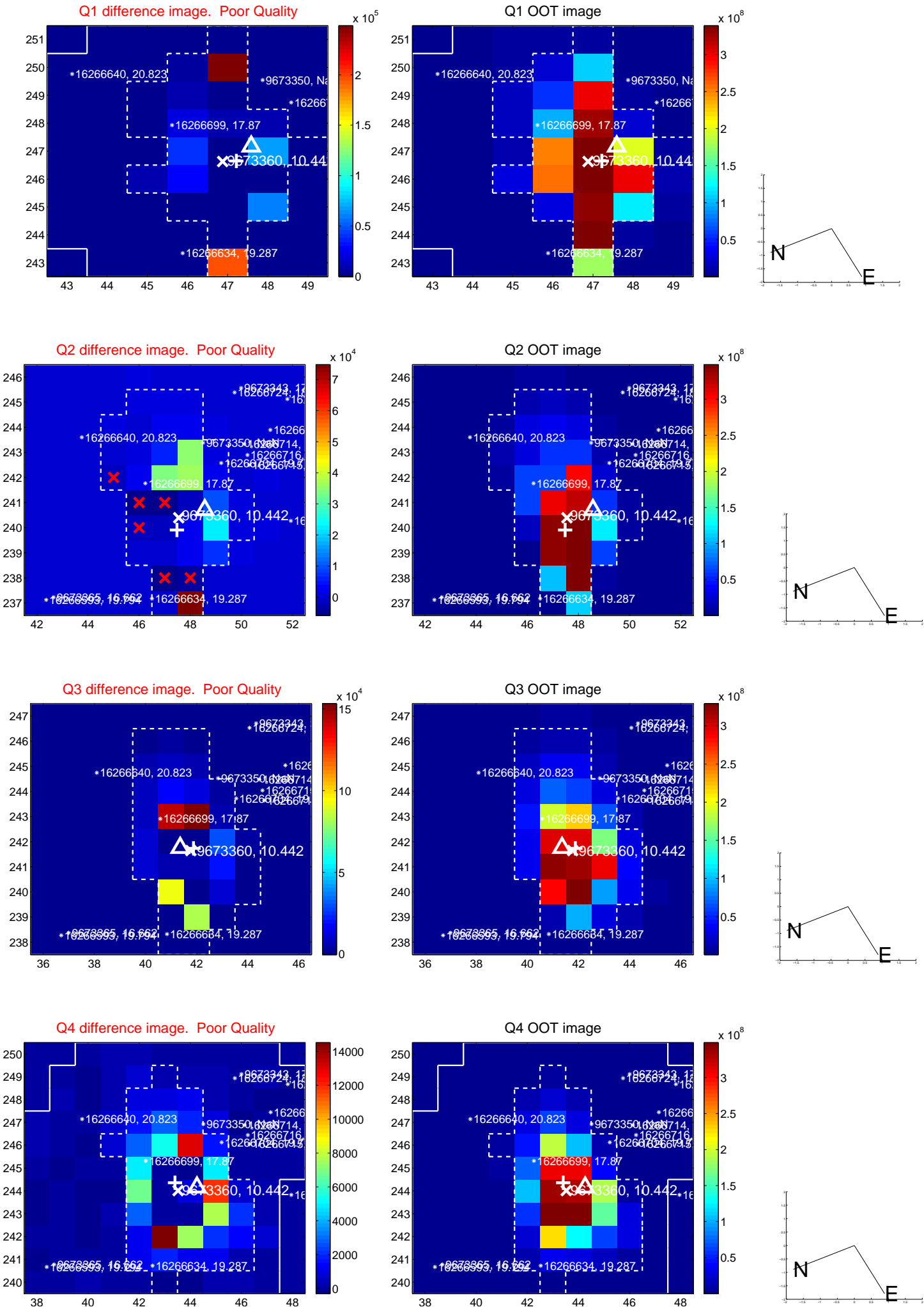
The direct PRF centroid is offset from the target star catalog position by about 1.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.142 ± 0.732	1.56	-0.781 ± 0.819	0.833 ± 0.628
PRF-fit source offset from KIC position	0.734 ± 0.723	1.02	-0.679 ± 0.714	0.280 ± 0.582
photometric centroid source offset	3.30 ± 3.04	1.08	3.27 ± 3.06	-0.39 ± 1.83

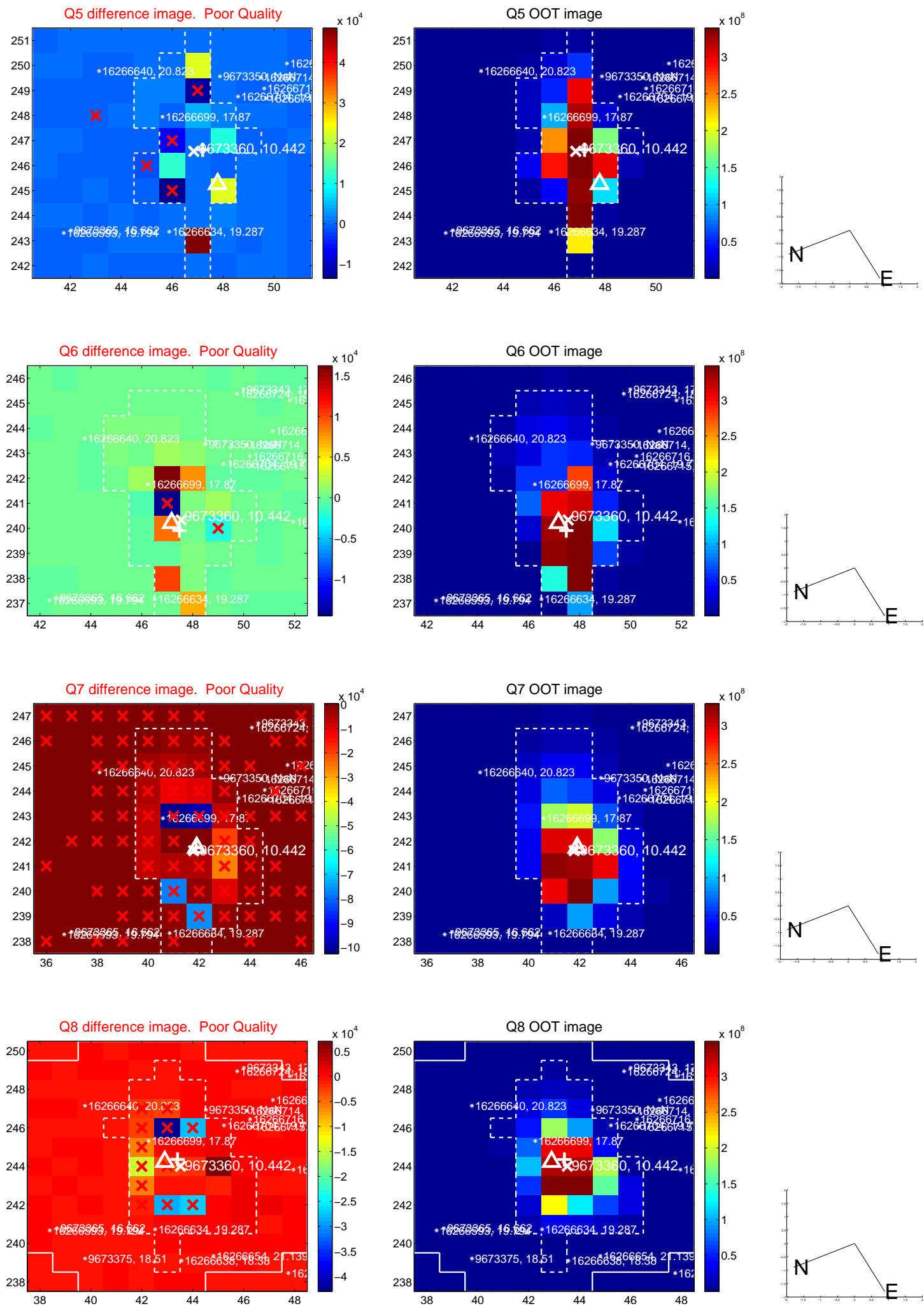


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

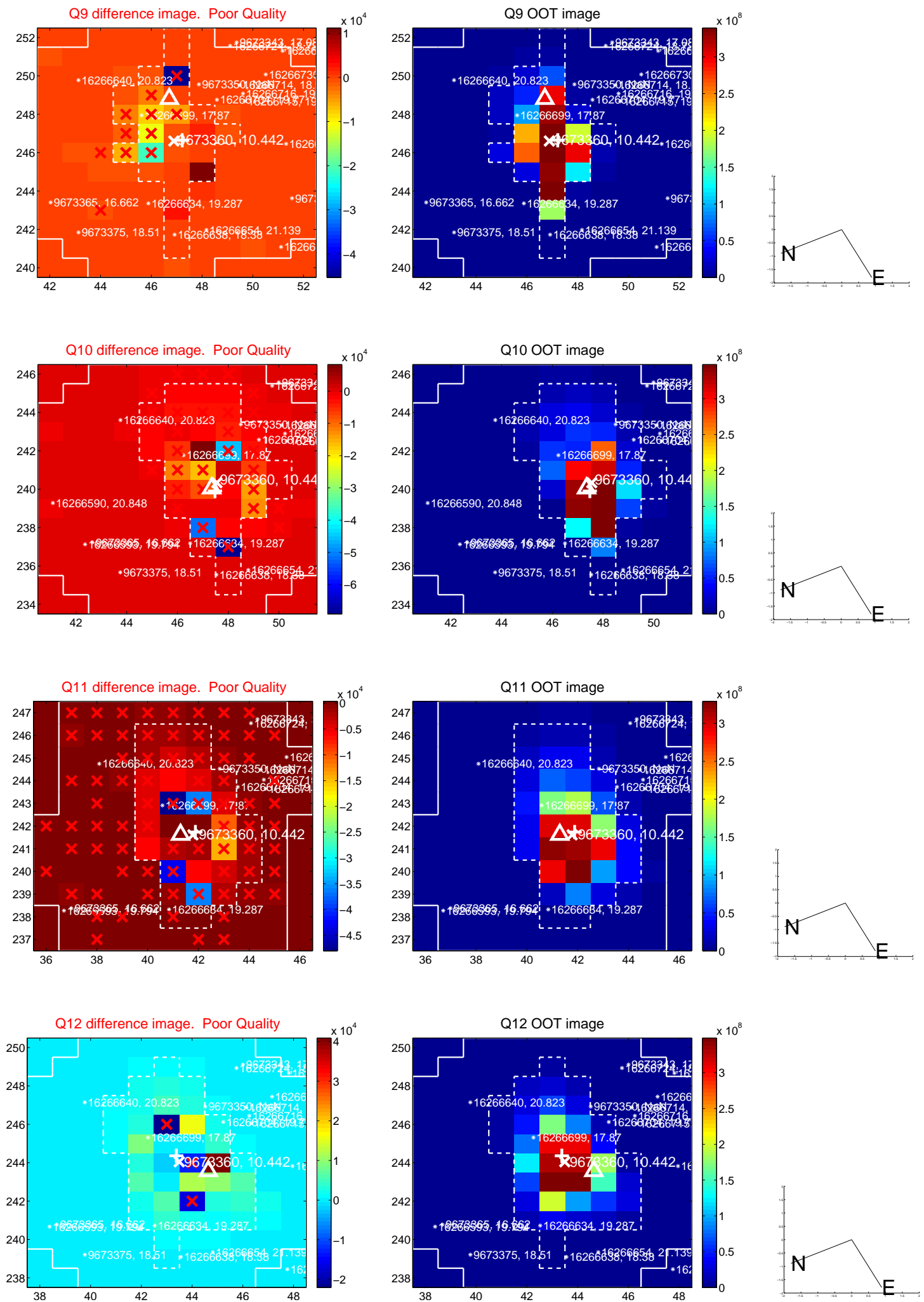
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



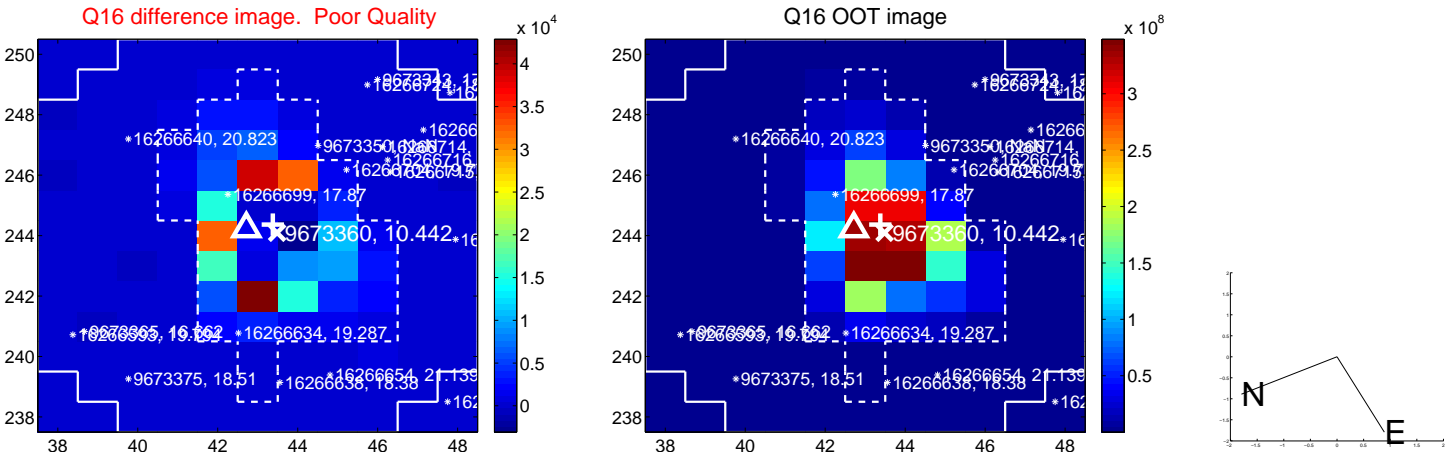
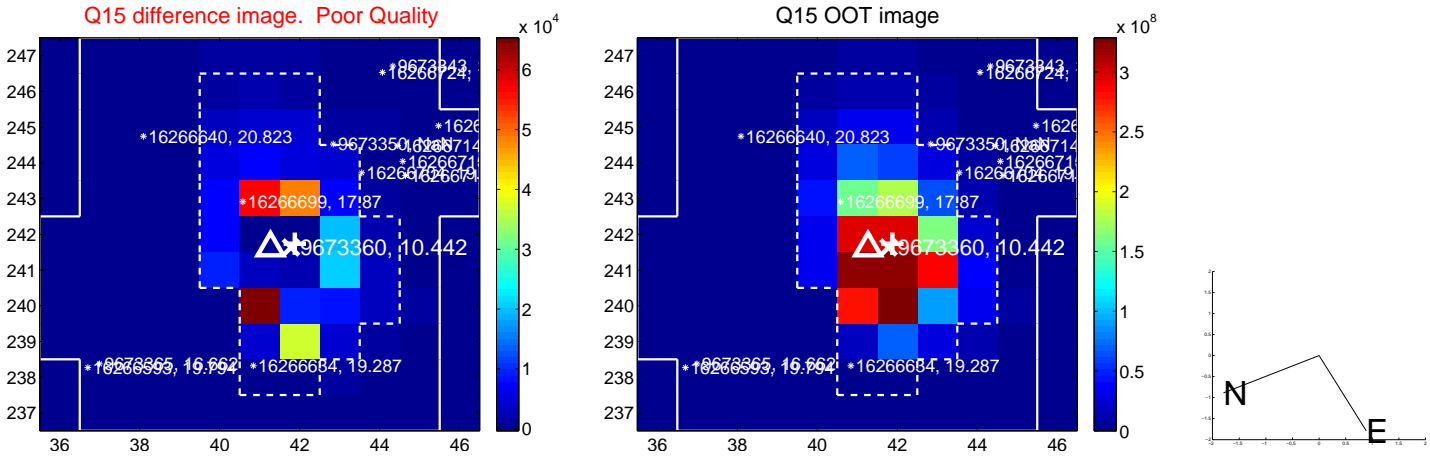
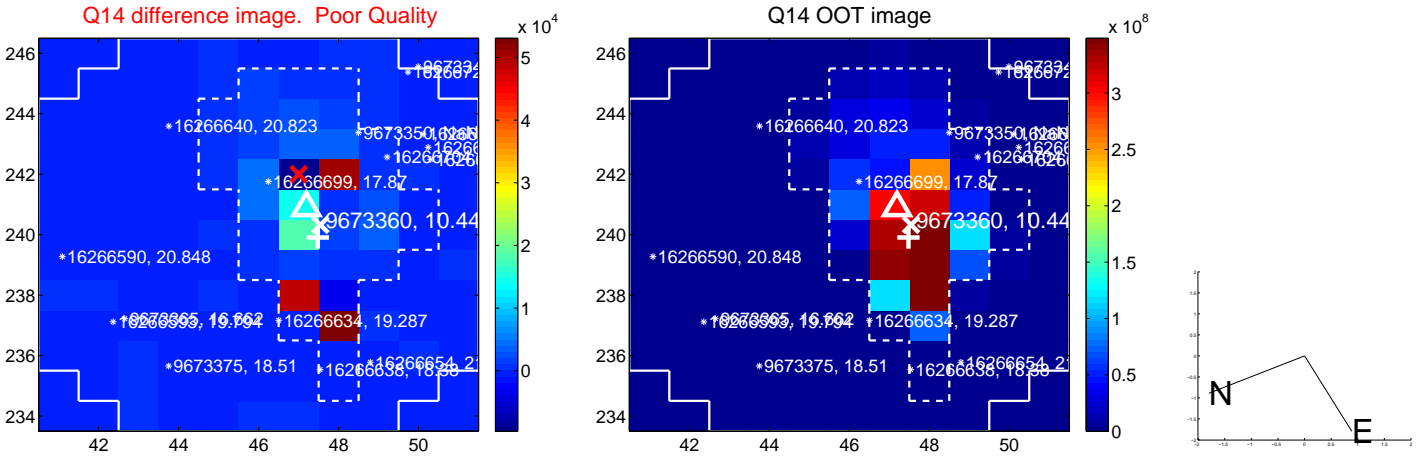
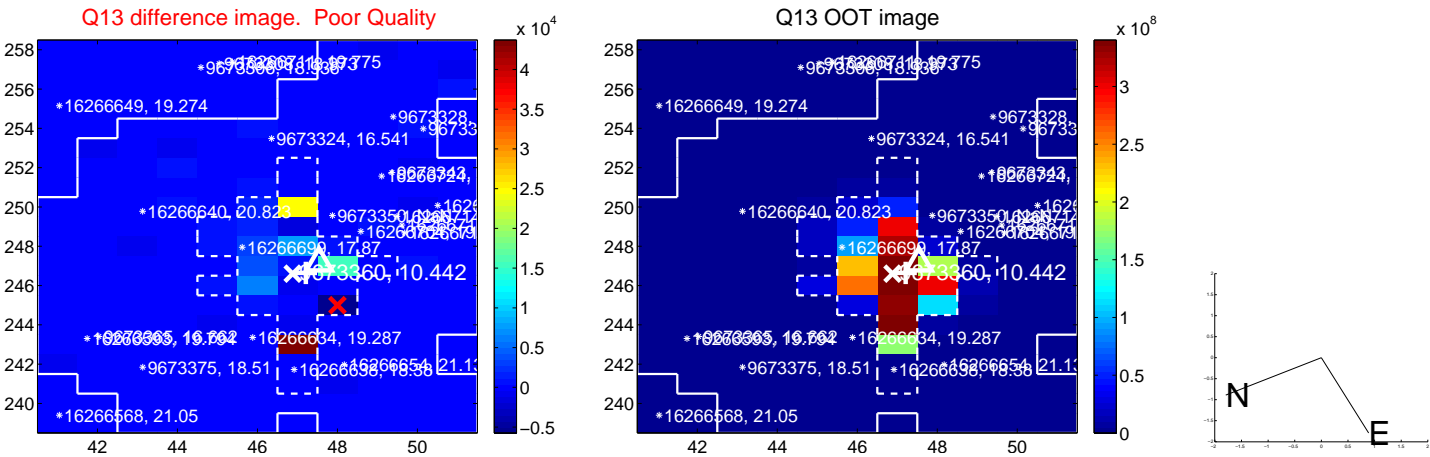
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



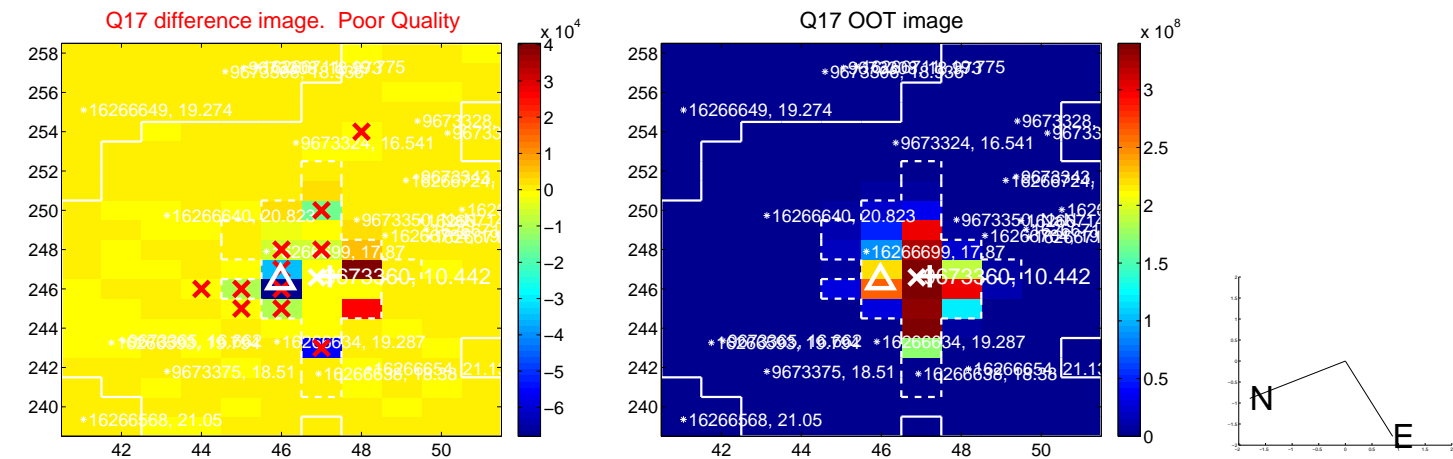
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



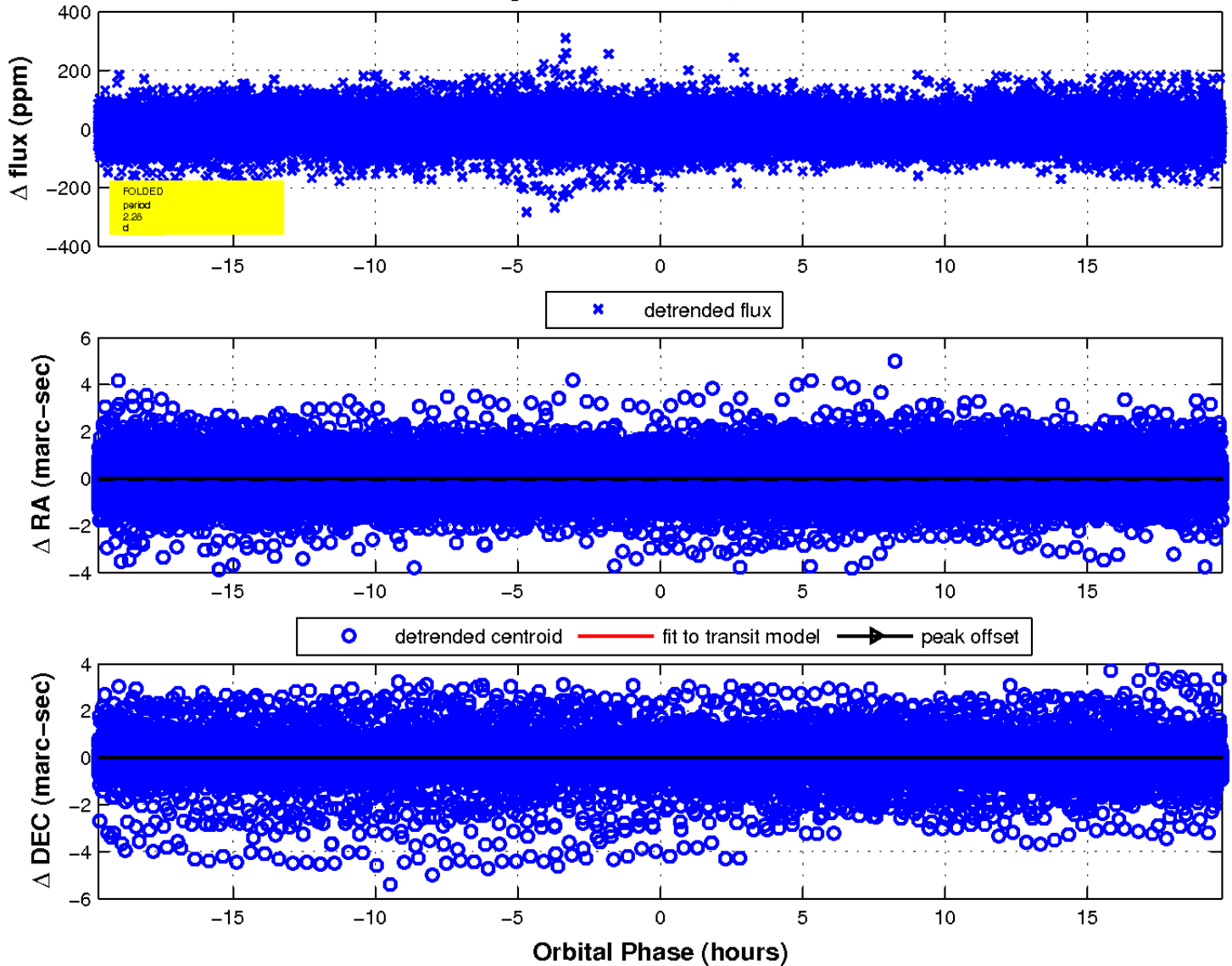
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

