

KIC 006936966

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})
006936966-01	OBS	7797.01	36.473246	159.768051	64.7	2.130	7.8	9.3	0.90	5853	0.83	18.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006936966-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—EPHEM_MATCH

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.

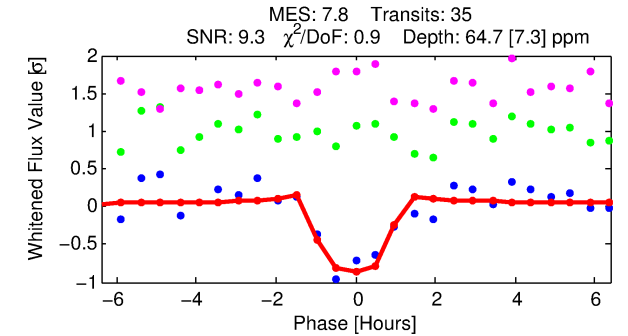
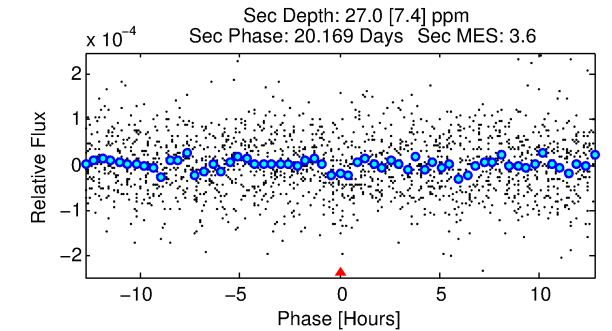
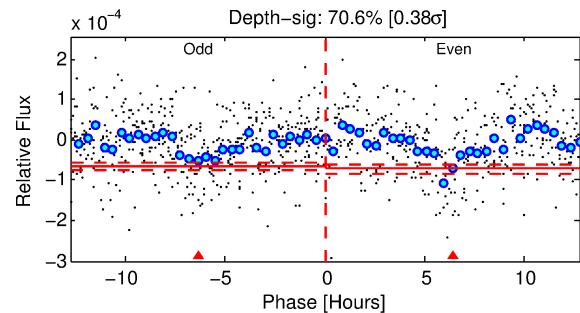
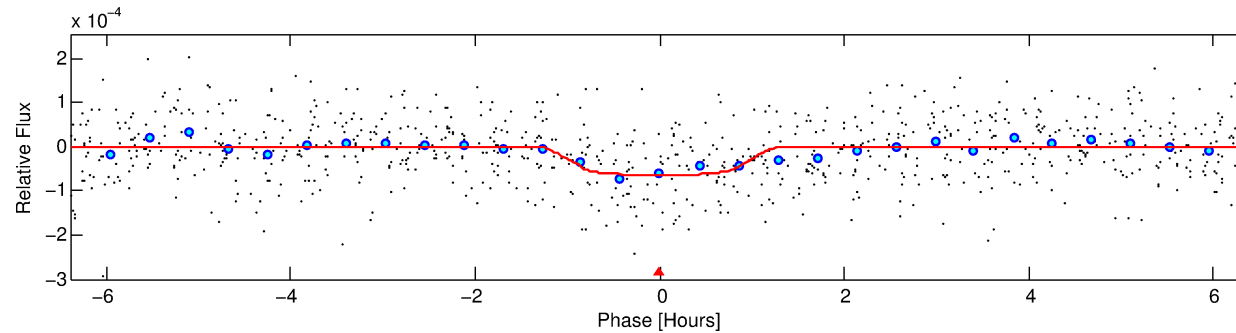
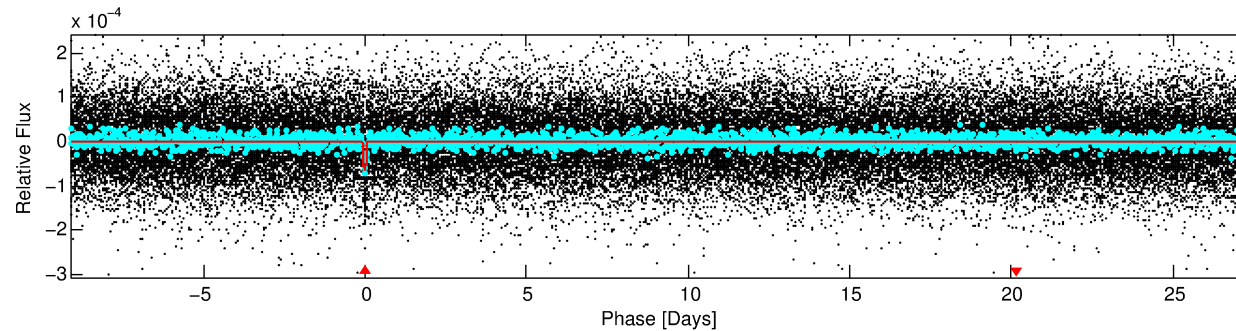
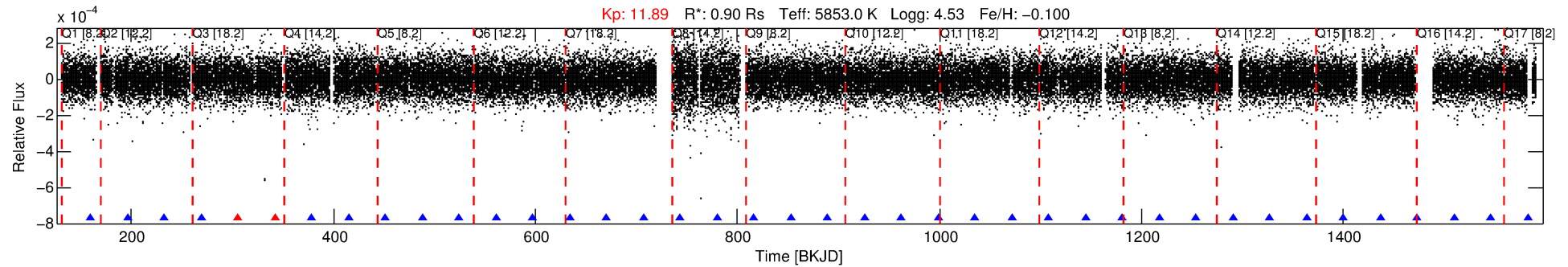
Ephemeris Match Information For 006936966-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006936966-01	6936966	6791.01	6936977	1:1	17.3	3	3	14.36	11.90	2532.30	Direct-PRF	0	0.08	0.03

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 6936966 Candidate: 1 of 1 Period: 36.473 d



DV Fit Results:

Period = 36.47325 [0.00024] d
Epoch = 159.7681 [0.0054] BKJD
Rp/R* = 0.0085 [0.0049]
a/R* = 67.83 [187.30]
b = 0.87 [0.82]
Seff = 18.32 [5.38]
Teq = 528 [39] K
Rp = 0.83 [0.51] Re
a = 0.2144 [0.0392] AU
Ag = 989.48 [1198.33] [0.82 σ]
Teff = 4575 [1355] K [2.98 σ]

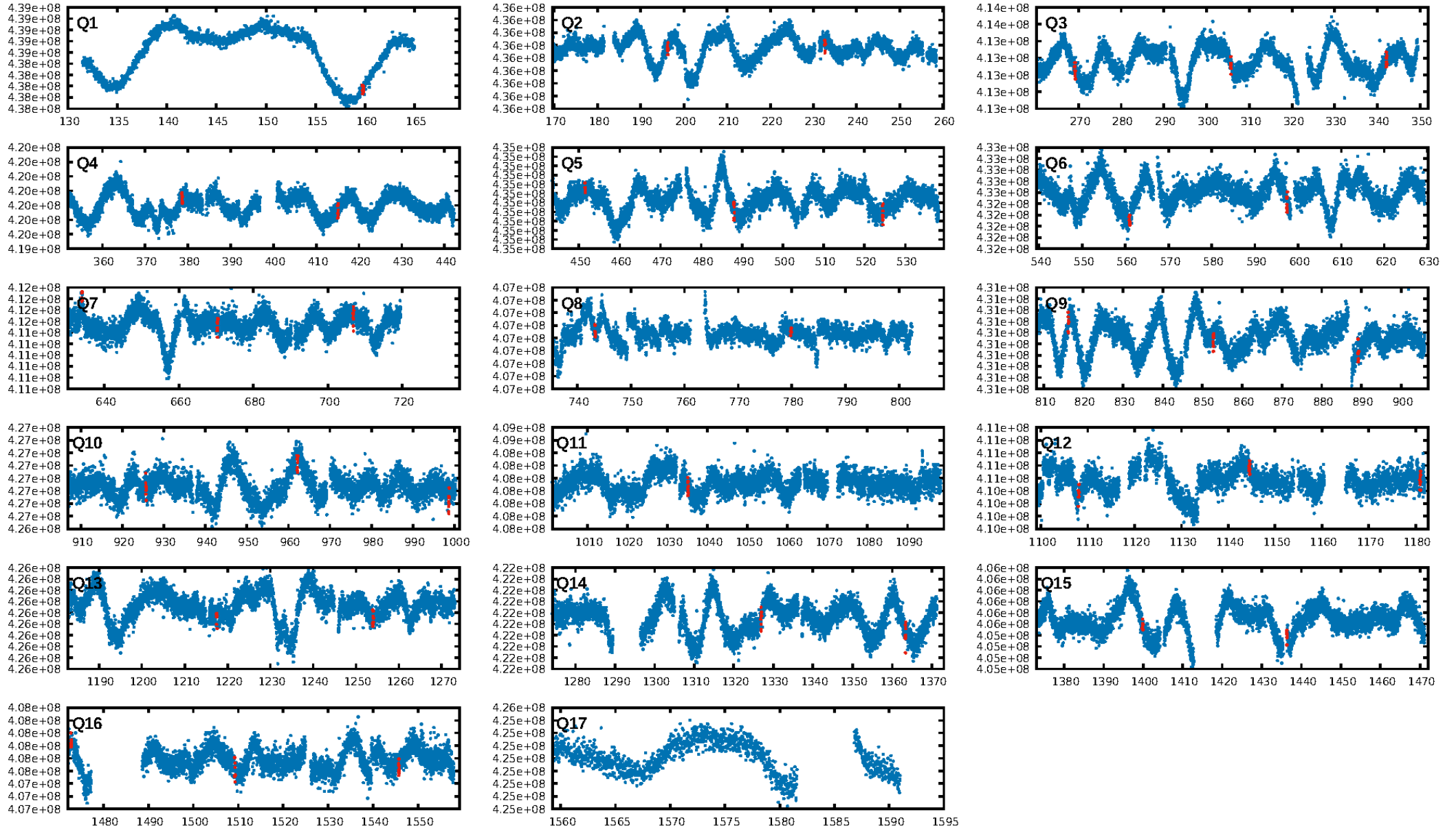
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 22.5%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 9.40e-15
RollingBand-fgt: 0.94 [32/34]
GhostDiagnostic-chr: -0.6461
Centroid-sig: 0.0%
Centroid-so: 76.116 arcsec [67.83 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [16/16]

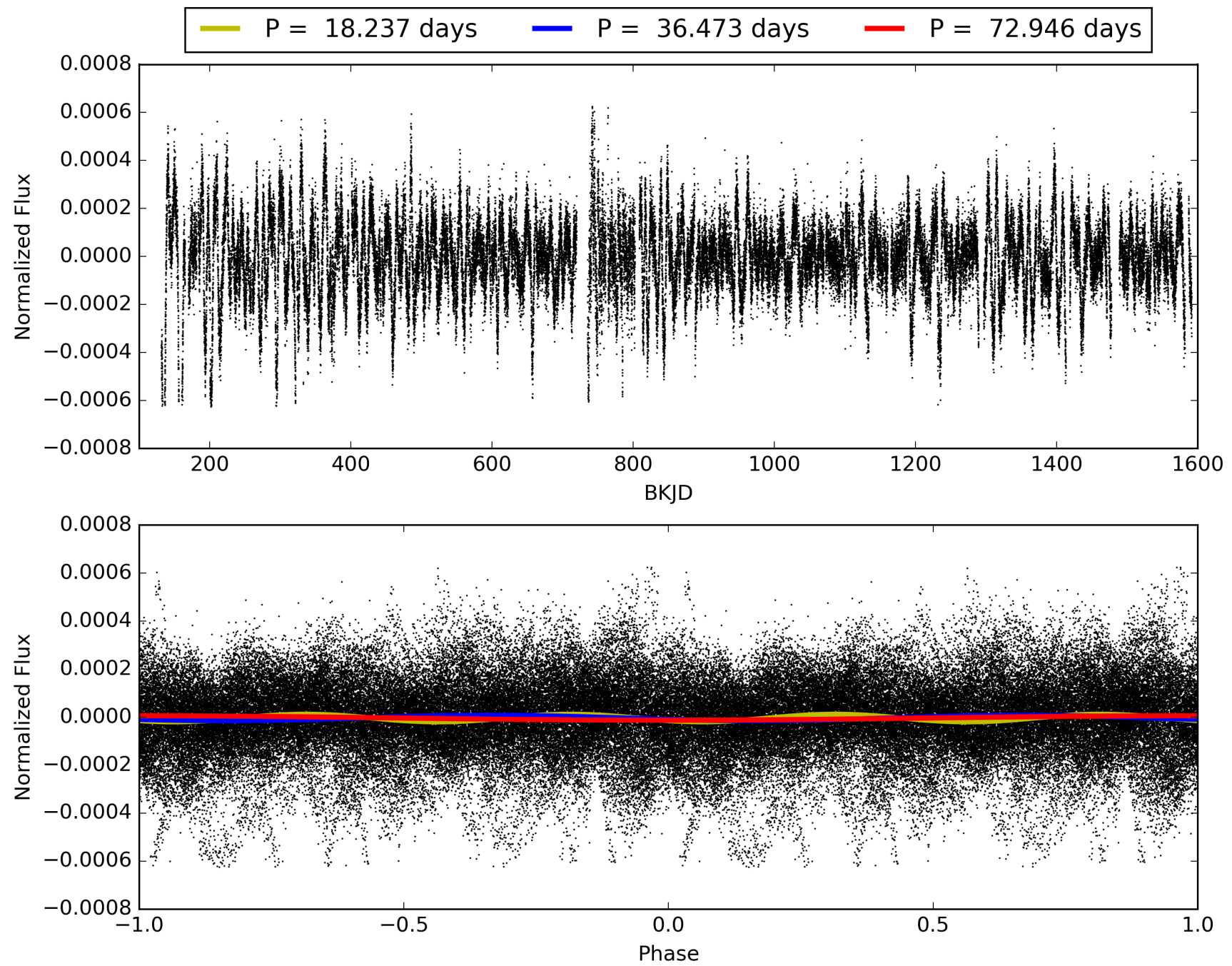
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:18:00 Z

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

TCE 006936966-01, PDC Light Curves

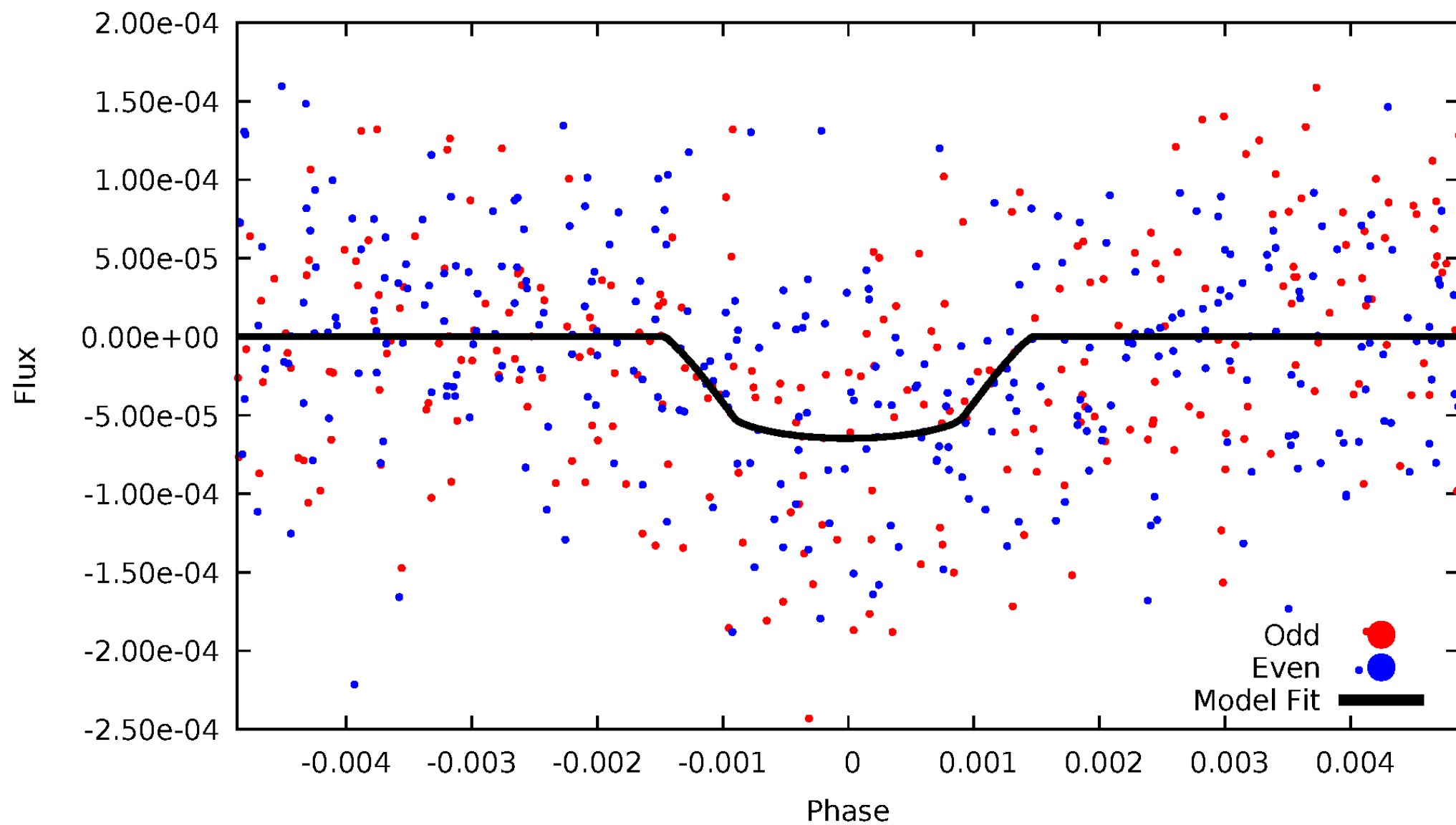


TCE 006936966-01



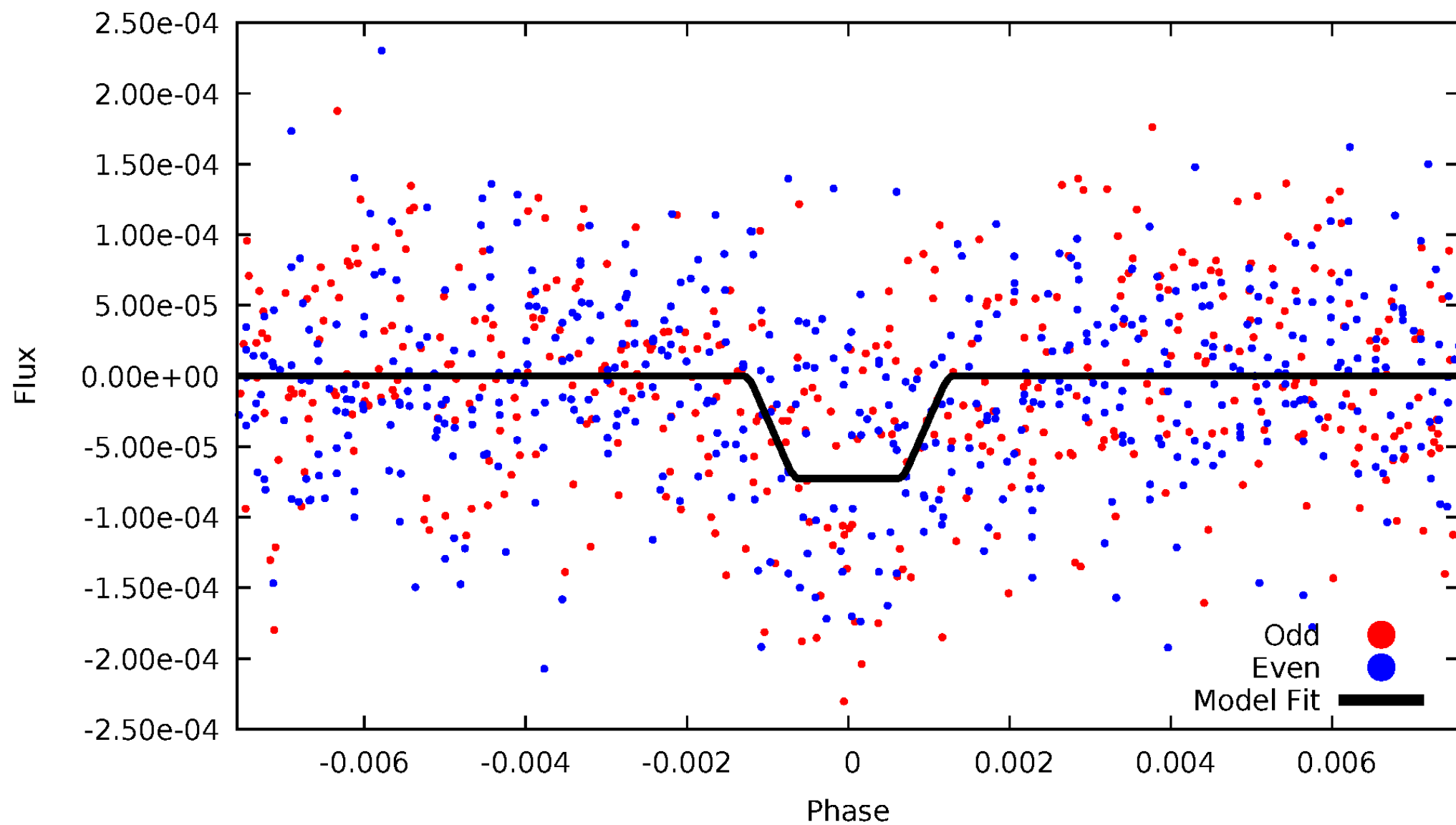
DV Odd/Even

TCE 006936966-01



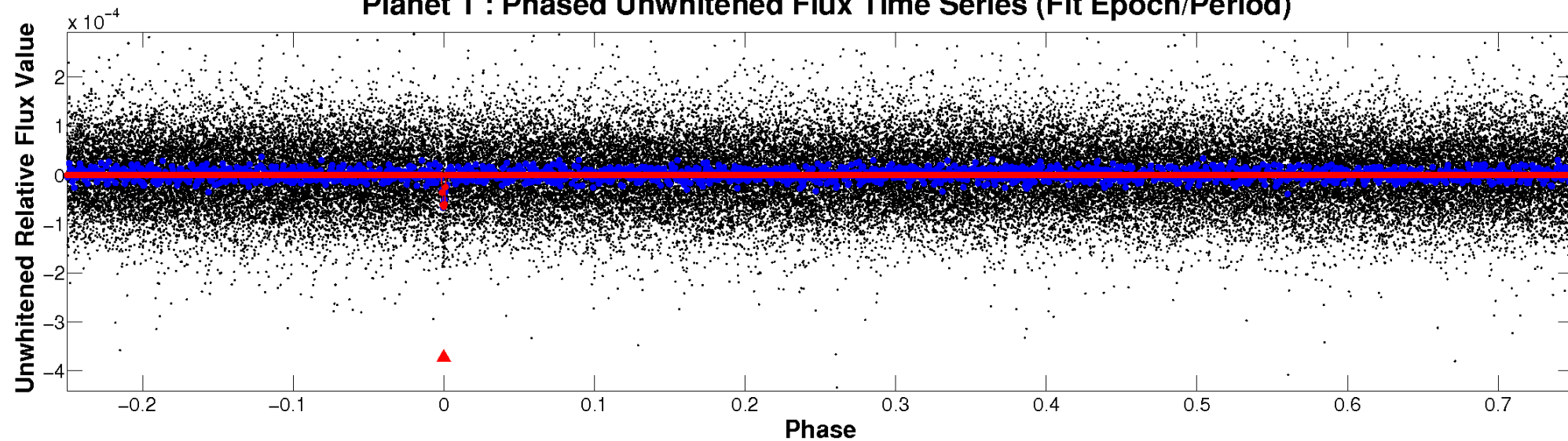
ALT Odd/Even

TCE 006936966-01

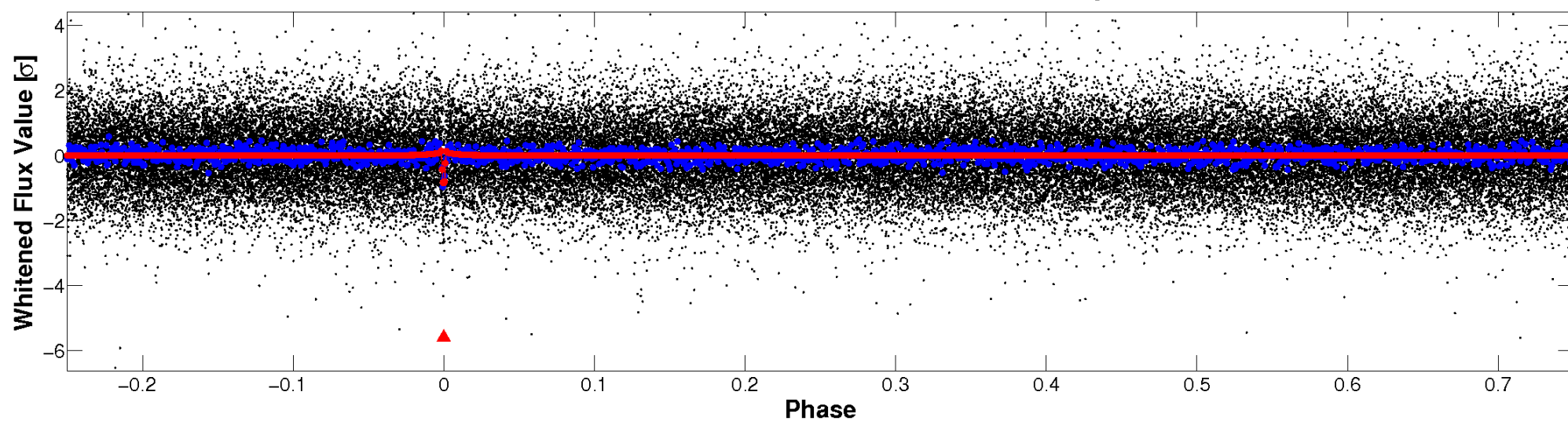


Non-Whitened Vs. Whitened Light Curve

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

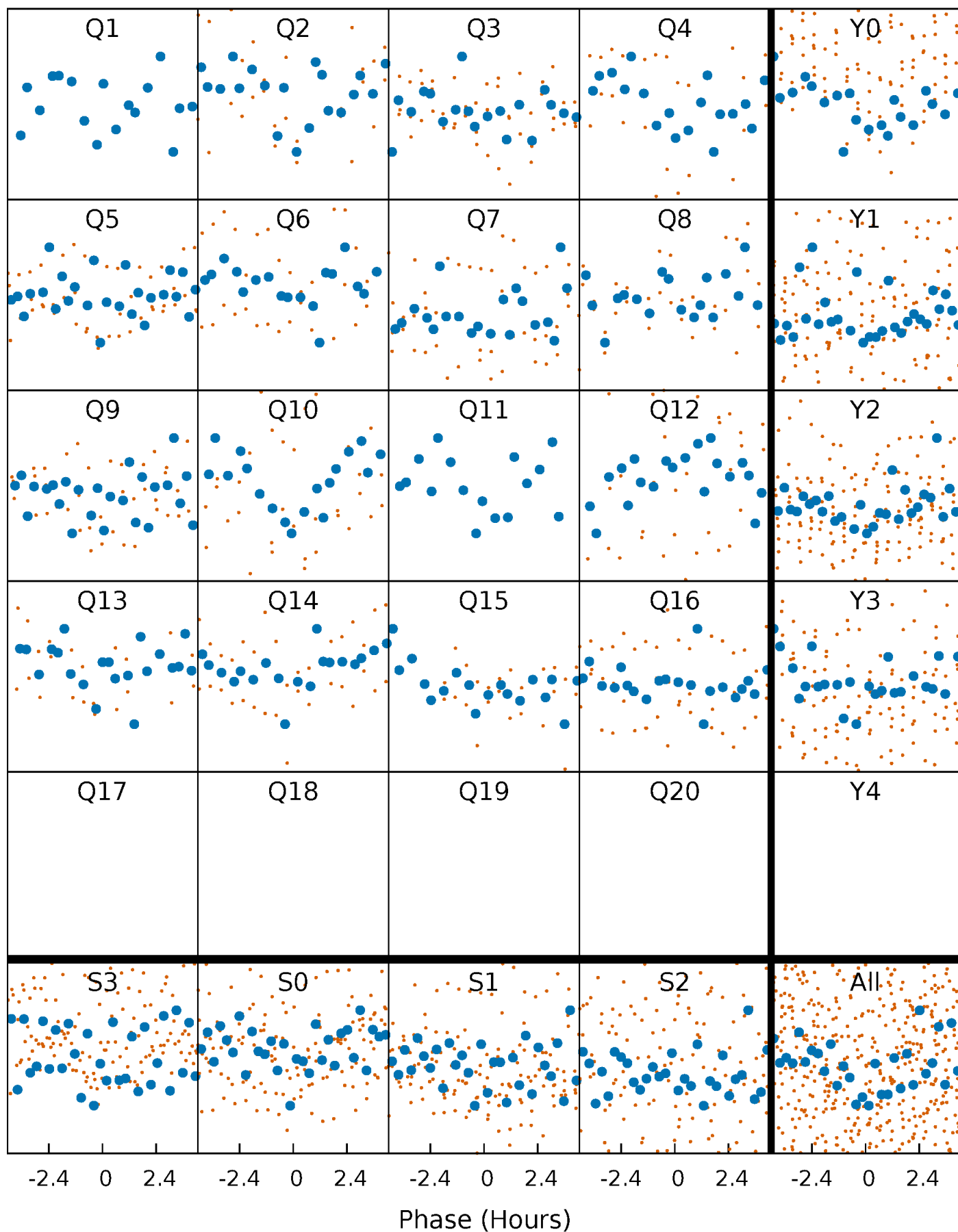


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



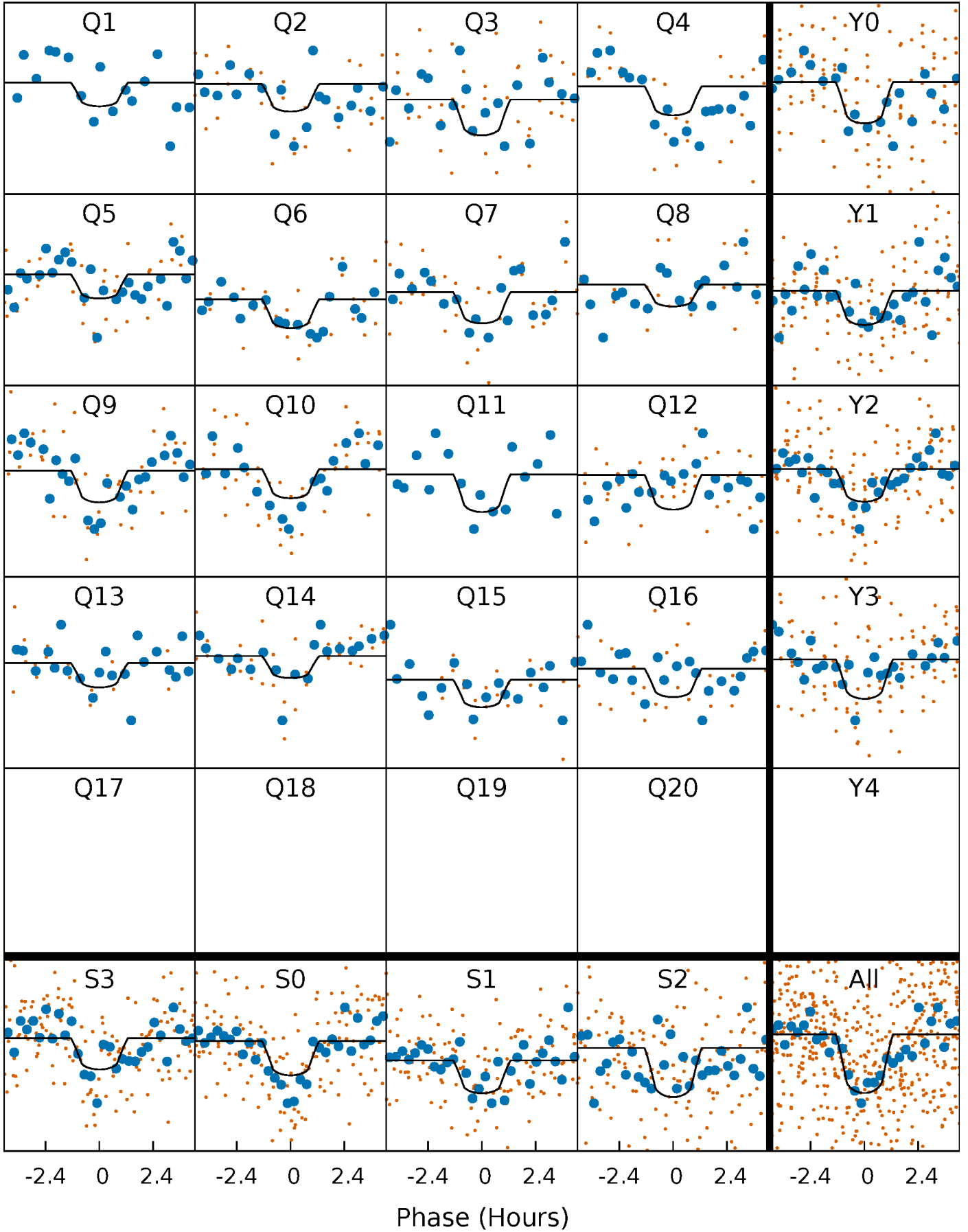
PDC Quarter-Phased Transit Curves

TCE 006936966-01 P= 36.473246 Days $T_0=159.768051$ (BKJD)



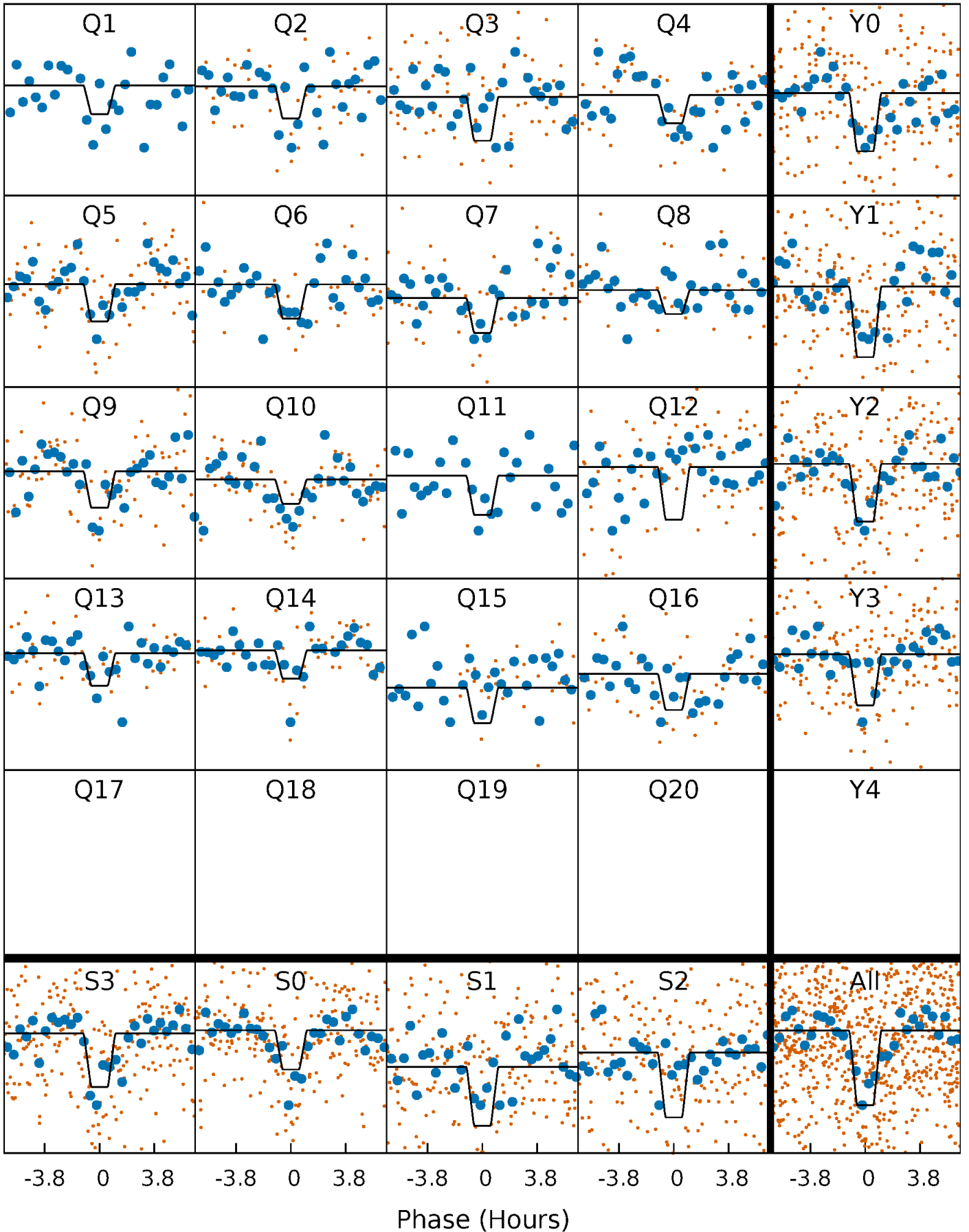
DV Quarter-Phased Transit Curves

TCE 006936966-01 P= 36.473246 Days $T_0=159.768051$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

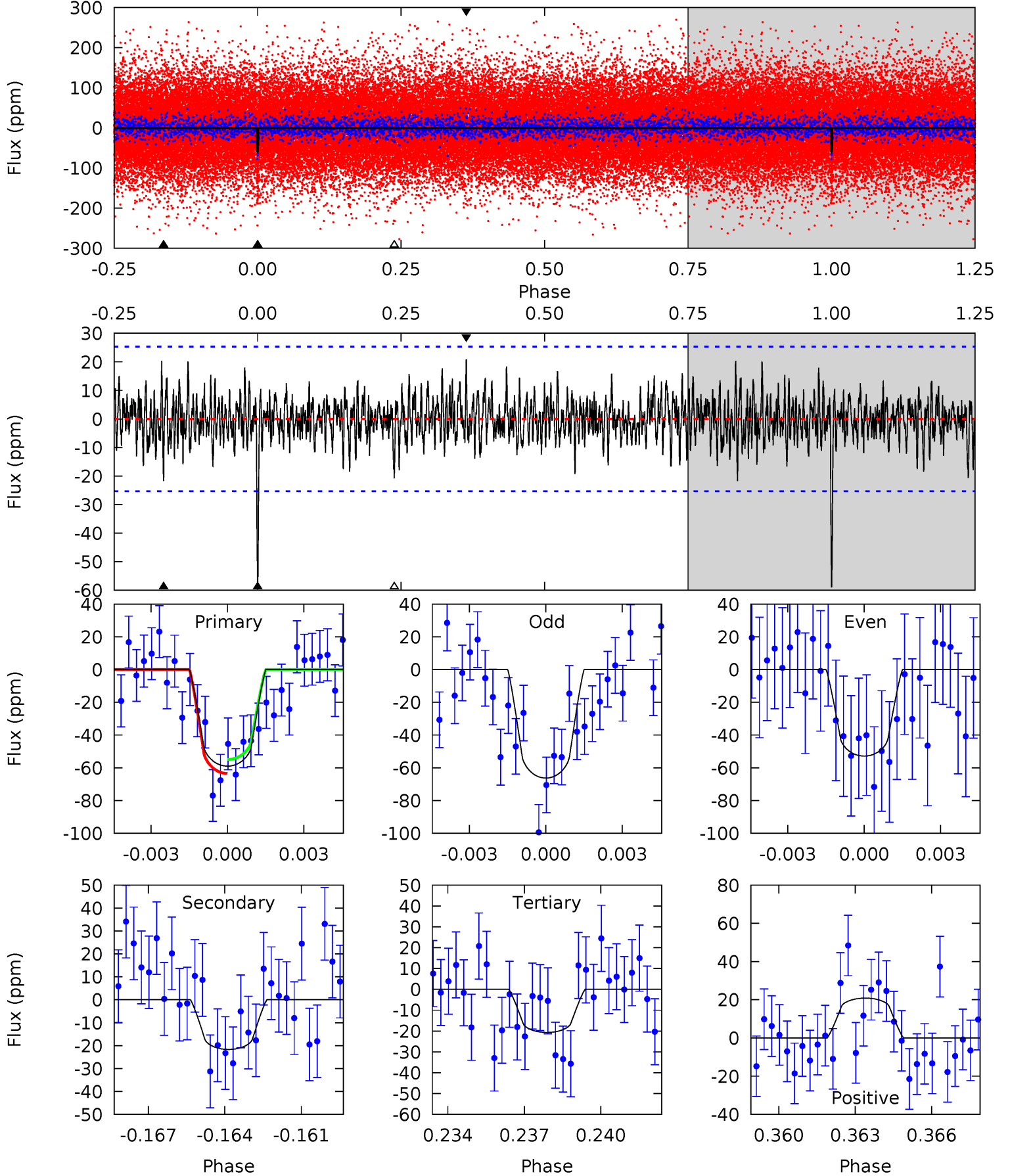
TCE 006936966-01 P= 36.472759 Days $T_0=159.774738$ (BKJD)



DV Model-Shift Uniqueness Test

006936966-01, $P = 36.473246$ Days, $E = 123.294805$ Days

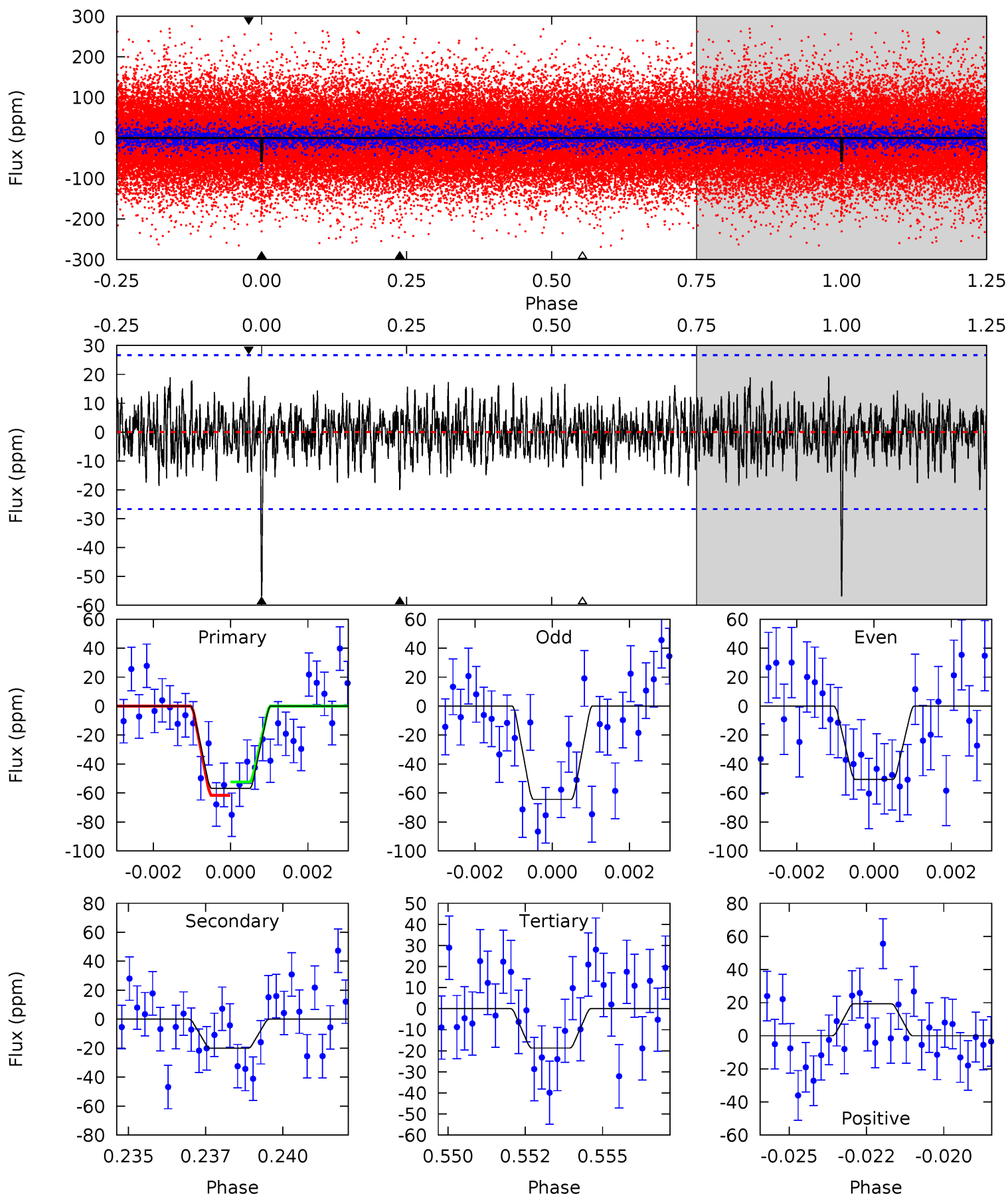
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	4.50	4.29	4.33	5.26	2.98	1.28	7.95	7.91	0.21	0.17	1.39	1.14	0.26	0.89



Alt Model-Shift Uniqueness Test

006936966-01, $P = 36.472759$ Days, $E = 123.301979$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	3.97	3.71	3.81	5.29	3.02	1.23	7.56	7.45	0.27	0.16	1.37	1.01	0.25	0.92



Stellar Parameters For KIC 006936966

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5853^{+131}_{-160}	$4.529^{+0.038}_{-0.152}$	$-0.100^{+0.250}_{-0.300}$	$0.895^{+0.189}_{-0.081}$	$0.990^{+0.092}_{-0.127}$	$1.941^{+0.392}_{-0.822}$
	+2%/-3%	+1%/-3%	+250%/-300%	+21%/-9%	+9%/-13%	+20%/-42%
Source	PHO1	FLK73	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 006936966-01 / KOI 7797.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-22 ± 5	$0.88^{+0.52}_{-0.43}$	751^{+37}_{-31}	4498^{+1539}_{-744}	716^{+2068}_{-450}
Alt.	-20 ± 5	$0.89^{+0.47}_{-0.48}$	750^{+40}_{-28}	4401^{+1702}_{-658}	650^{+2169}_{-397}

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

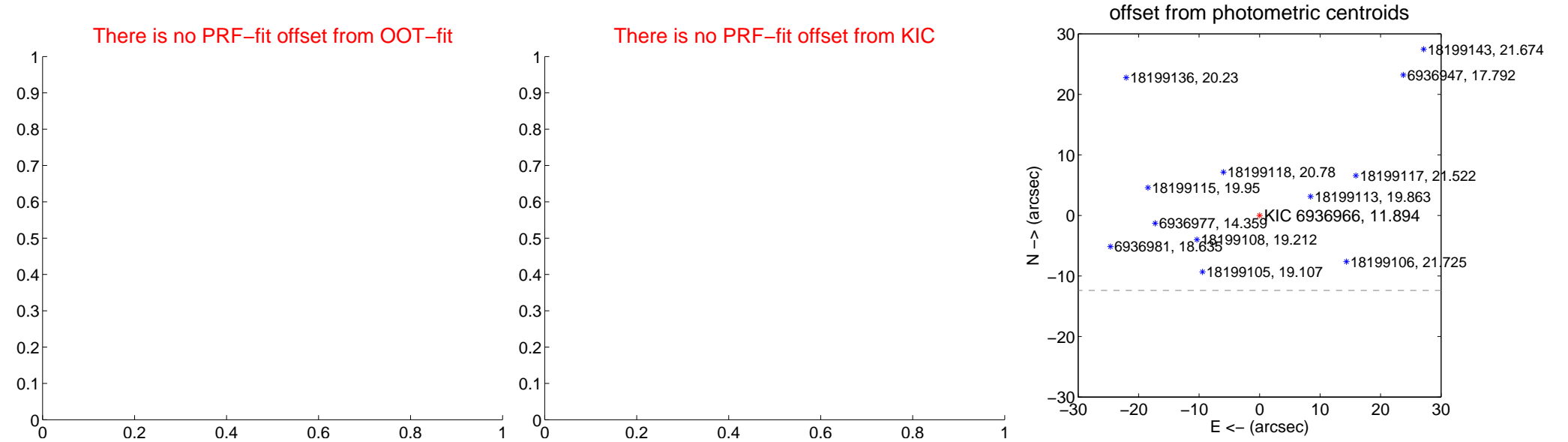
DV Centroid Data

Supplemental centroid analysis for 006936966-01. **Kepler magnitude: 11.89.** Transit SNR 9.27

There are 0 quarters with good PRF difference image offsets

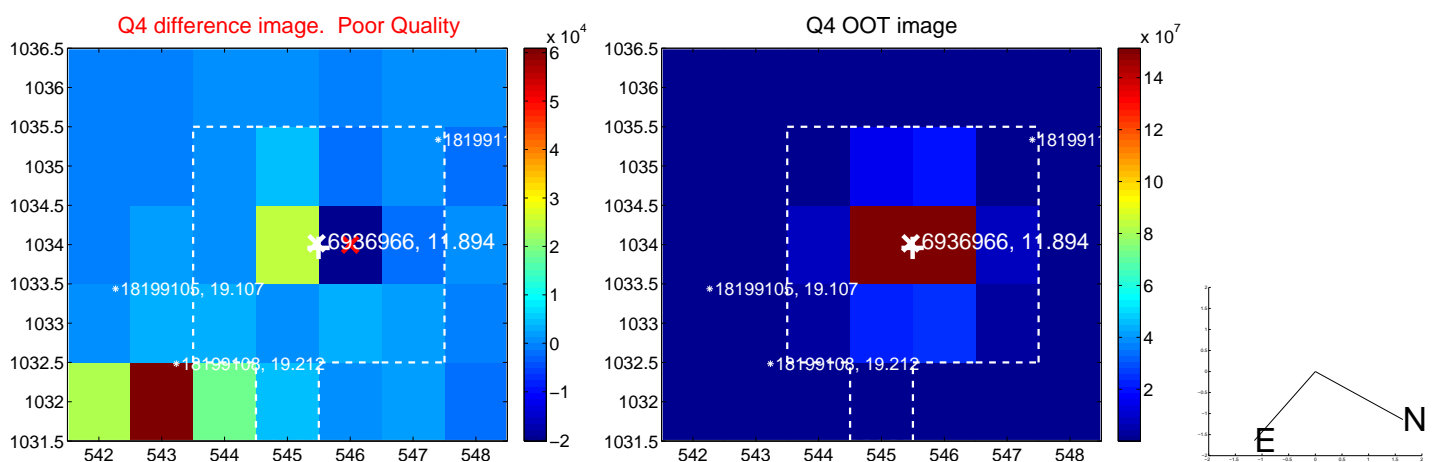
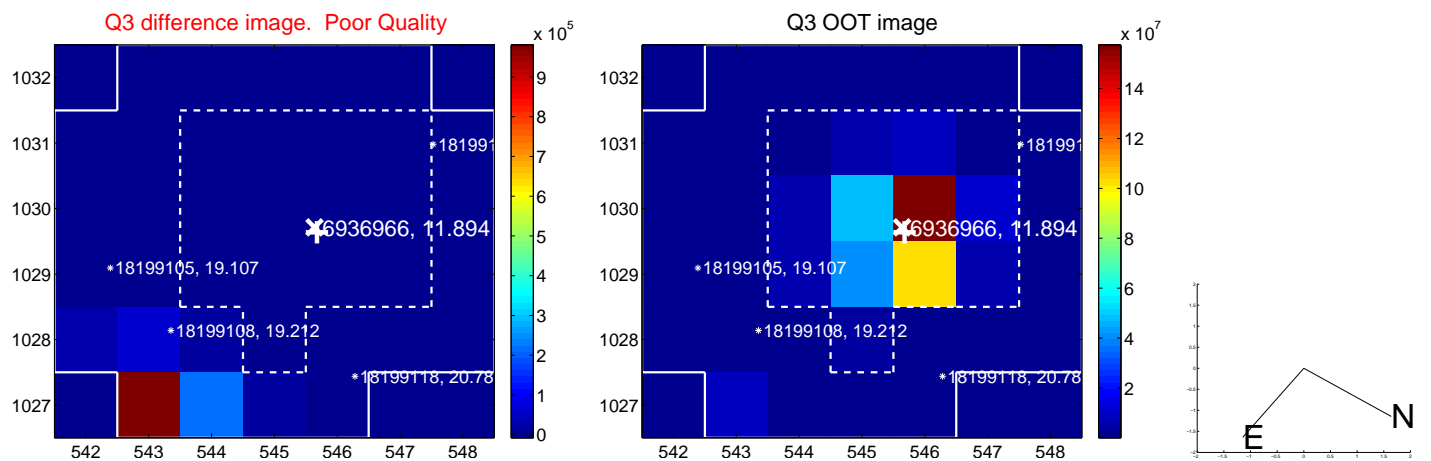
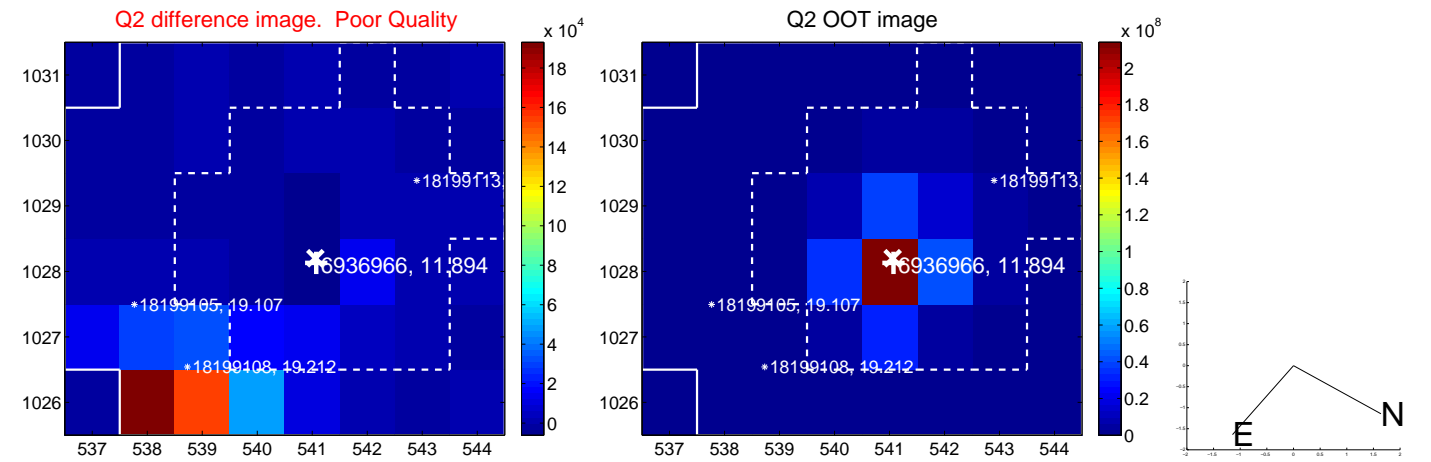
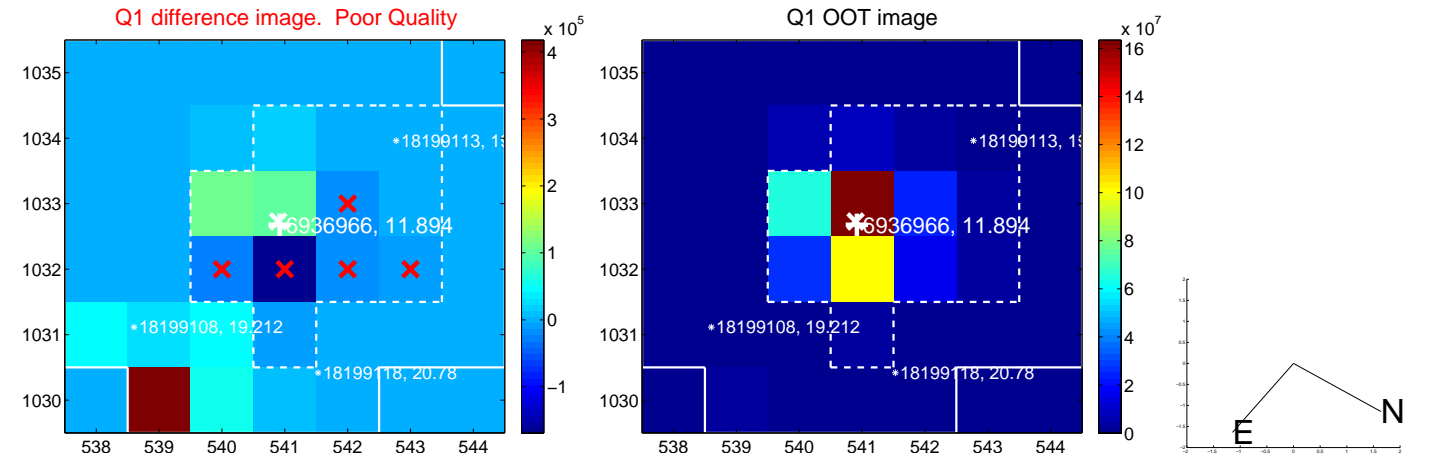
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	76.12 \pm 1.12	67.83	75.11 \pm 1.12	-12.38 \pm 1.15

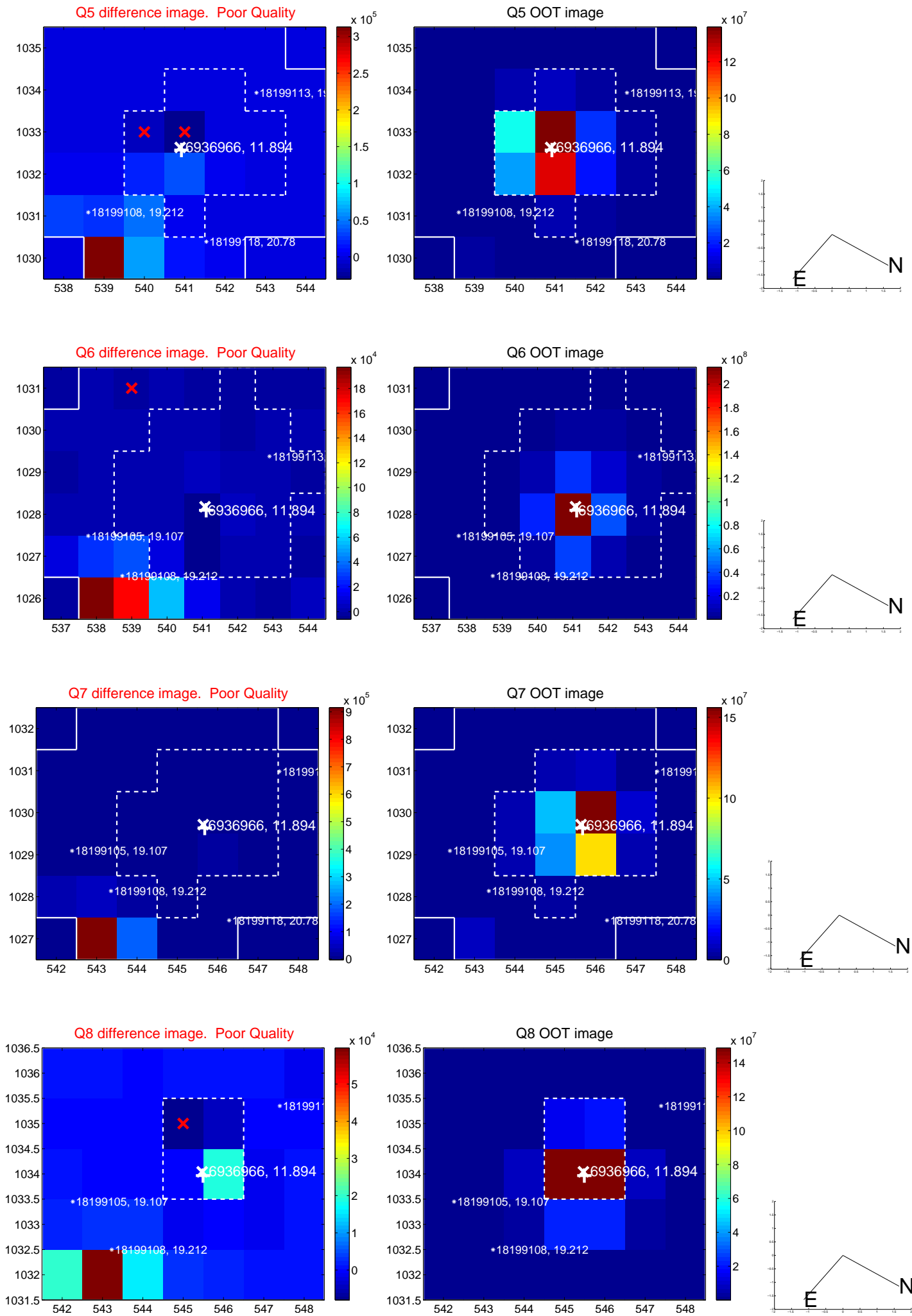


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

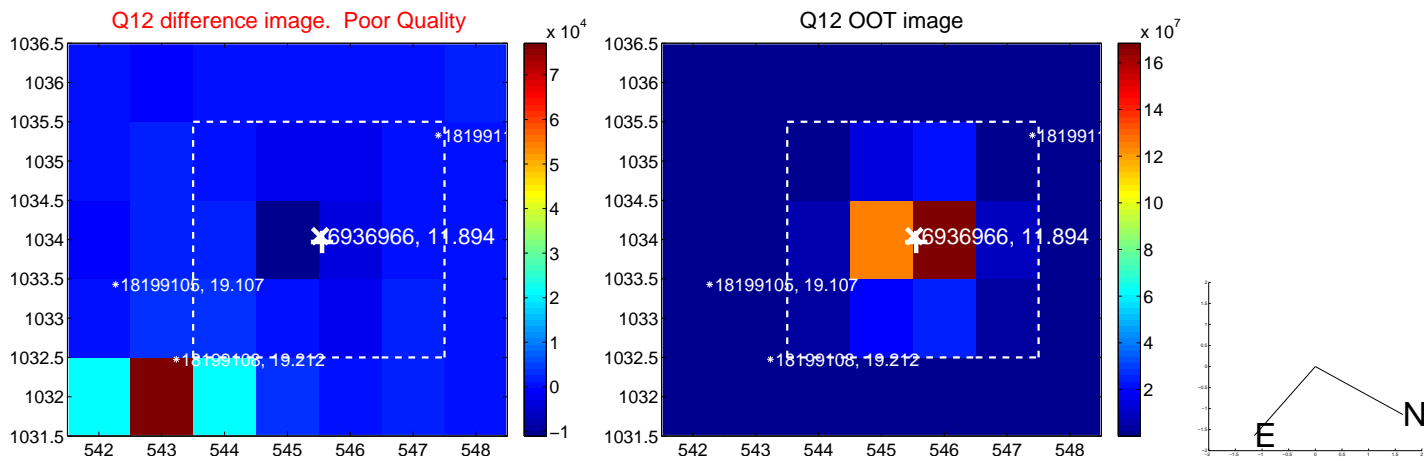
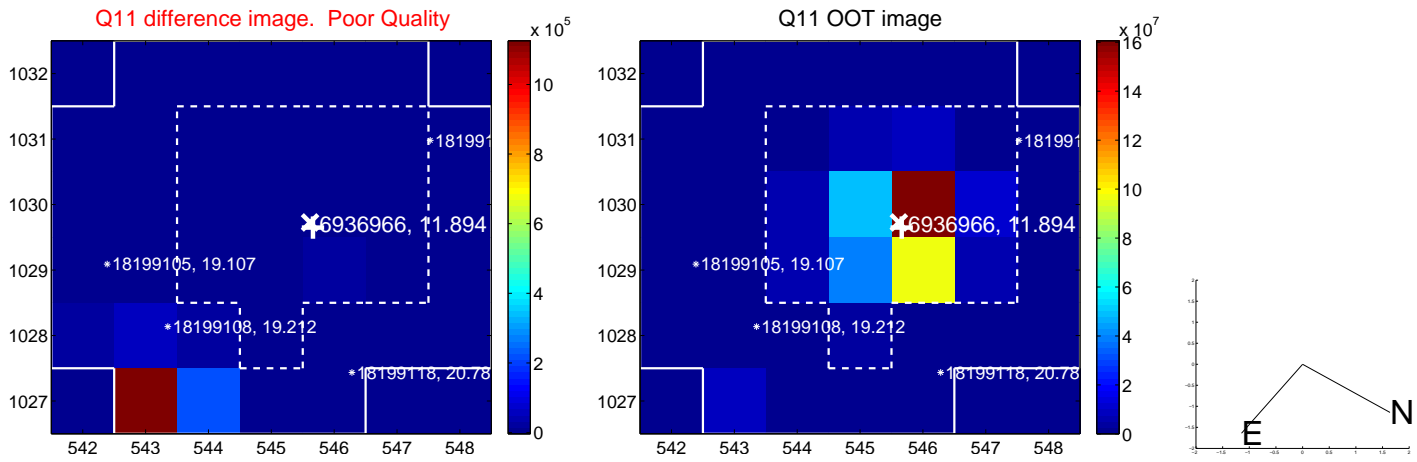
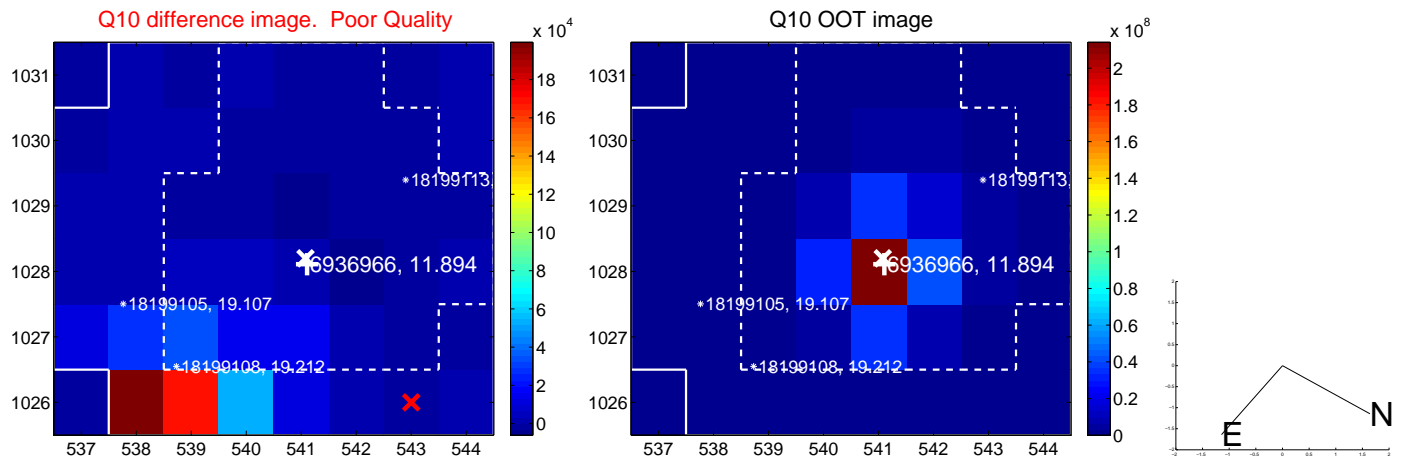
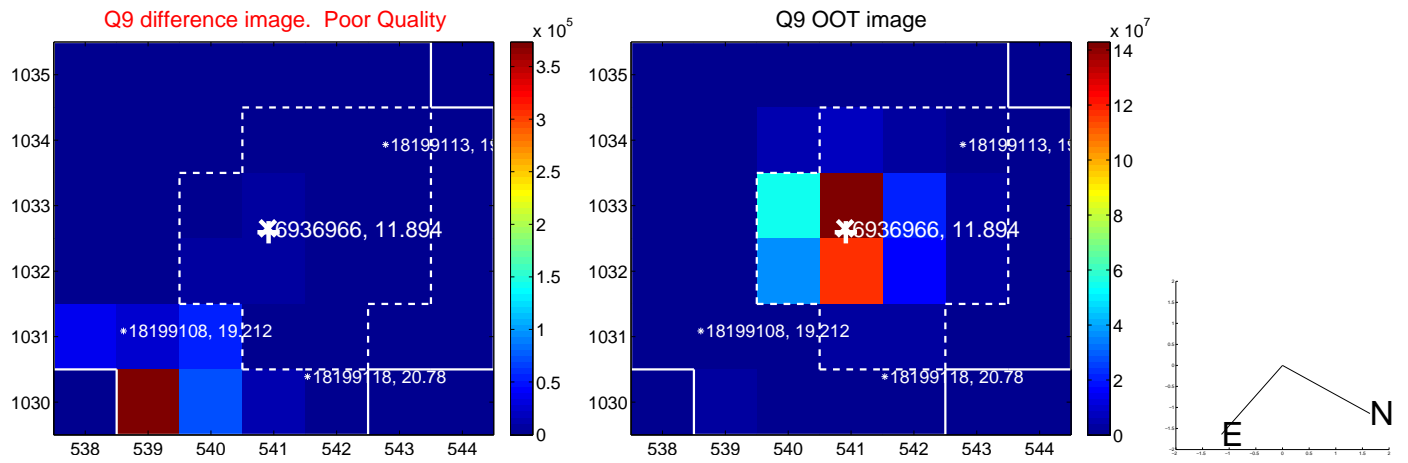
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



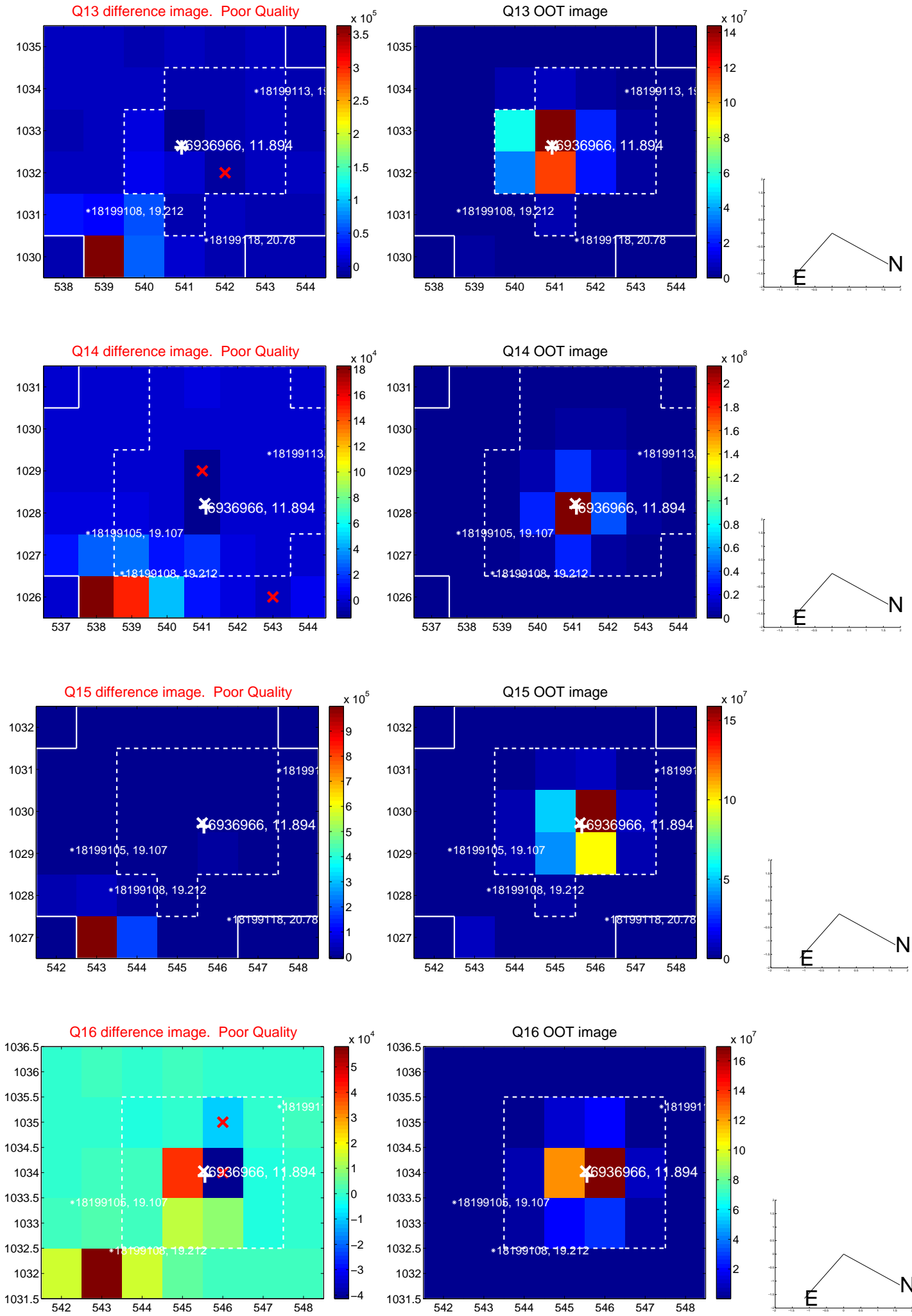
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



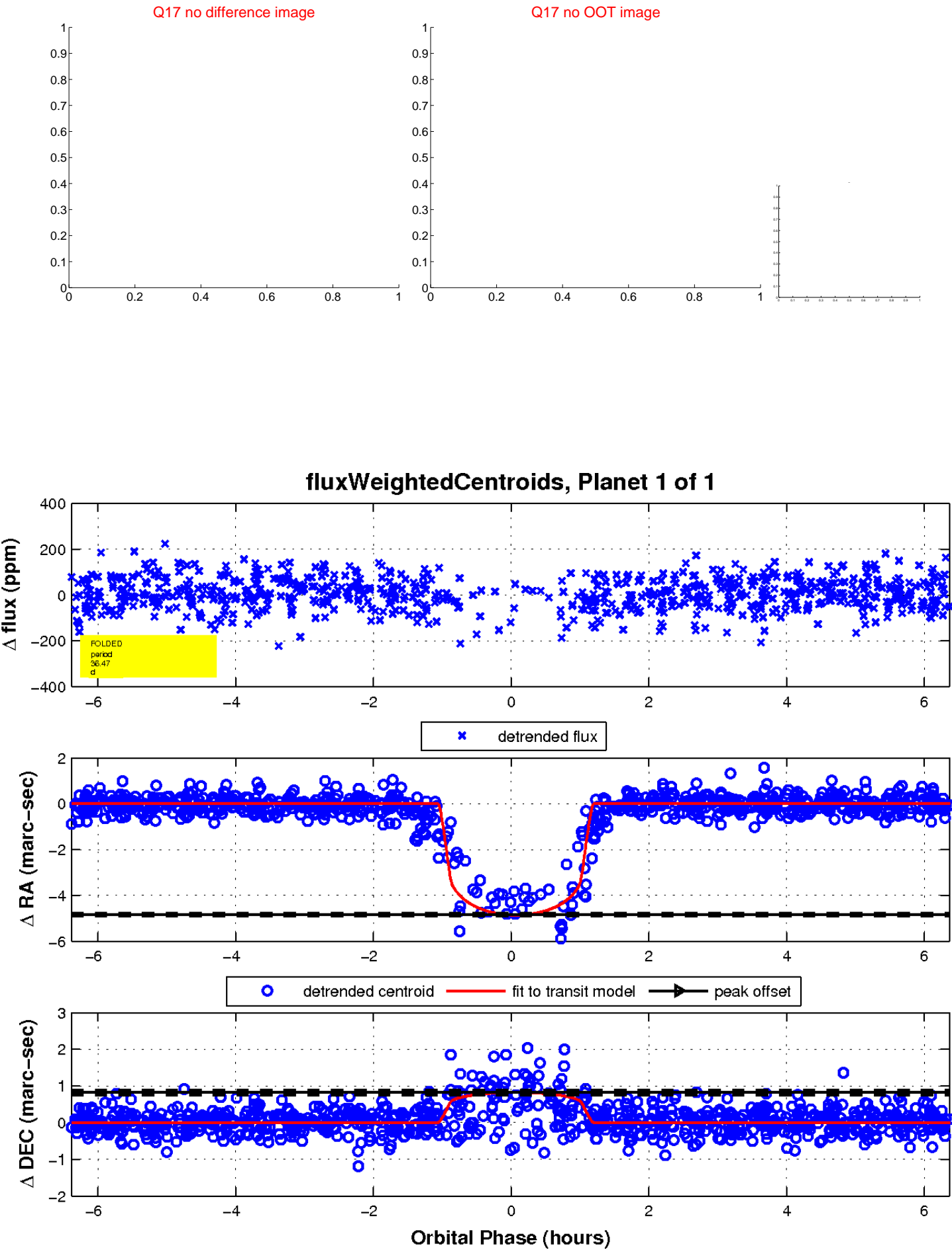
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

