

KIC 006766990

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})
006766990-01	OBS	No	5.156310	135.061357	38.6	16.533	9.0	8.3	0.82	4806	0.49	110.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006766990-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

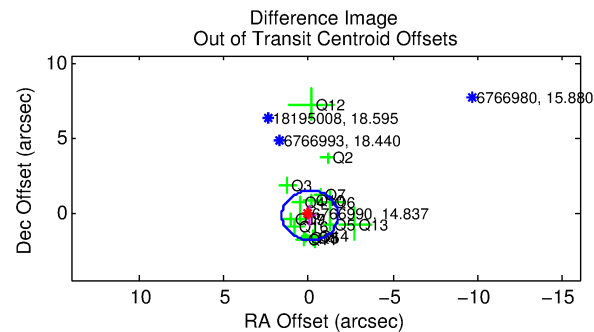
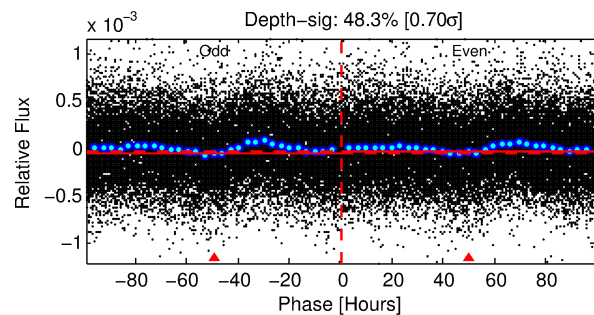
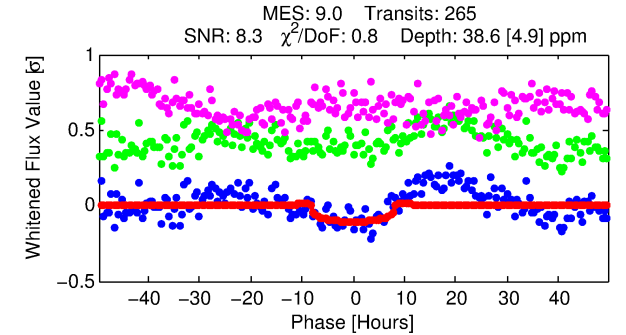
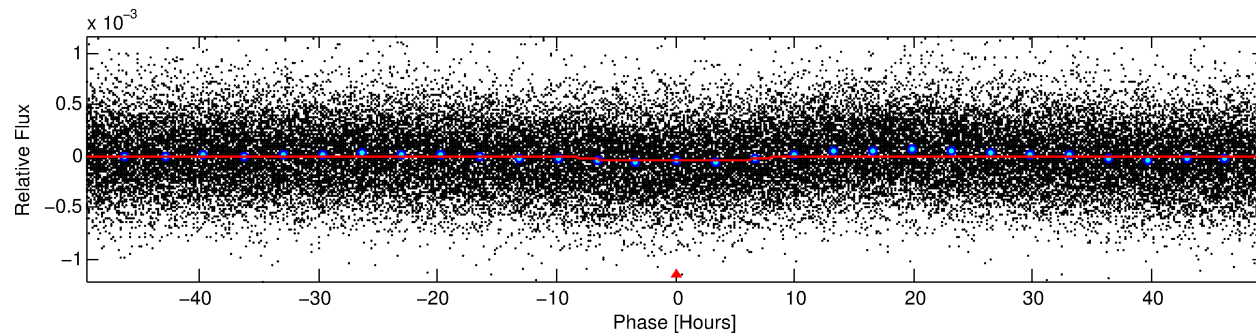
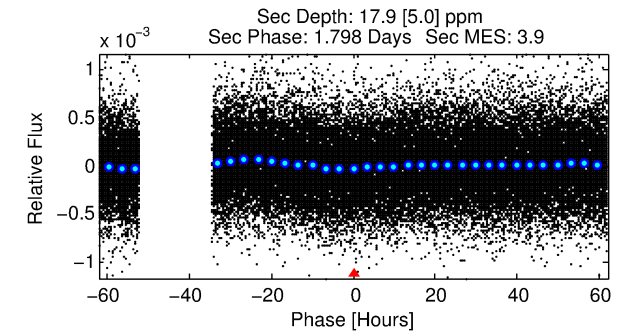
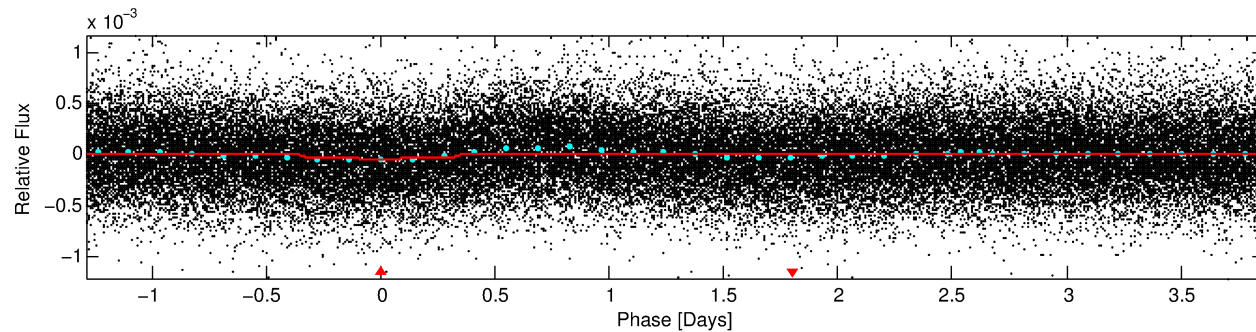
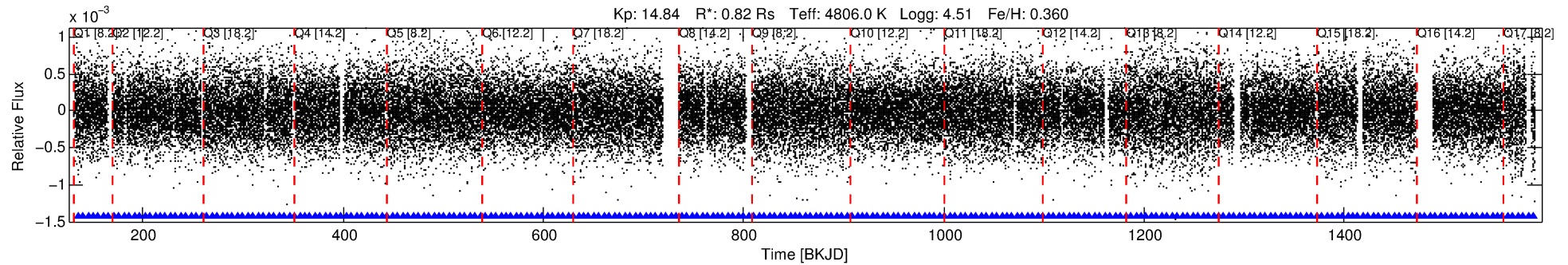
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006766990-01

No Significant Match Found

DV One-Page Summary

KIC: 6766990 Candidate: 1 of 1 Period: 5.156 d



DV Fit Results:

Period = 5.15631 [0.00016] d
Epoch = 135.0614 [0.0226] BKJD
Rp/R* = 0.0055 [0.0055]
a/R* = 2.44 [6.32]
b = 0.16 [19.25]
Seff = 110.36 [20.65]
Teff = 826 [39] K
Rp = 0.49 [0.50] Re
a = 0.0541 [0.0049] AU
Ag = 119.54 [244.35] [0.49σ]
Teffp = 4225 [2157] K [1.58σ]

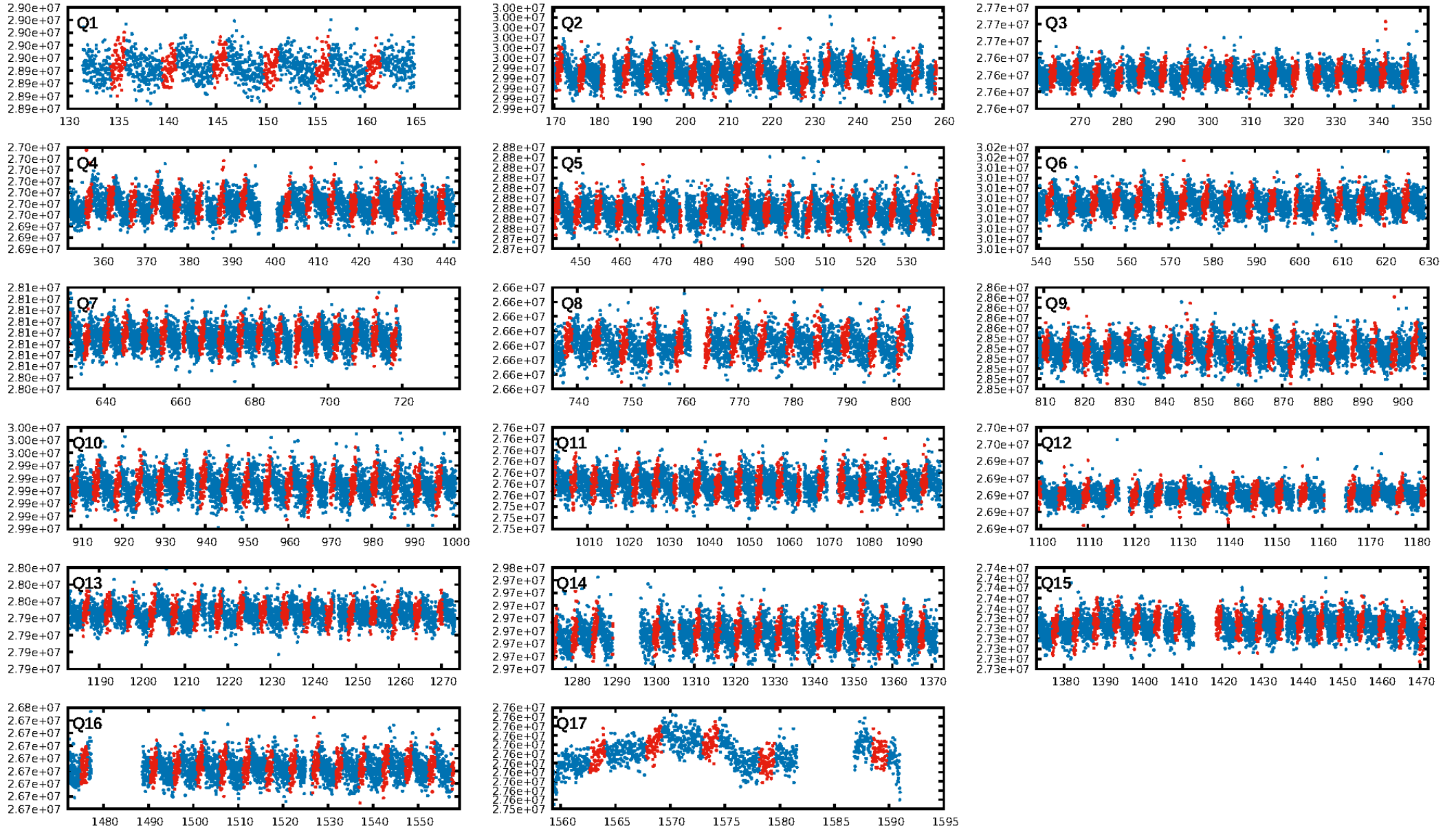
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.67e-20
RollingBand-fgt: 1.00 [254/254]
GhostDiagnostic-chr: 2.233
Centroid-sig: 37.1%
Centroid-so: 1.565 arcsec [1.01σ]
OotOffset-rm: 0.209 arcsec [0.38σ]
KicOffset-rm: 0.288 arcsec [0.49σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.88 [14/16]
DiffImageOverlap-fno: 1.00 [17/17]

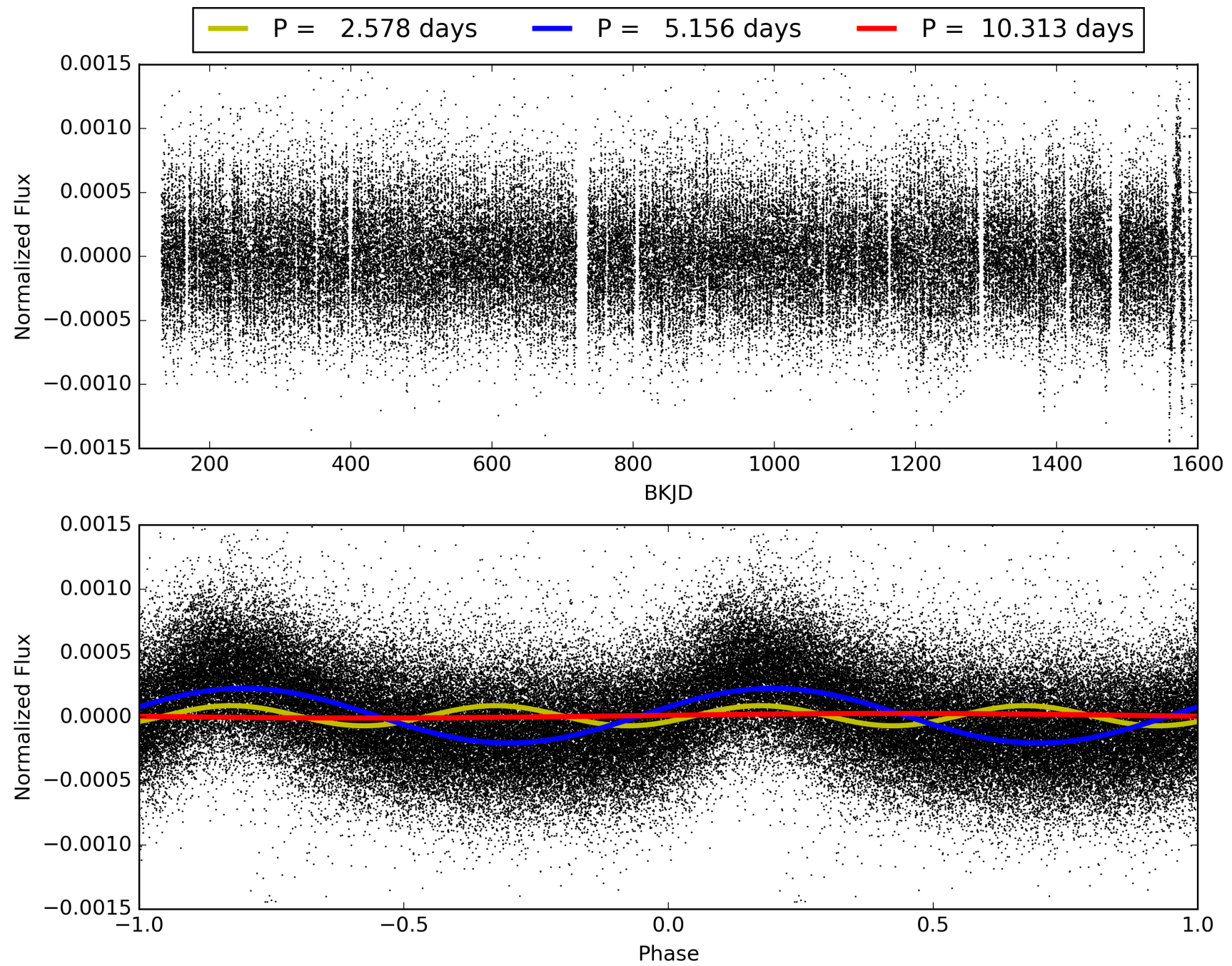
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:17:00 Z

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

TCE 006766990-01, PDC Light Curves

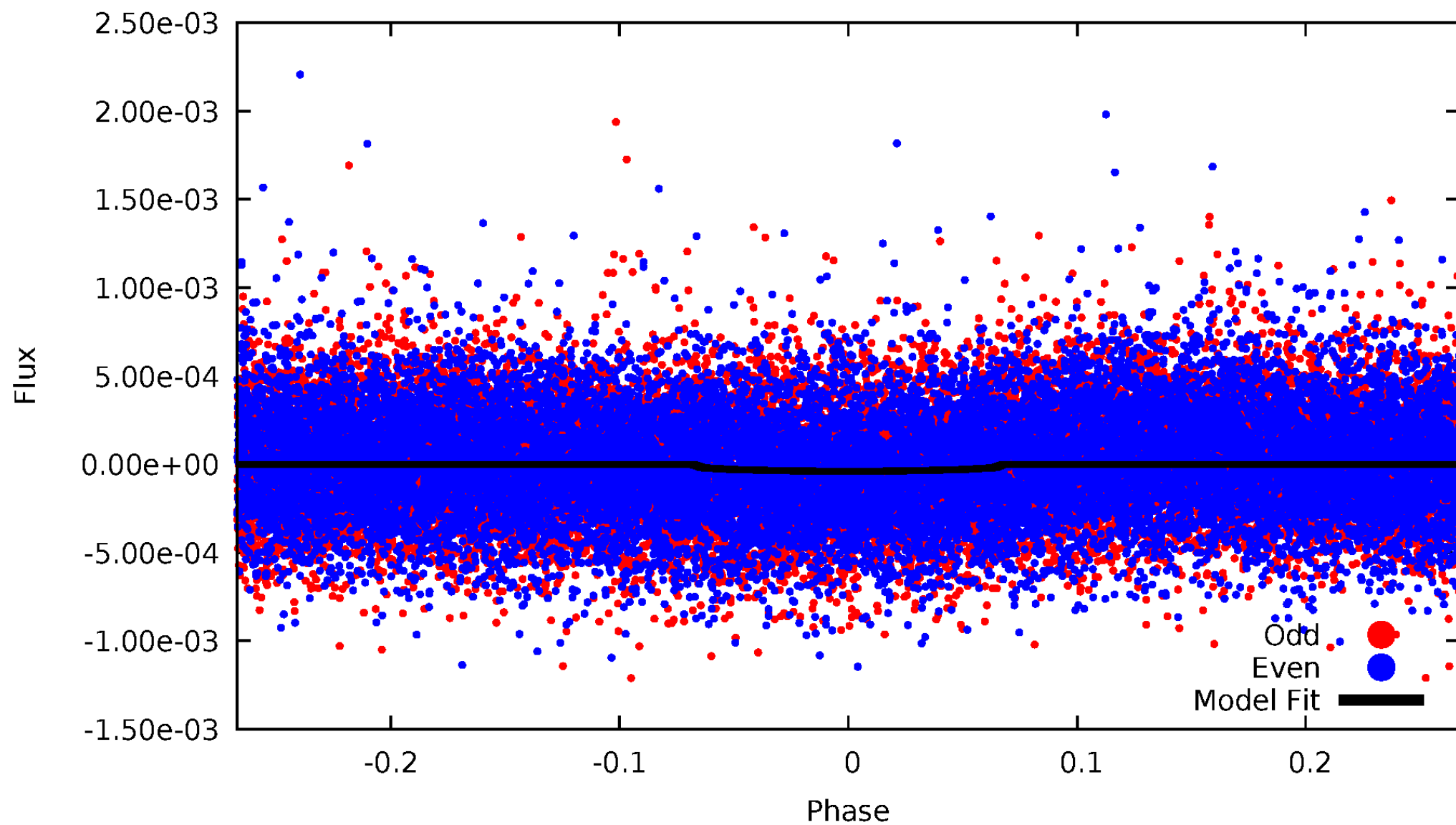


TCE 006766990-01



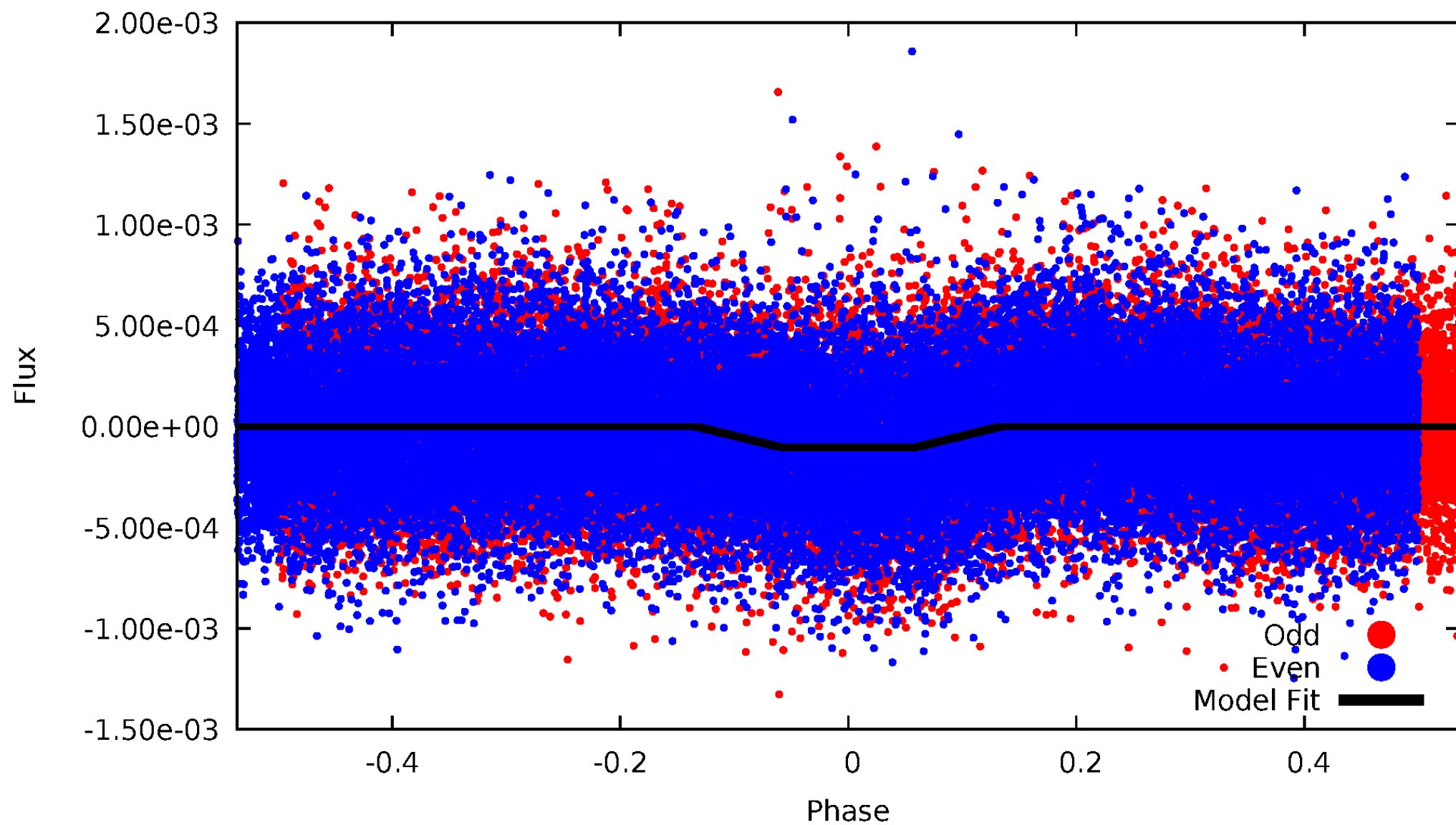
DV Odd/Even

TCE 006766990-01

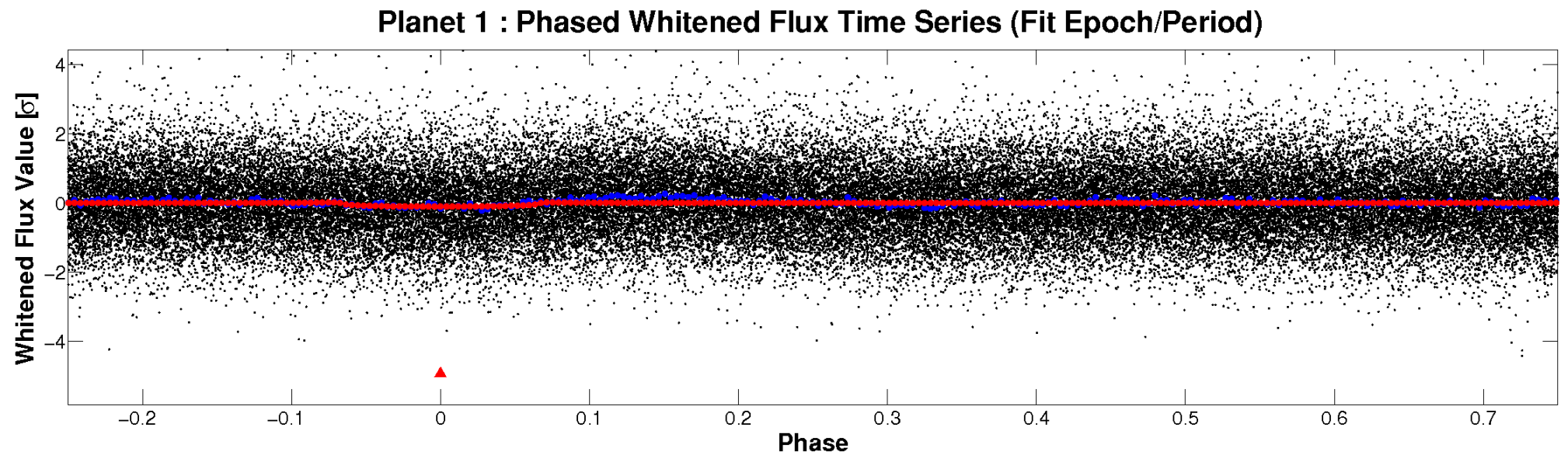
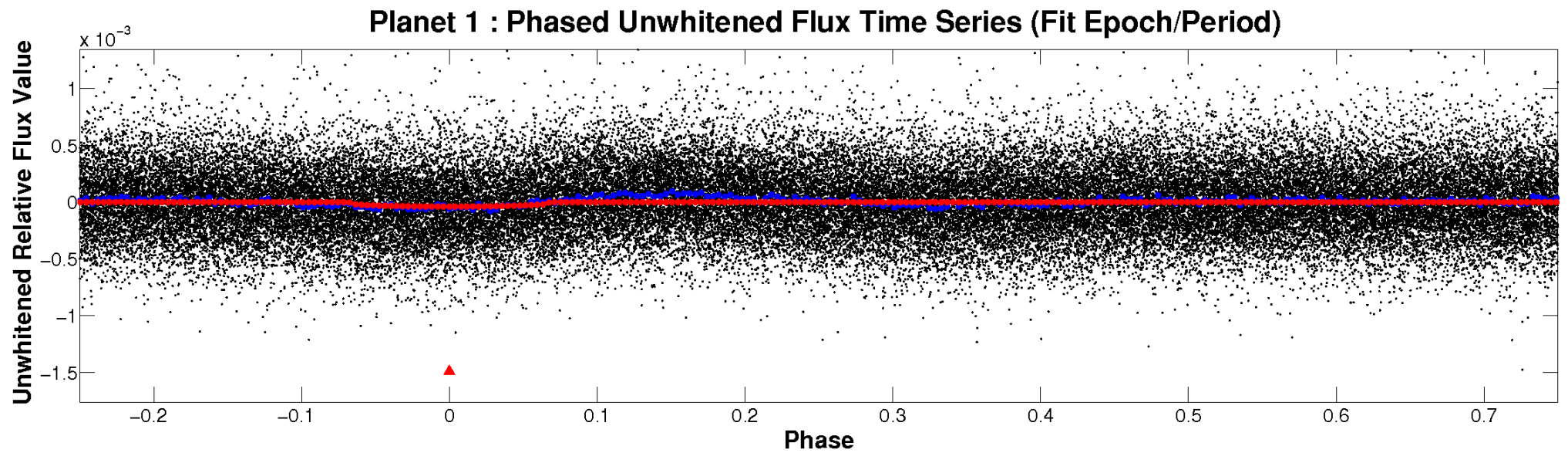


ALT Odd/Even

TCE 006766990-01

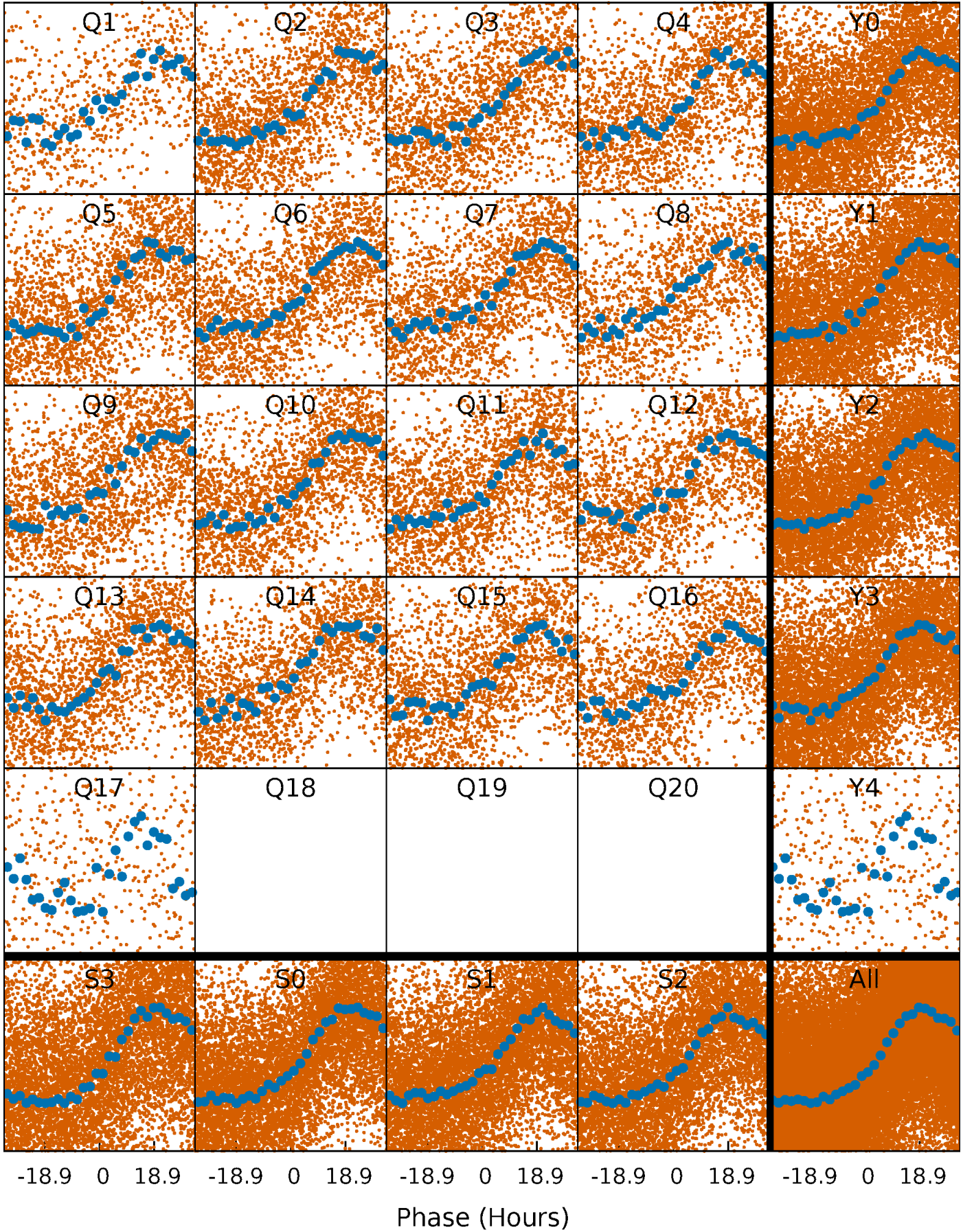


Non-Whitened Vs. Whitened Light Curve



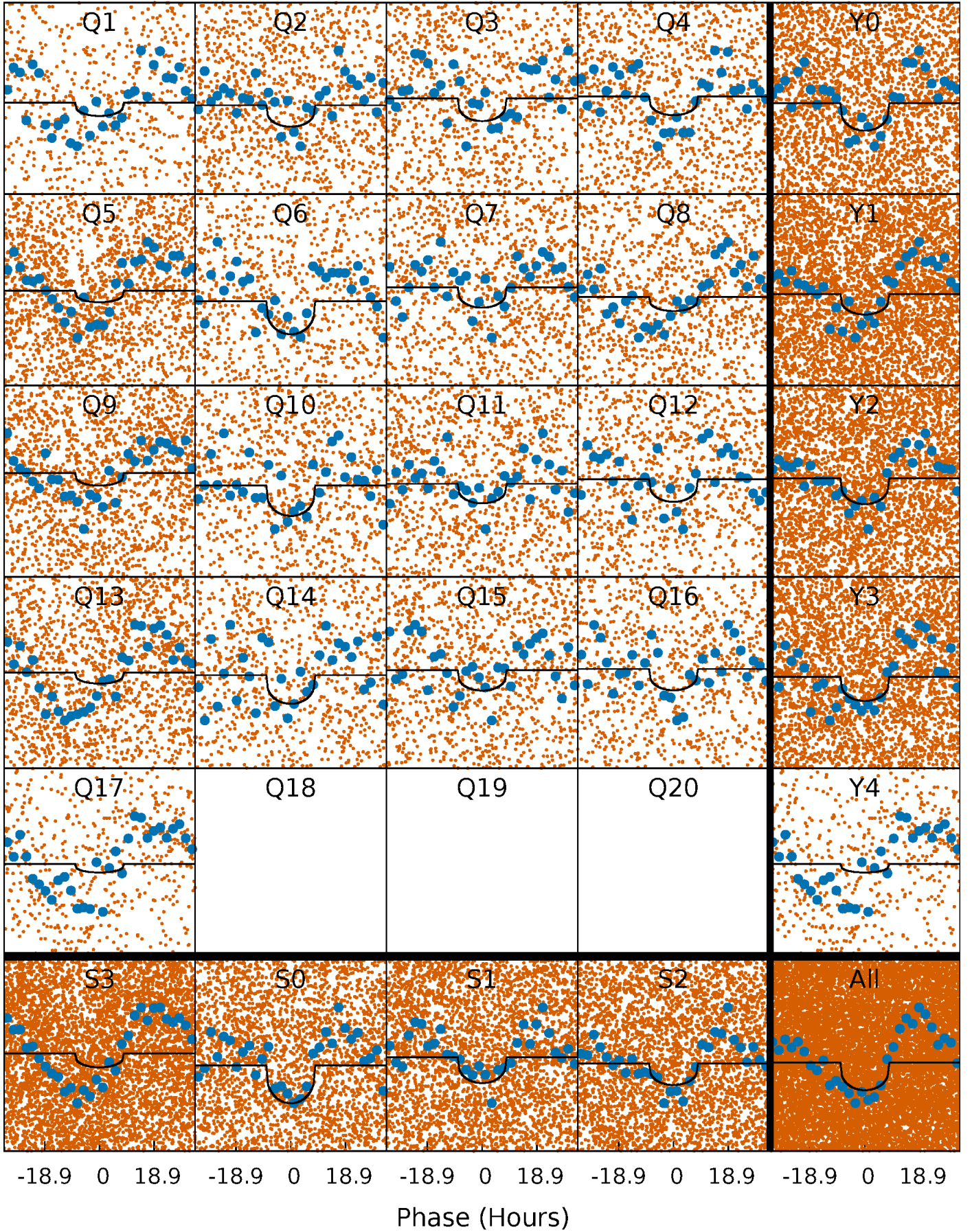
PDC Quarter-Phased Transit Curves

TCE 006766990-01 P= 5.156310 Days $T_0=135.061358$ (BKJD)



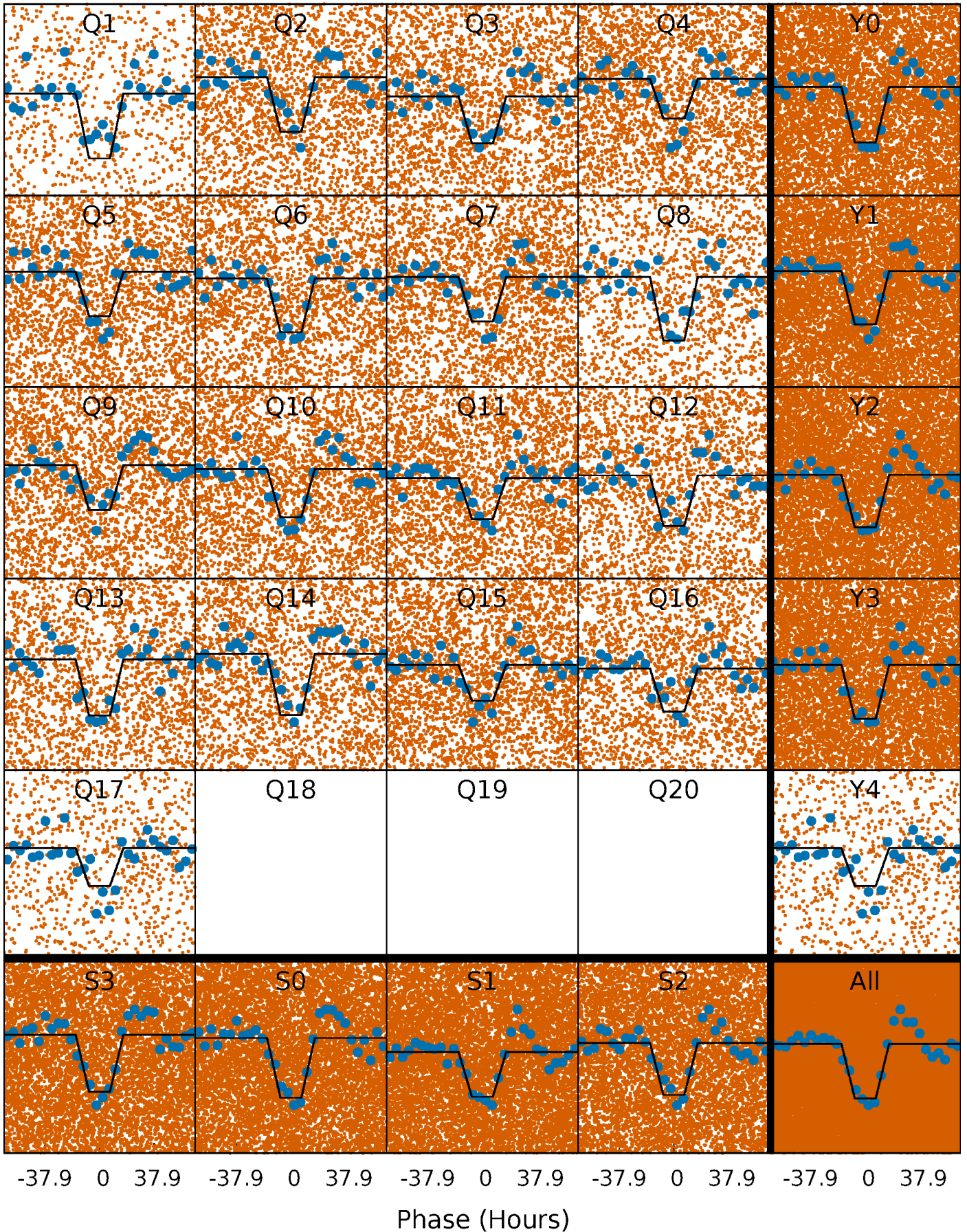
DV Quarter-Phased Transit Curves

TCE 006766990-01 P= 5.156310 Days $T_0=135.061358$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

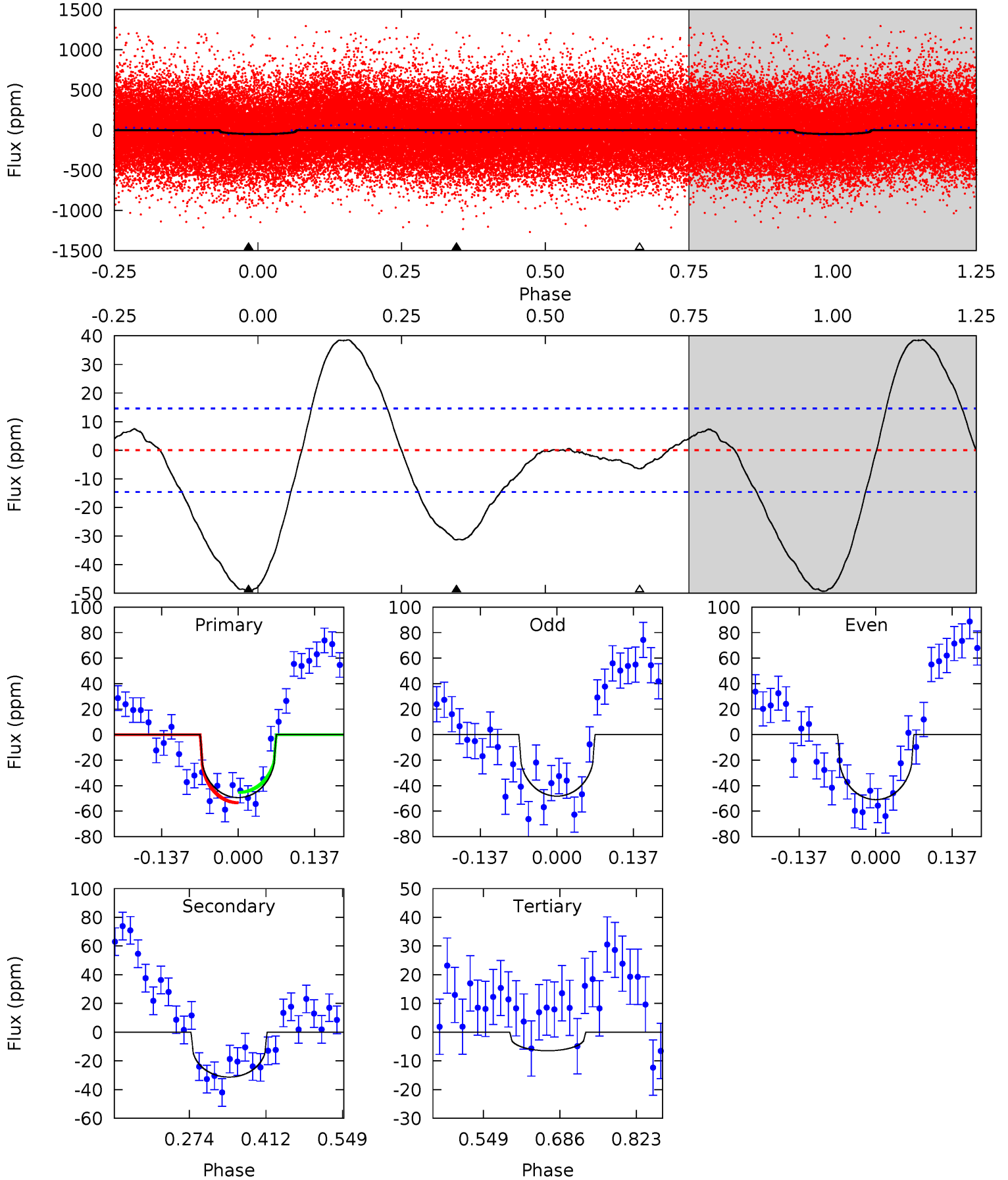
TCE 006766990-01 P= 5.156338 Days $T_0=134.879003$ (BKJD)



DV Model-Shift Uniqueness Test

006766990-01, P = 5.156310 Days, E = 129.905048 Days

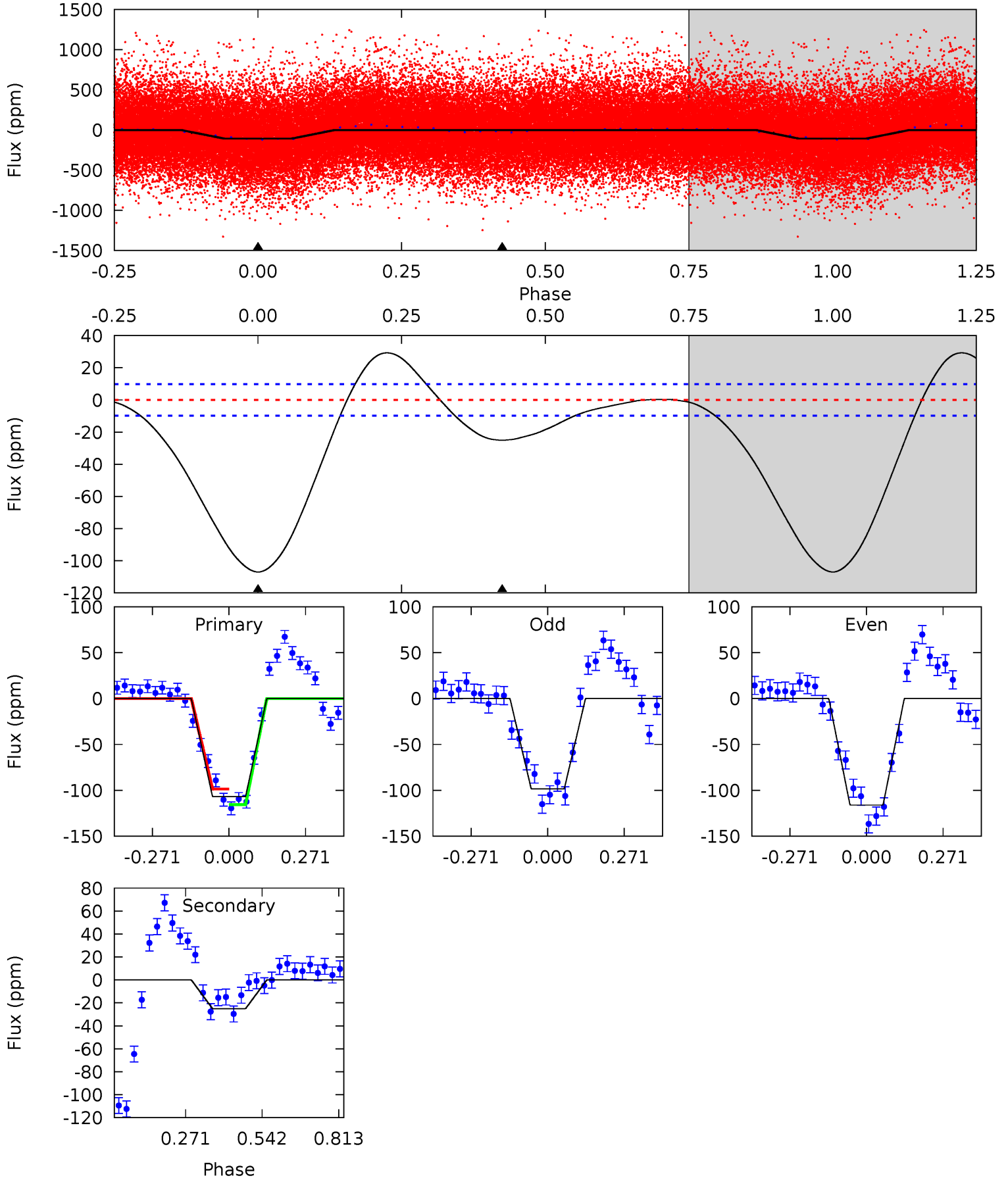
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	9.65	2.00	0	4.50	1.49	4.38	13.2	15.2	7.66	9.65	0.42	1.11	0.44	1.25



Alt Model-Shift Uniqueness Test

006766990-01, P = 5.156338 Days, E = 129.722665 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
47.3	11.1	0	0	4.35	1.10	0.36	47.3	47.3	11.1	11.1	3.87	1.04	0.21	3.80



Stellar Parameters For KIC 006766990

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4806^{+143}_{-129}	$4.508^{+0.084}_{-0.052}$	$0.360^{+0.100}_{-0.300}$	$0.822^{+0.049}_{-0.080}$	$0.794^{+0.051}_{-0.051}$	$2.013^{+0.674}_{-0.352}$
	+3%/-3%	+2%/-1%	+28%/-83%	+6%/-10%	+6%/-6%	+33%/-17%
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 006766990-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-31 ± 3	$0.58^{+0.43}_{-0.35}$	1150^{+47}_{-43}	4549^{+2472}_{-844}	154^{+802}_{-102}
Alt.	-25 ± 2	$0.92^{+0.53}_{-0.44}$	1152^{+42}_{-42}	3679^{+980}_{-486}	48^{+125}_{-29}

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

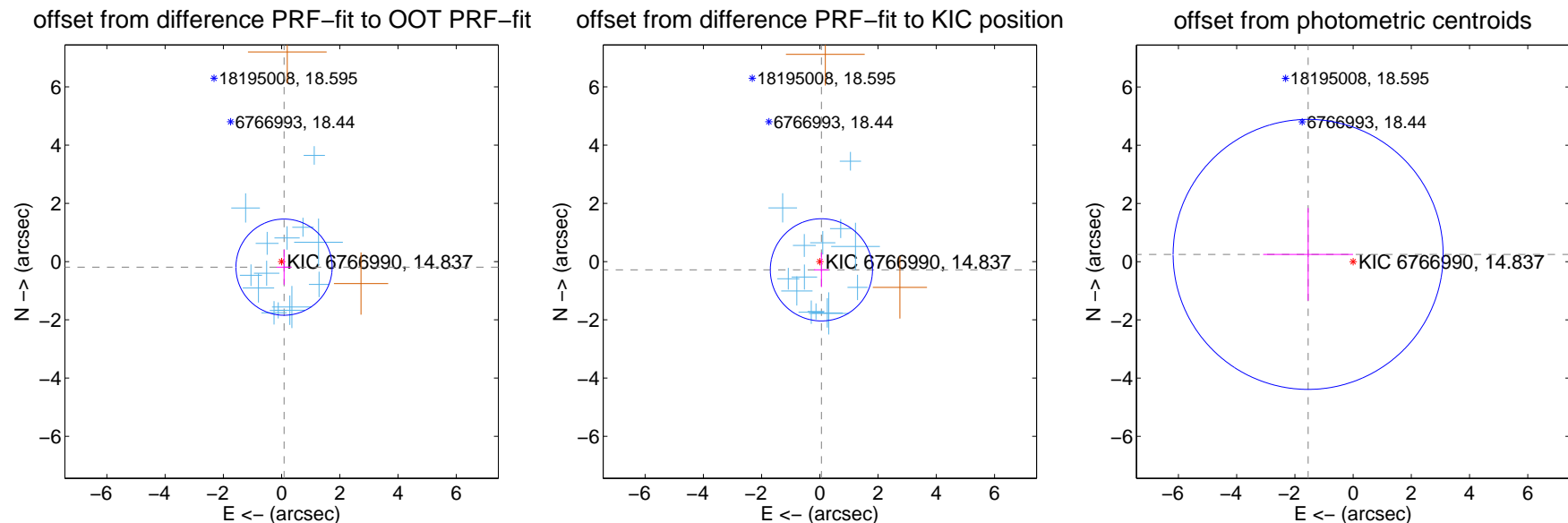
DV Centroid Data

Supplemental centroid analysis for 006766990-01. Kepler magnitude: 14.84. Transit SNR 8.32

There are 14 quarters with good PRF difference image offsets

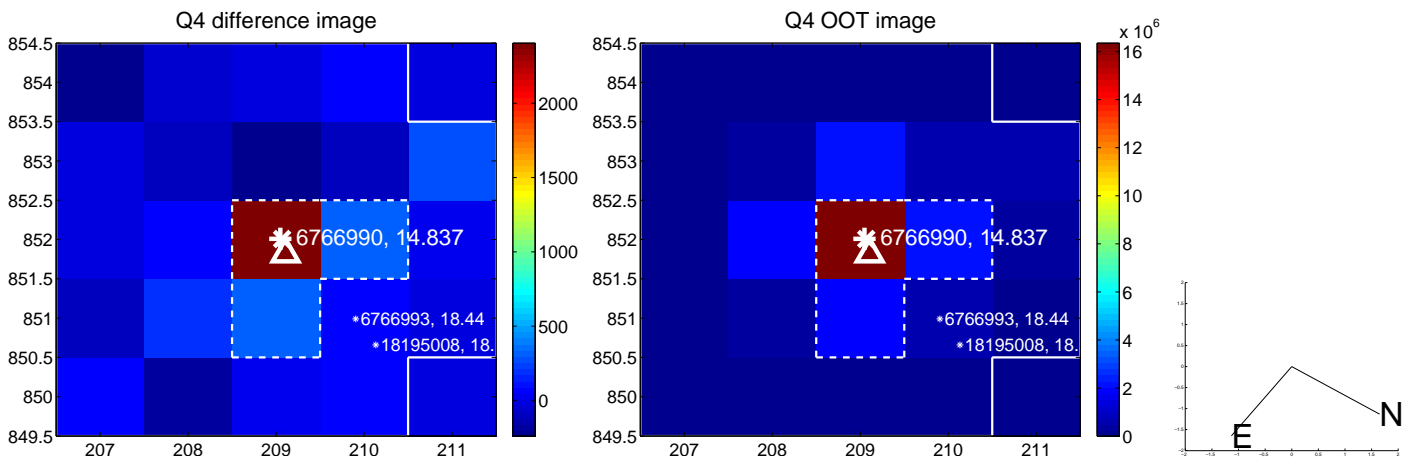
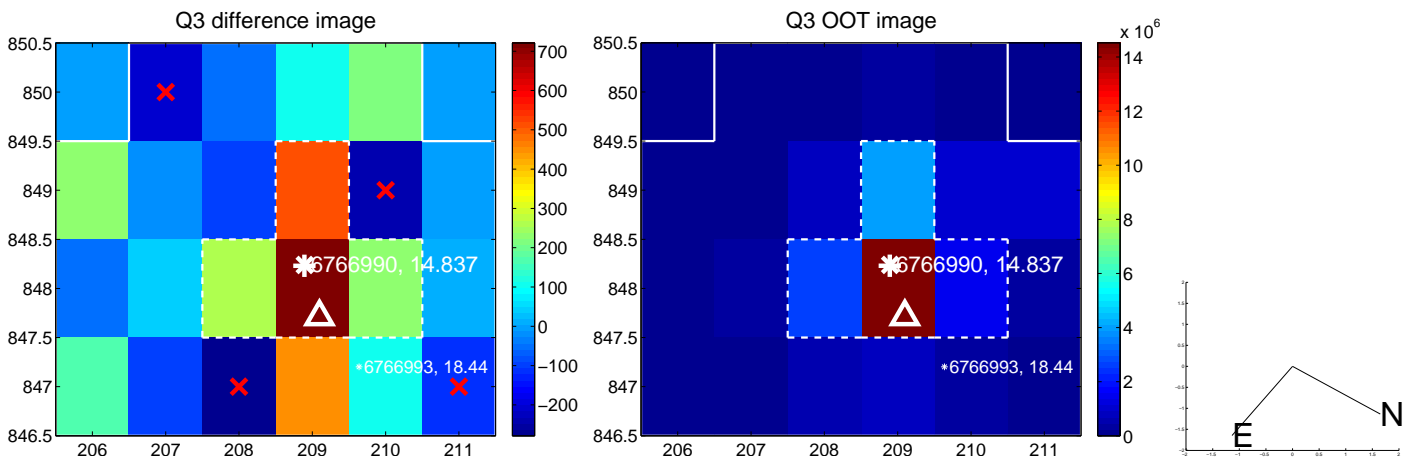
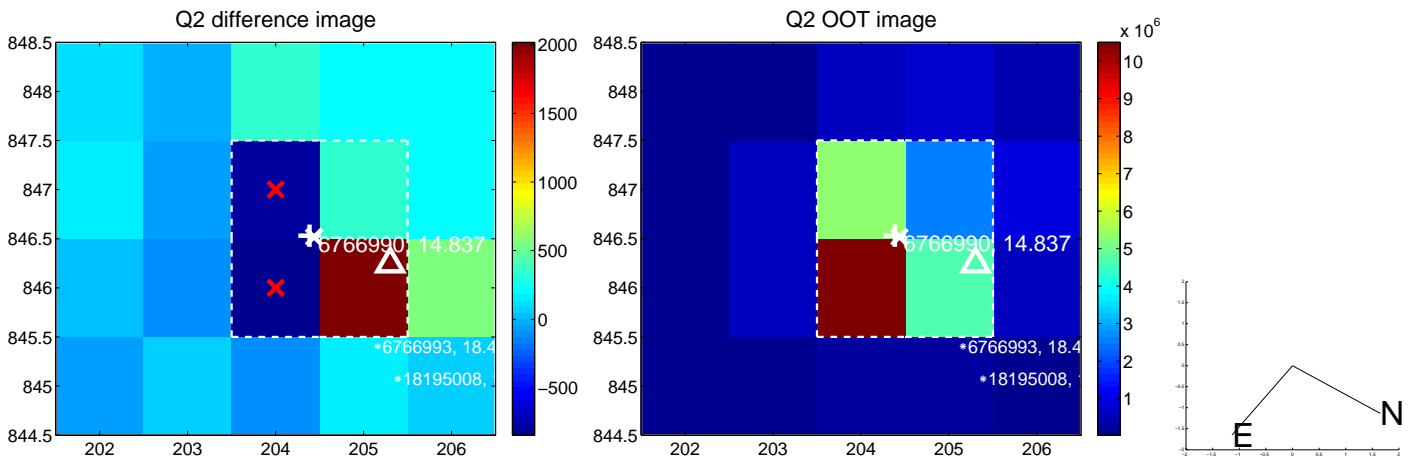
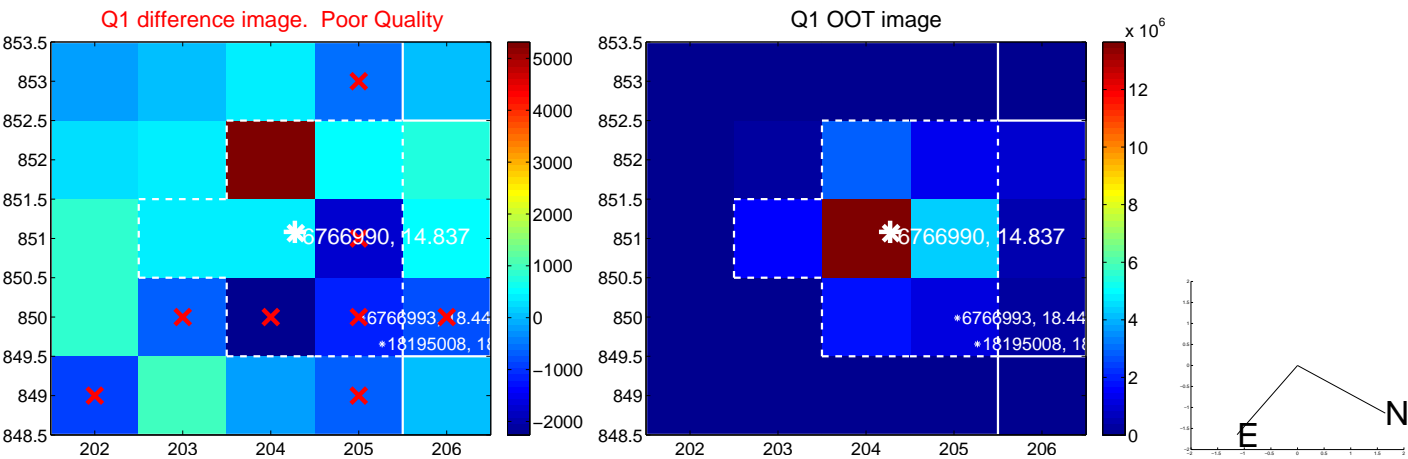
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.209 ± 0.551	0.38	-0.085 ± 0.255	-0.191 ± 0.604
PRF-fit source offset from KIC position	0.288 ± 0.585	0.49	-0.053 ± 0.252	-0.283 ± 0.592
photometric centroid source offset	1.57 ± 1.55	1.01	1.55 ± 1.54	0.25 ± 1.59

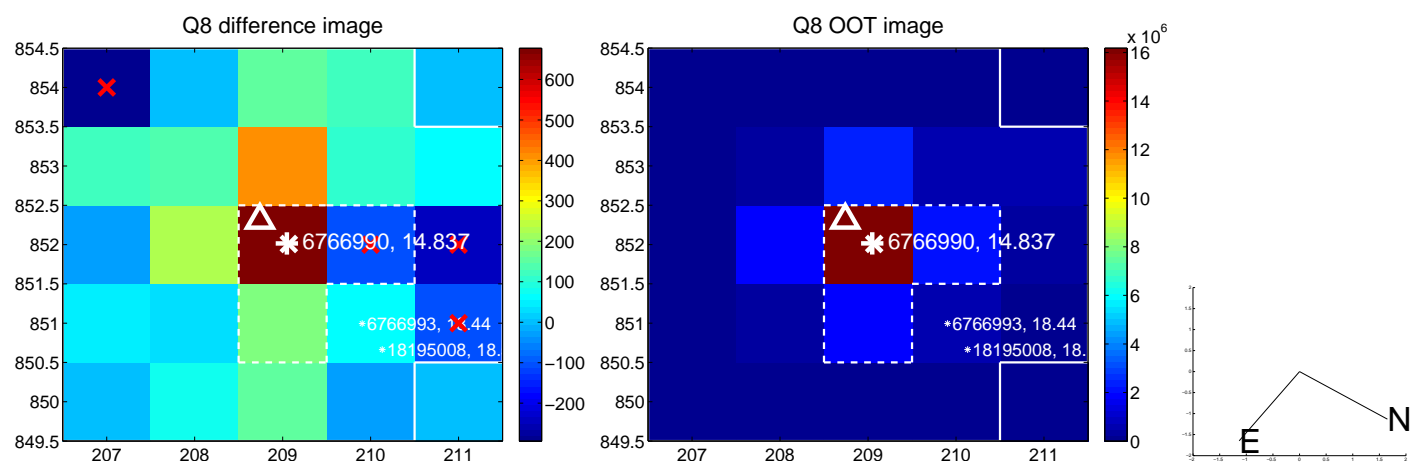
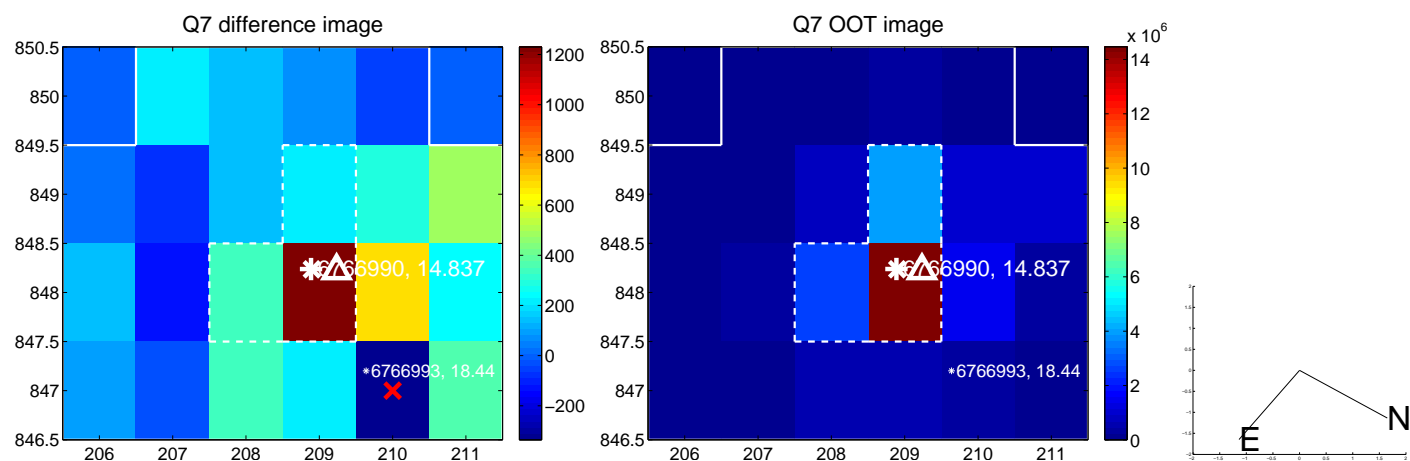
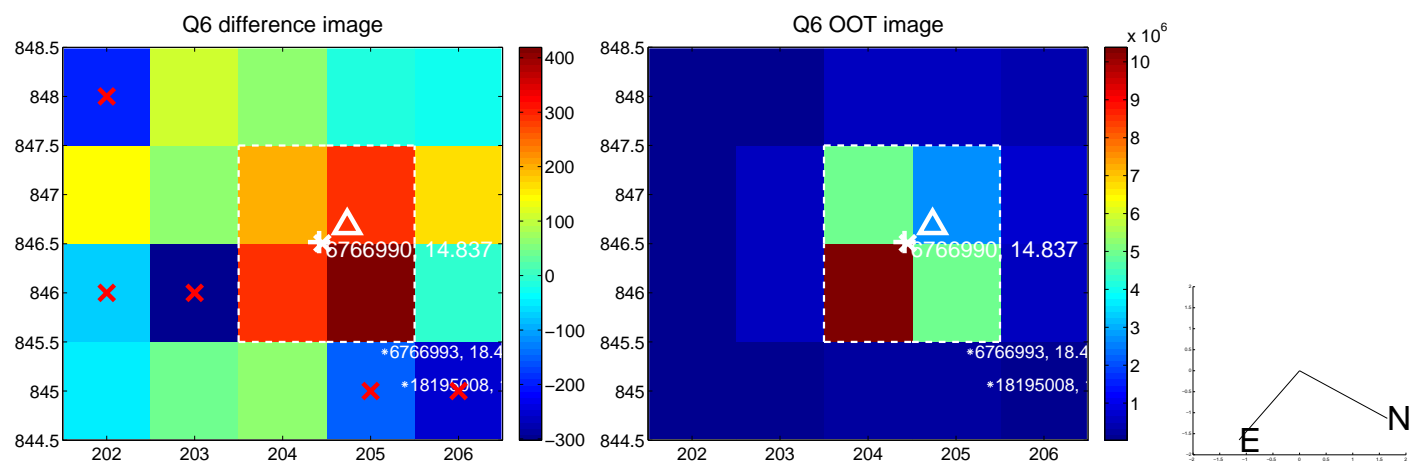
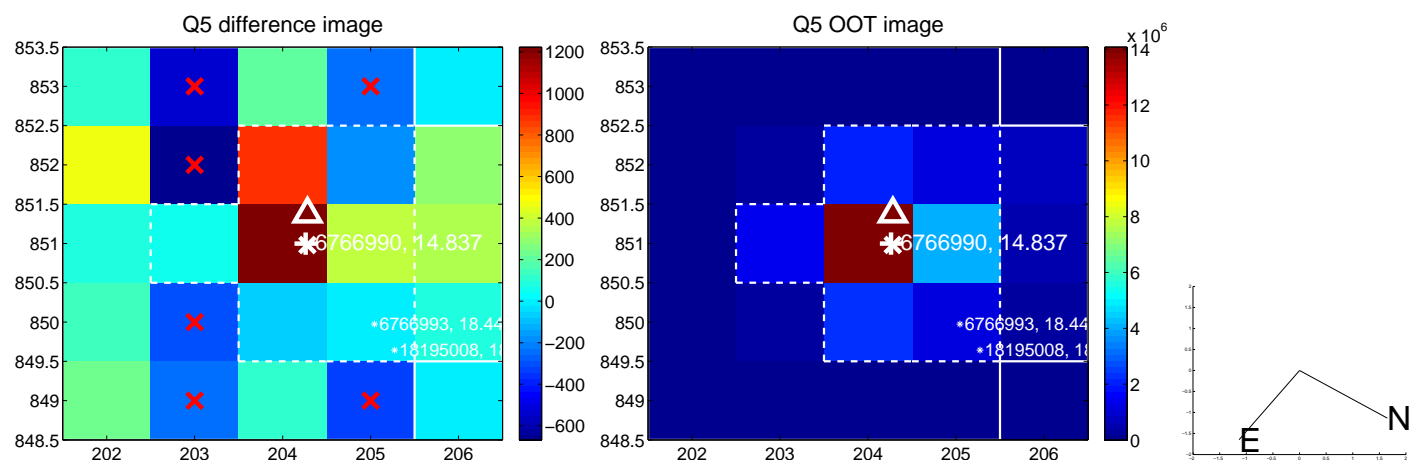


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

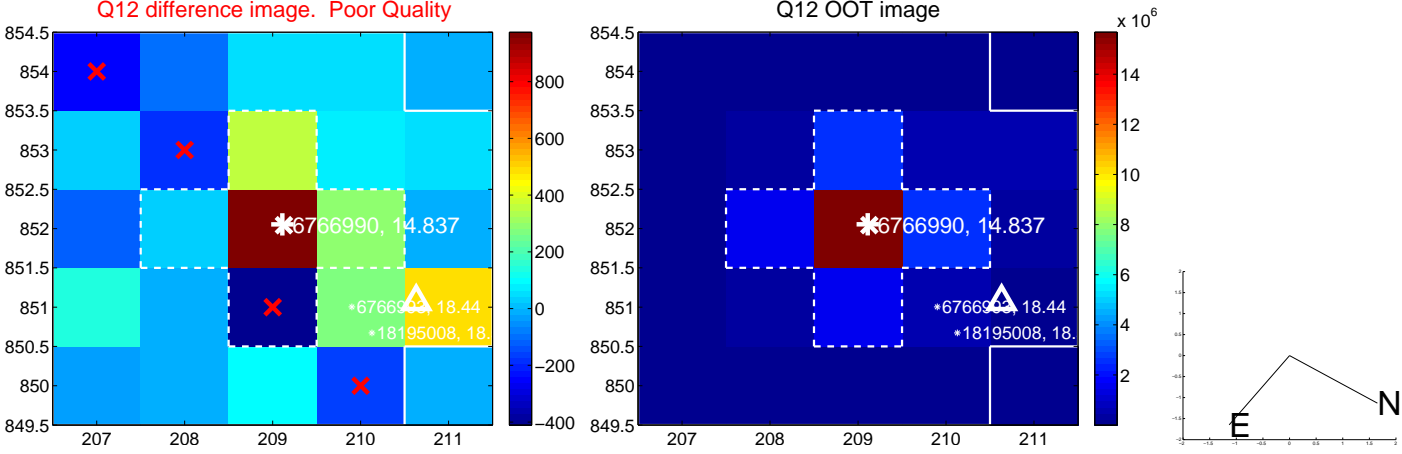
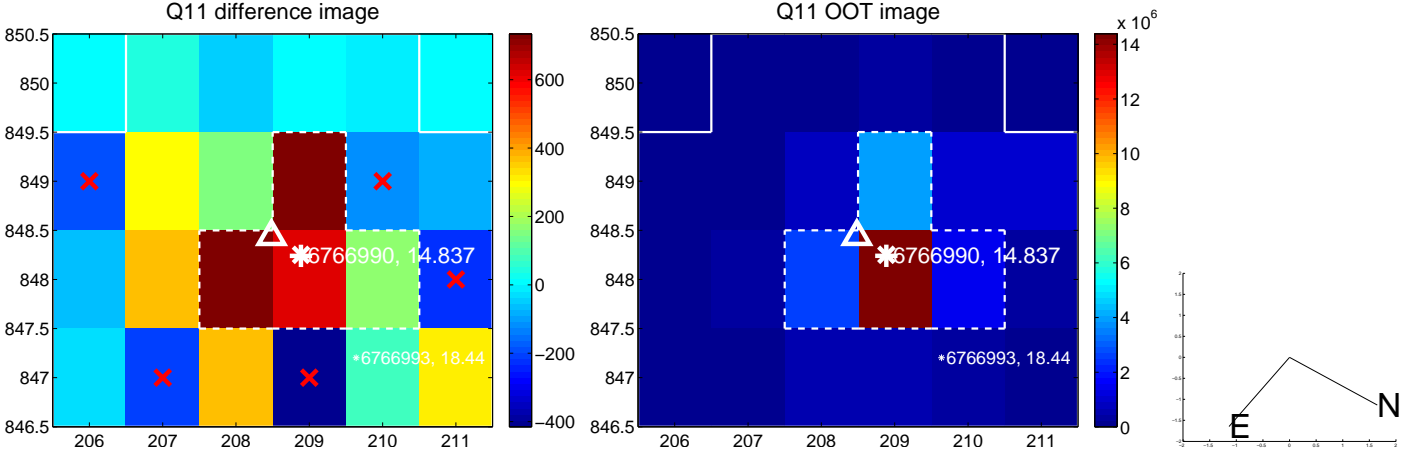
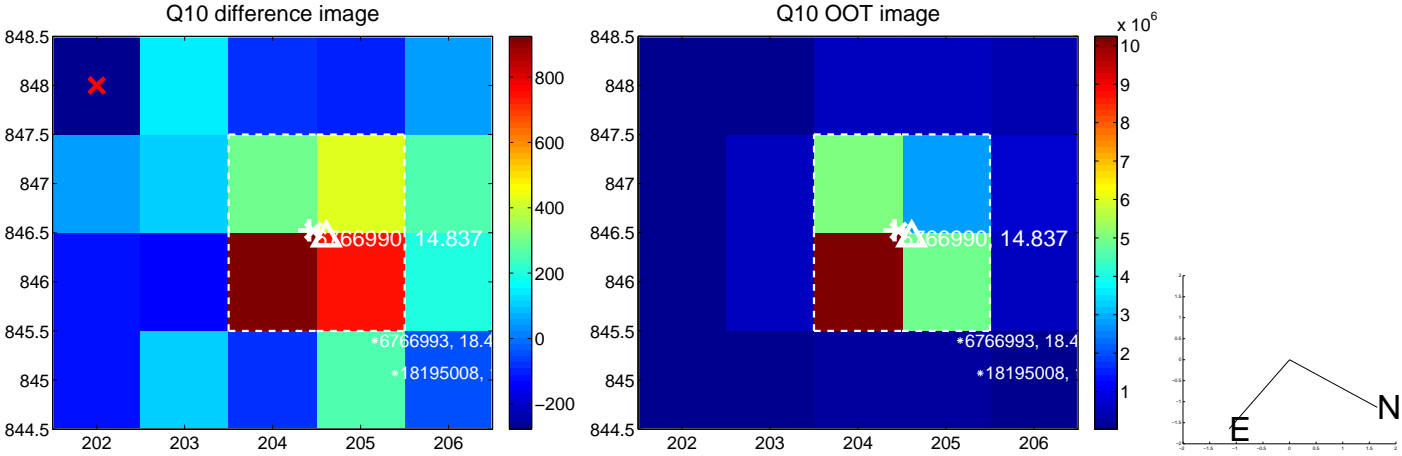
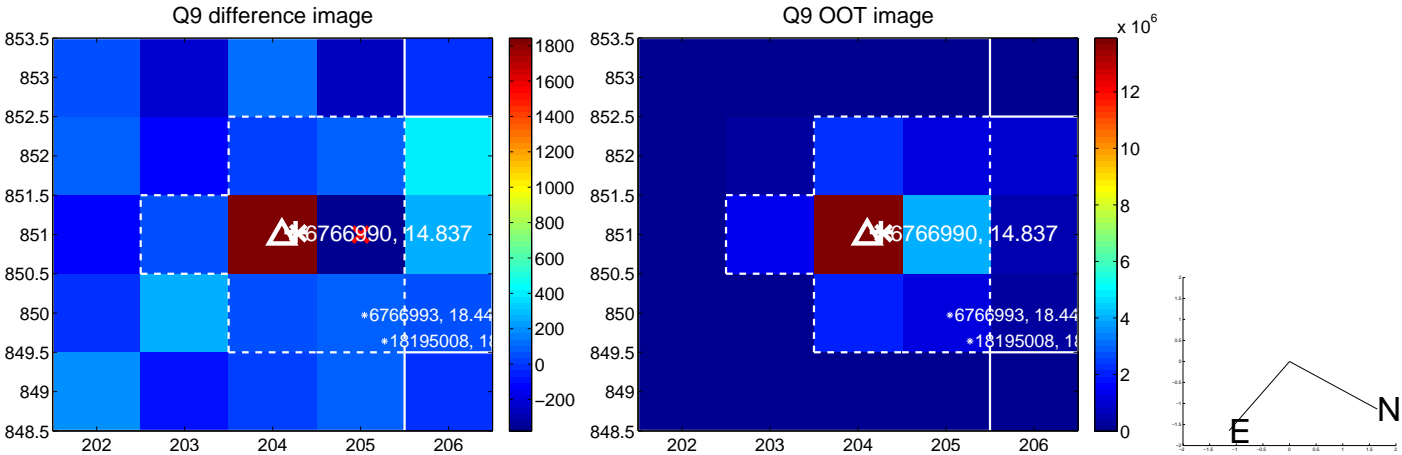
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



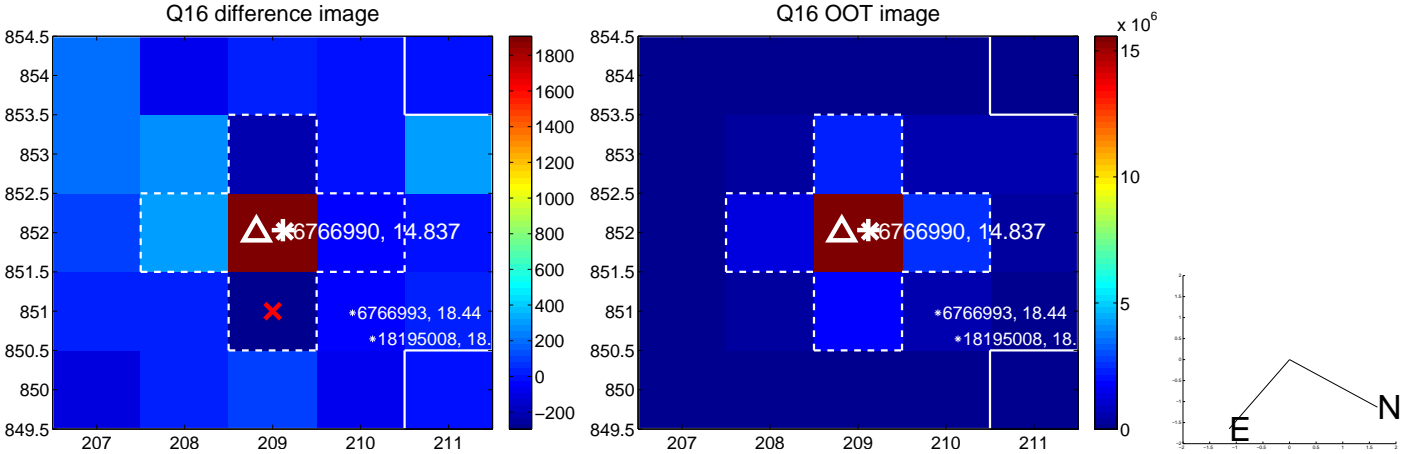
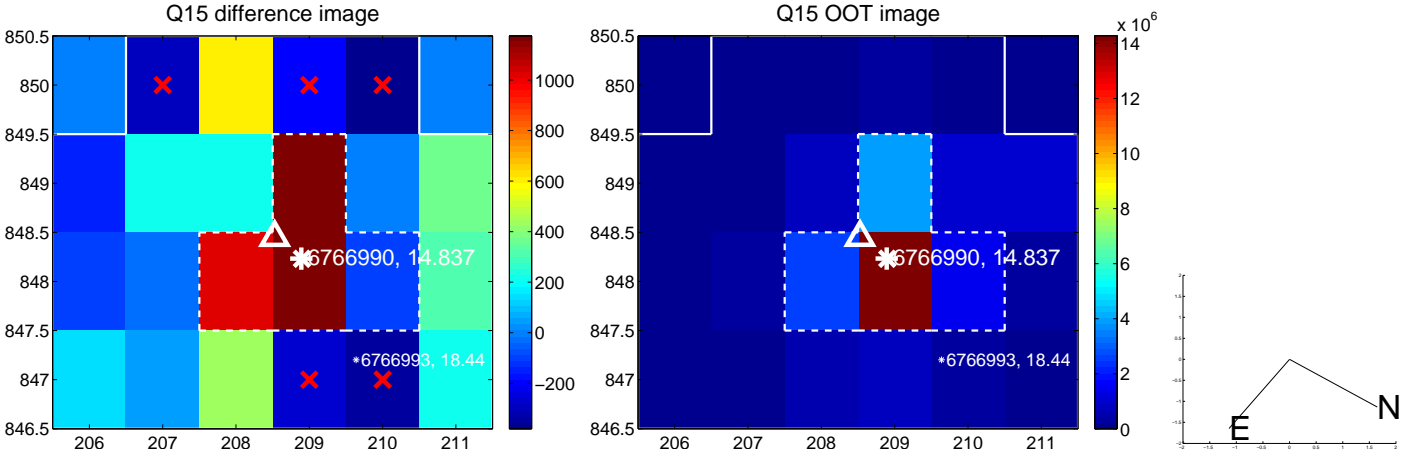
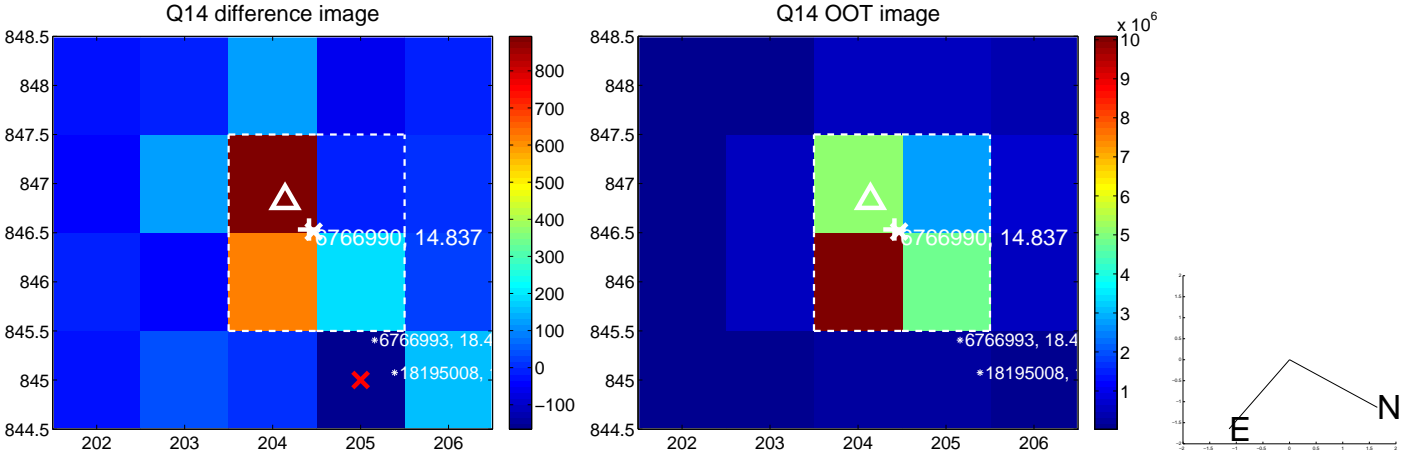
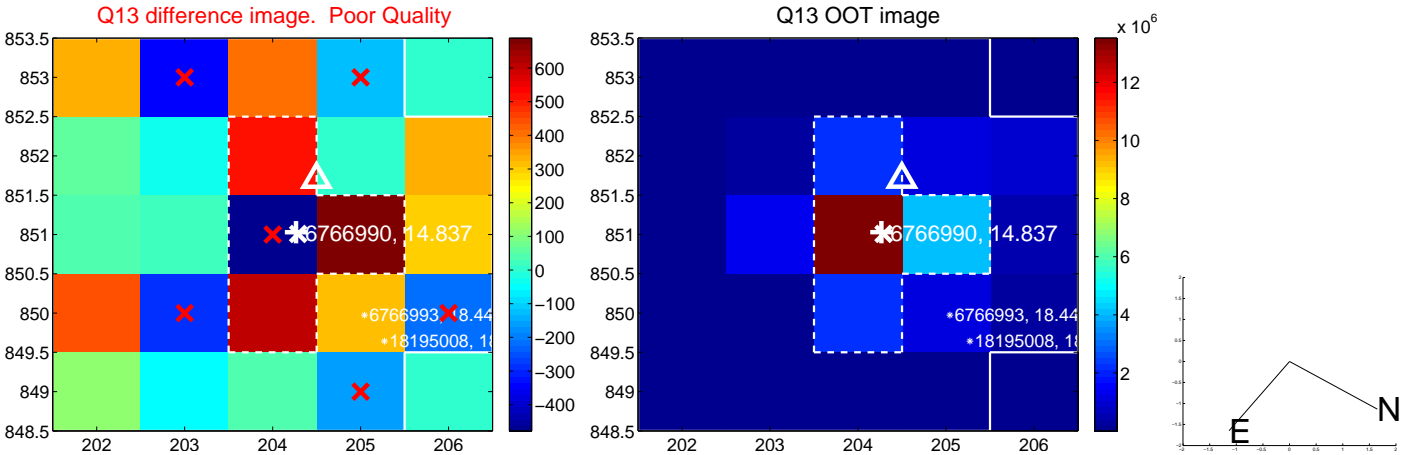
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



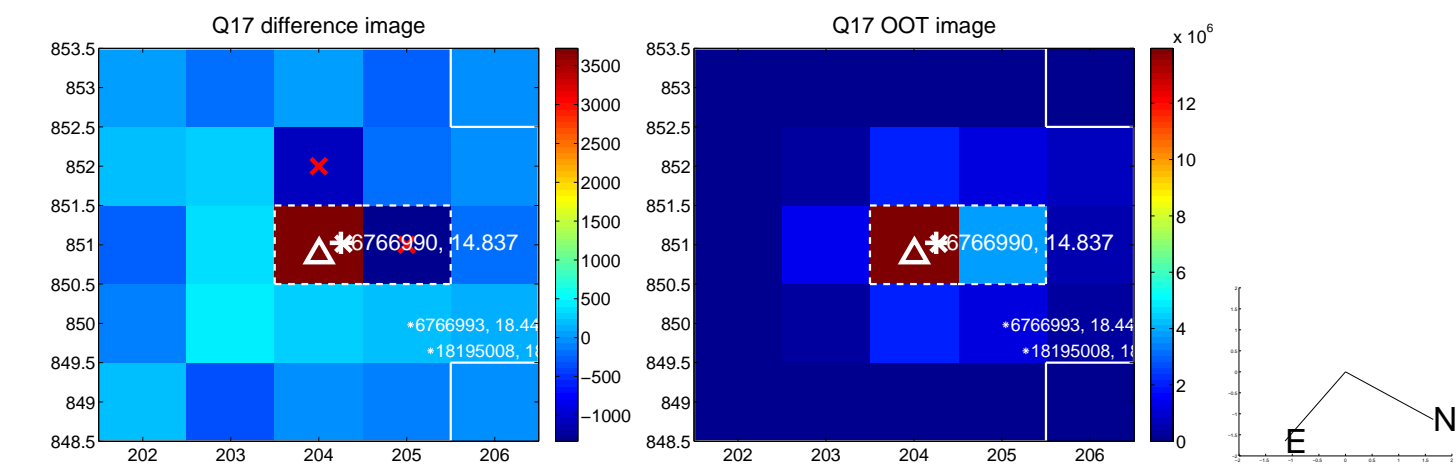
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



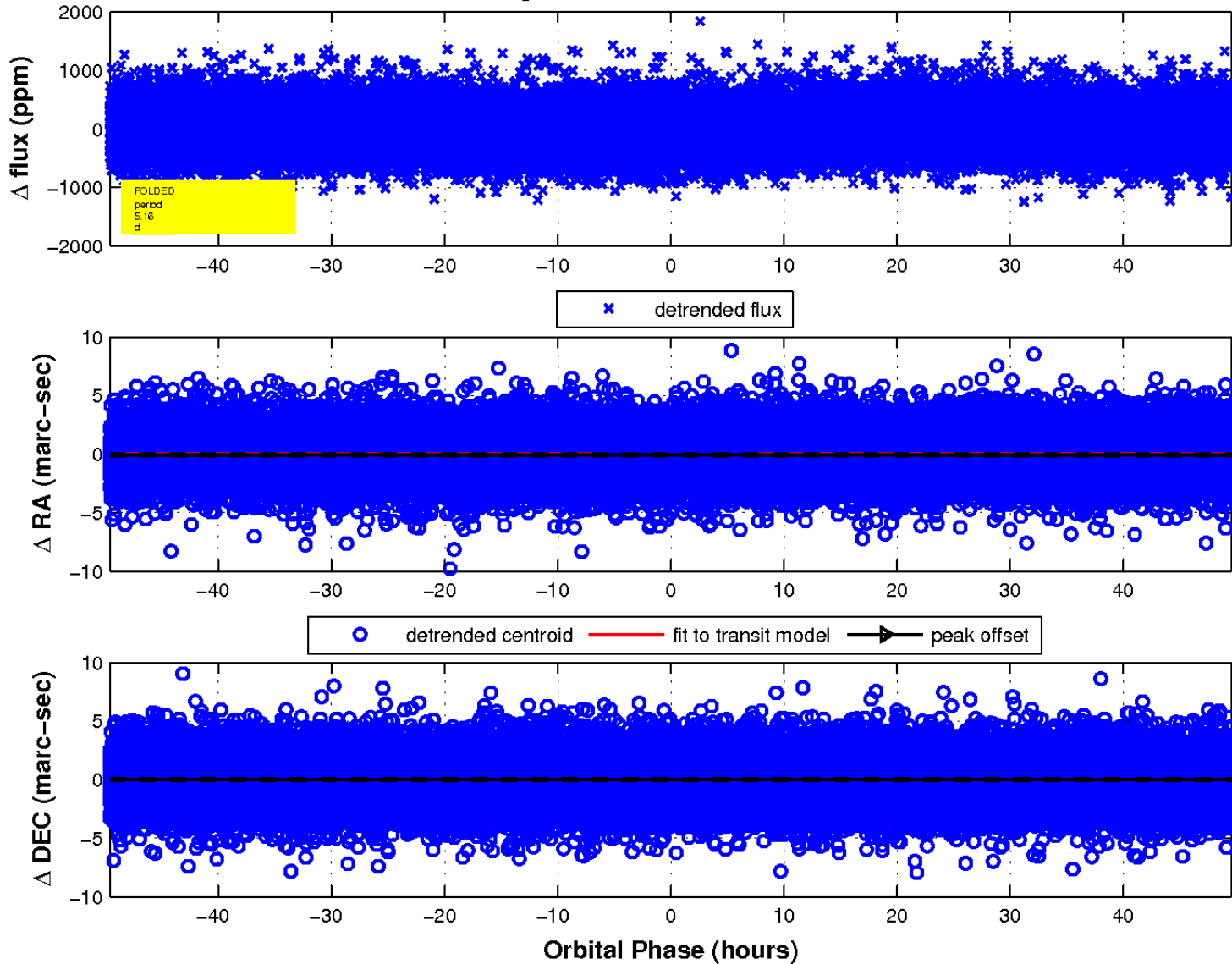
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

