

KIC 010651961

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})
010651961-01	OBS	No	1.344877	132.361935	7.7	11.280	7.4	8.5	2.49	8139	0.72	26782.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010651961-01	OBS	FP	0.00	1	0	0	0	LPP_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.

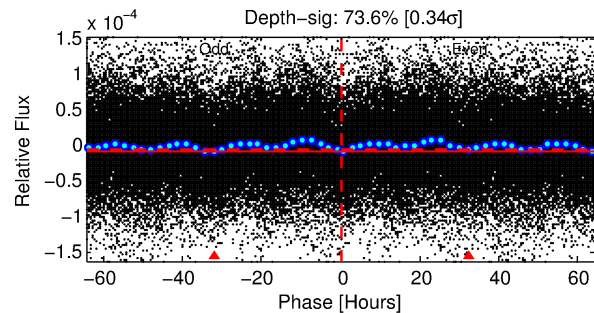
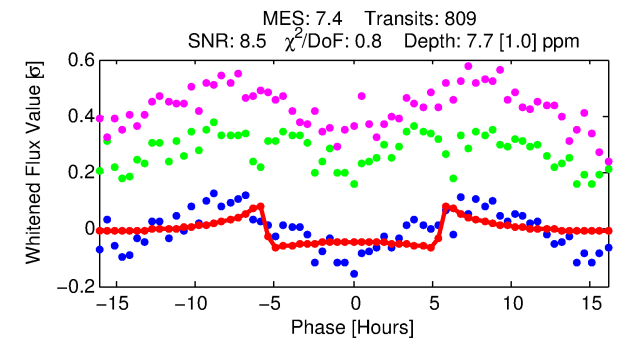
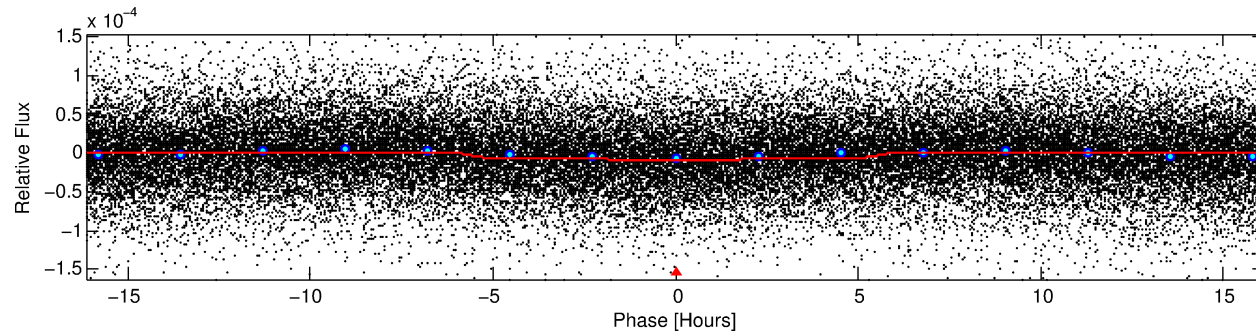
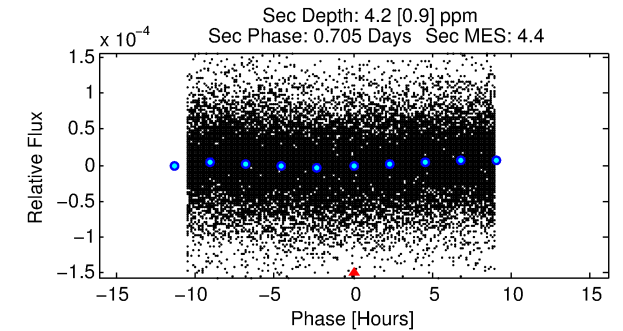
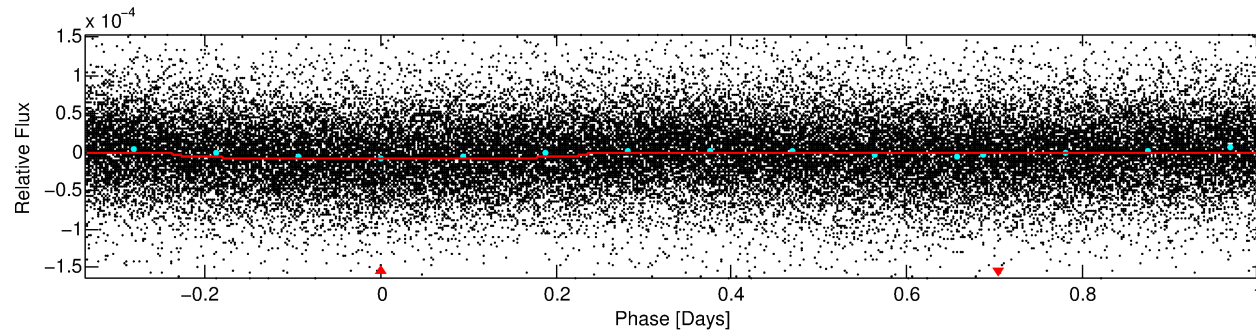
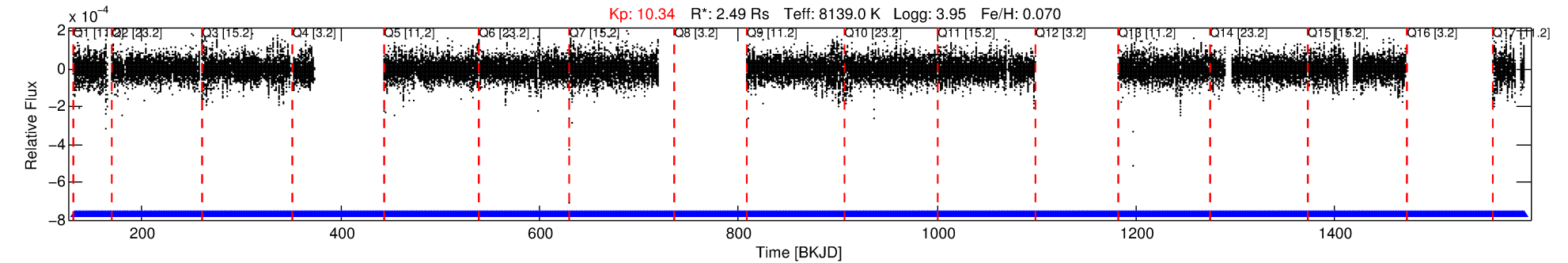
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010651961-01

No Significant Match Found

DV One-Page Summary

KIC: 10651961 Candidate: 1 of 1 Period: 1.345 d



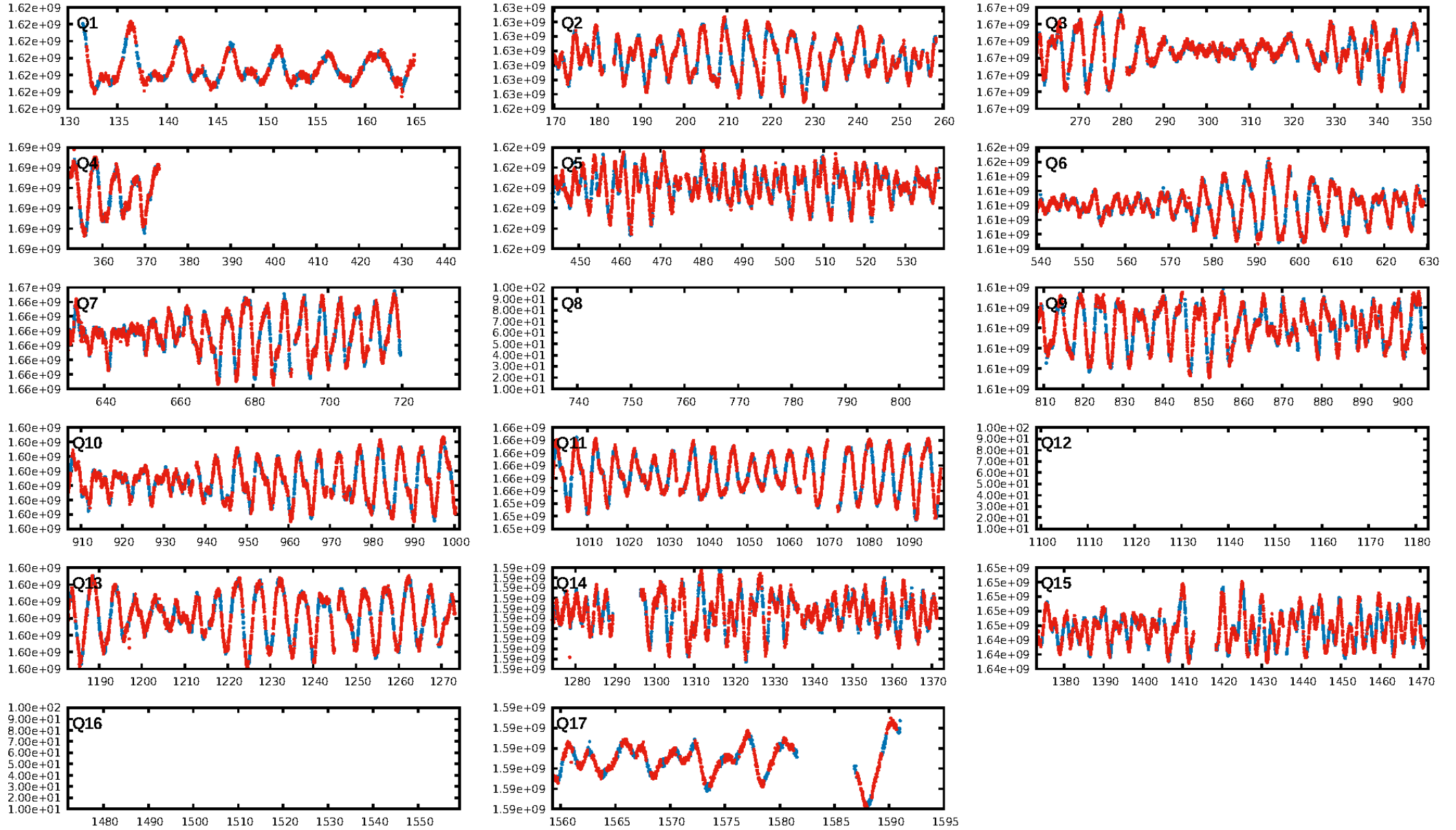
DV Fit Results:

Period = 1.34488 [0.00002] d
Epoch = 132.3619 [0.0037] BKJD
 $R_p/R^* = 0.0026$ [0.0010]
 $a/R^* = 1.10$ [0.43]
 $b = 0.51$ [3.43]
 $\text{Seff} = 26782.50$ [12085.24]
 $T_{\text{eq}} = 3262$ [368] K
 $R_p = 0.72$ [0.37] R_e
 $a = 0.0302$ [0.0085] AU
 $A_g = 4.10$ [3.80] [0.82σ]
 $T_{\text{effp}} = 7176$ [1512] K [2.51σ]

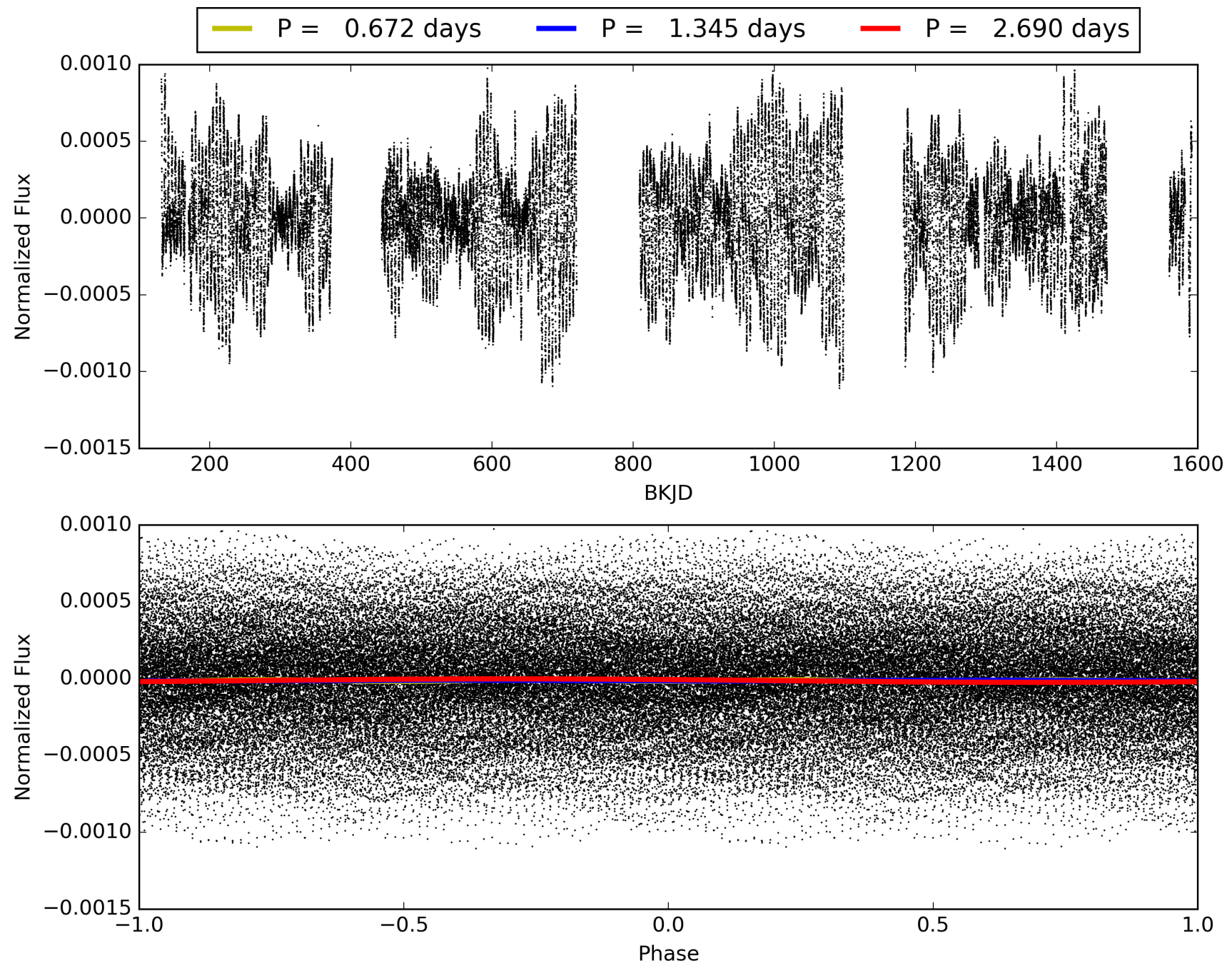
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [748/748]
GhostDiagnostic-chr: 1.151
Centroid-sig: 0.1%
Centroid-so: 2.234 arcsec [2.11σ]
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 [14/14]

TCE 010651961-01, PDC Light Curves

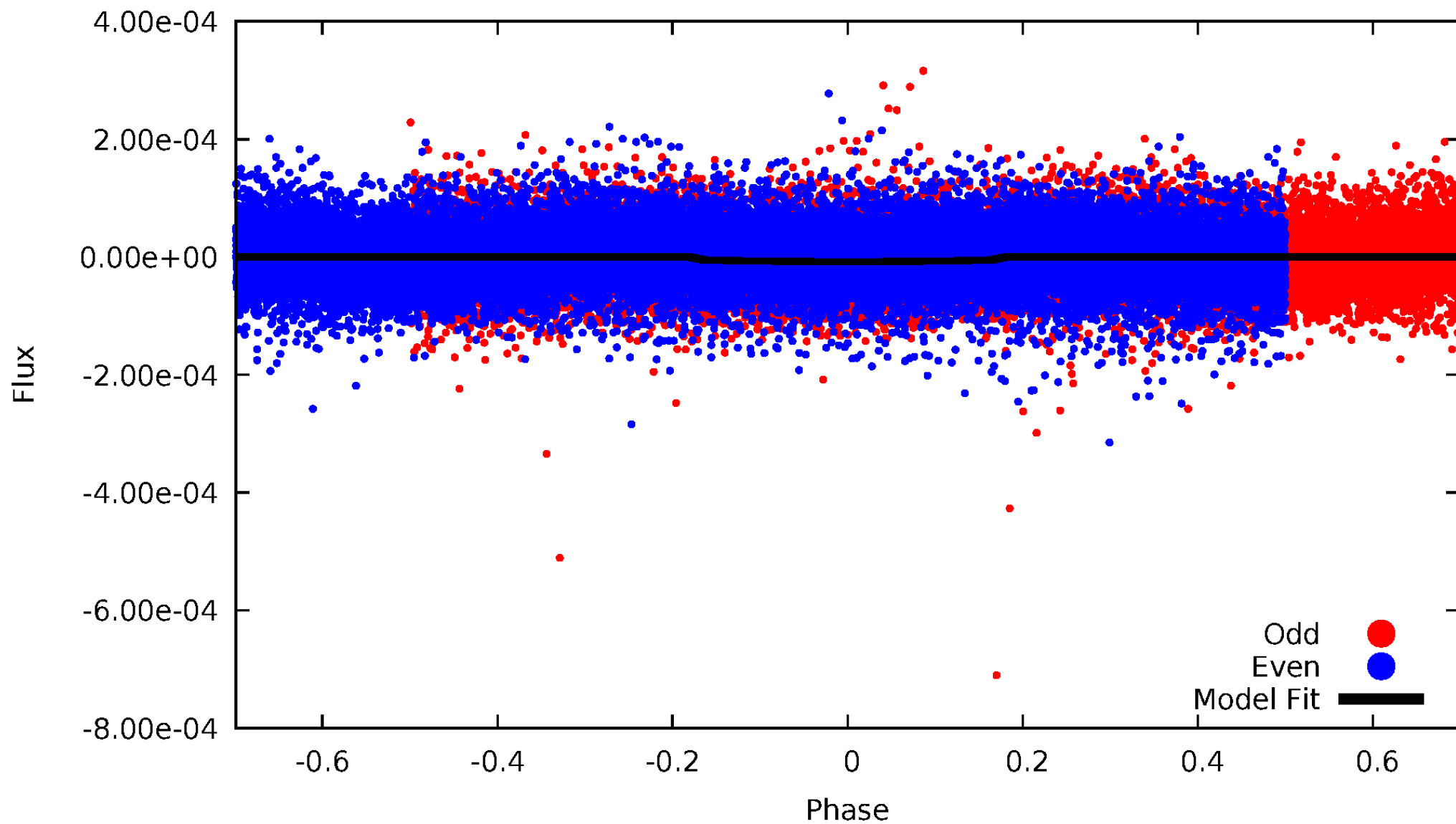


TCE 010651961-01



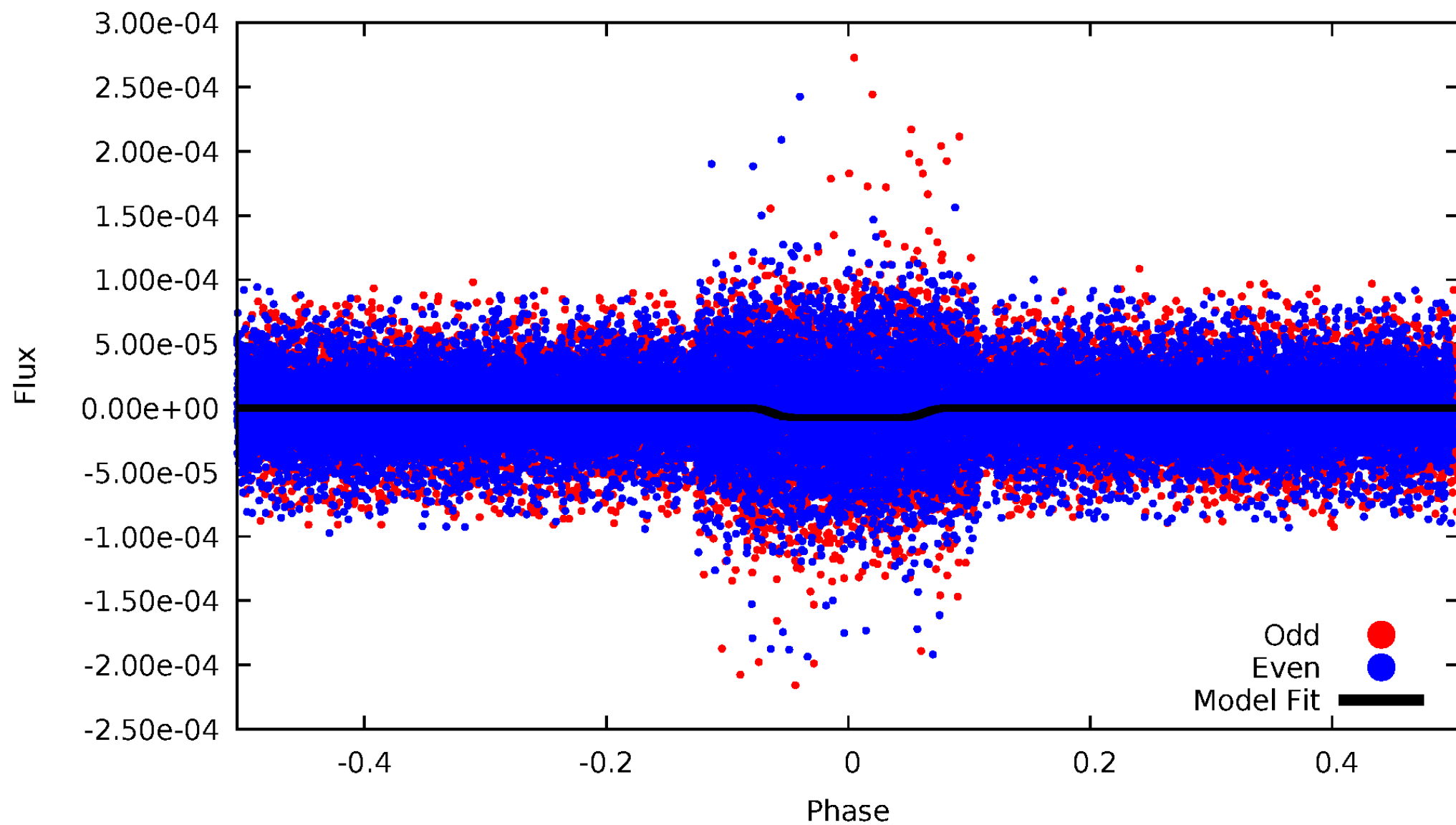
DV Odd/Even

TCE 010651961-01



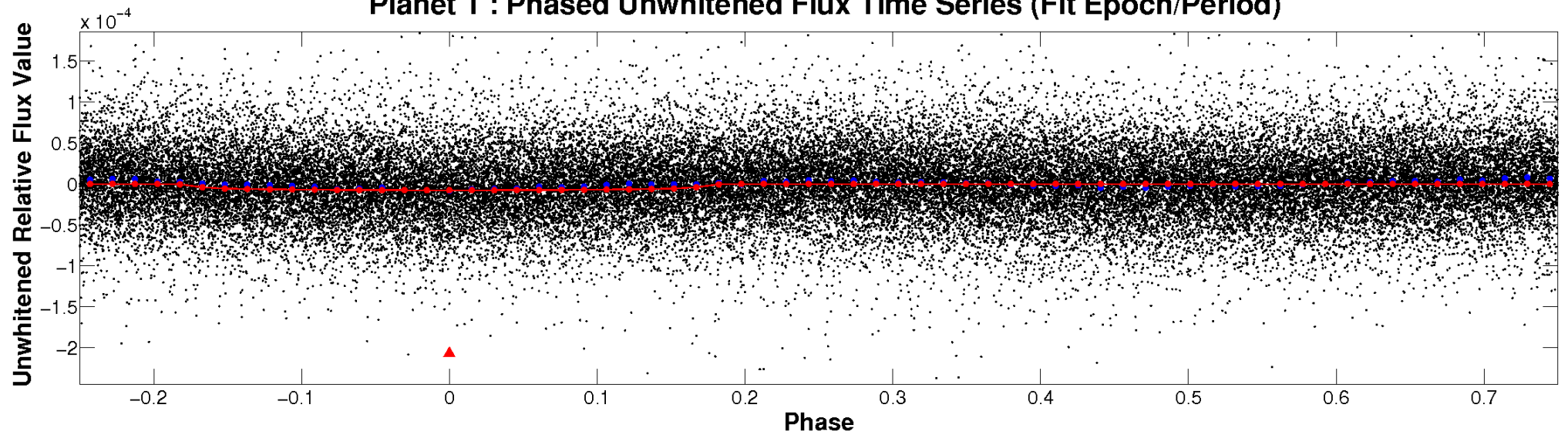
ALT Odd/Even

TCE 010651961-01

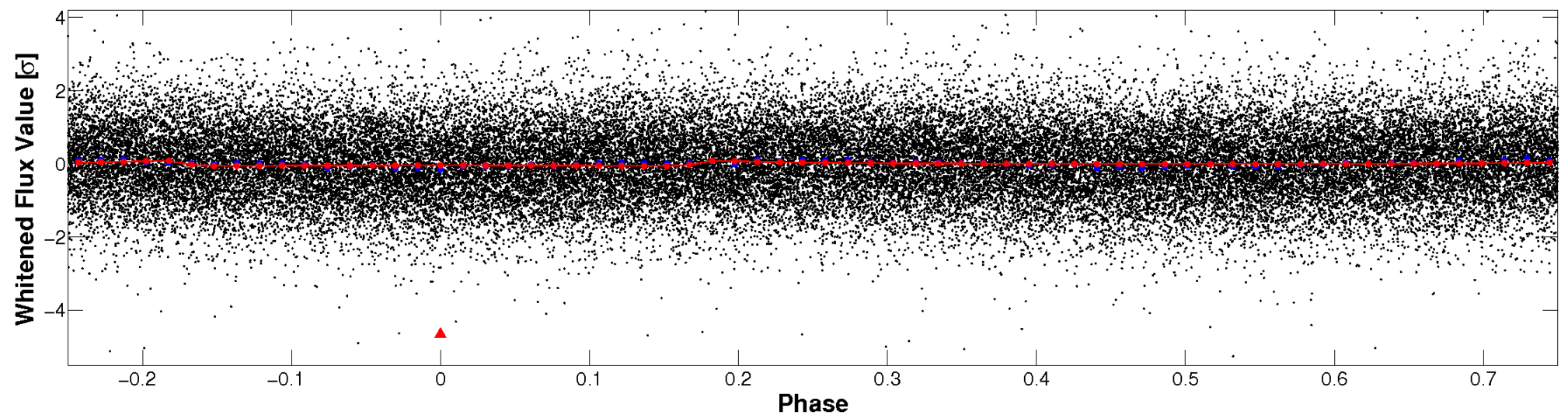


Non-Whitened Vs. Whitened Light Curve

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

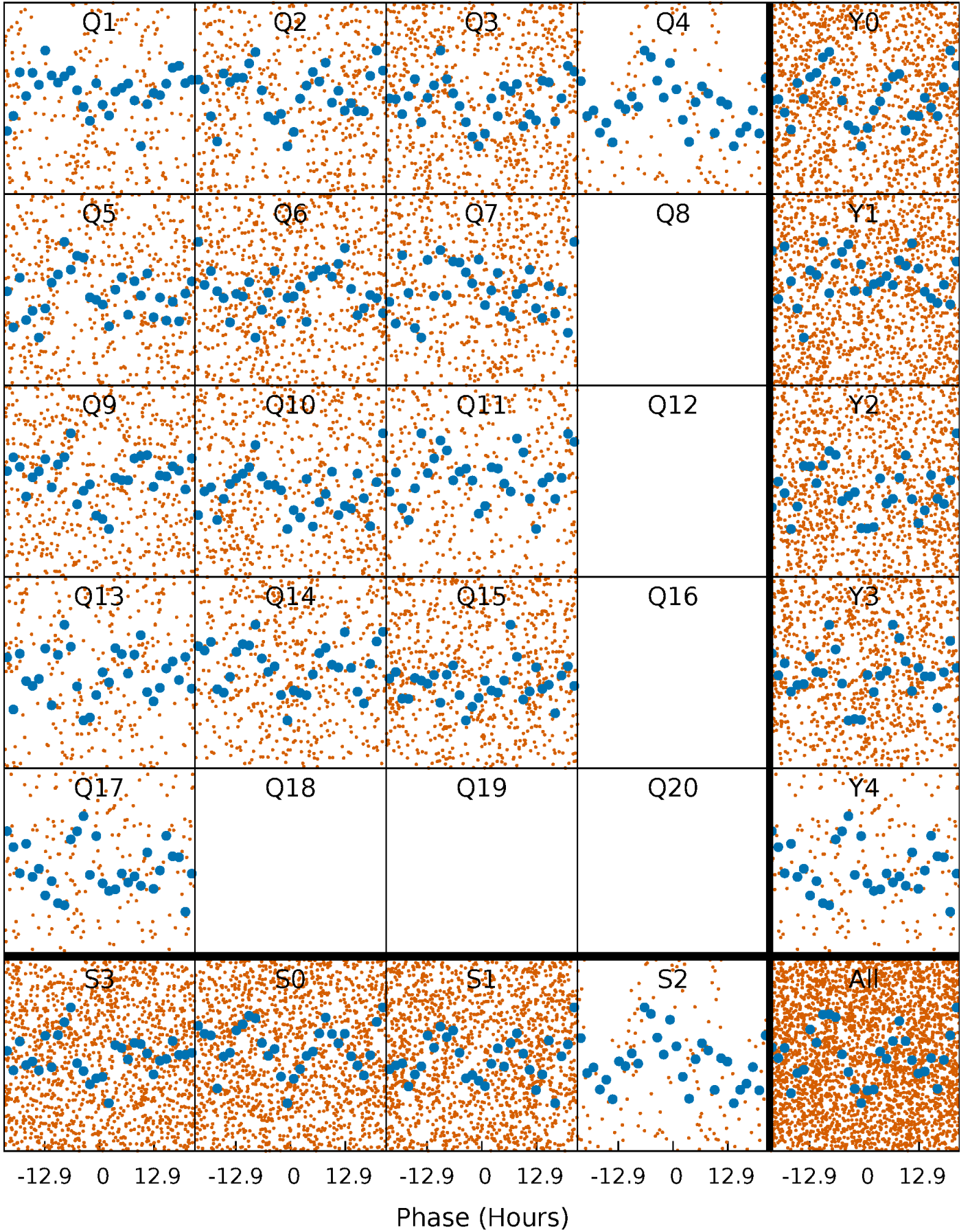


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



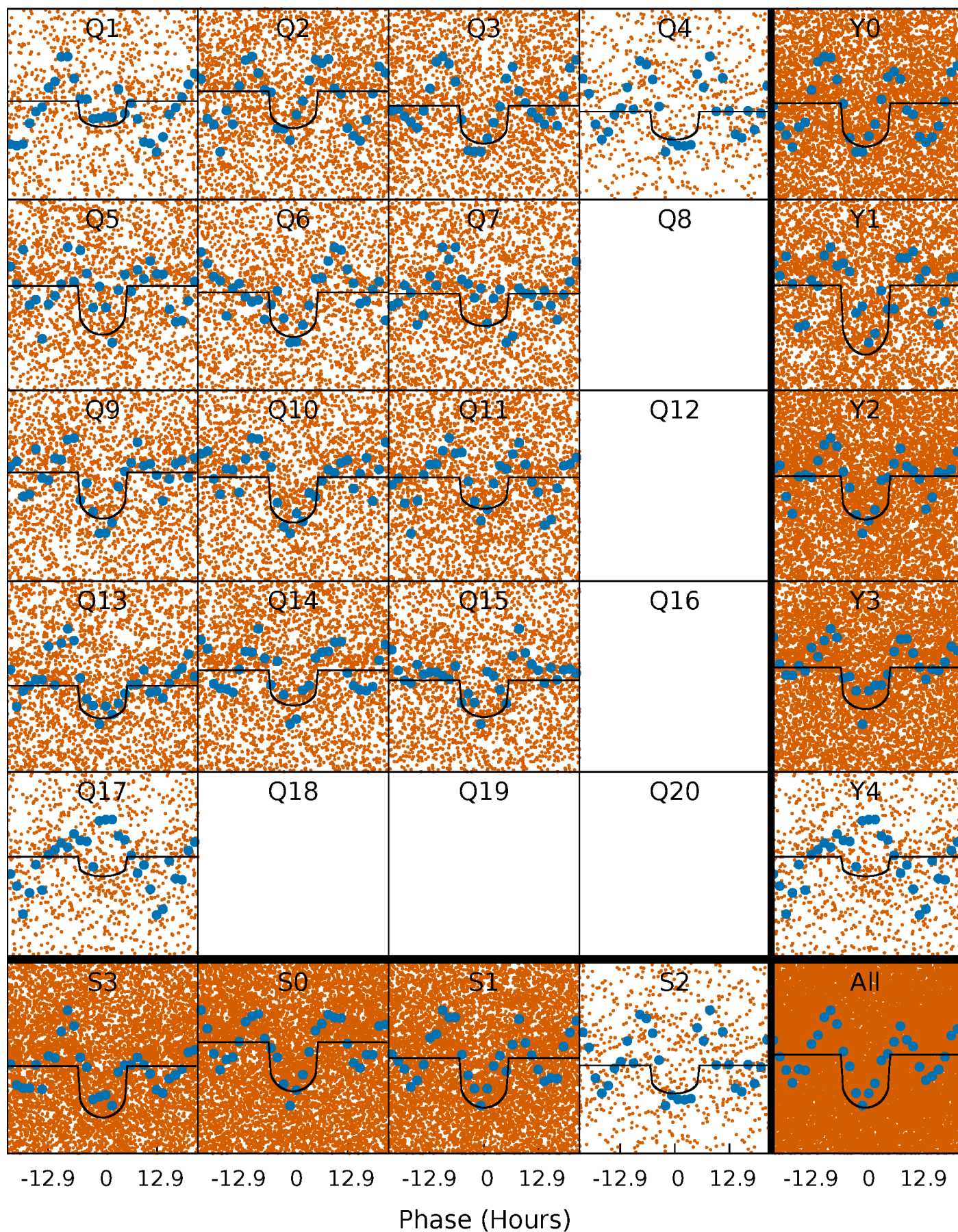
PDC Quarter-Phased Transit Curves

TCE 010651961-01 P= 1.344877 Days $T_0=132.361935$ (BKJD)



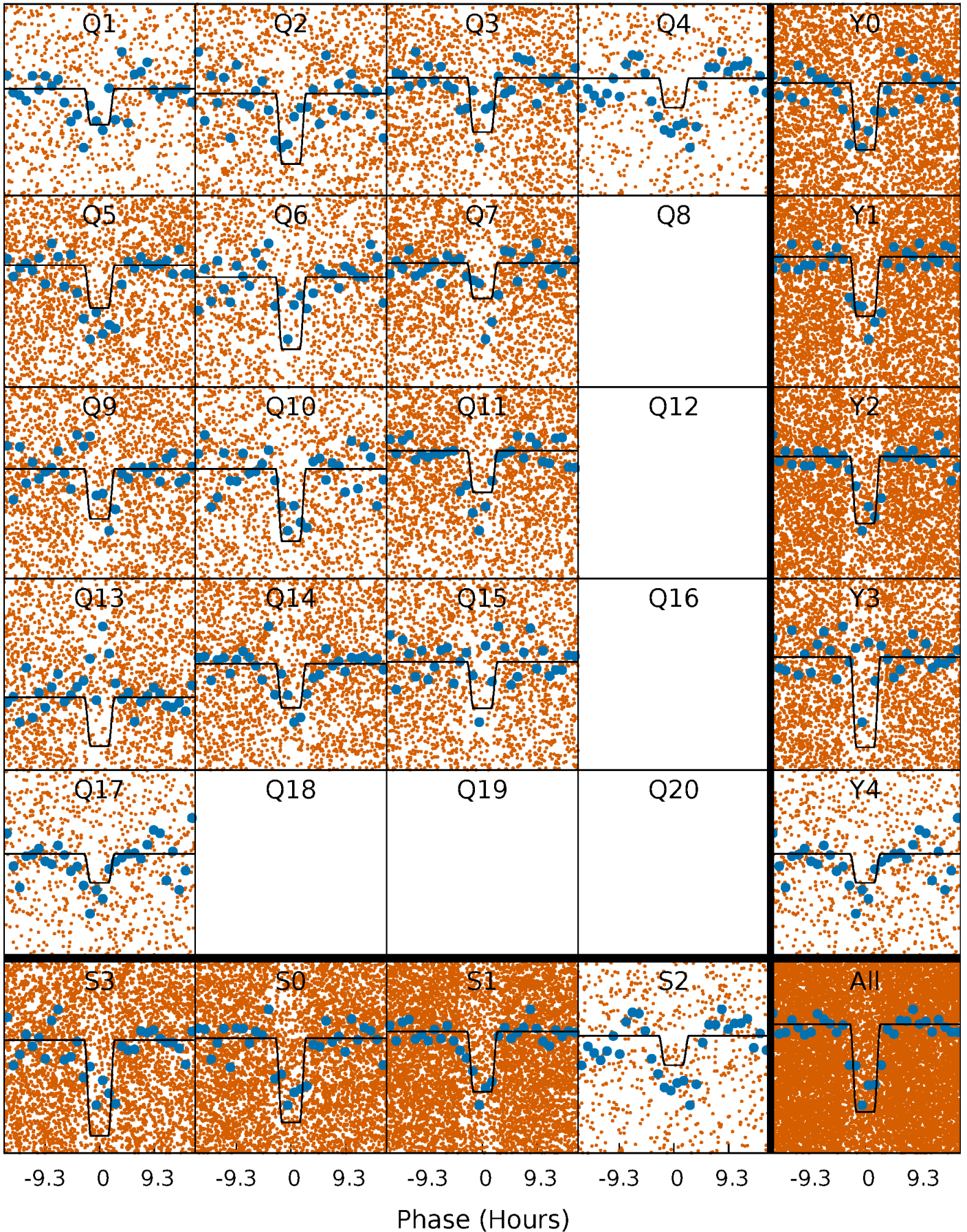
DV Quarter-Phased Transit Curves

TCE 010651961-01 P= 1.344877 Days $T_0=132.361935$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

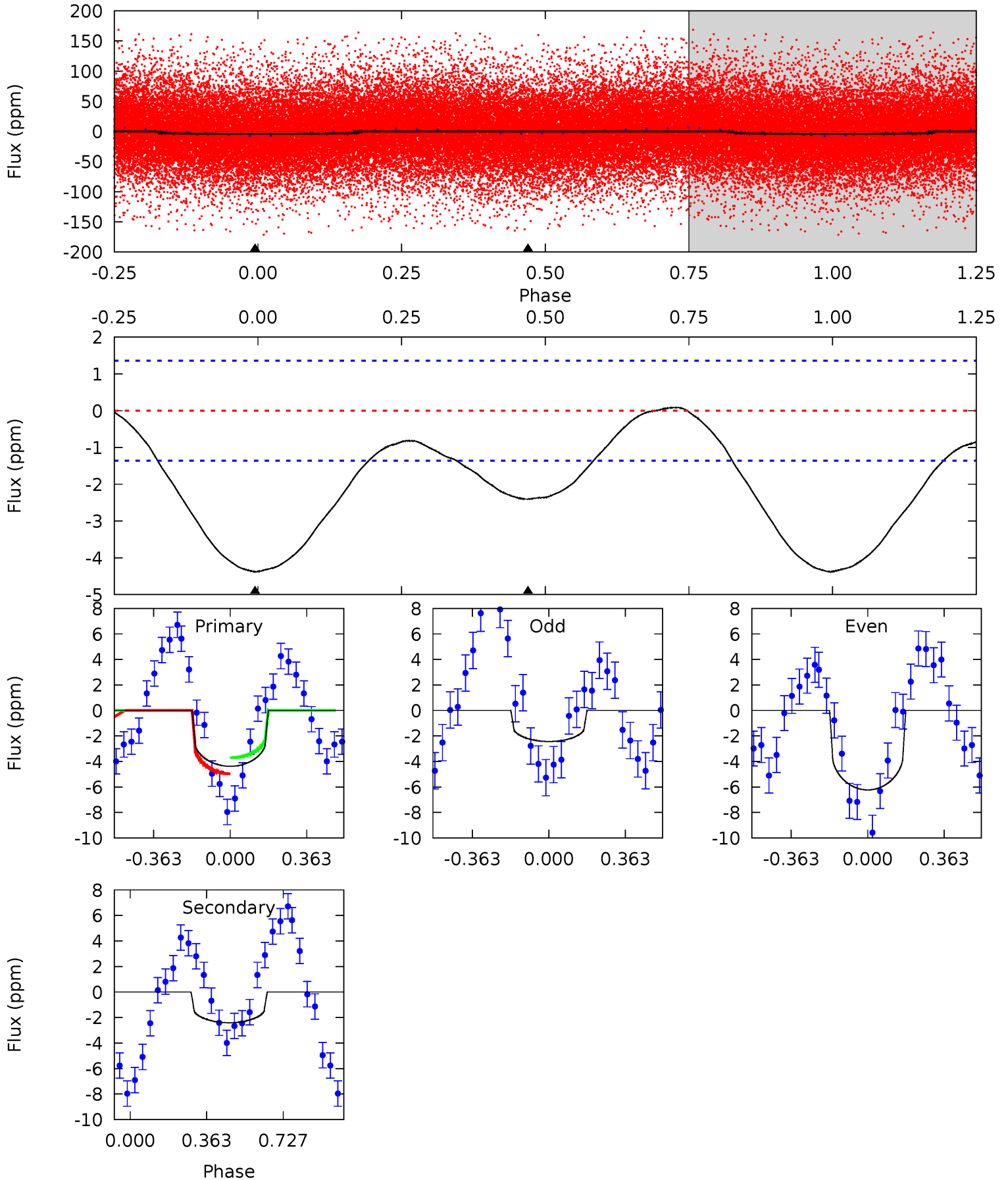
TCE 010651961-01 P= 1.344868 Days $T_0=132.362842$ (BKJD)



DV Model-Shift Uniqueness Test

010651961-01, $P = 1.344877$ Days, $E = 131.017058$ Days

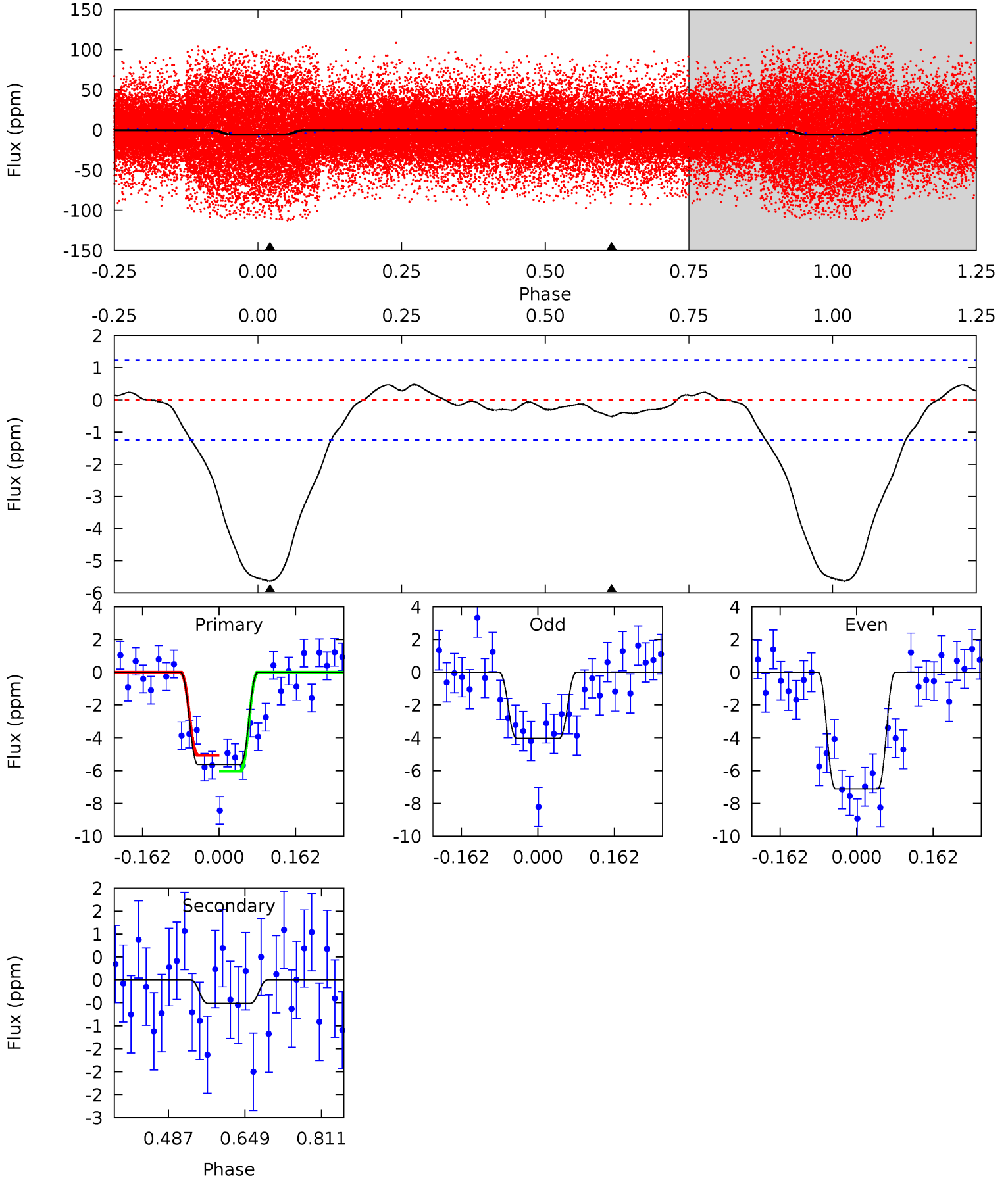
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	7.59	0	0	4.29	0.91	1.34	13.8	13.8	7.59	7.59	6.05	0.80	0.02	2.01



Alt Model-Shift Uniqueness Test

010651961-01, P = 1.344868 Days, E = 131.017974 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.3	1.84	0	0	4.46	1.40	0.92	20.3	20.3	1.84	1.84	5.60	1.01	0.08	1.76



Stellar Parameters For KIC 010651961

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8139^{+225}_{-338}	$3.952^{+0.234}_{-0.126}$	$0.070^{+0.250}_{-0.500}$	$2.491^{+0.436}_{-0.810}$	$2.026^{+0.303}_{-0.493}$	$0.185^{+0.288}_{-0.069}$
	+3%/-4%	+6%/-3%	+357%/-714%	+18%/-33%	+15%/-24%	+156%/-37%
Source	KIC0	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 010651961-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2 ± 0	$0.69^{+0.33}_{-0.29}$	4513^{+304}_{-386}	5813^{+2082}_{-988}	$2.443^{+4.529}_{-1.293}$
Alt.	-1 ± 0	$0.70^{+0.31}_{-0.29}$	4509^{+277}_{-327}	3690^{+1432}_{-7077}	$0.514^{+1.127}_{-0.339}$

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

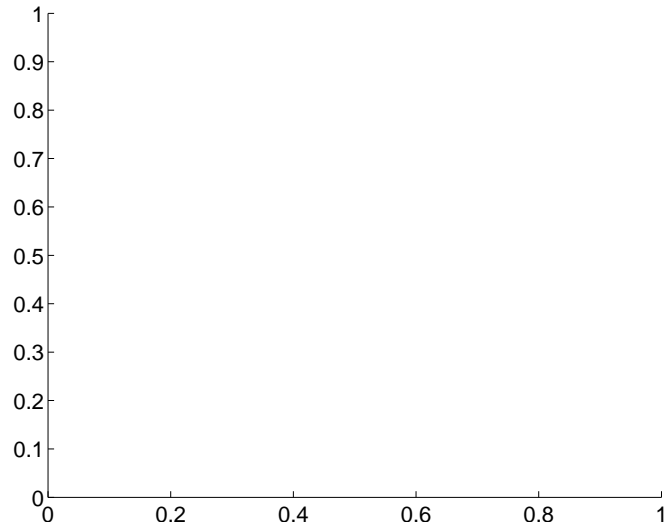
Supplemental centroid analysis for 010651961-01. **Kepler magnitude: 10.34.** Transit SNR 8.52

There are 0 quarters with good PRF difference image offsets

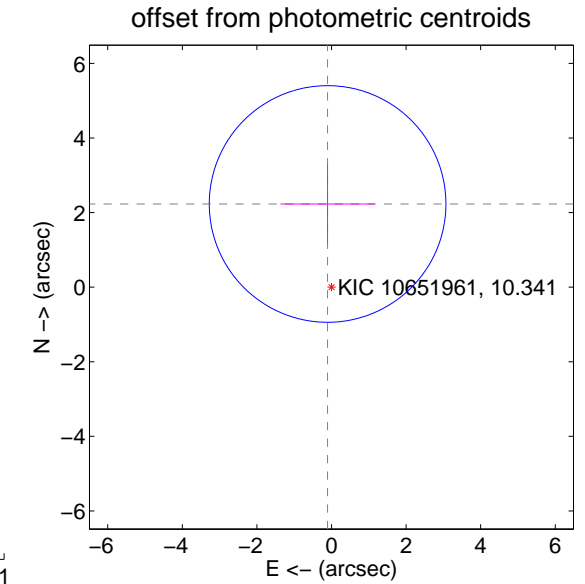
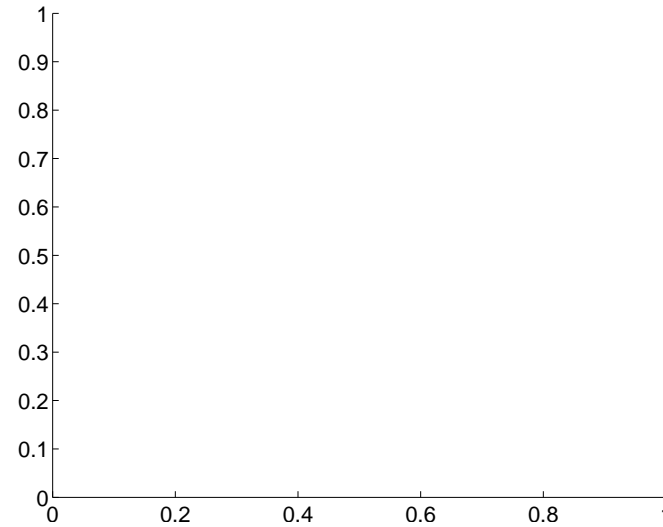
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	2.23 ± 1.06	2.11	0.10 ± 1.26	2.23 ± 1.06

There is no PRF-fit offset from OOT-fit

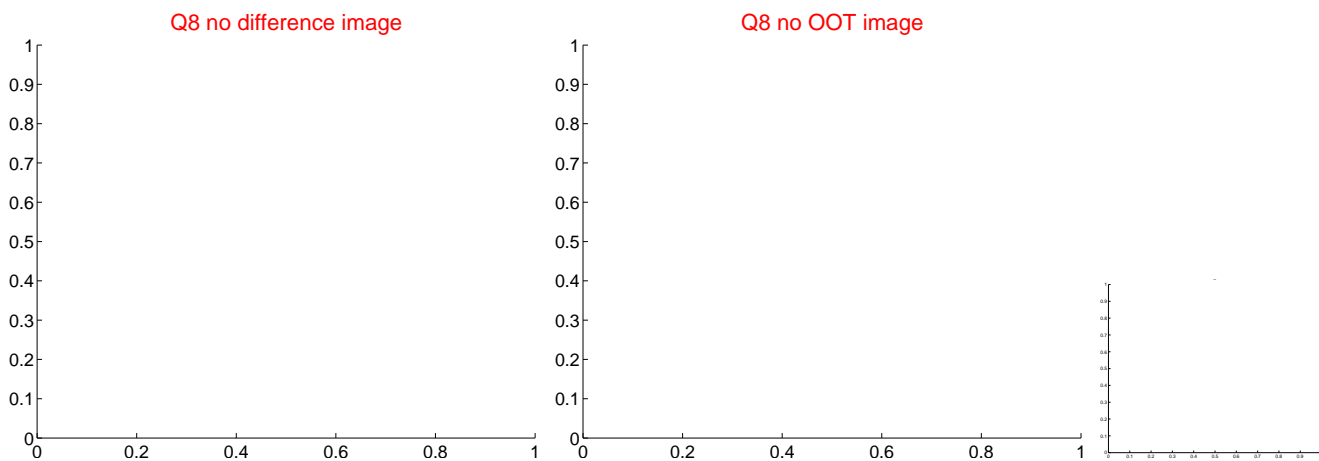
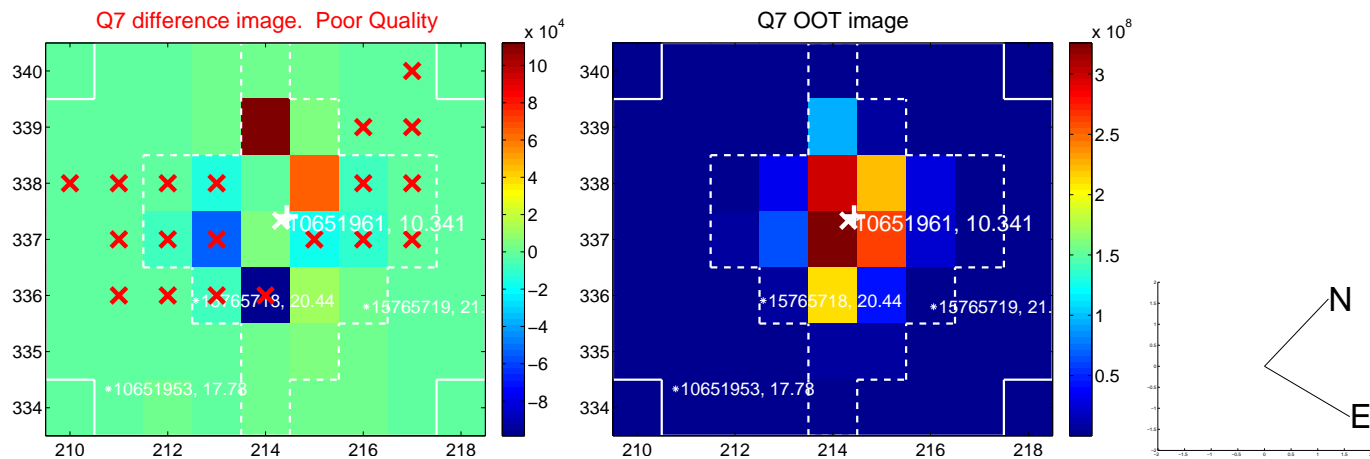
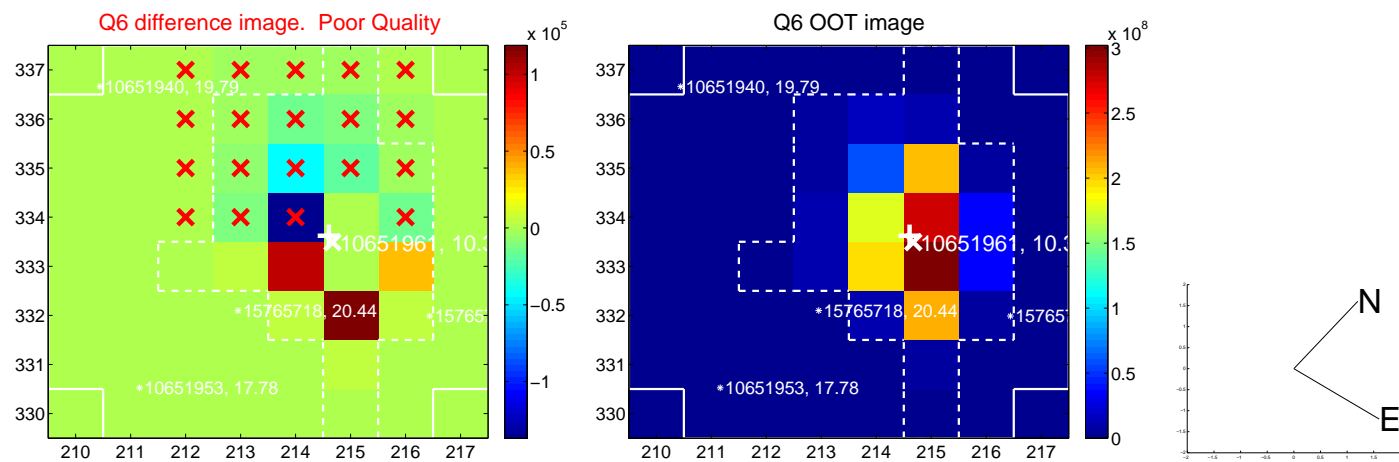
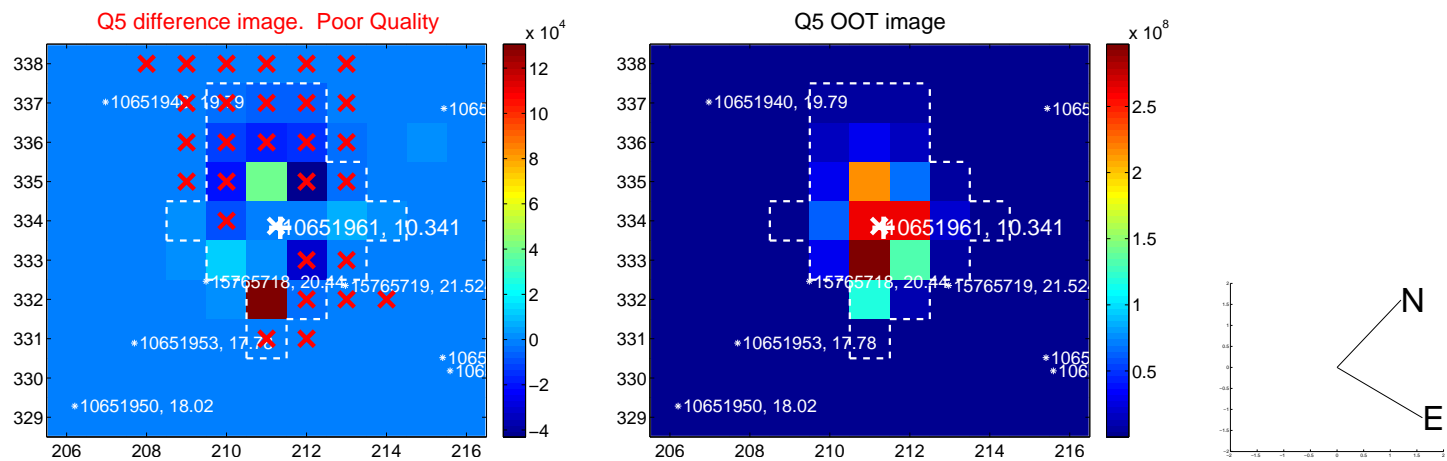


There is no PRF-fit offset from KIC

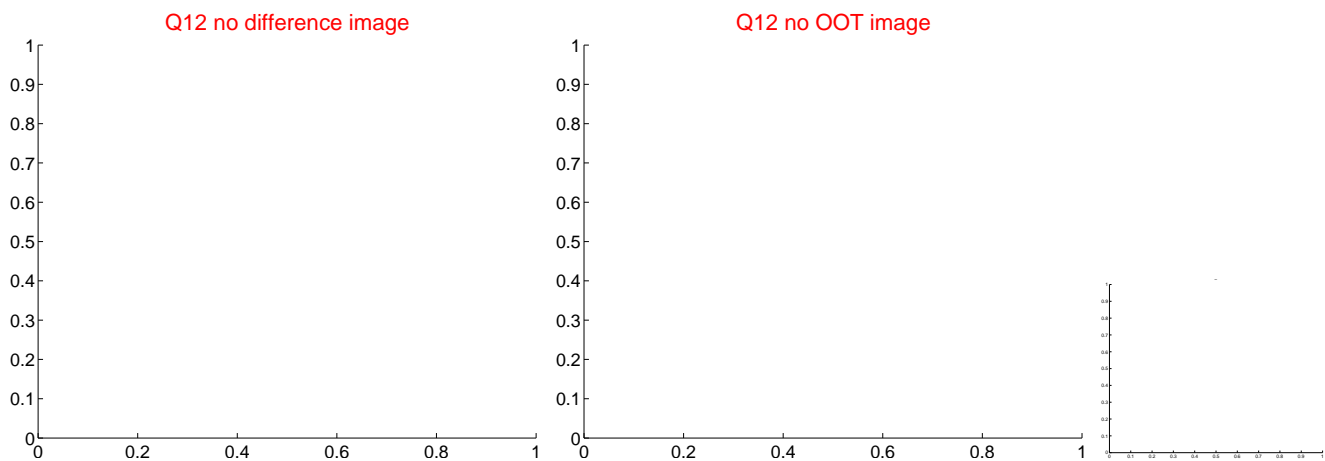
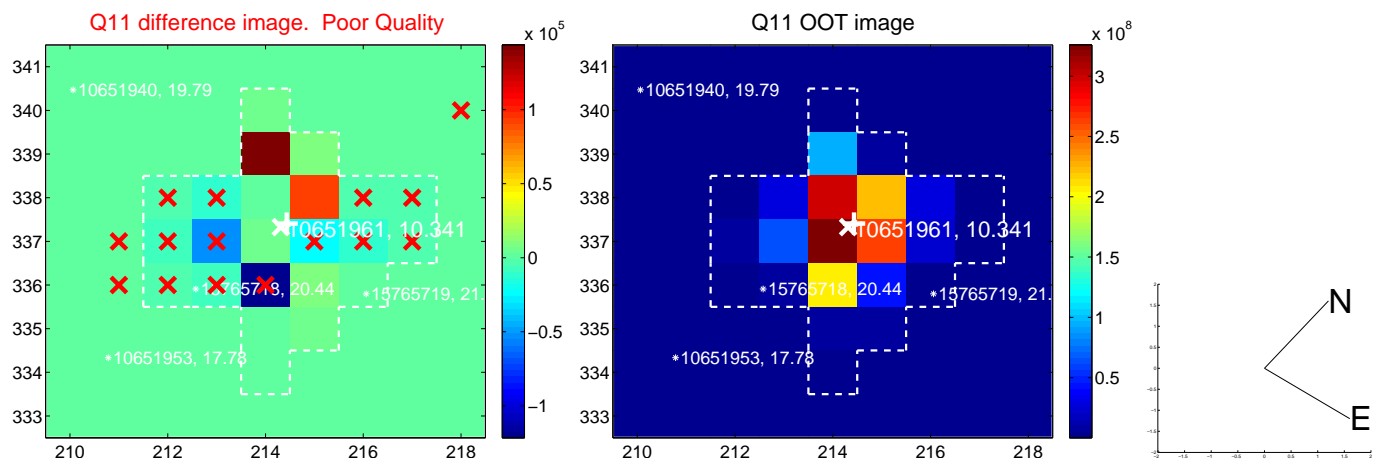
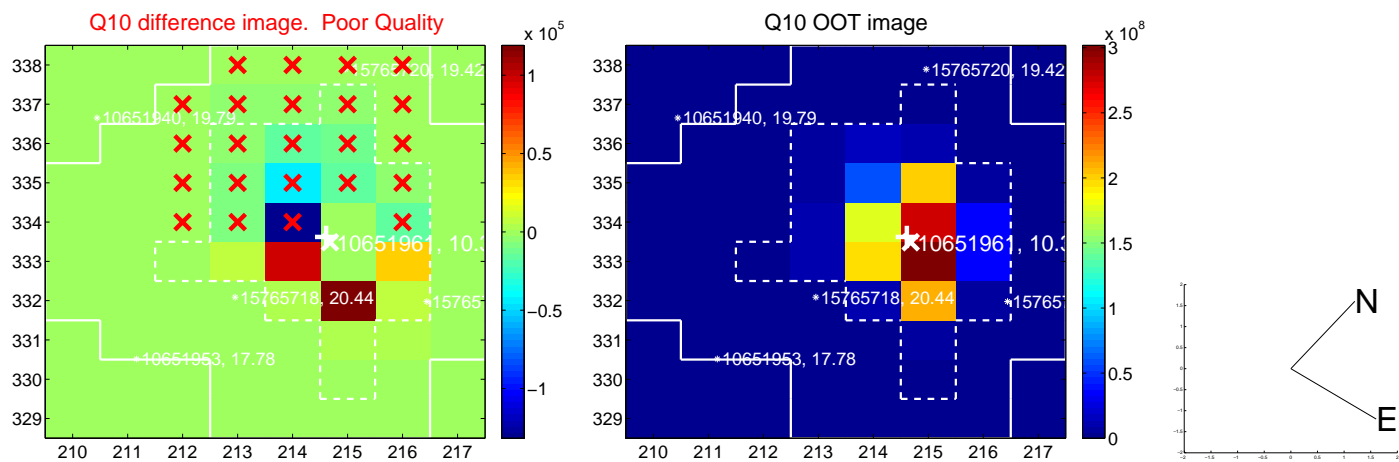
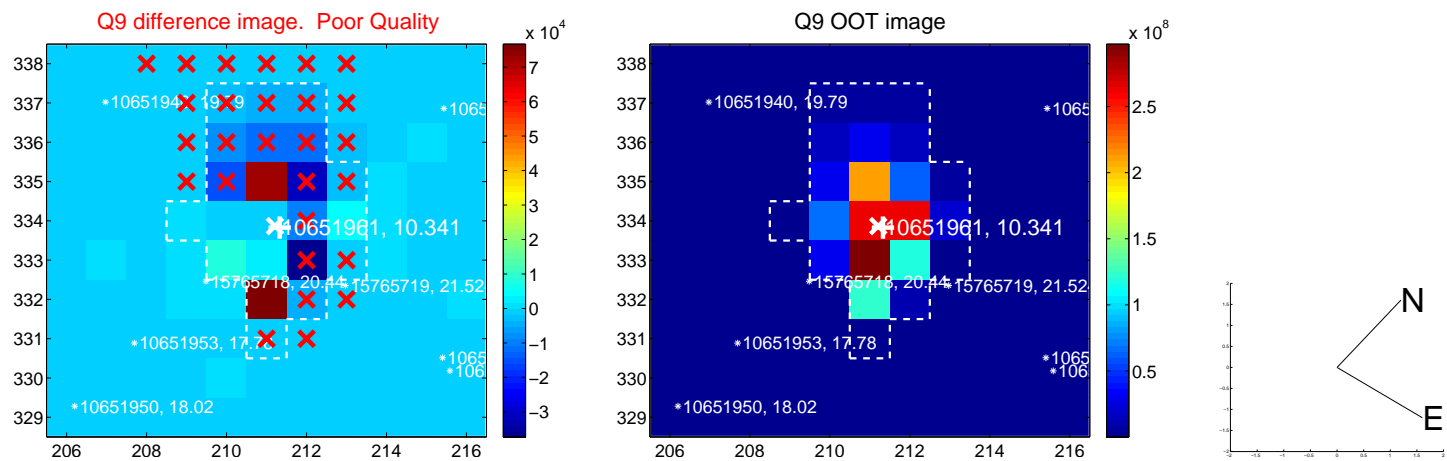


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

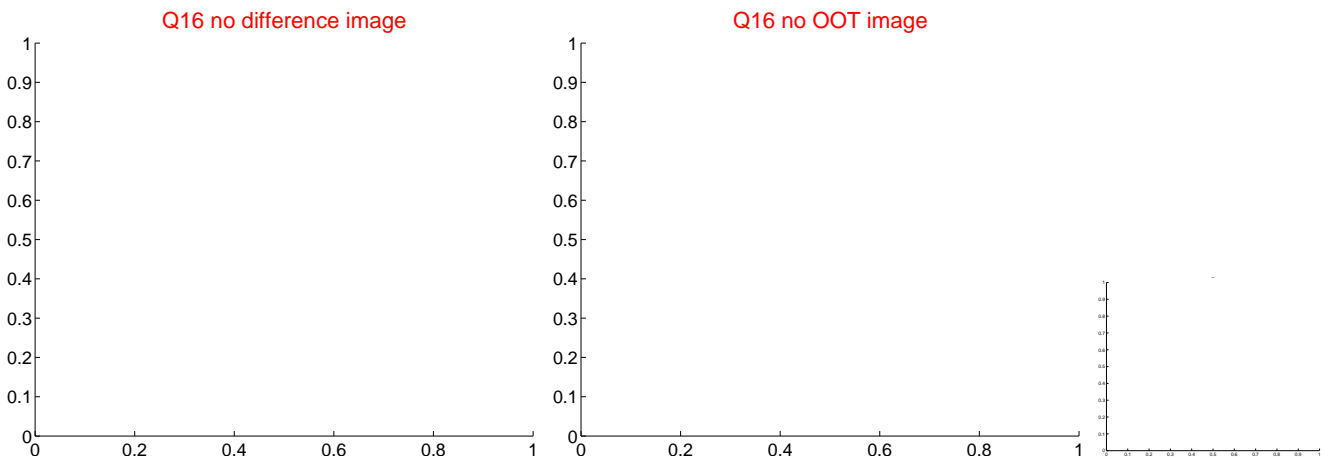
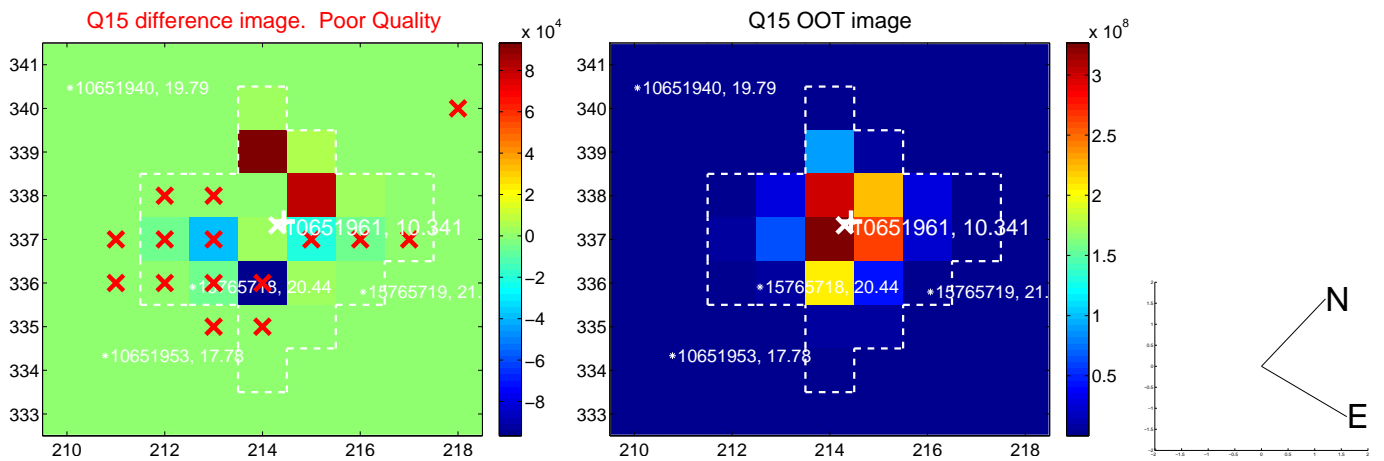
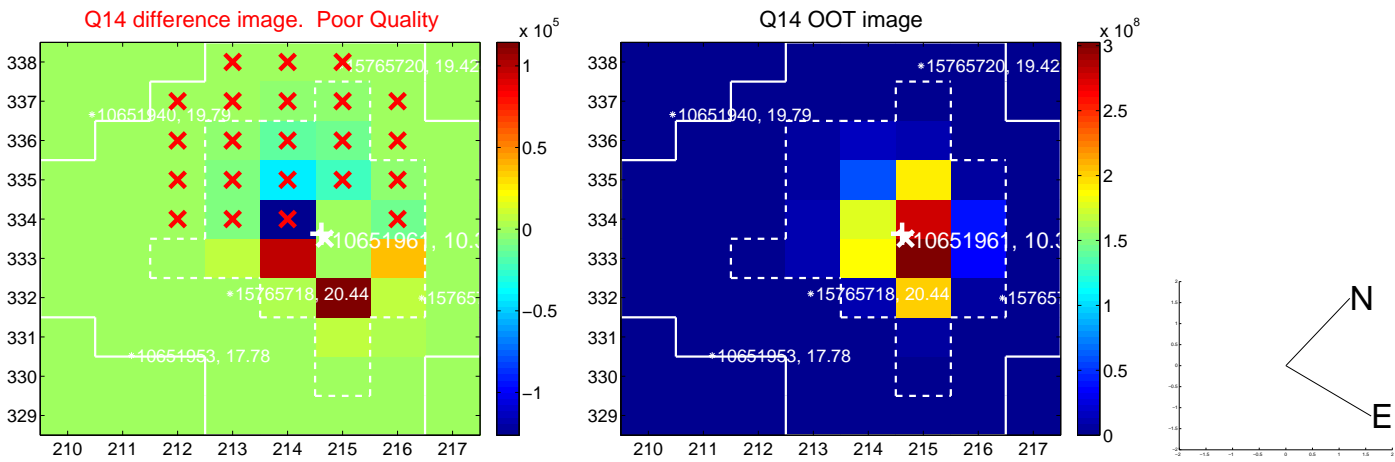
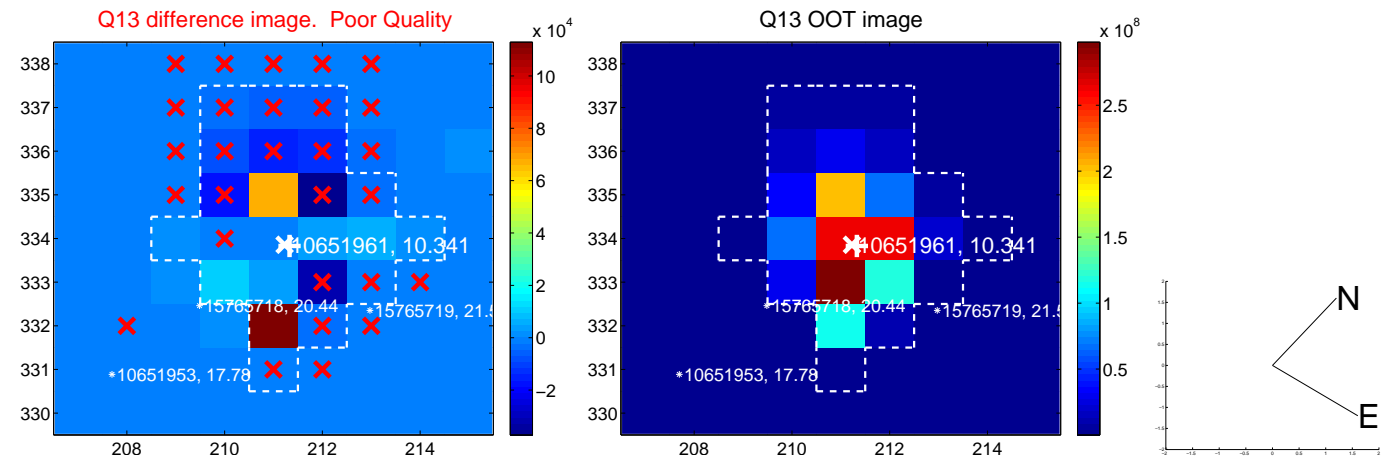
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



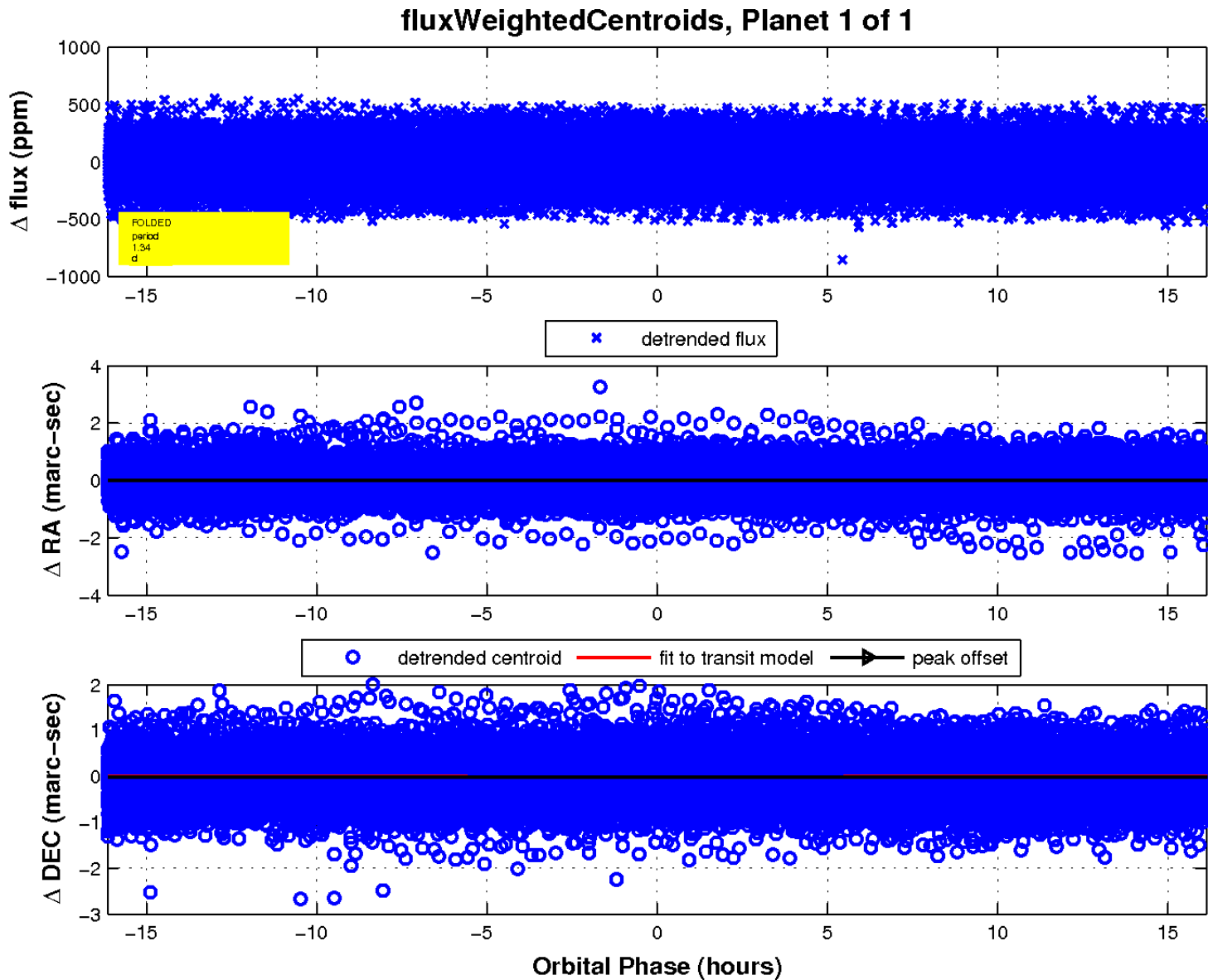
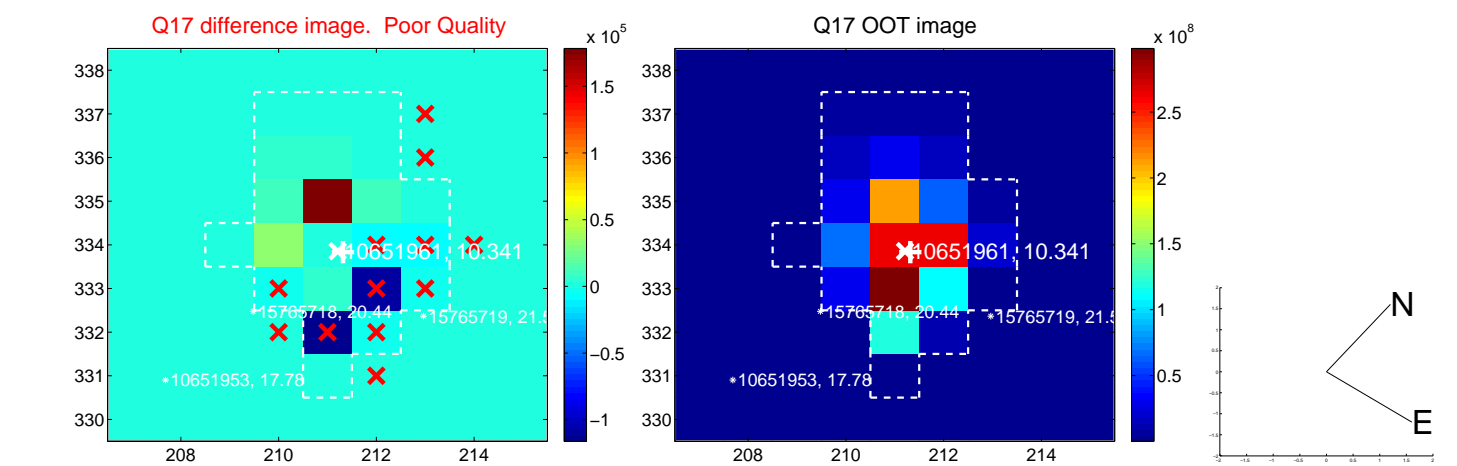
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

