

KIC 008611257

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})
008611257-01	OBS	2931.01	99.252330	148.537732	525.7	7.005	14.3	14.9	0.71	5010	2.16	1.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008611257-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

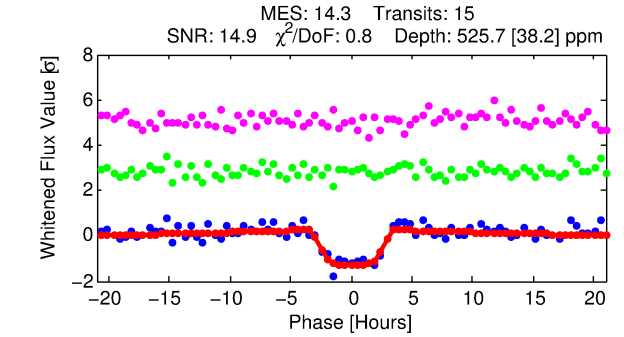
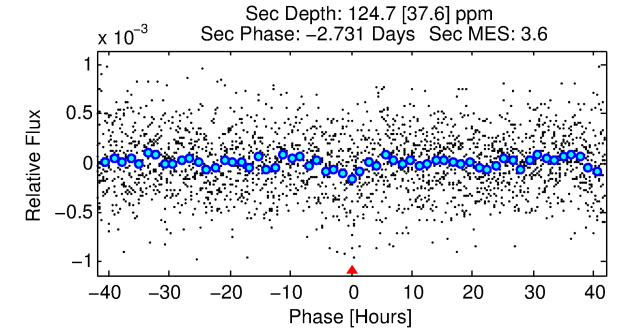
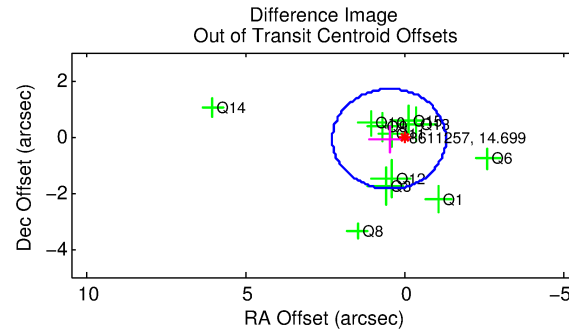
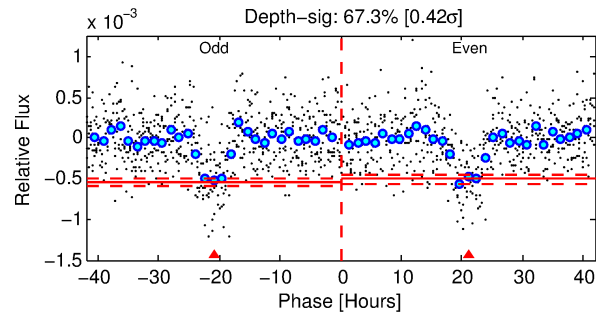
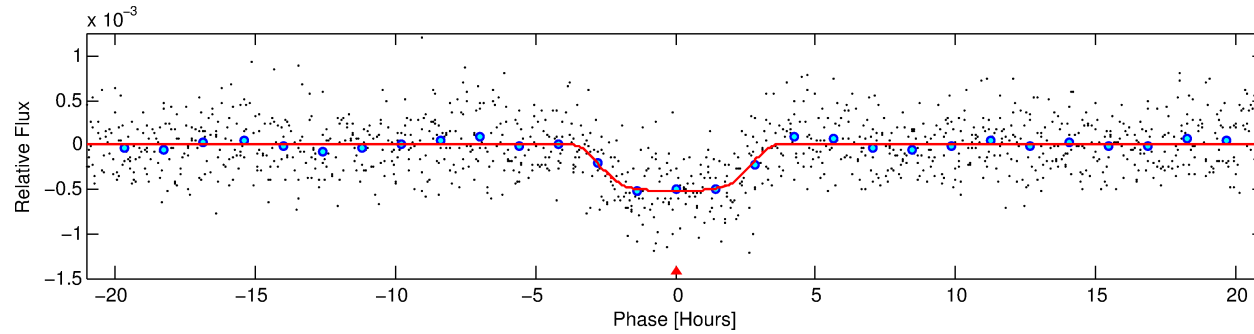
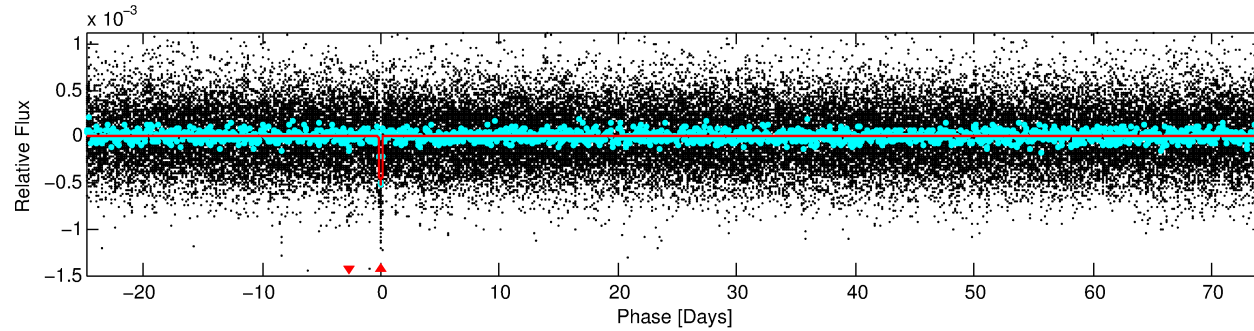
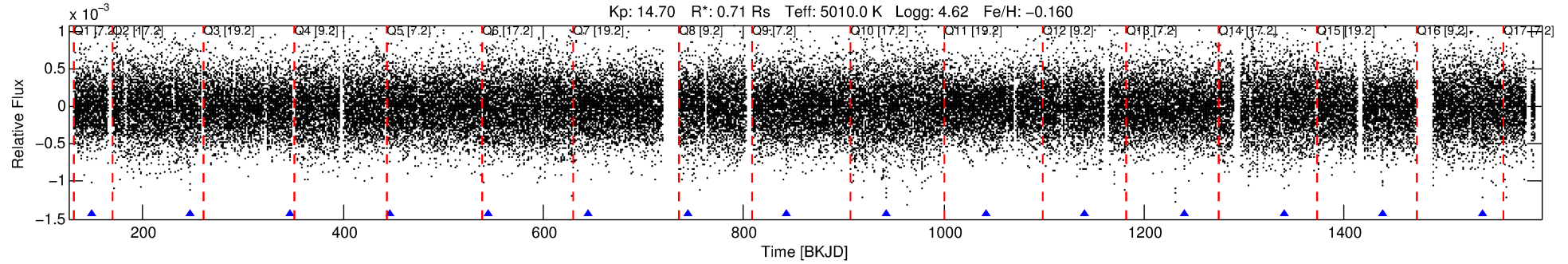
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008611257-01

No Significant Match Found

DV One-Page Summary

KIC: 8611257 Candidate: 1 of 1 Period: 99.252 d
KOI: K02931.01 Corr: 0.926



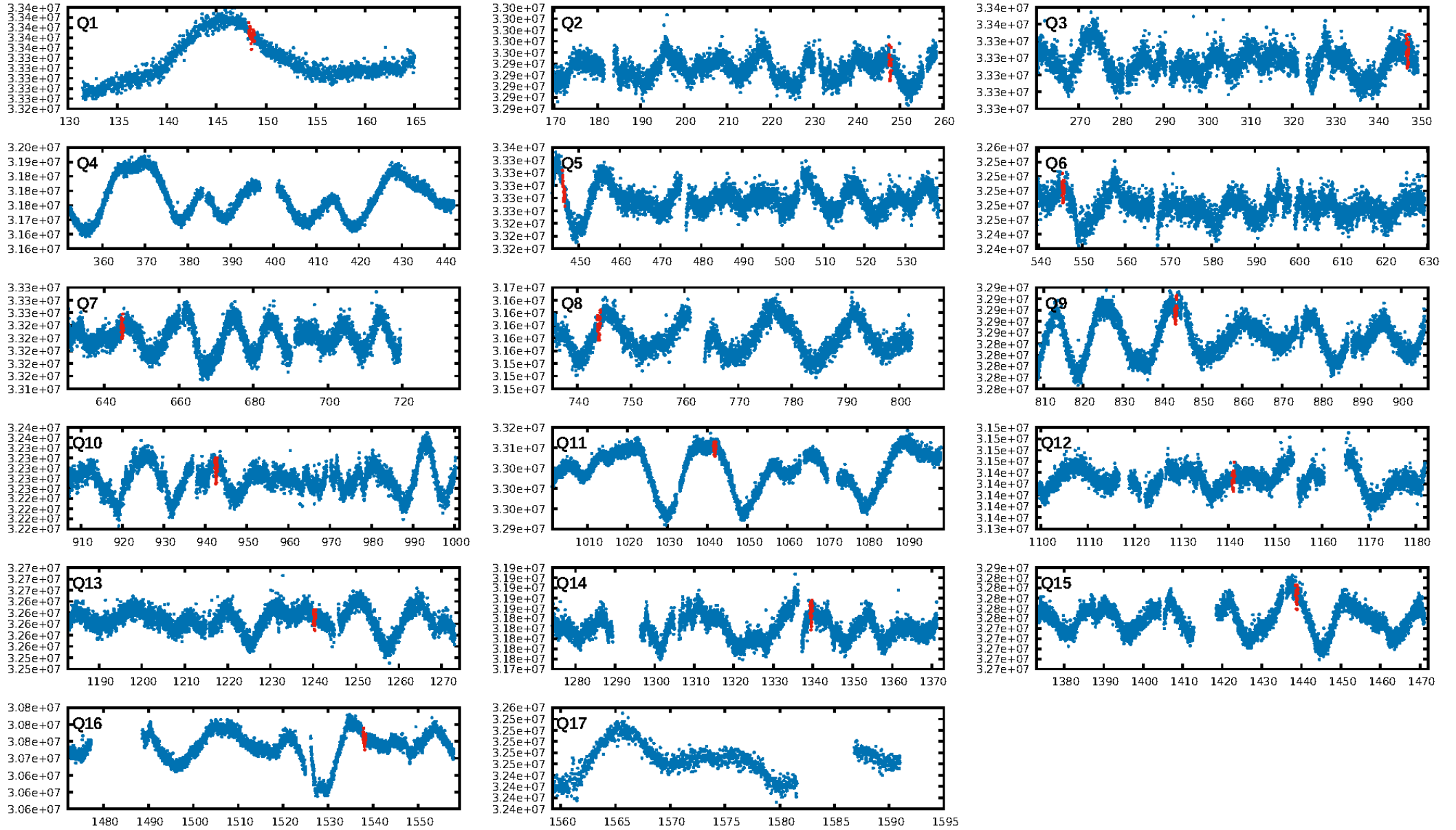
DV Fit Results:

Period = 99.25233 [0.00107] d
Epoch = 148.5377 [0.0084] BKJD
Rp/R* = 0.0276 [0.0017]
a/R* = 42.30 [7.31]
b = 0.95 [0.02]
Seff = 1.93 [0.23]
Teq = 301 [9] K
Rp = 2.16 [0.19] Re
a = 0.3867 [0.0229] AU
Ag = 2206.32 [746.36] [2.95 σ]
Teffp = 3185 [267] K [10.79 σ]

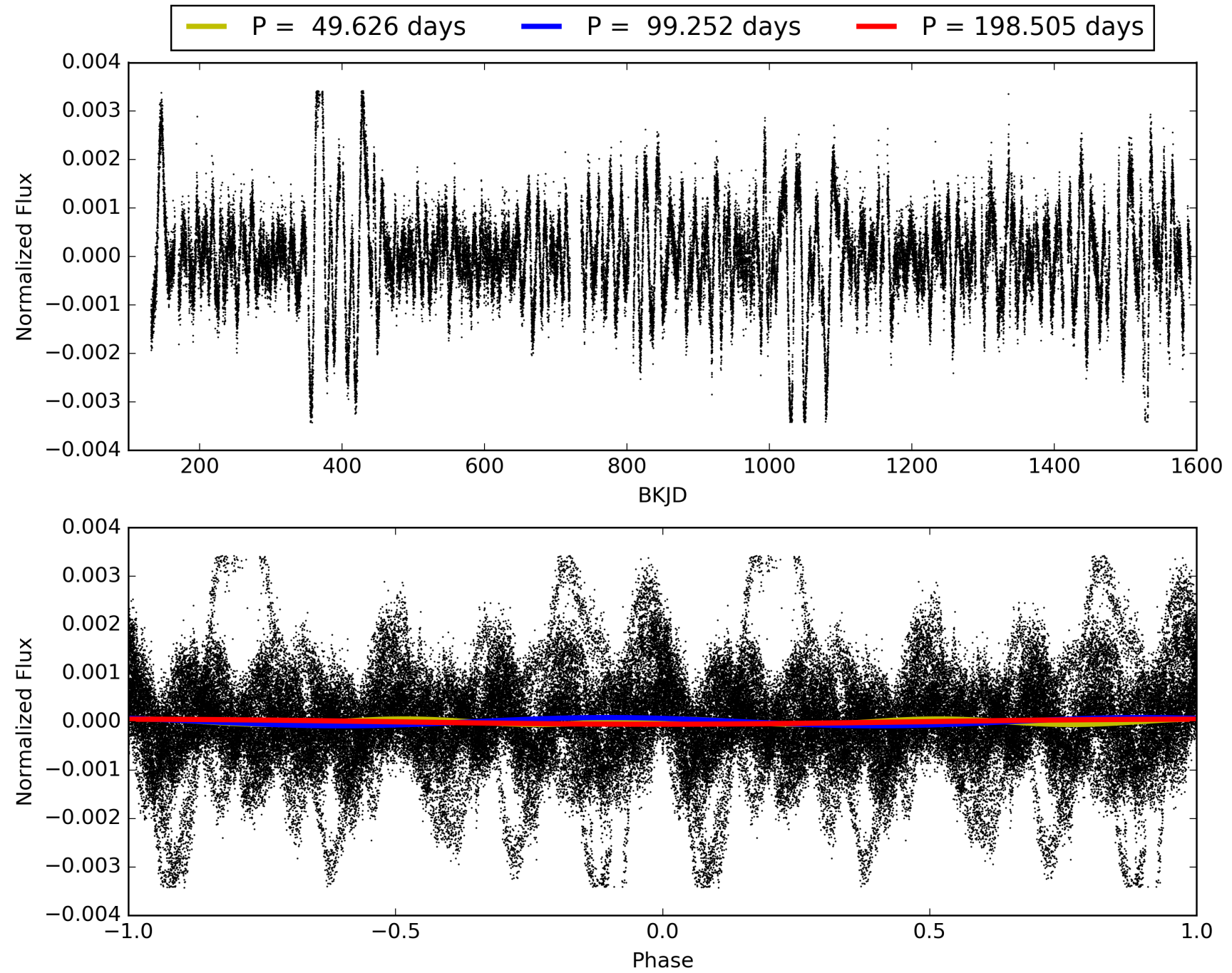
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 69.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.33e-32
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: 5.752
Centroid-sig: 0.0%
Centroid-so: 2.573 arcsec [3.20 σ]
OotOffset-rm: 0.504 arcsec [0.85 σ]
KicOffset-rm: 0.573 arcsec [1.08 σ]
OotOffset-st: 3/3/2/3 [11]
KicOffset-st: 3/3/2/3 [11]
DiffImageQuality-fgm: 0.82 [9/11]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 008611257-01, PDC Light Curves

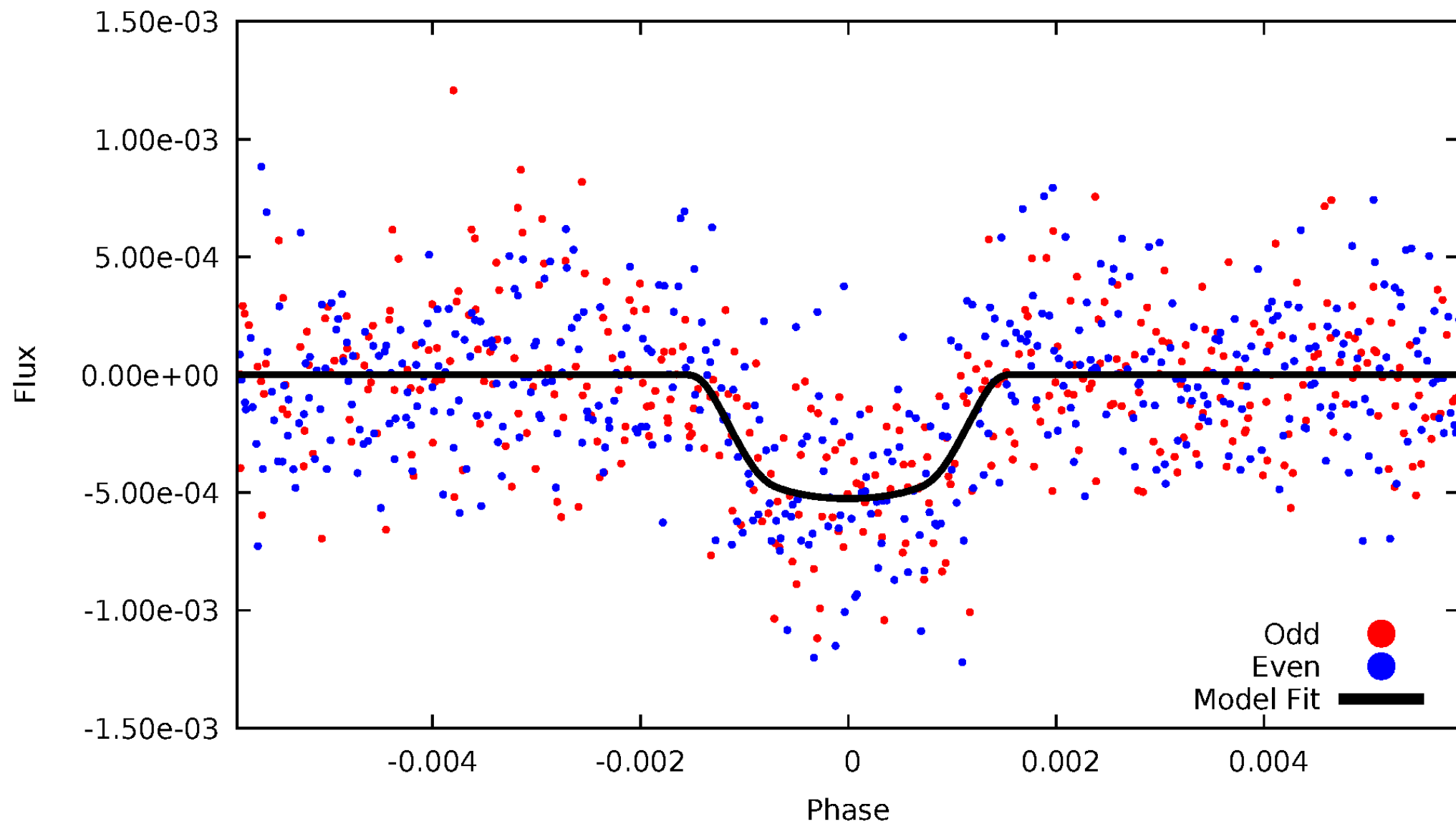


TCE 008611257-01



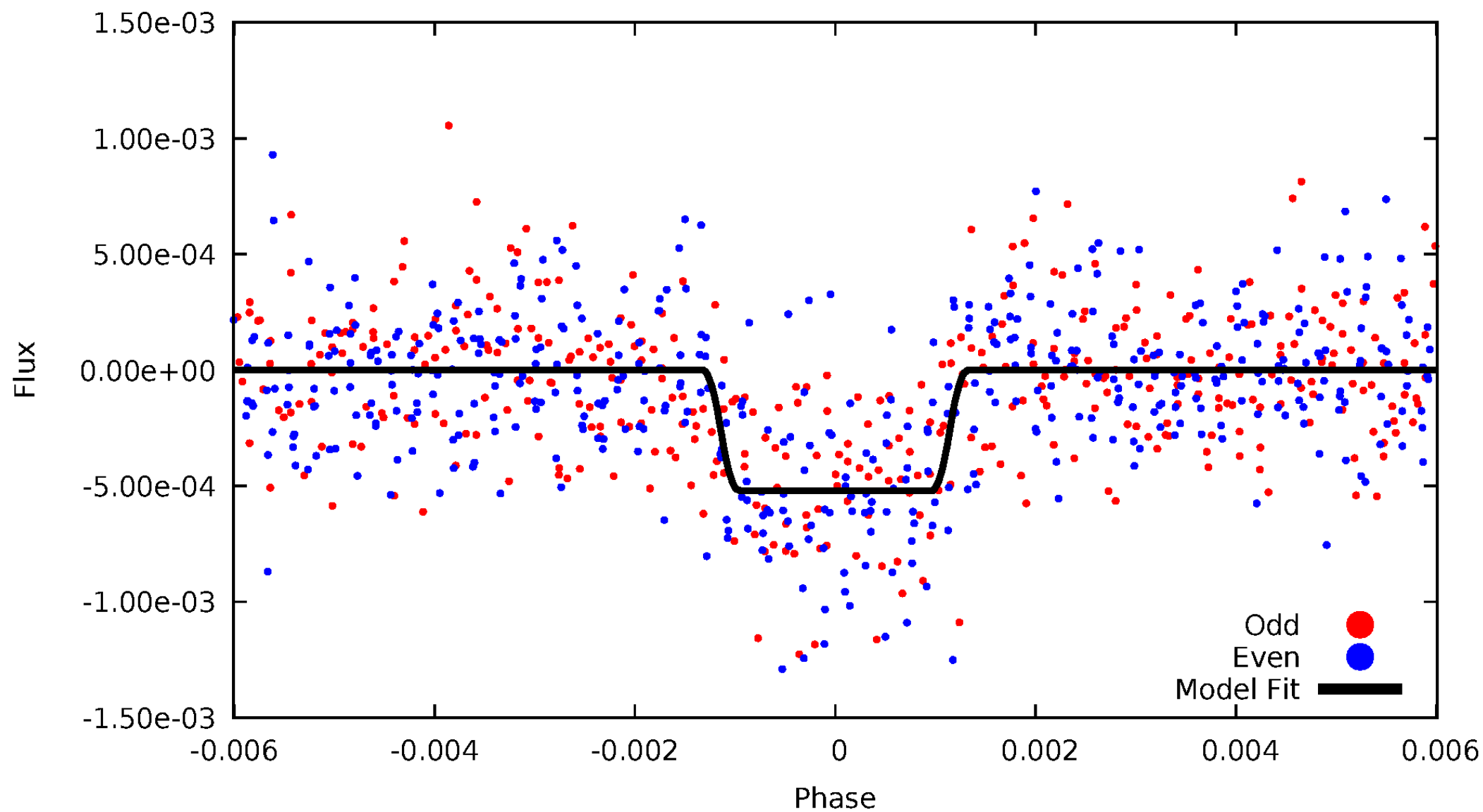
DV Odd/Even

TCE 008611257-01



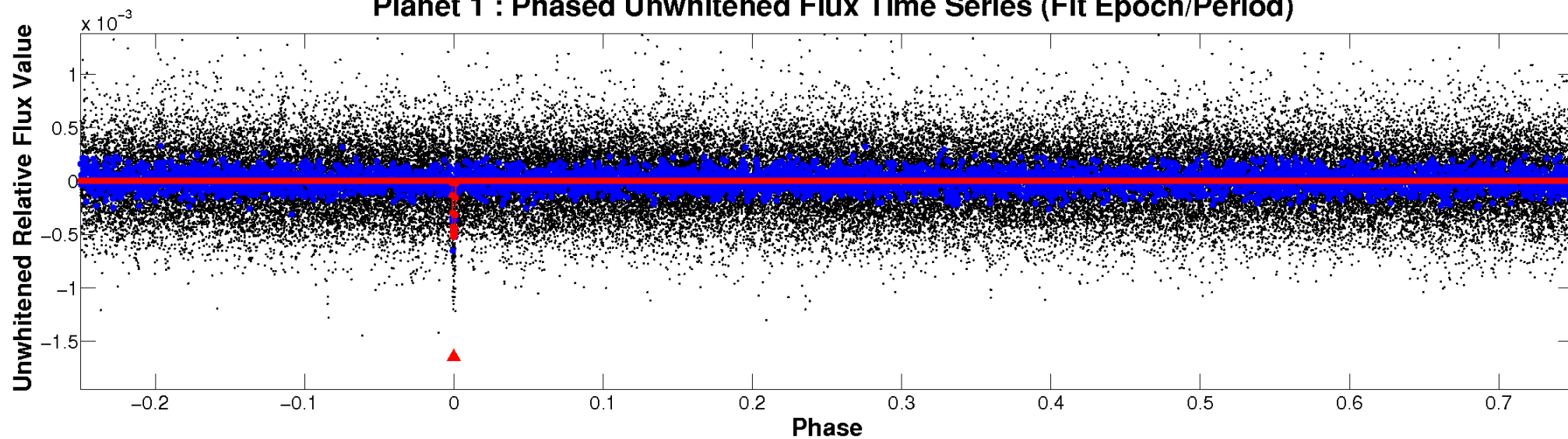
ALT Odd/Even

TCE 008611257-01

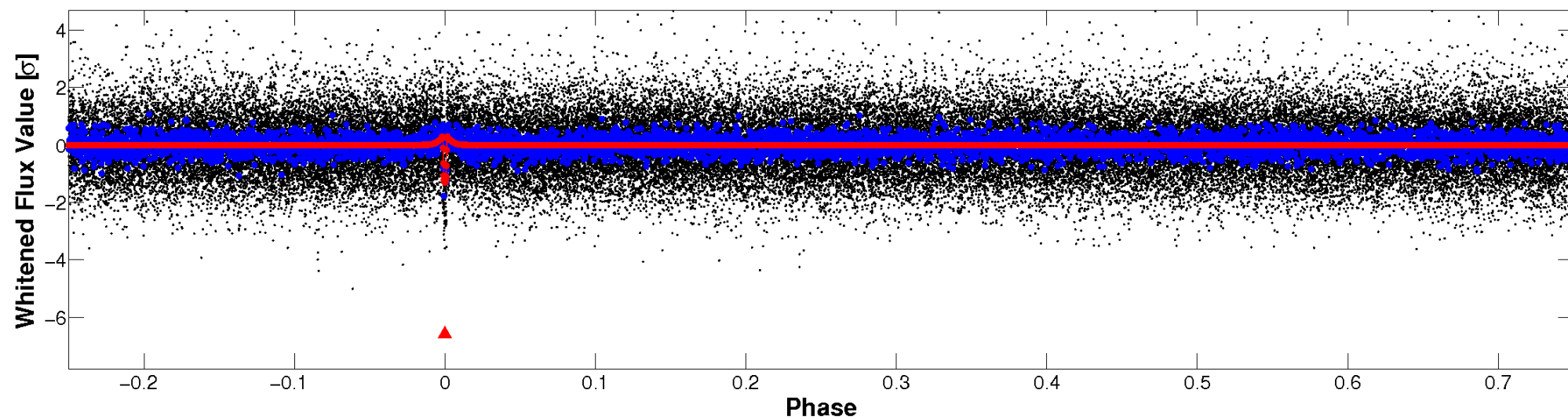


Non-Whitened Vs. Whitened Light Curve

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

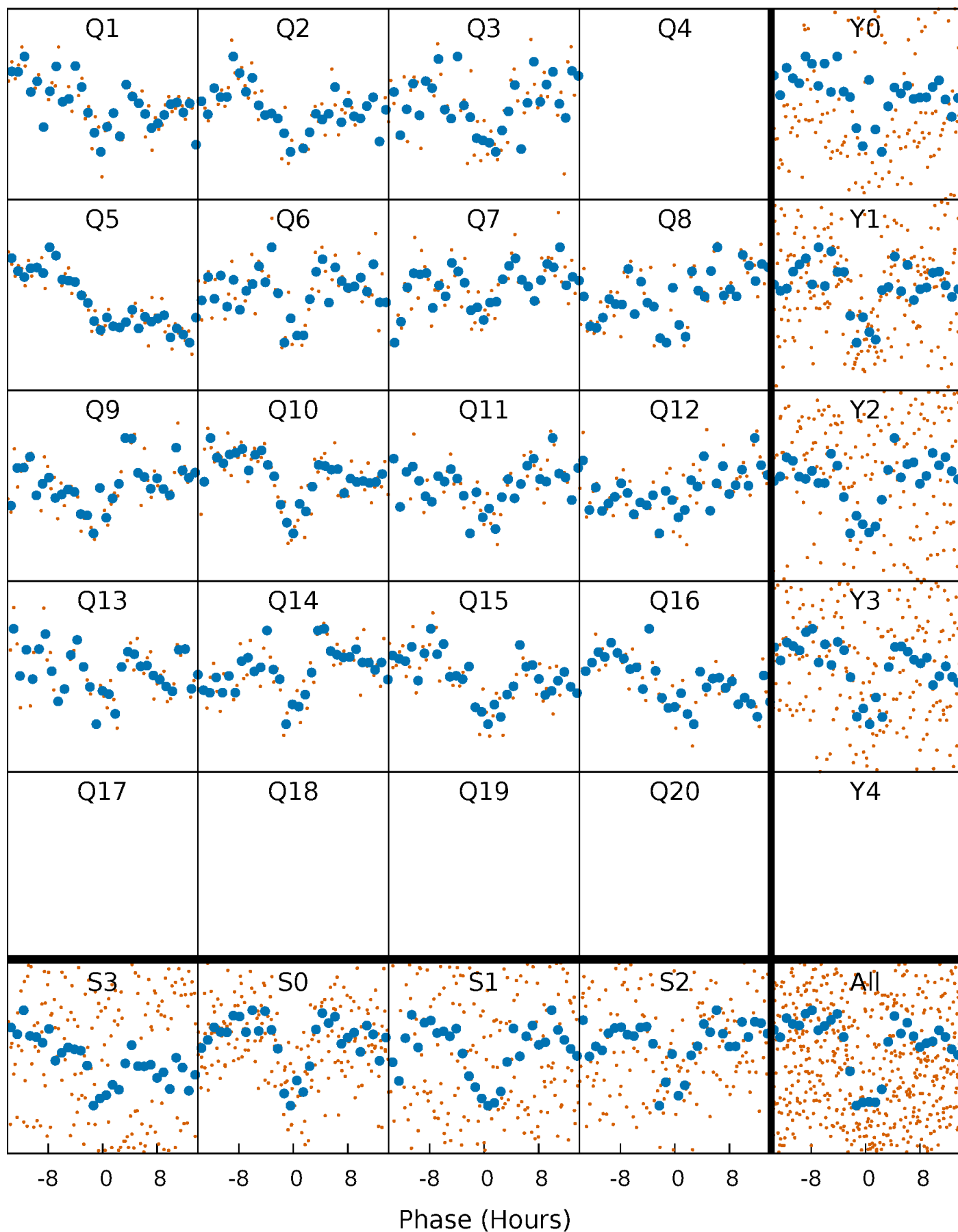


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



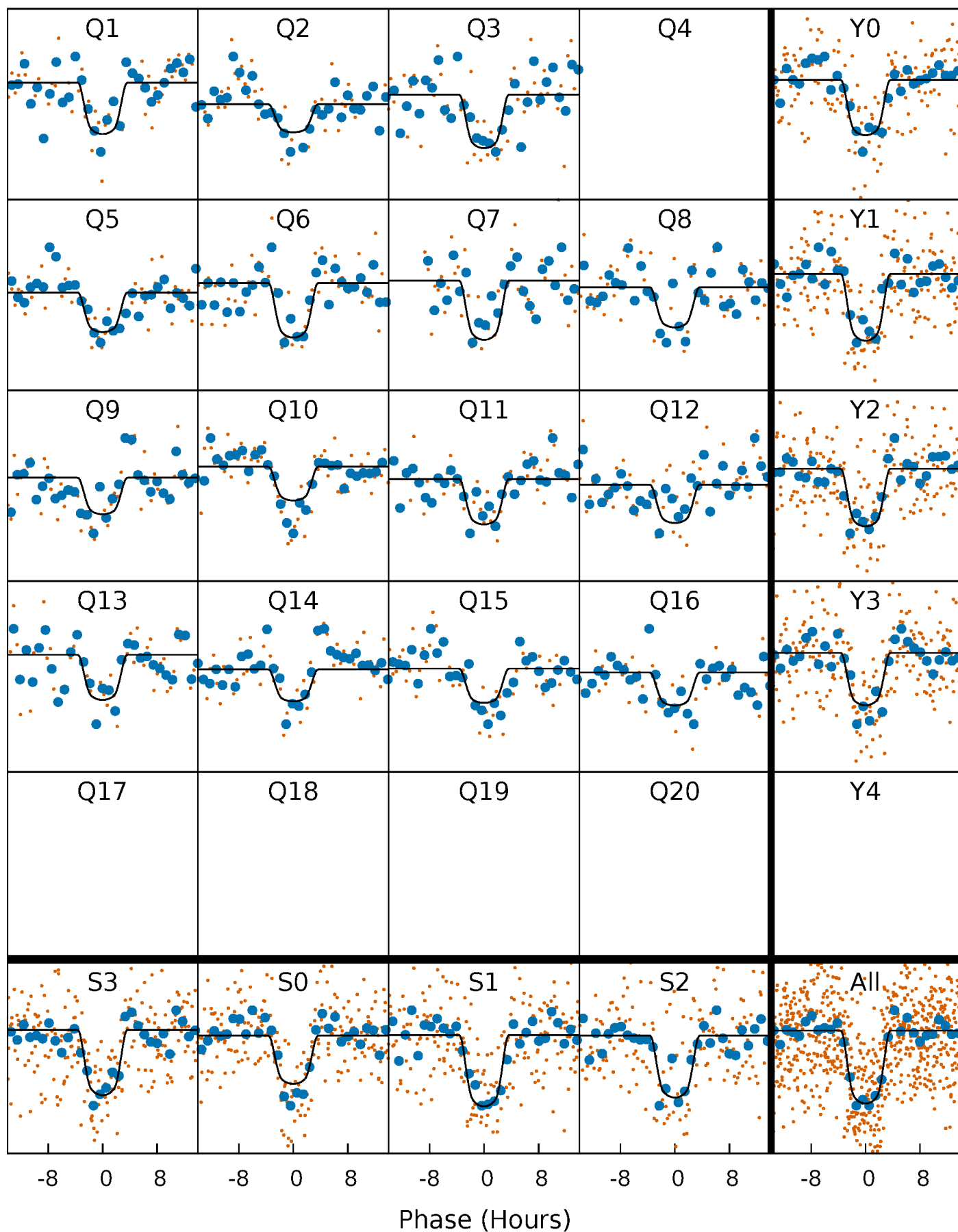
PDC Quarter-Phased Transit Curves

TCE 008611257-01 P= 99.252330 Days $T_0=148.537732$ (BKJD)



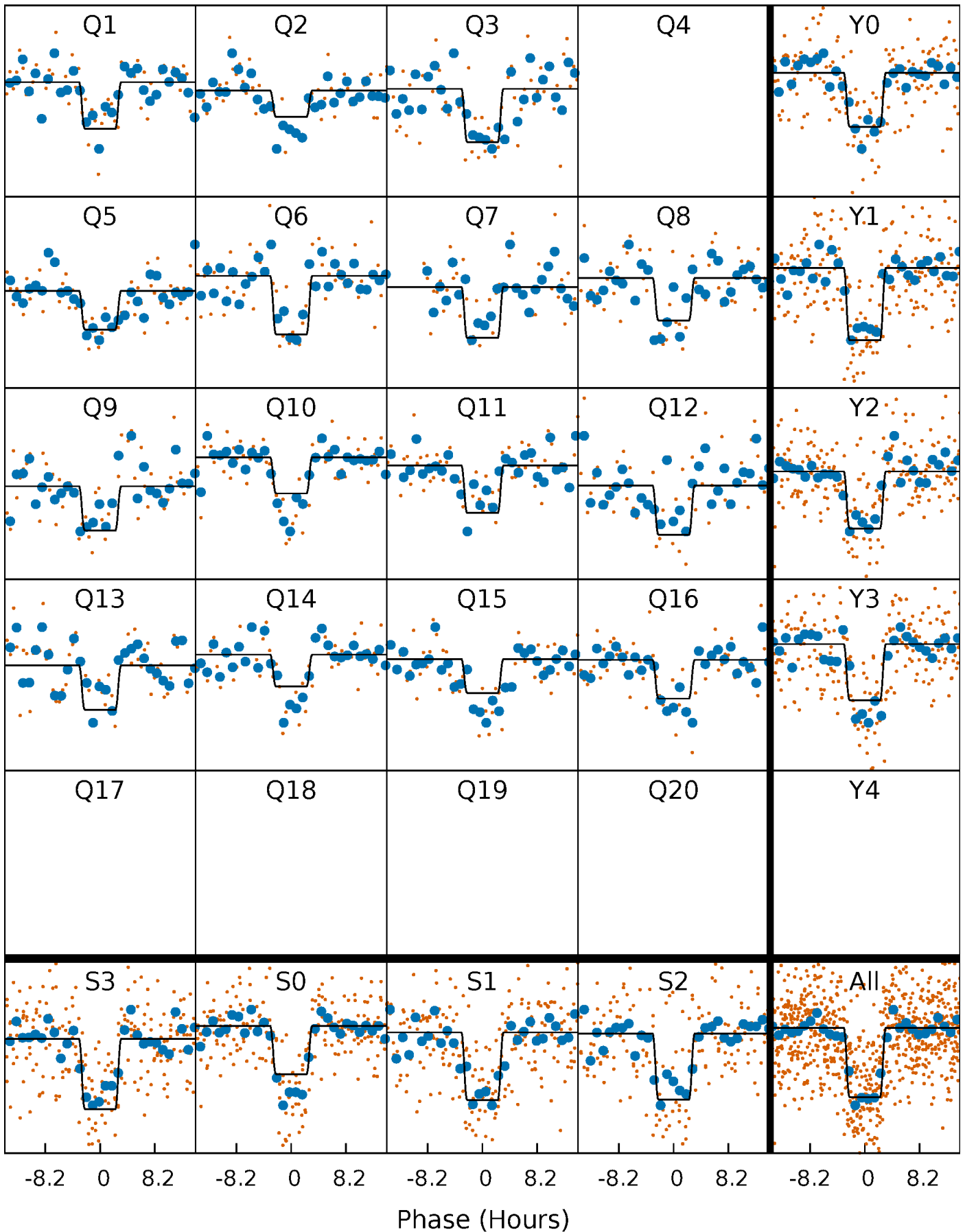
DV Quarter-Phased Transit Curves

TCE 008611257-01 P= 99.252330 Days $T_0=148.537732$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

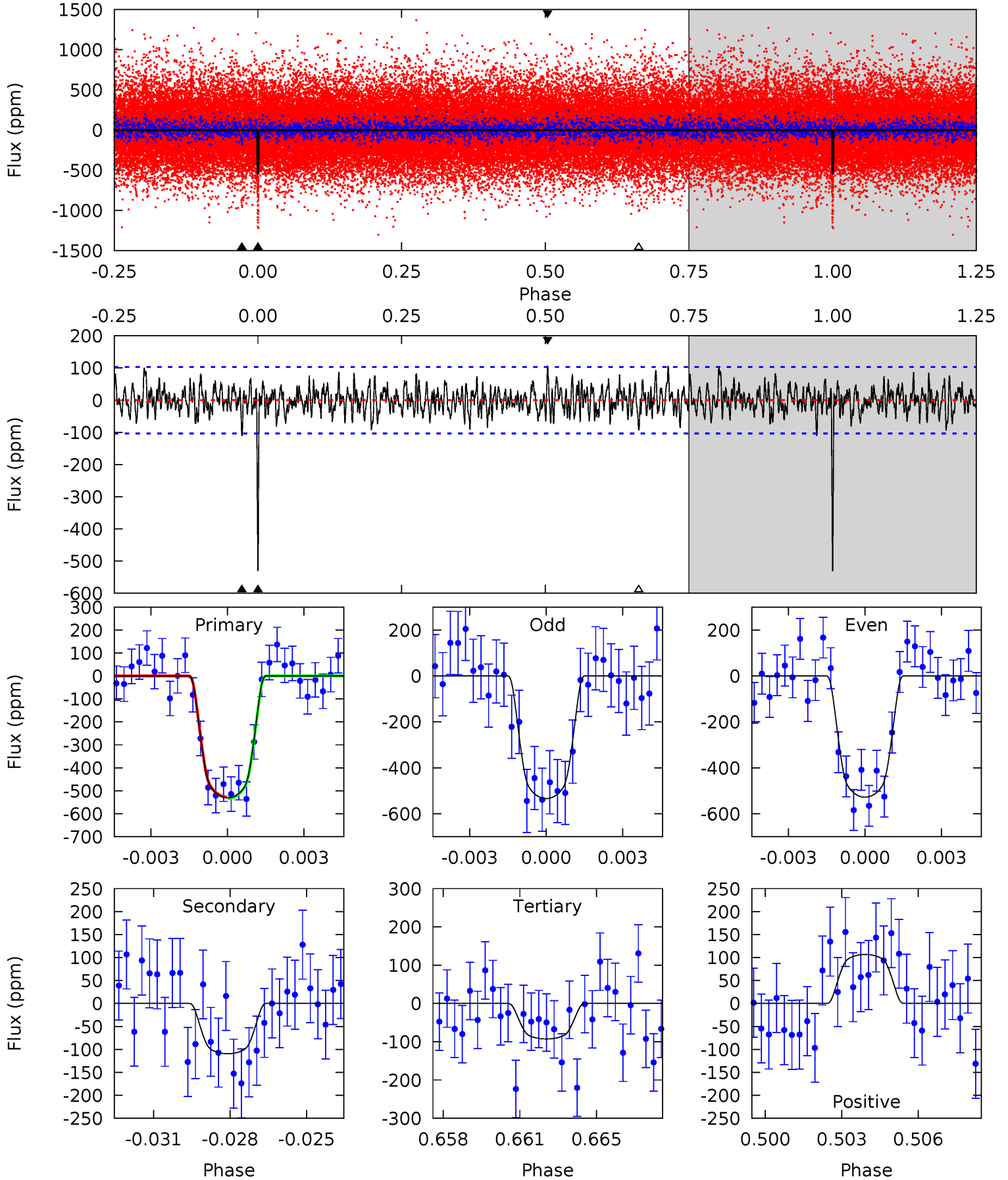
TCE 008611257-01 P= 99.251285 Days $T_0=148.544634$ (BKJD)



DV Model-Shift Uniqueness Test

008611257-01, P = 99.252330 Days, E = 49.285402 Days

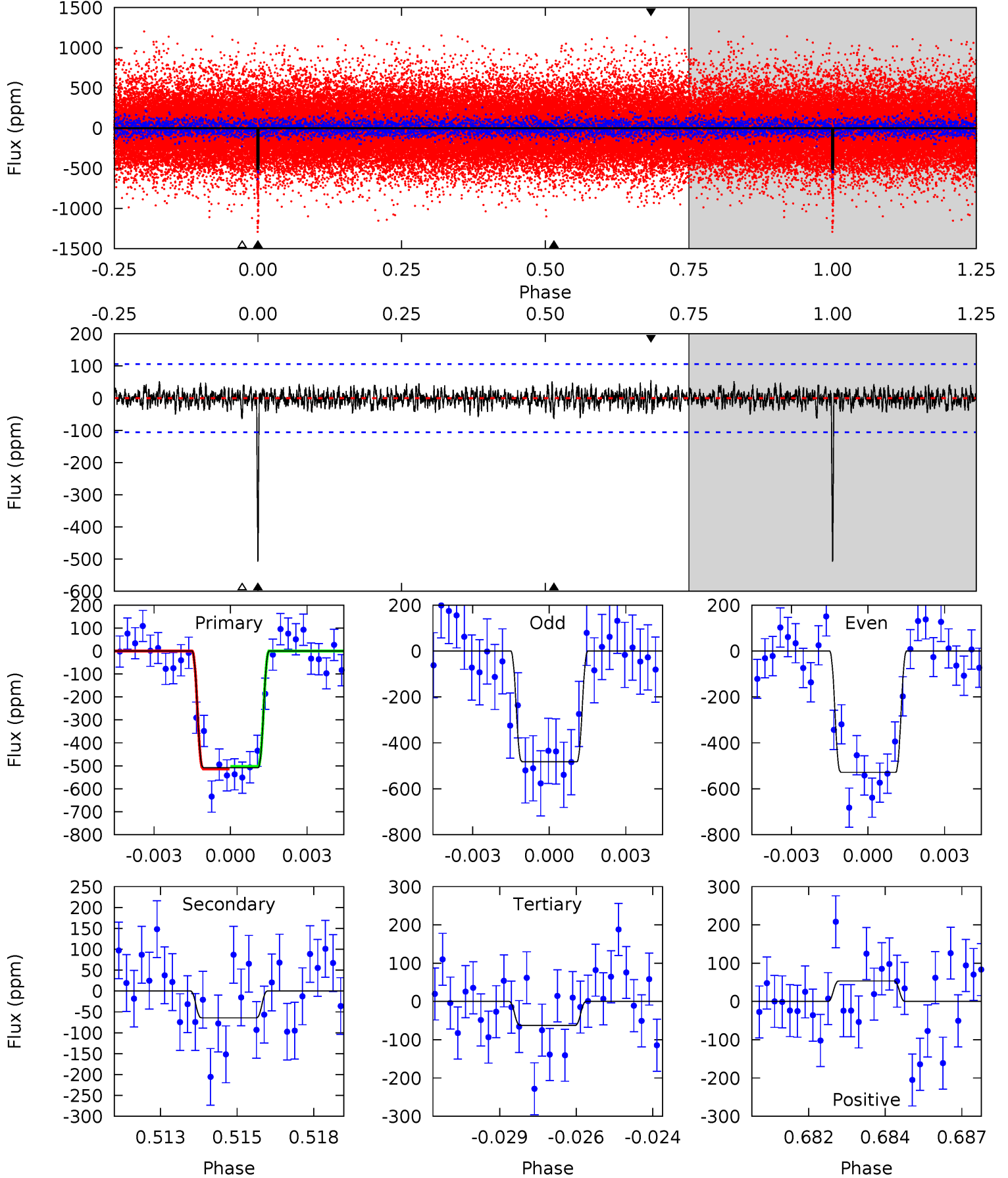
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.9	5.55	4.71	5.41	5.25	2.96	1.68	22.2	21.5	0.85	0.14	0.15	1.10	0.17	0.17



Alt Model-Shift Uniqueness Test

008611257-01, P = 99.251285 Days, E = 49.293349 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	3.19	3.11	2.67	5.28	3.01	0.88	22.2	22.6	0.08	0.52	1.14	1.11	0.10	0.28



Stellar Parameters For KIC 008611257

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5010^{+100}_{-100}	$4.623^{+0.014}_{-0.052}$	$-0.160^{+0.150}_{-0.150}$	$0.715^{+0.047}_{-0.029}$	$0.798^{+0.028}_{-0.066}$	$3.079^{+0.221}_{-0.544}$
	+2%/-2%	+0%/-1%	+94%/-94%	+7%/-4%	+4%/-8%	+7%/-18%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 008611257-01 / KOI 2931.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-109 ± 20	$2.18^{+0.16}_{-0.15}$	424^{+10}_{-10}	3514^{+134}_{-131}	1884^{+472}_{-399}
Alt.	-64 ± 20	$1.81^{+0.15}_{-0.15}$	423^{+10}_{-9}	3416^{+186}_{-206}	1570^{+637}_{-498}

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 $A_{obs} \gg 1.0$

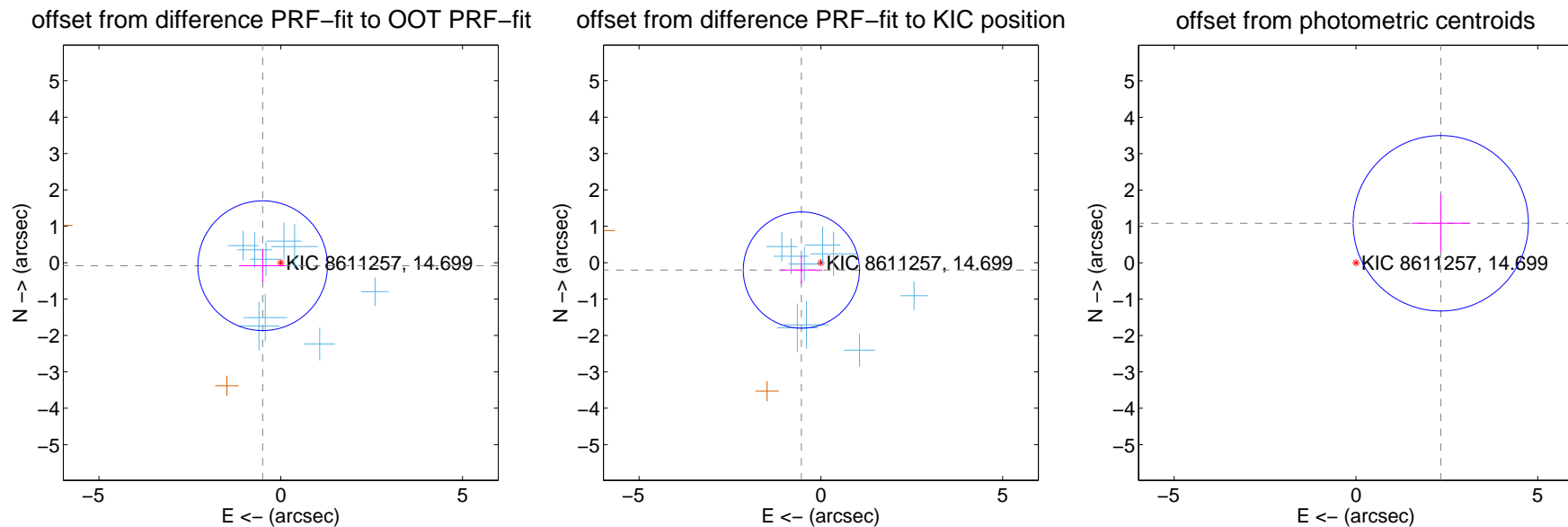
DV Centroid Data

Supplemental centroid analysis for 008611257-01. Kepler magnitude: 14.70. Transit SNR 14.85

There are 9 quarters with good PRF difference image offsets

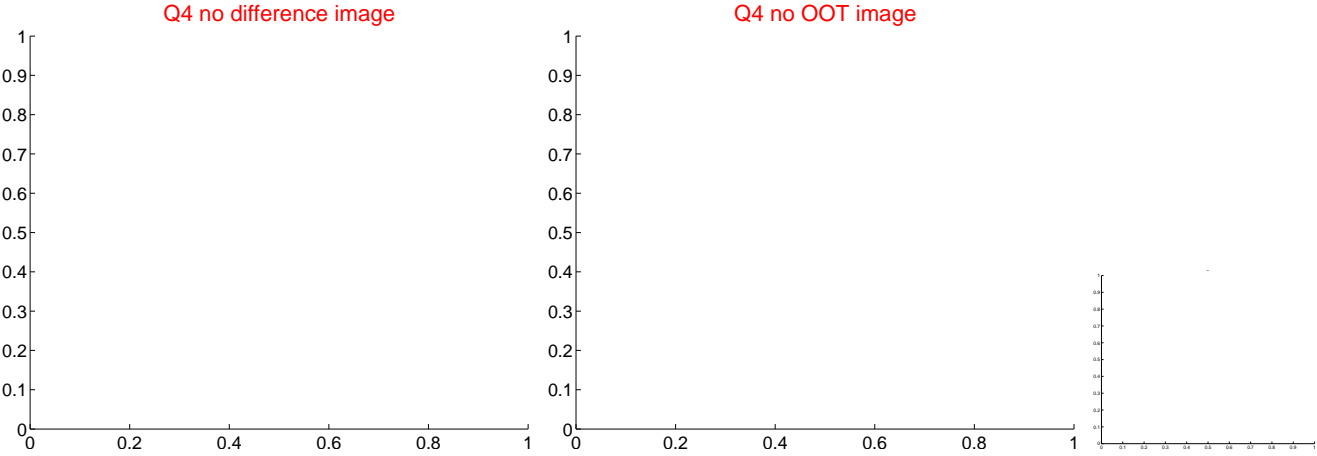
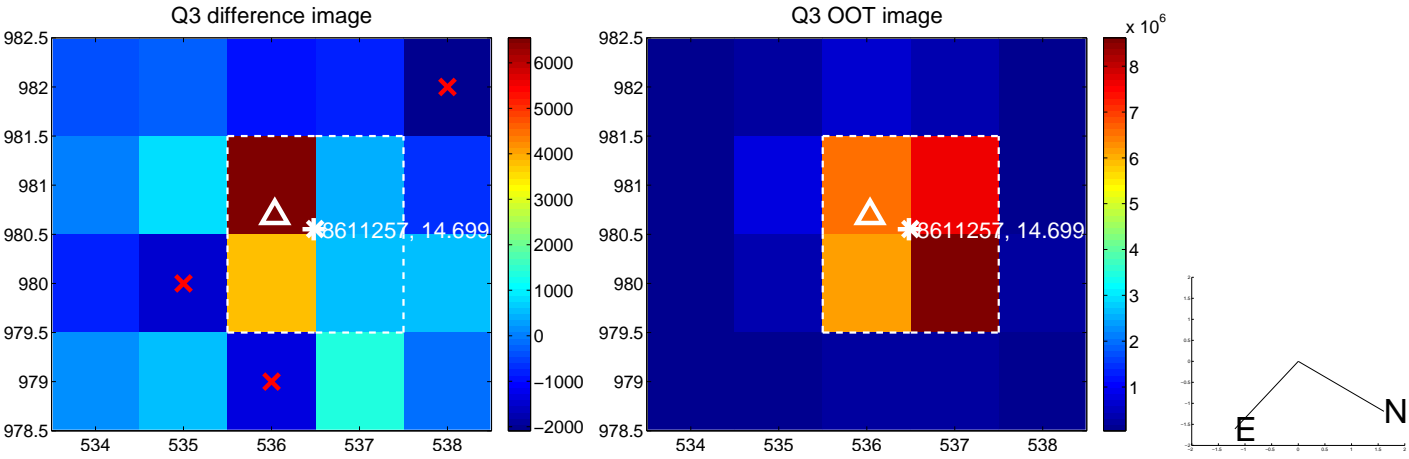
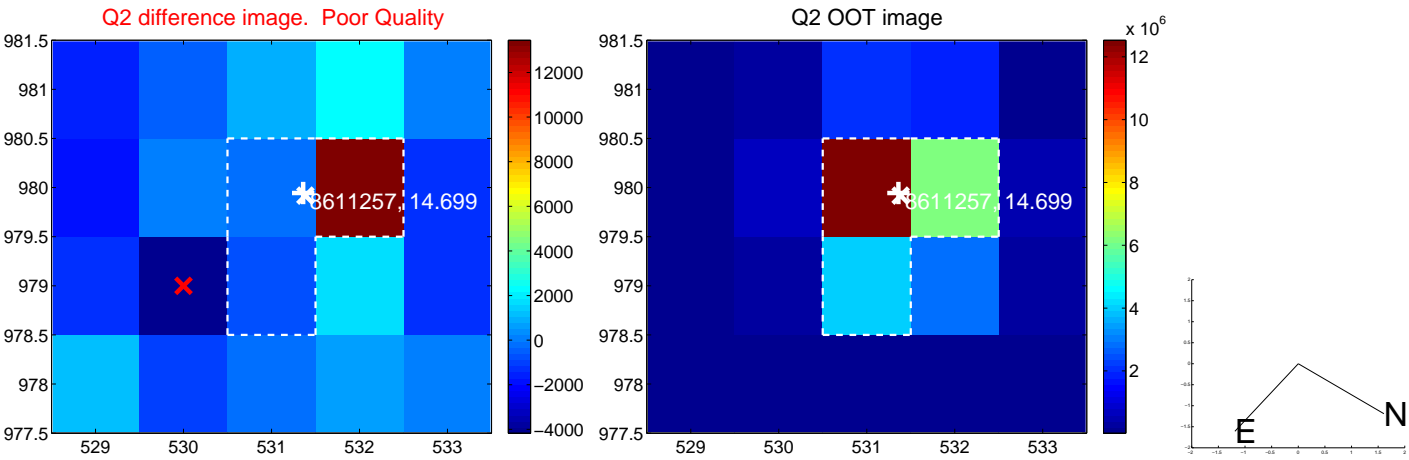
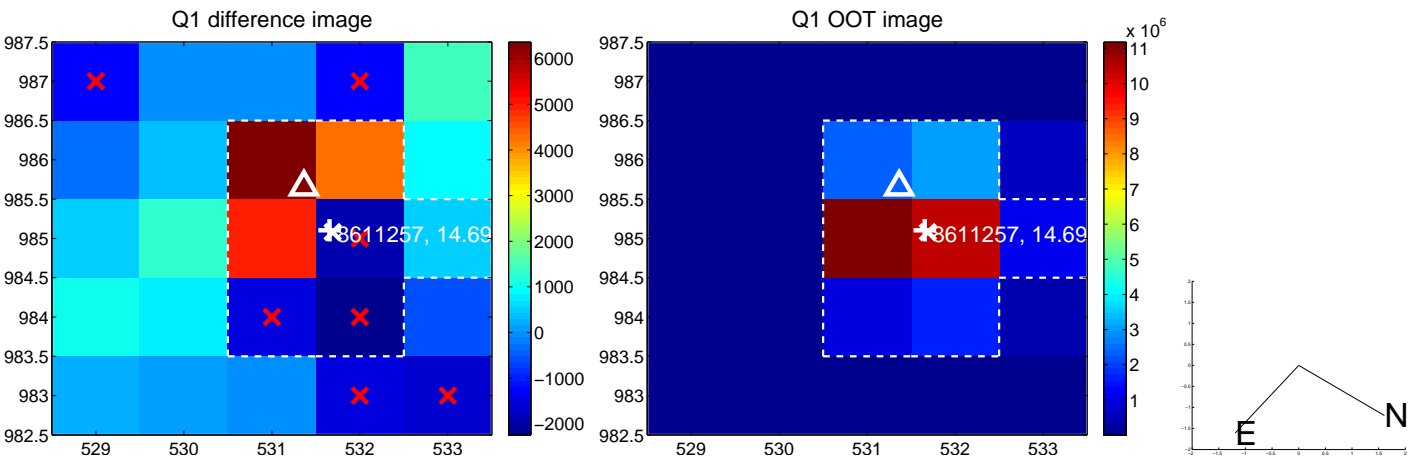
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.504 ± 0.594	0.85	0.498 ± 0.624	-0.083 ± 0.451
PRF-fit source offset from KIC position	0.573 ± 0.533	1.08	0.536 ± 0.585	-0.203 ± 0.379
photometric centroid source offset	2.57 ± 0.80	3.20	-2.33 ± 0.81	1.09 ± 0.79

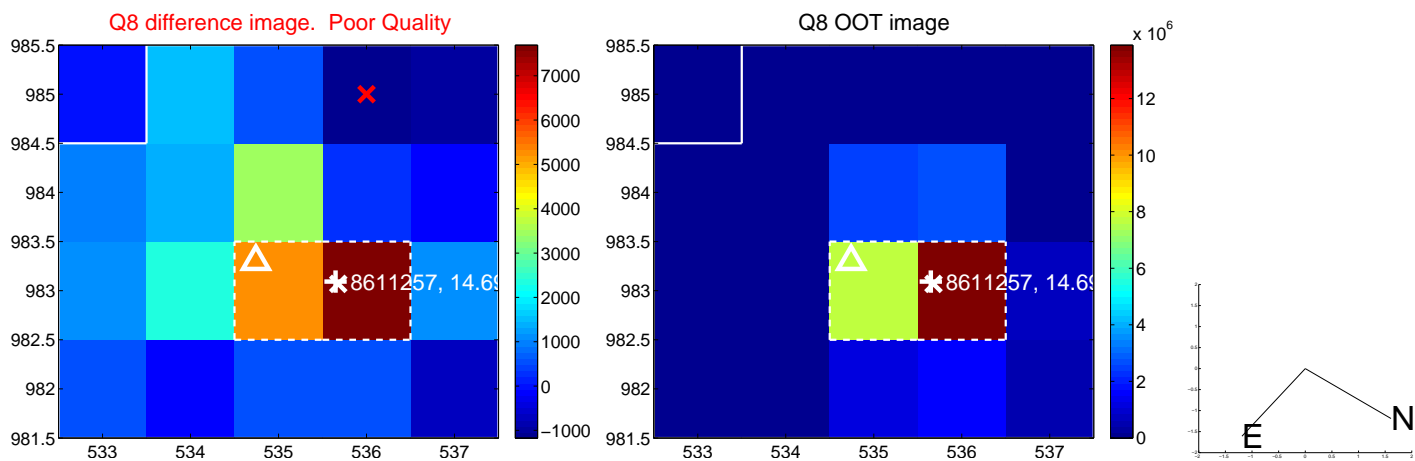
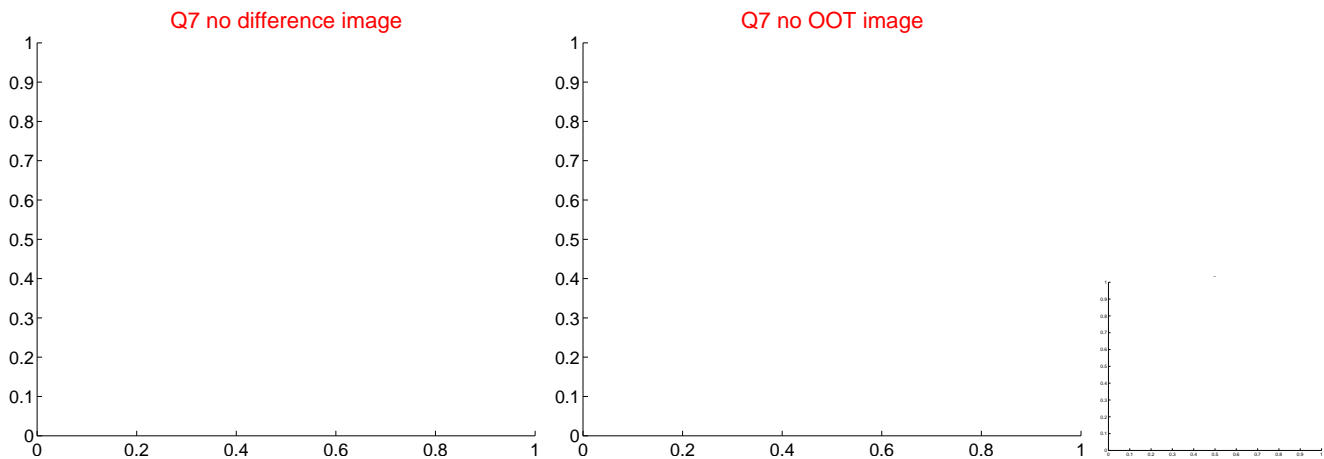
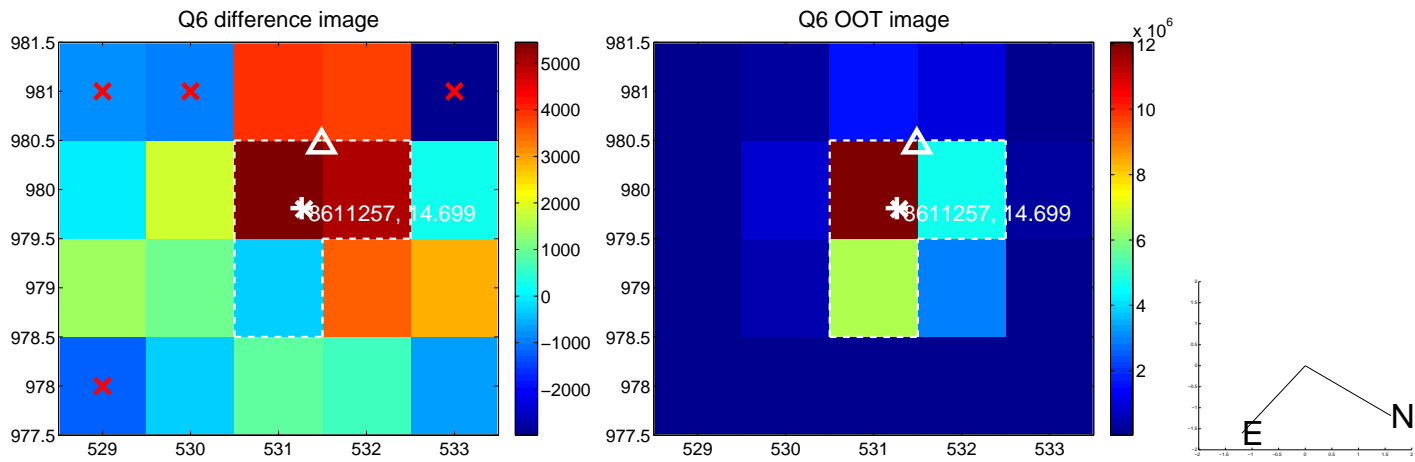
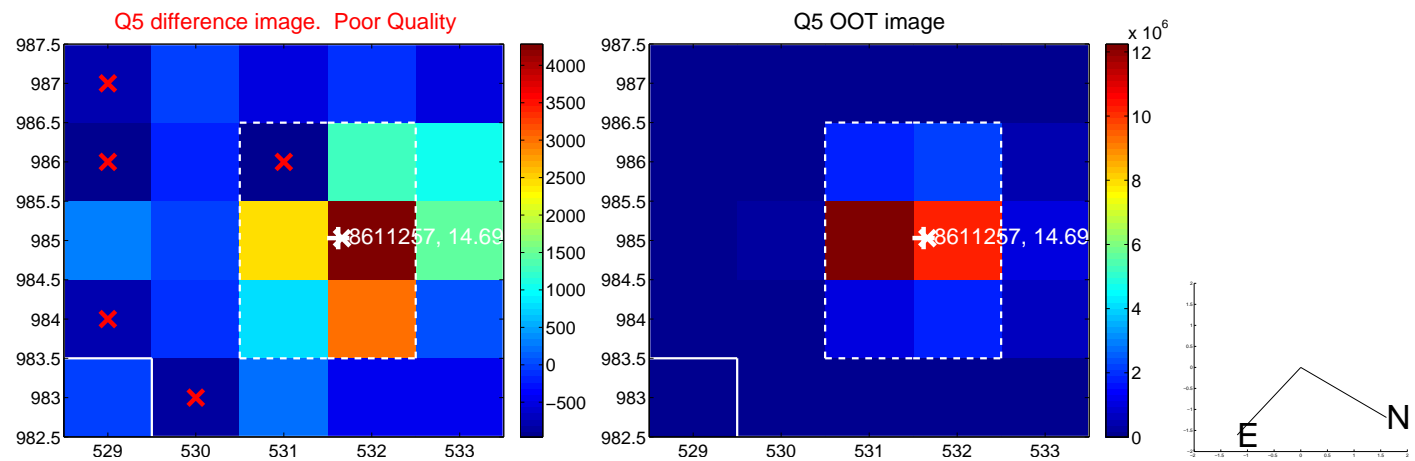


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

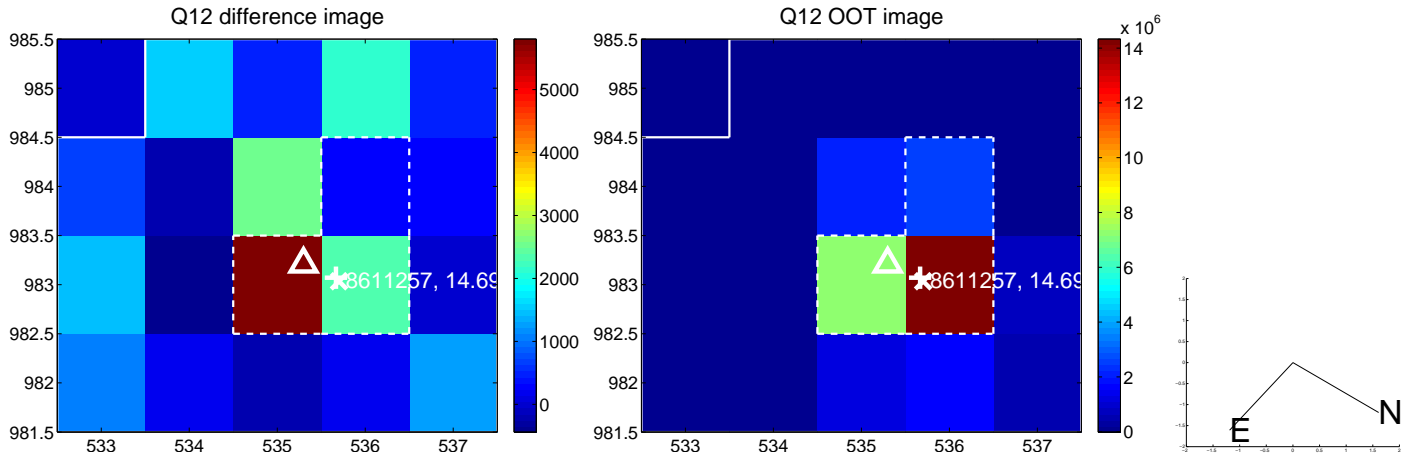
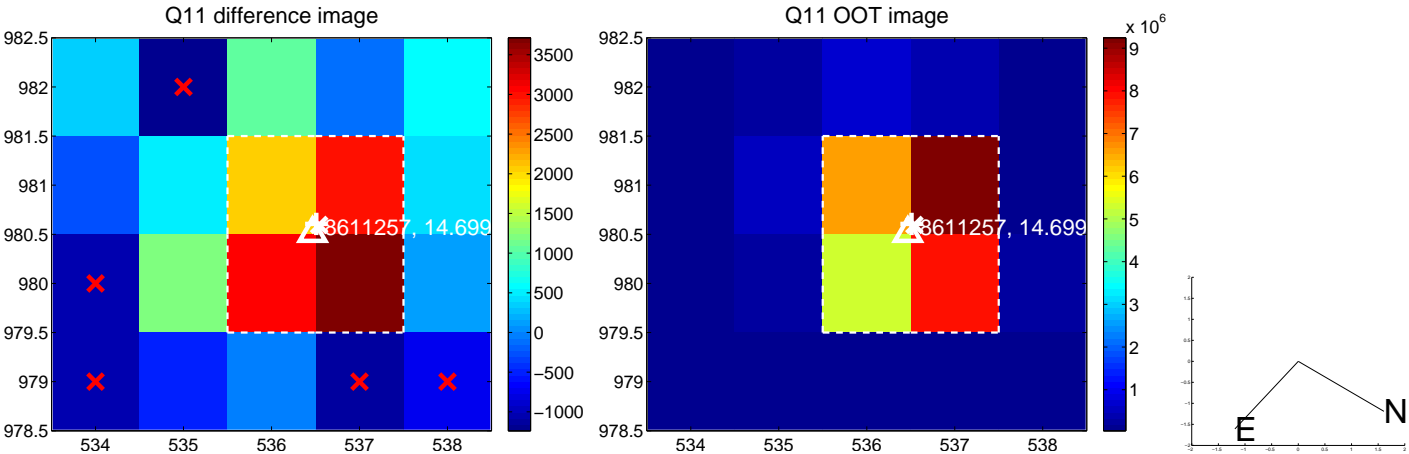
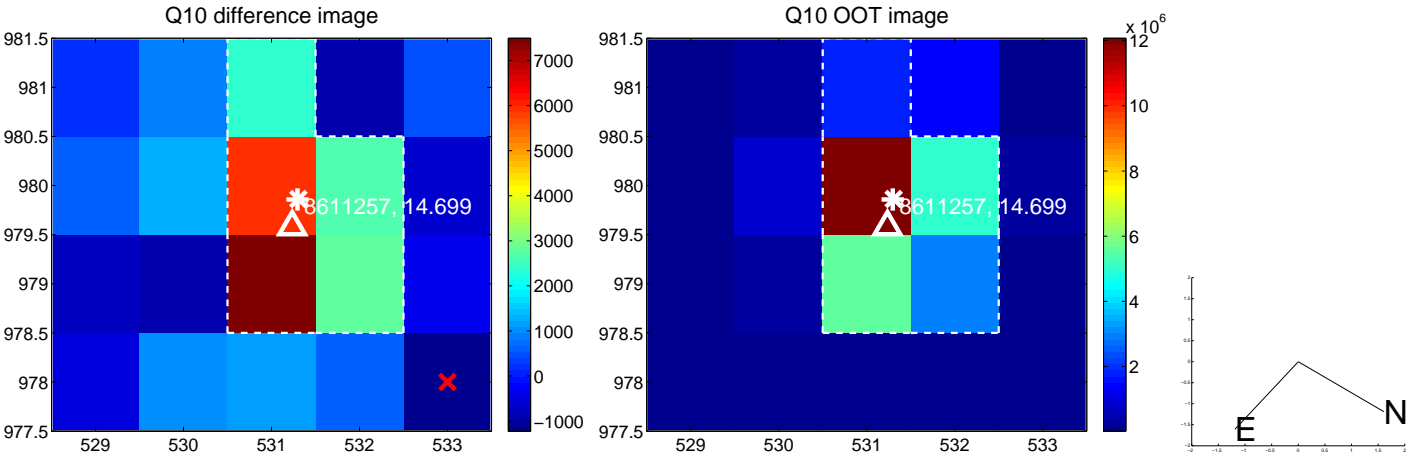
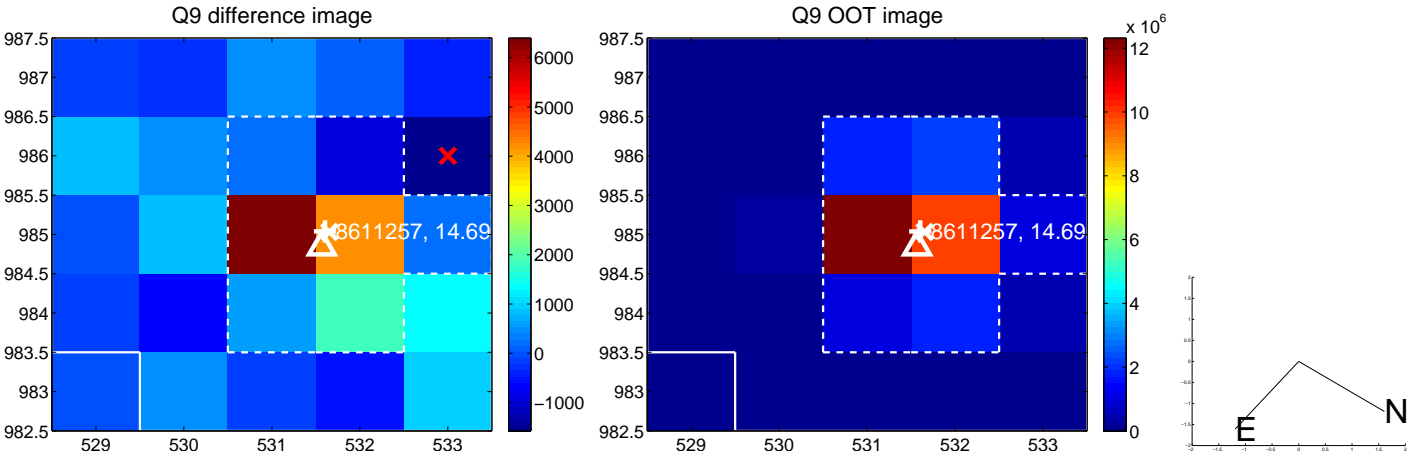
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



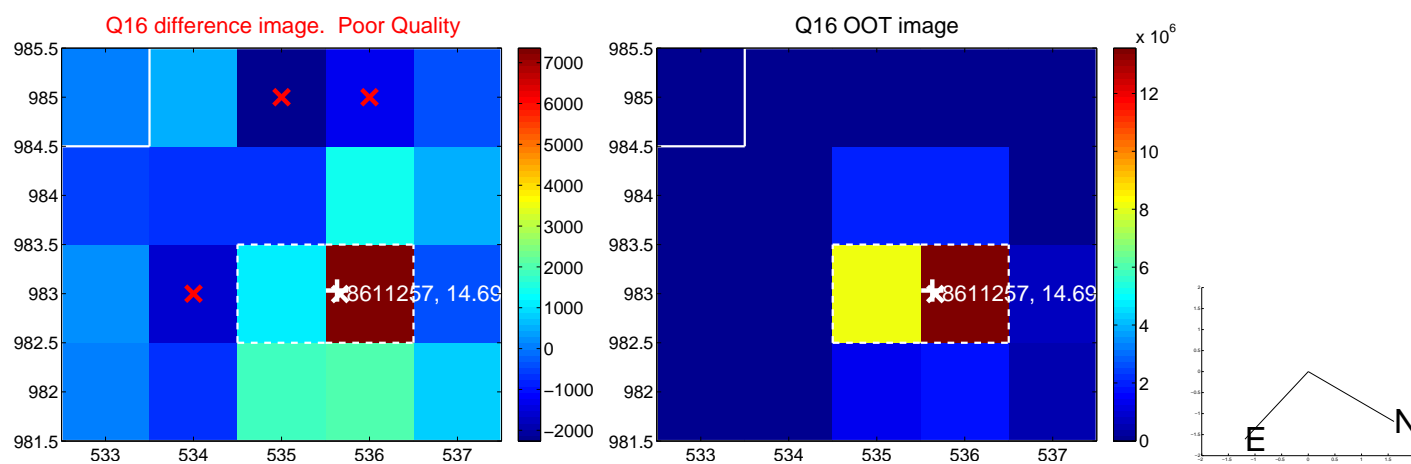
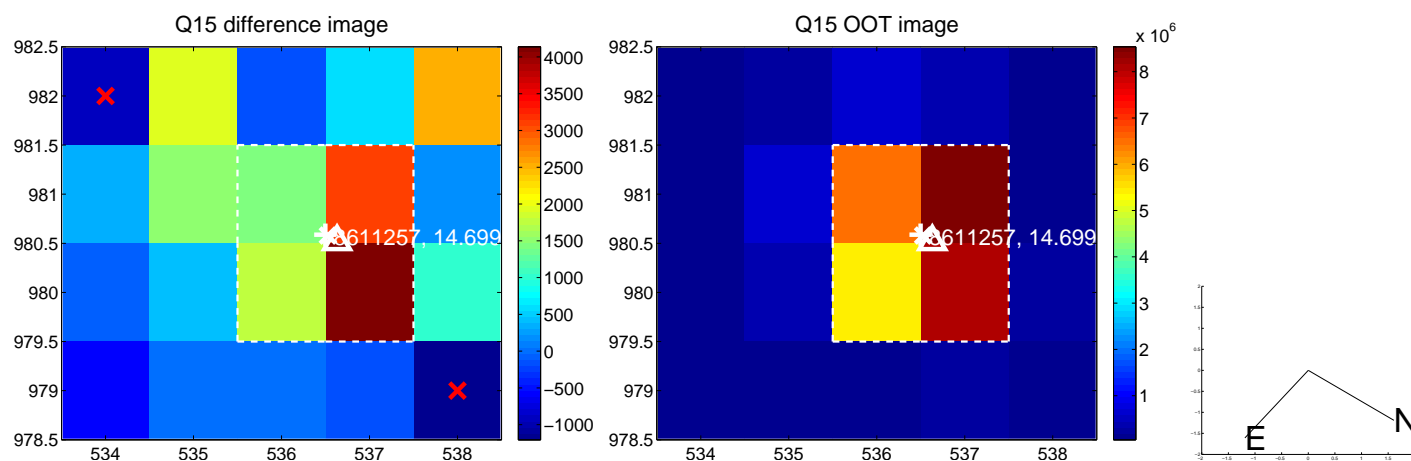
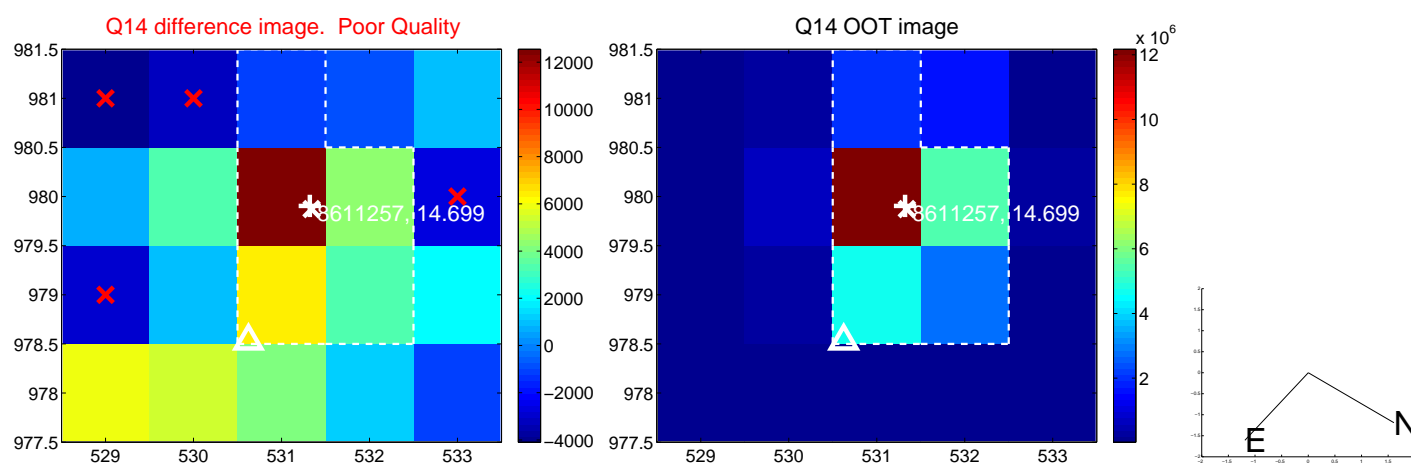
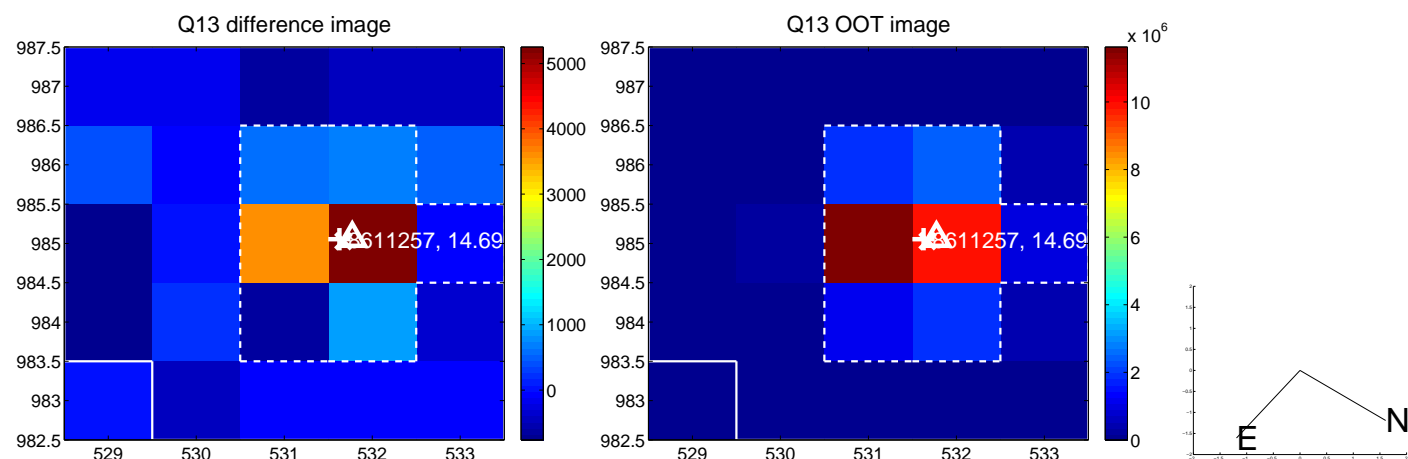
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



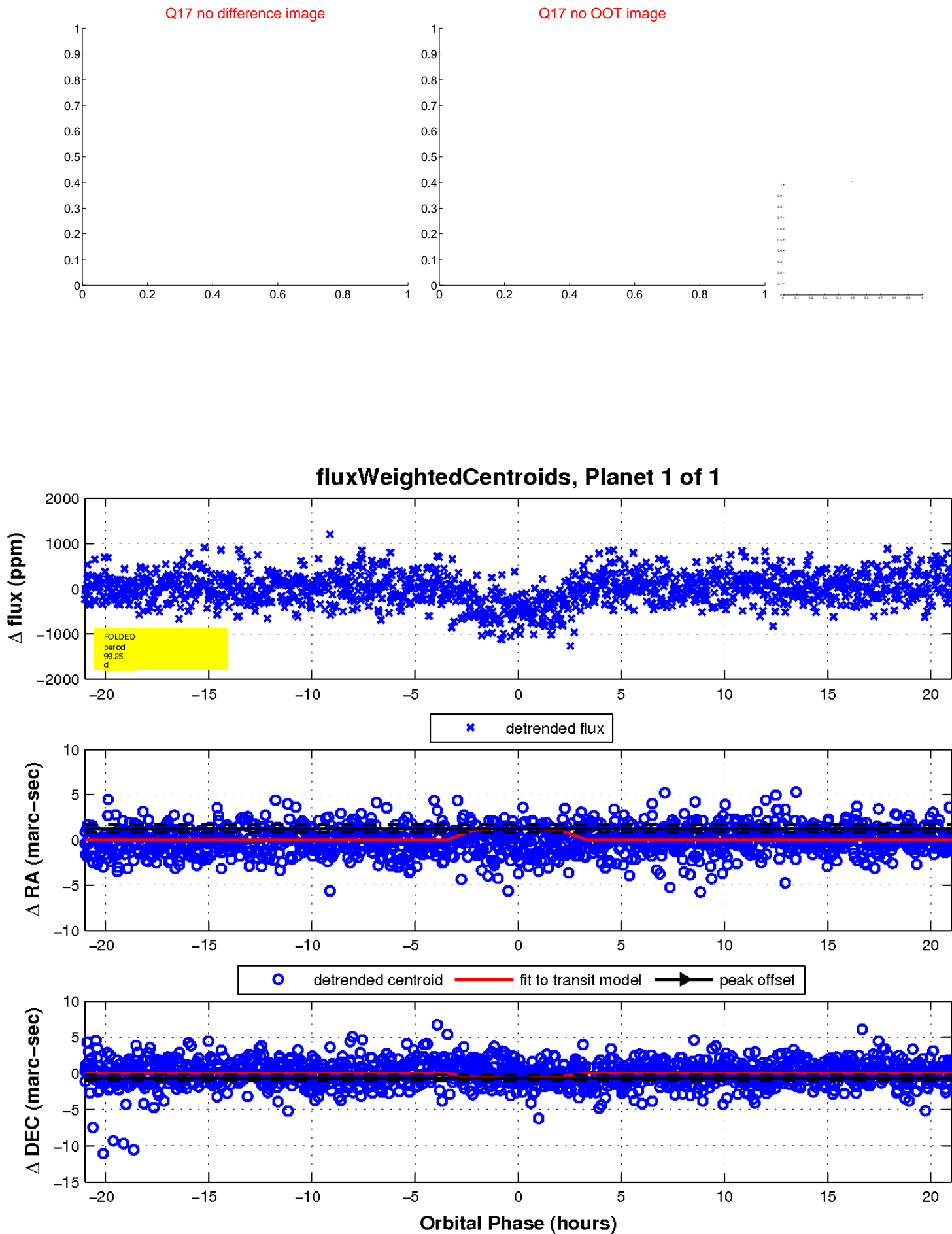
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

