

KIC 005026187

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})
005026187-01	OBS	6499.01	3.589700	134.523285	65.9	5.954	11.5	11.7	3.84	6564	6.34	7982.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005026187-01	OBS	FP	0.12	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT

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

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

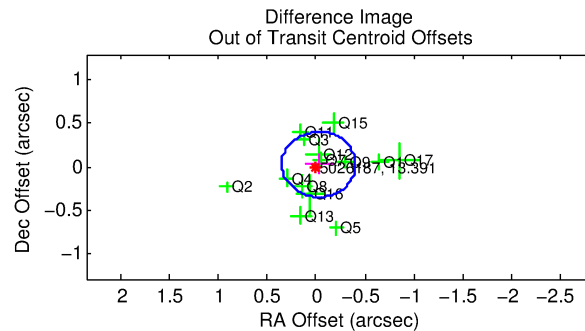
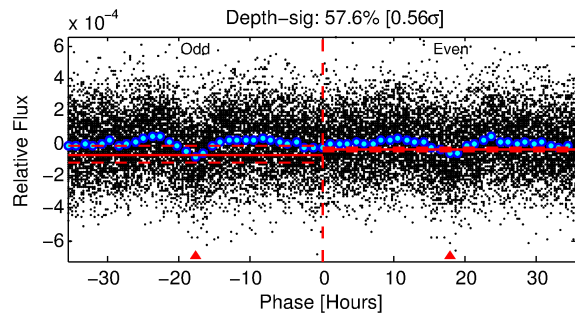
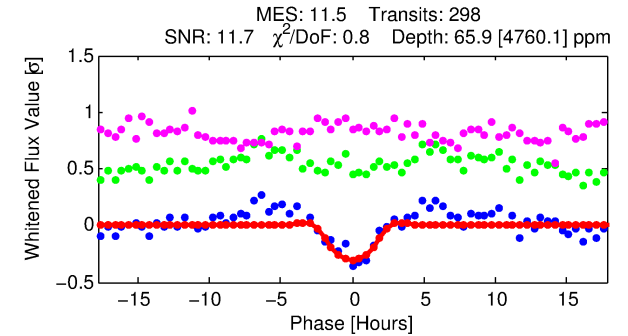
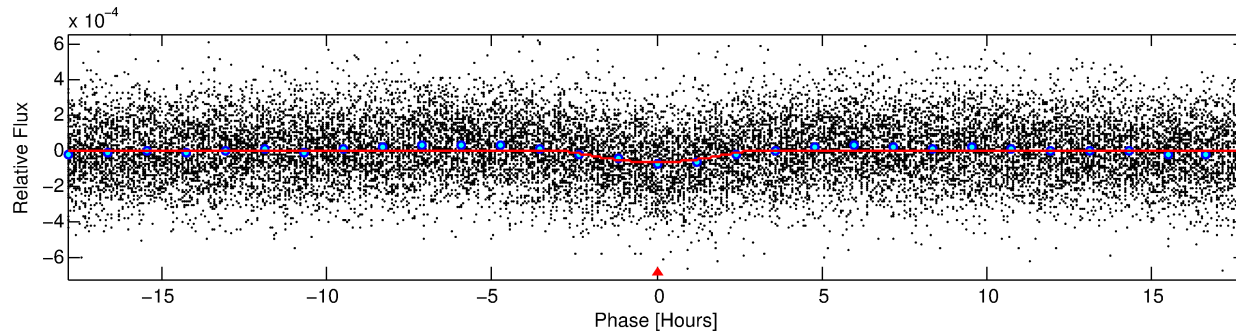
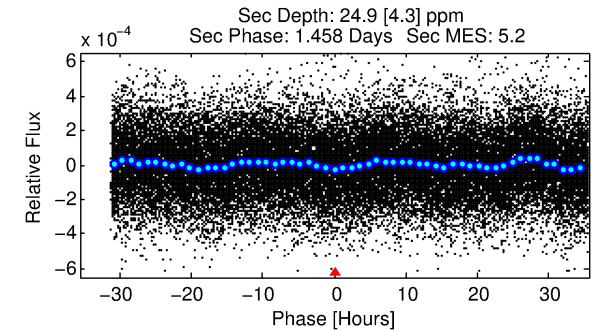
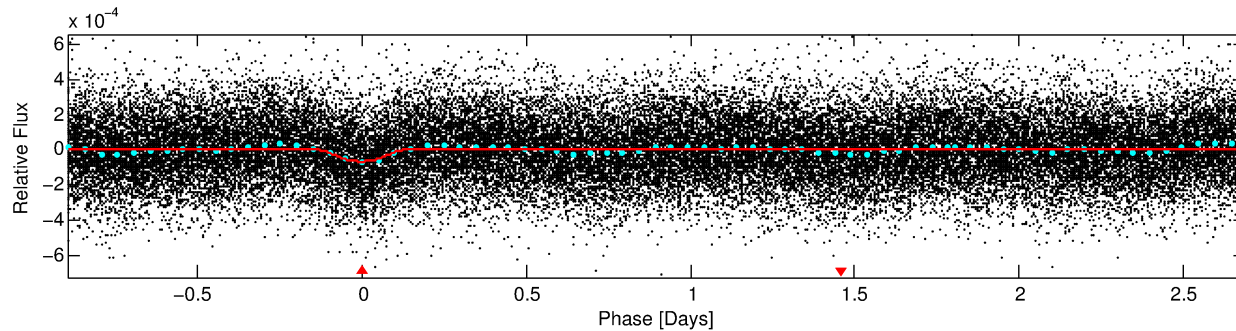
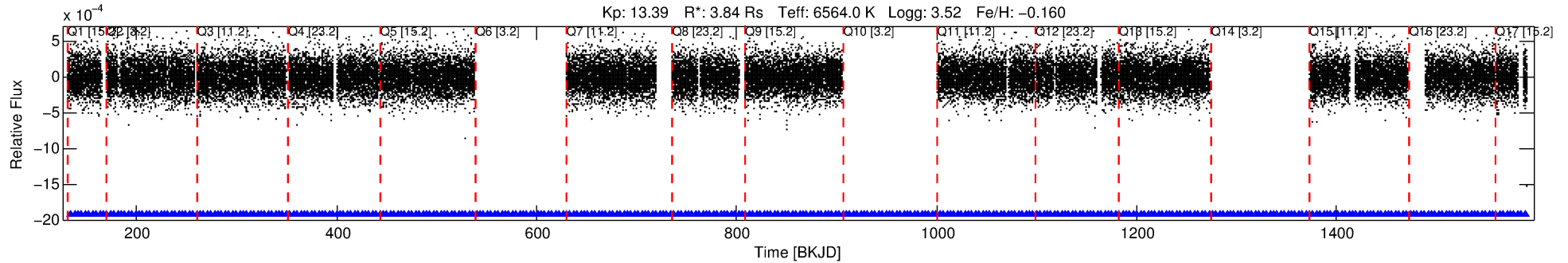
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005026187-01

No Significant Match Found

DV One-Page Summary

KIC: 5026187 Candidate: 1 of 1 Period: 3.590 d
KOI: K06499.01 Corr: 0.862



DV Fit Results:

Period = 3.58970 [0.00005] d
Epoch = 134.5233 [0.0098] BKJD
Rp/R* = 0.0151 [0.0387]
a/R* = 1.29 [0.33]
b = 1.00 [0.73]
Seff = 7982.75 [5050.05]
Teq = 2410 [381] K
Rp = 6.34 [16.40] Re
a = 0.0554 [0.0214] AU
Ag = 1.05 [5.40] [0.01σ]
Teffp = 3770 [4825] K [0.28σ]

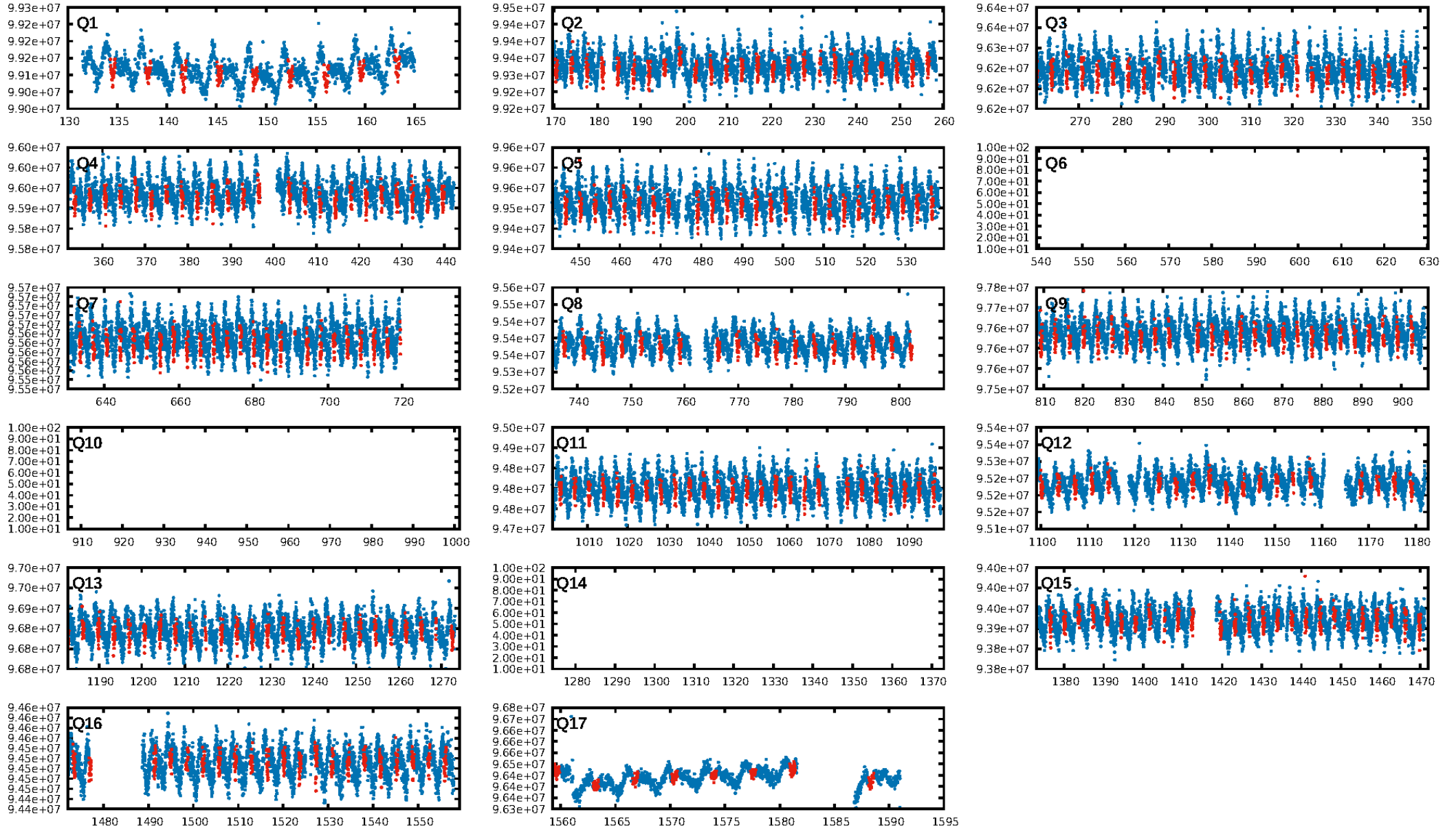
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.24e-26
RollingBand-fgt: 1.00 [281/281]
GhostDiagnostic-chr: 1.322
Centroid-sig: 44.3%
Centroid-so: 0.796 arcsec [1.06σ]
OotOffset-rm: 0.035 arcsec [0.28σ]
KicOffset-rm: 0.088 arcsec [0.72σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

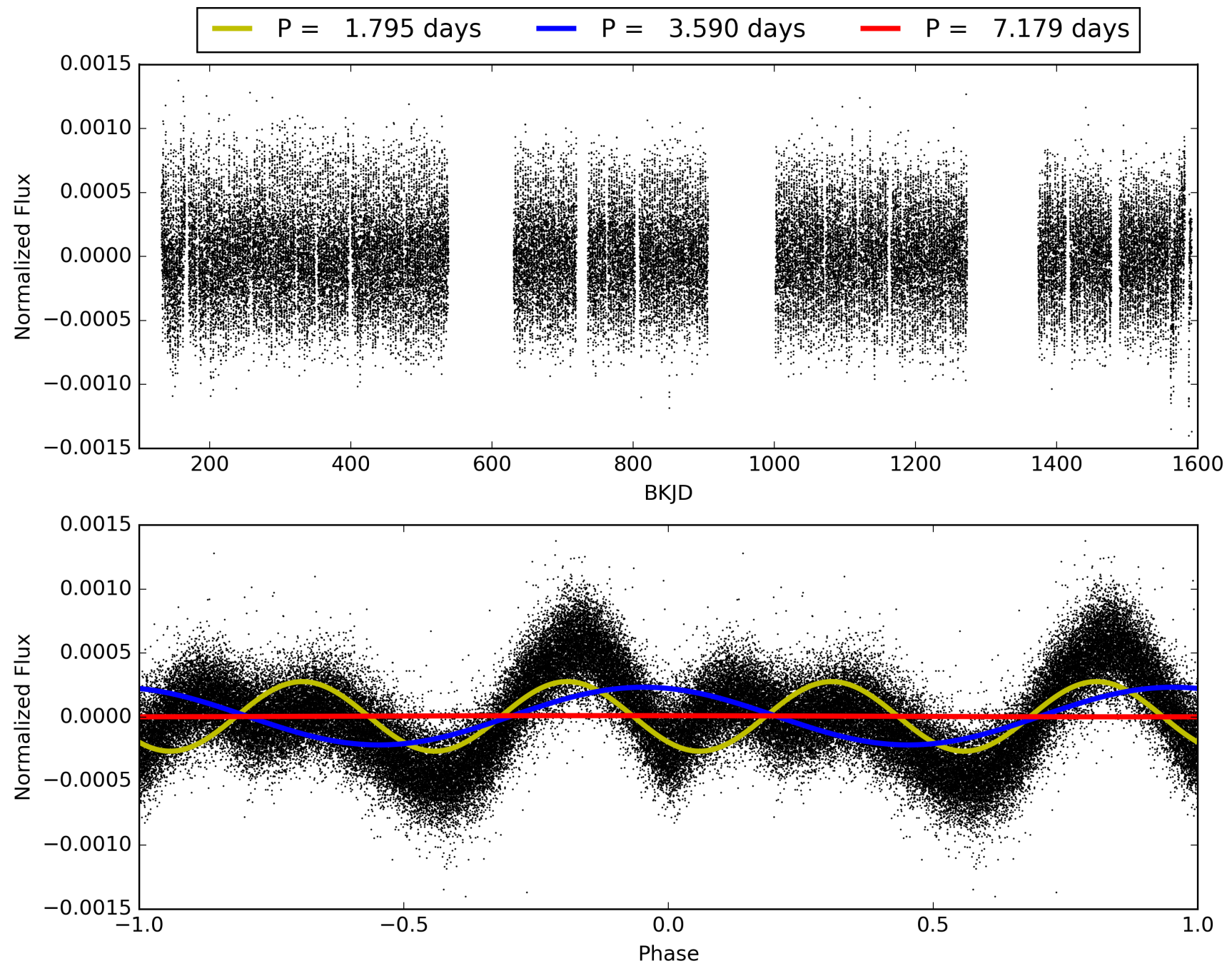
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:31:21 Z

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

TCE 005026187-01, PDC Light Curves

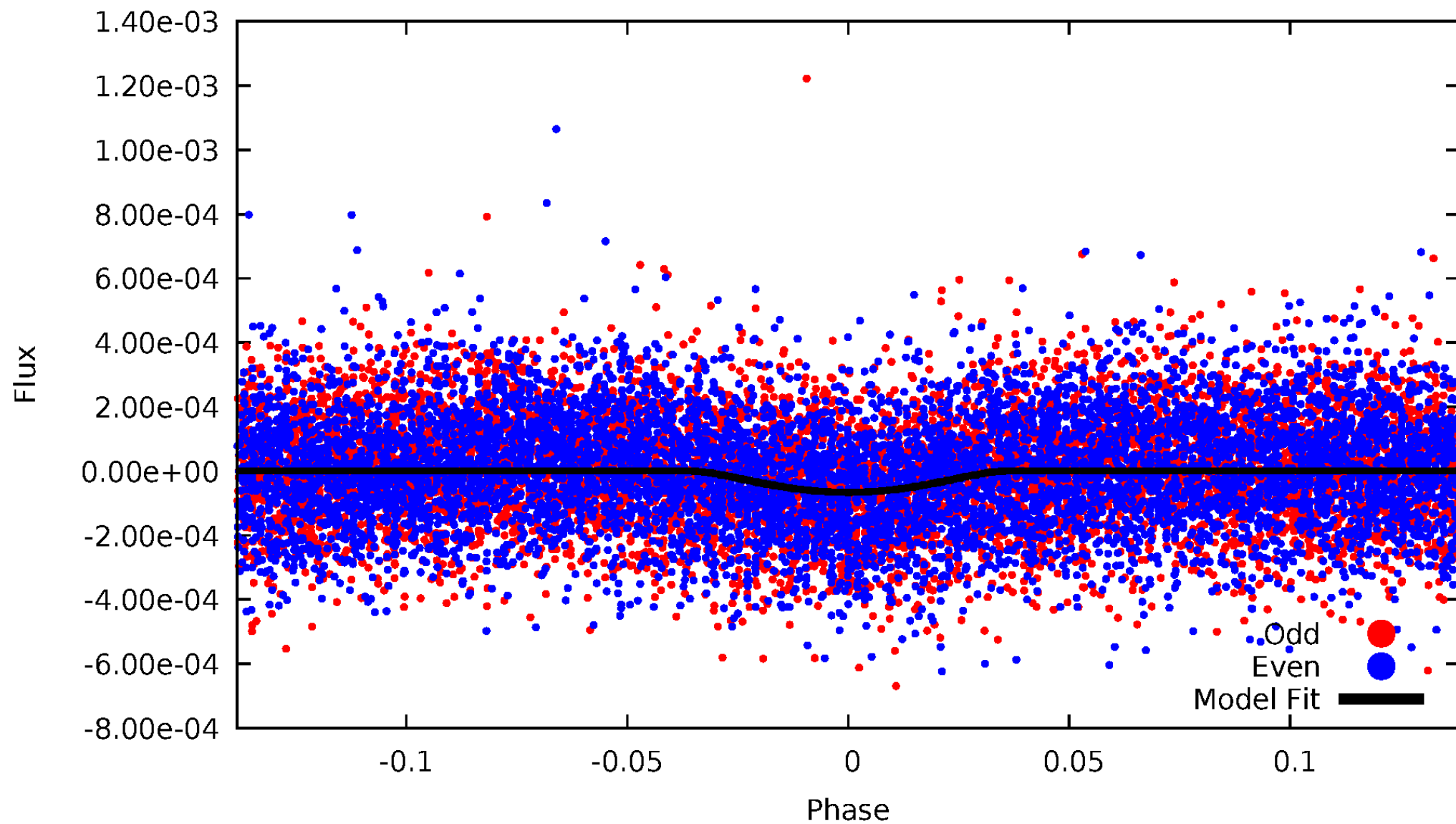


TCE 005026187-01



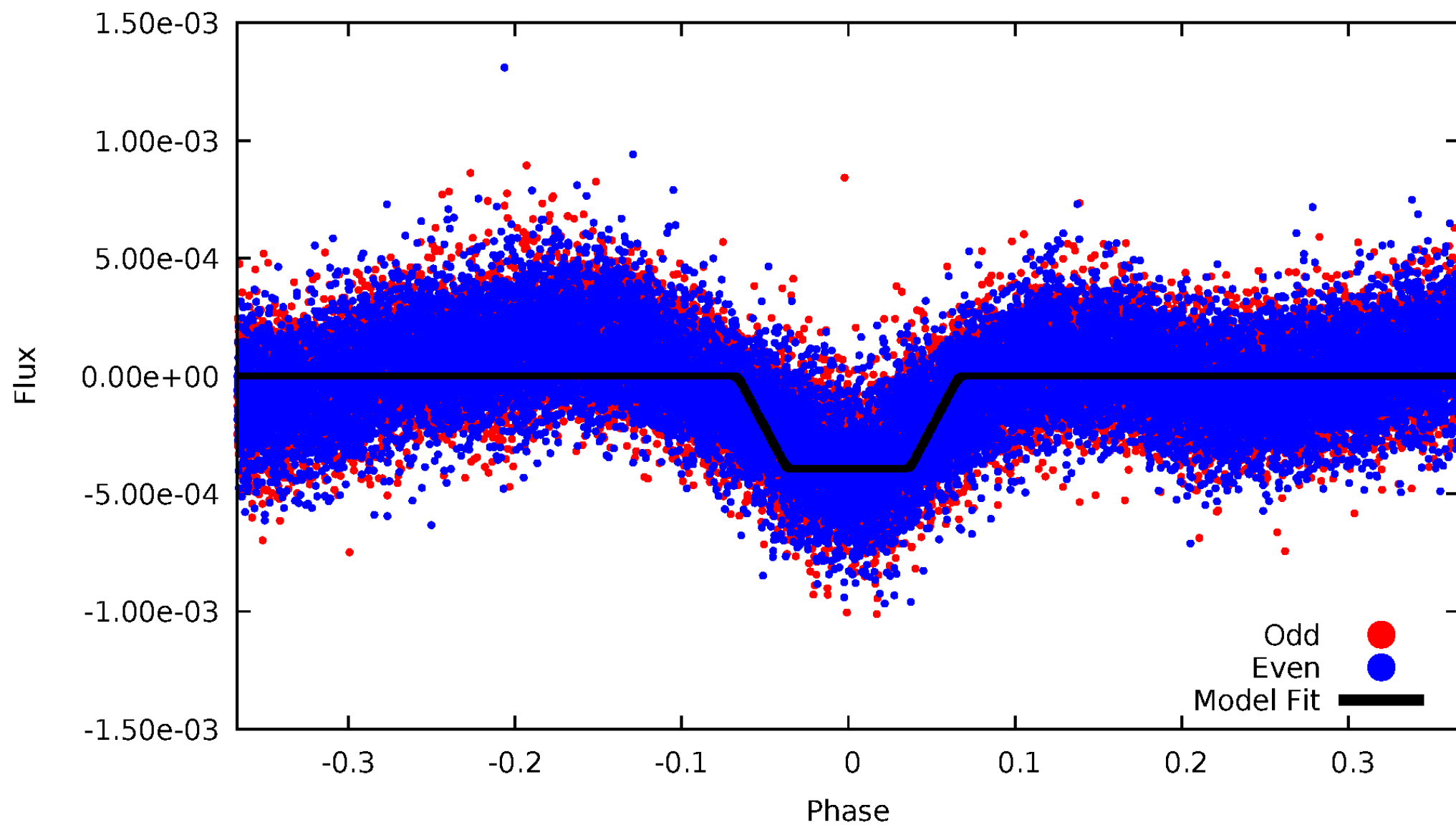
DV Odd/Even

TCE 005026187-01

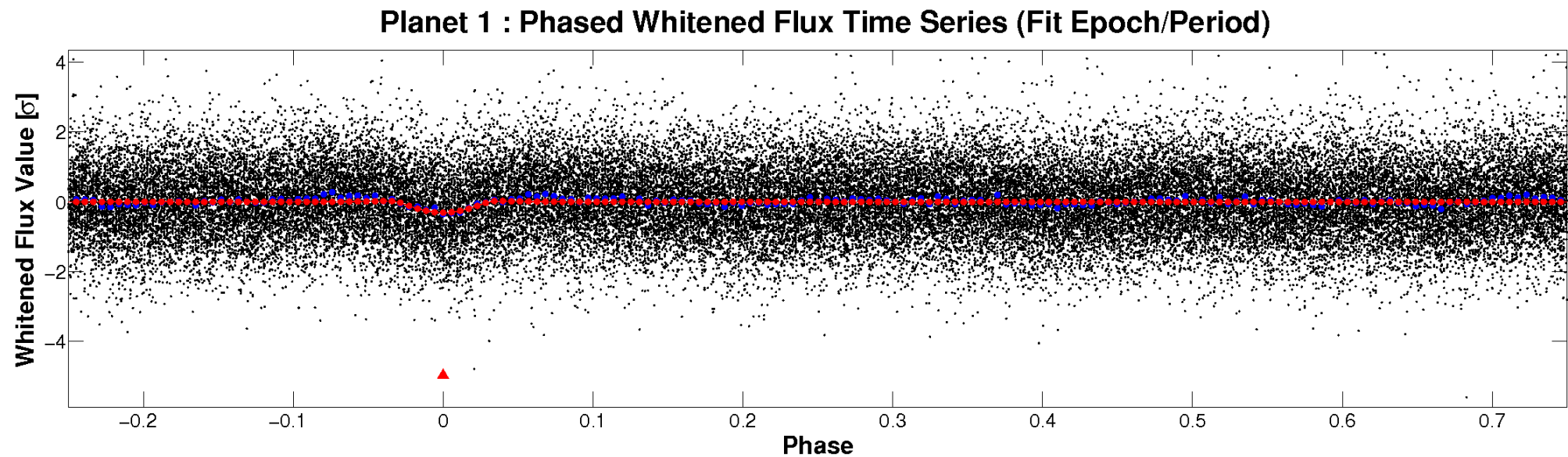
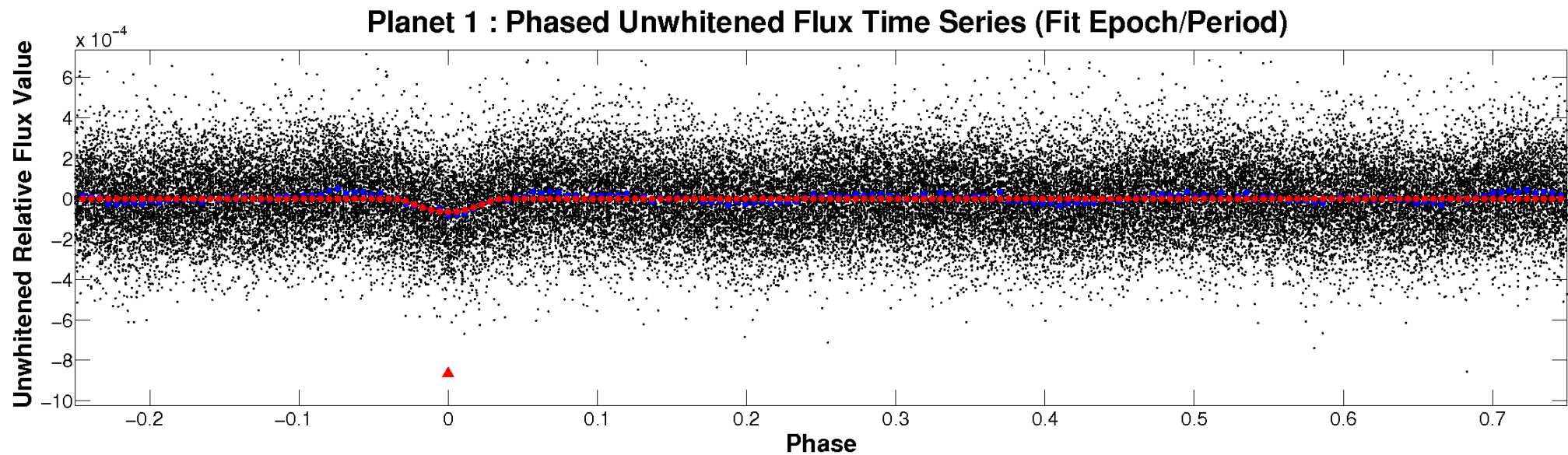


ALT Odd/Even

TCE 005026187-01

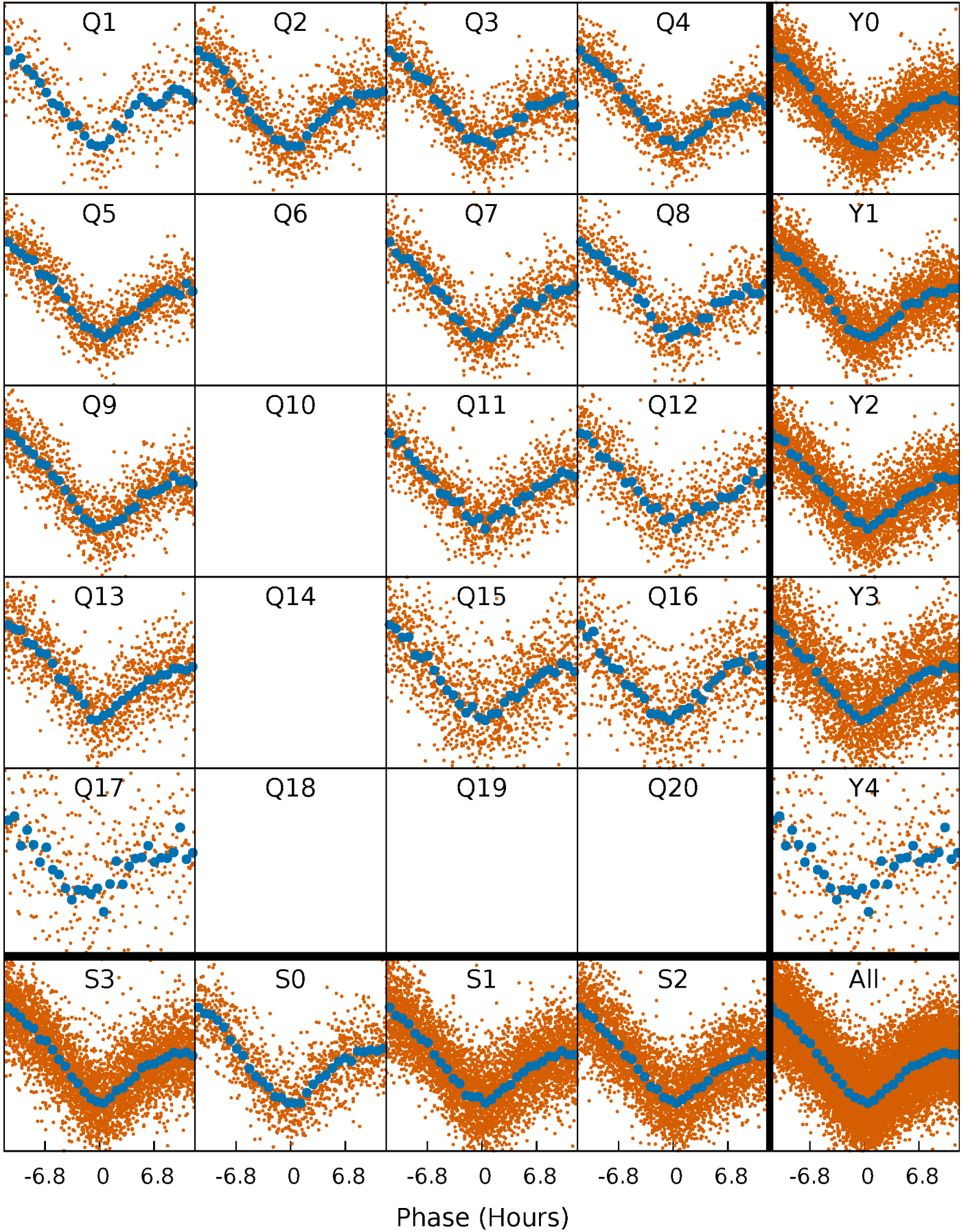


Non-Whitened Vs. Whitened Light Curve



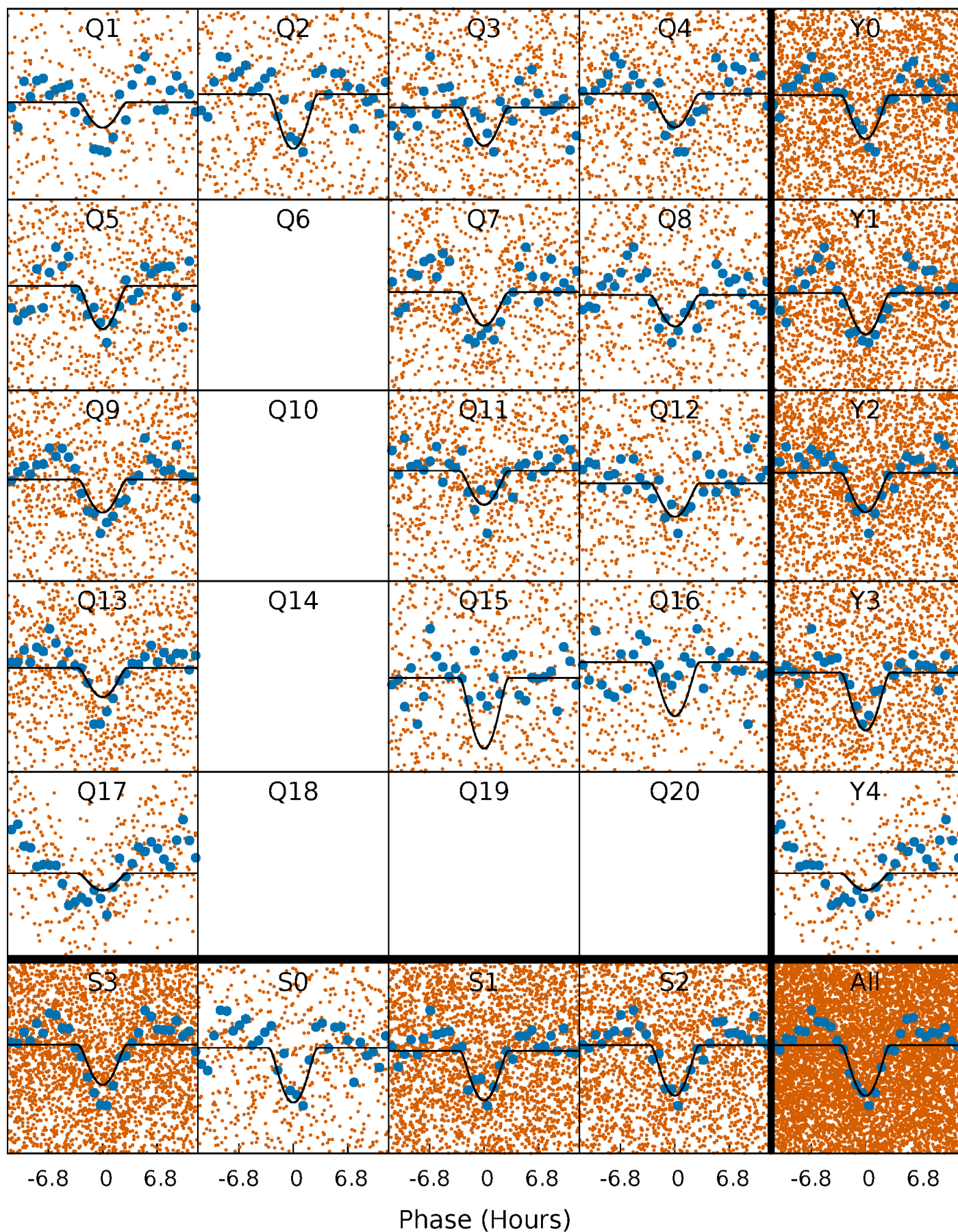
PDC Quarter-Phased Transit Curves

TCE 005026187-01 P= 3.589700 Days $T_0=134.523284$ (BKJD)



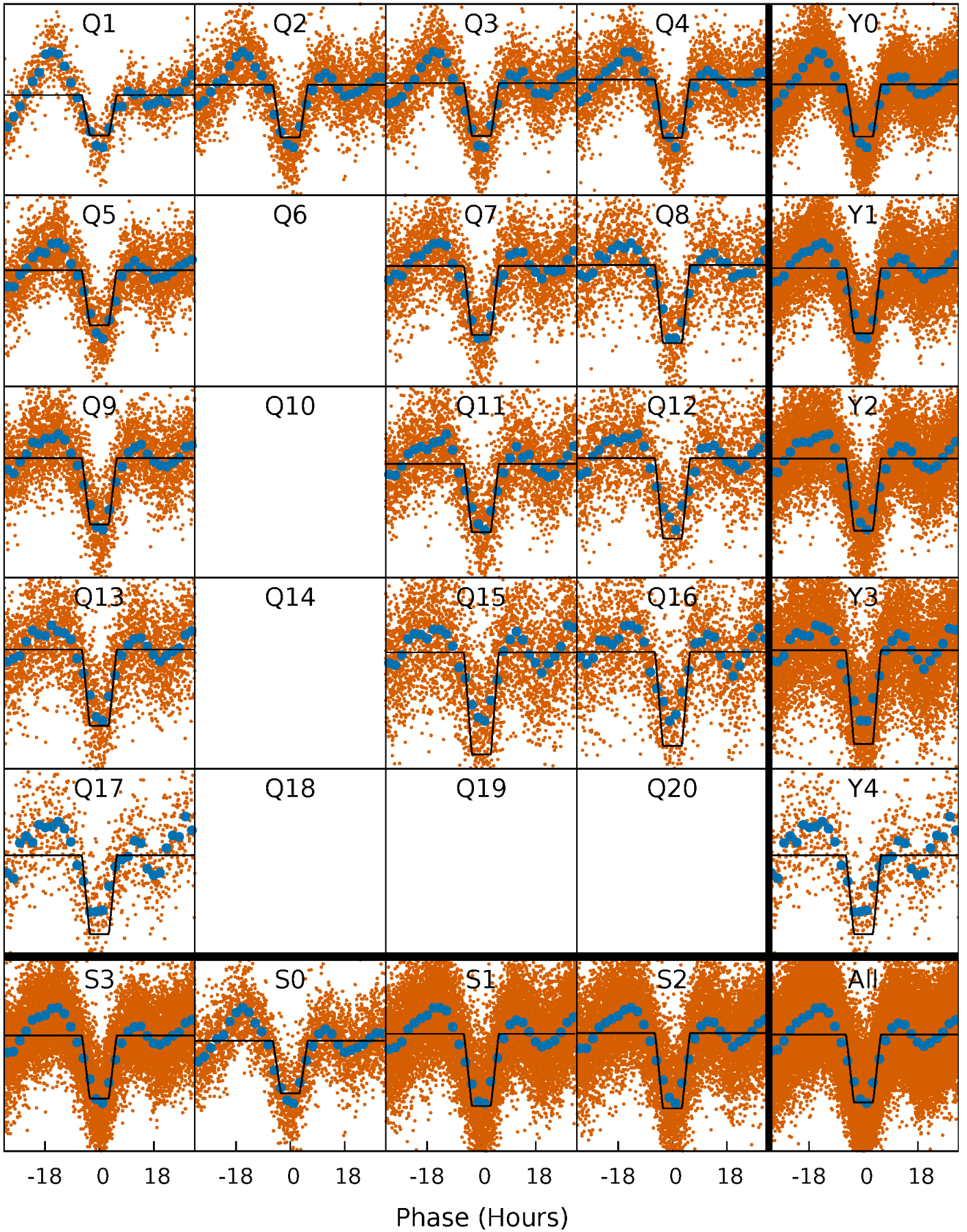
DV Quarter-Phased Transit Curves

TCE 005026187-01 P= 3.589700 Days $T_0=134.523284$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

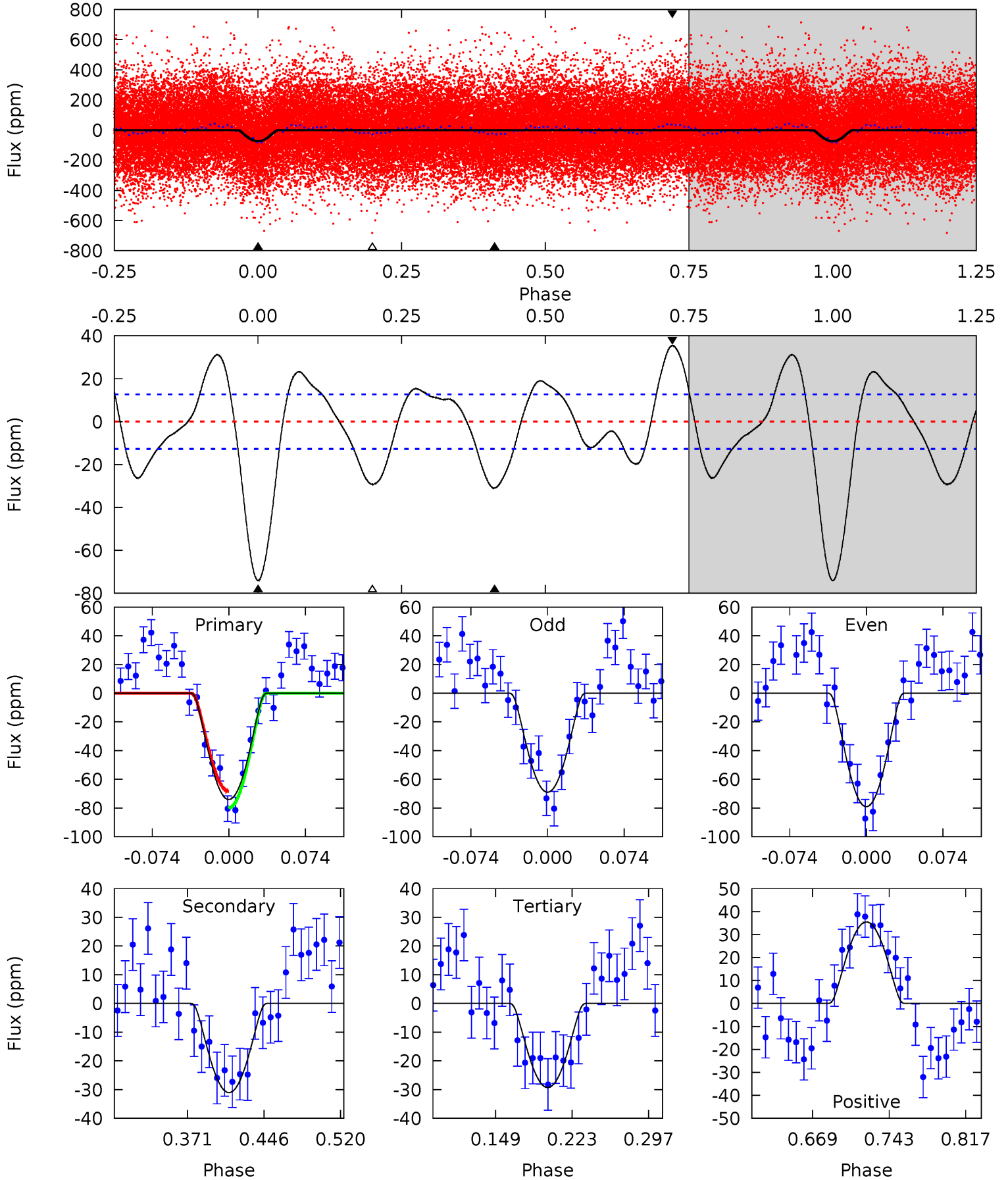
TCE 005026187-01 P= 3.589685 Days $T_0=134.500559$ (BKJD)



DV Model-Shift Uniqueness Test

005026187-01, P = 3.589700 Days, E = 130.933584 Days

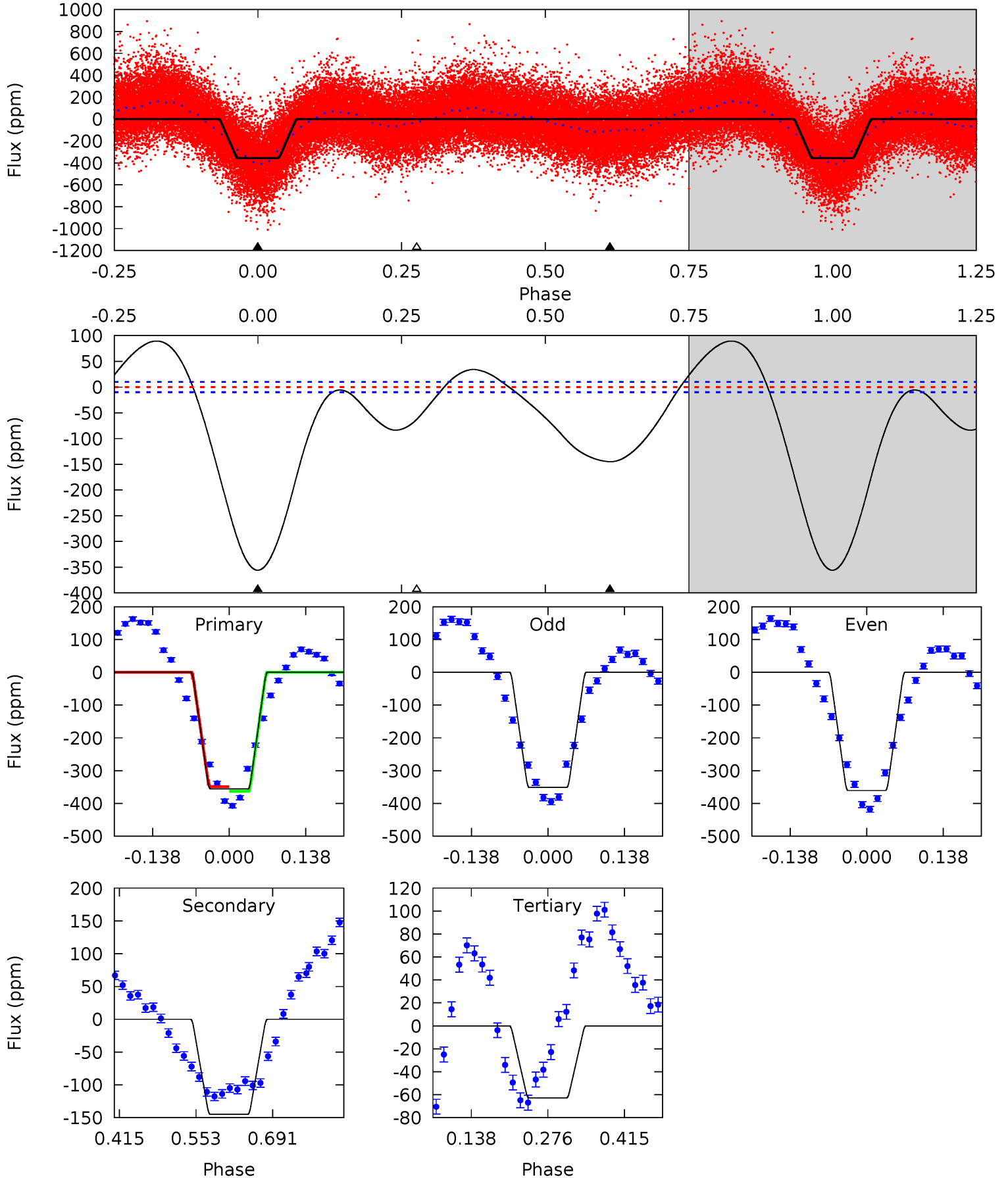
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.0	11.3	10.7	12.9	4.63	1.78	5.93	16.3	14.1	0.64	-1.61	1.83	0.83	0.32	2.09



Alt Model-Shift Uniqueness Test

005026187-01, P = 3.589685 Days, E = 130.910874 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
160.6	65.4	28.3	0	4.50	1.48	23.5	132.3	160.6	37.1	65.4	2.11	1.00	0.20	3.13



Stellar Parameters For KIC 005026187

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6564^{+179}_{-179}	$3.515^{+0.368}_{-0.092}$	$-0.160^{+0.350}_{-0.250}$	$3.837^{+0.379}_{-1.514}$	$1.757^{+0.172}_{-0.402}$	$0.044^{+0.133}_{-0.012}$
	+3%/-3%	+10%/-3%	+219%/-156%	+10%/-39%	+10%/-23%	+303%/-28%
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 005026187-01 / KOI 6499.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-31 ± 3	$12.61^{+12.51}_{-8.98}$	3299^{+185}_{-325}	2361^{+2597}_{-5492}	$0.333^{+3.552}_{-0.249}$
Alt.	-145 ± 2	$14.14^{+14.06}_{-9.39}$	3342^{+159}_{-316}	3868^{+2480}_{-1660}	$1.229^{+8.701}_{-0.915}$

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

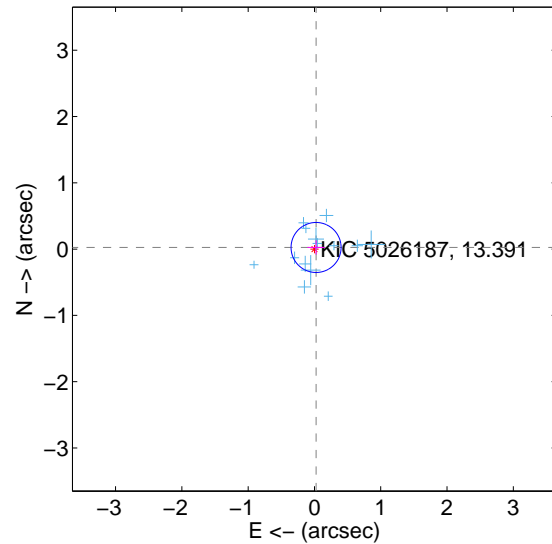
Supplemental centroid analysis for 005026187-01. Kepler magnitude: 13.39. Transit SNR 11.71

There are 14 quarters with good PRF difference image offsets

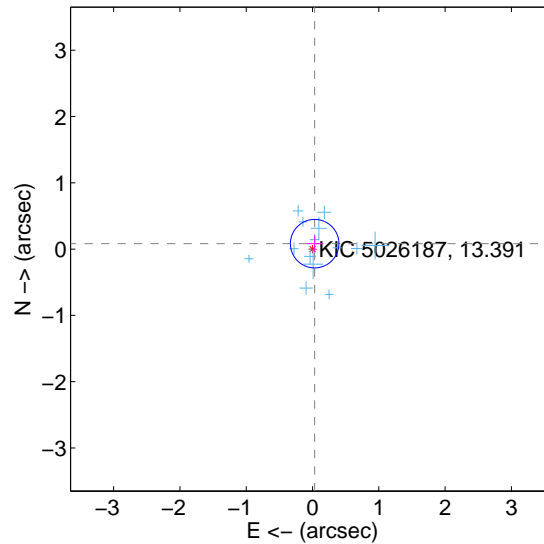
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.035 ± 0.126	0.28	-0.025 ± 0.130	0.024 ± 0.108
PRF-fit source offset from KIC position	0.088 ± 0.122	0.72	-0.032 ± 0.119	0.082 ± 0.122
photometric centroid source offset	0.80 ± 0.75	1.06	-0.76 ± 0.76	-0.24 ± 0.68

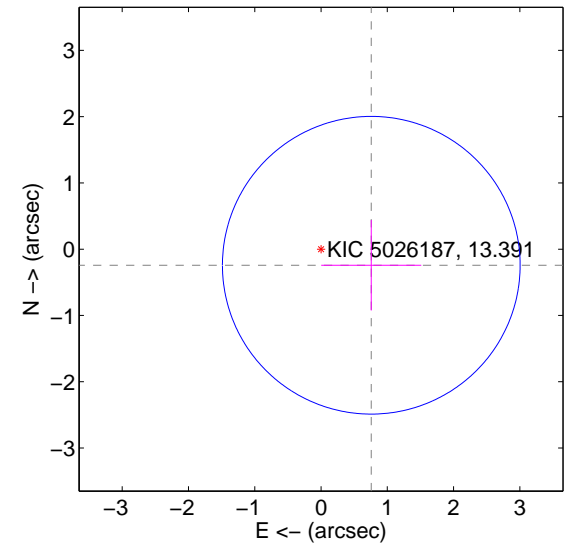
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

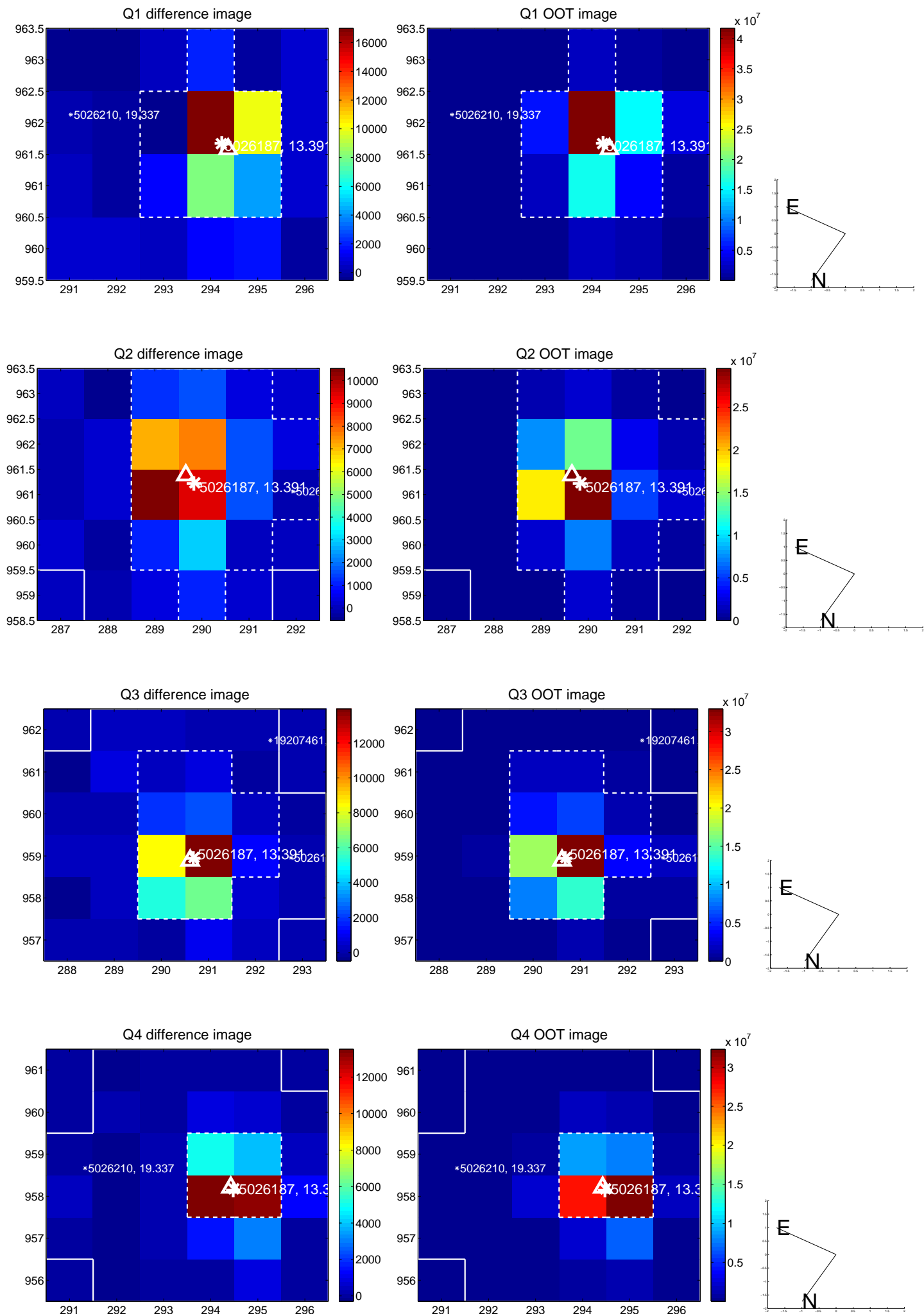


offset from photometric centroids

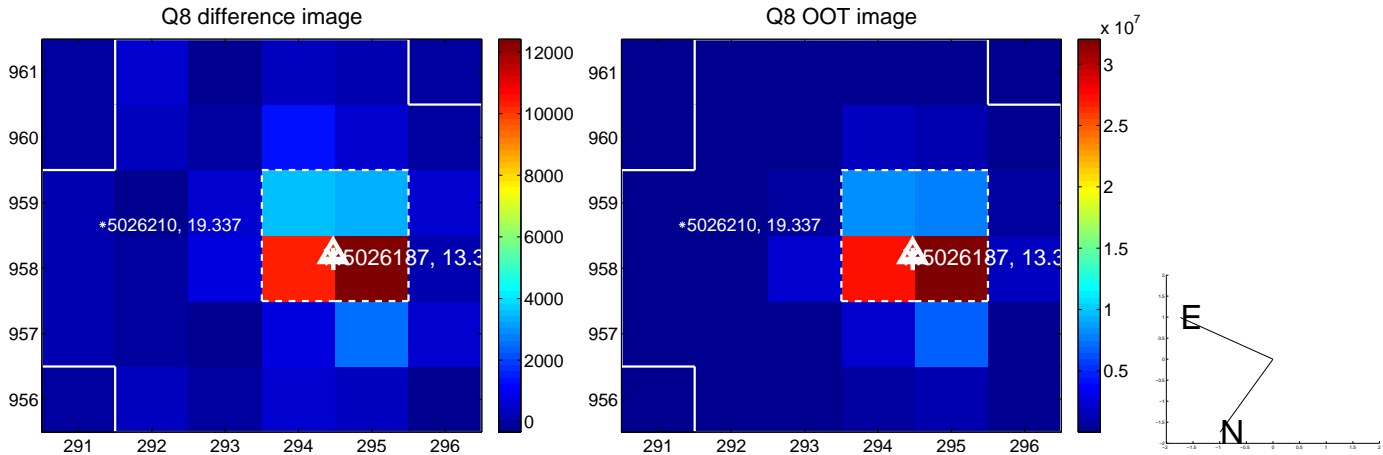
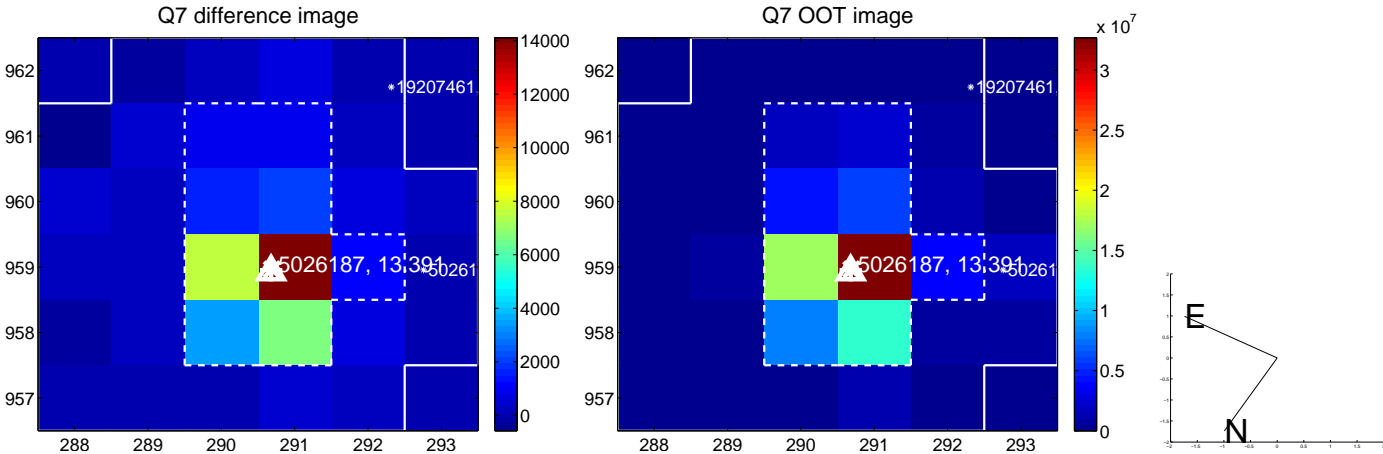
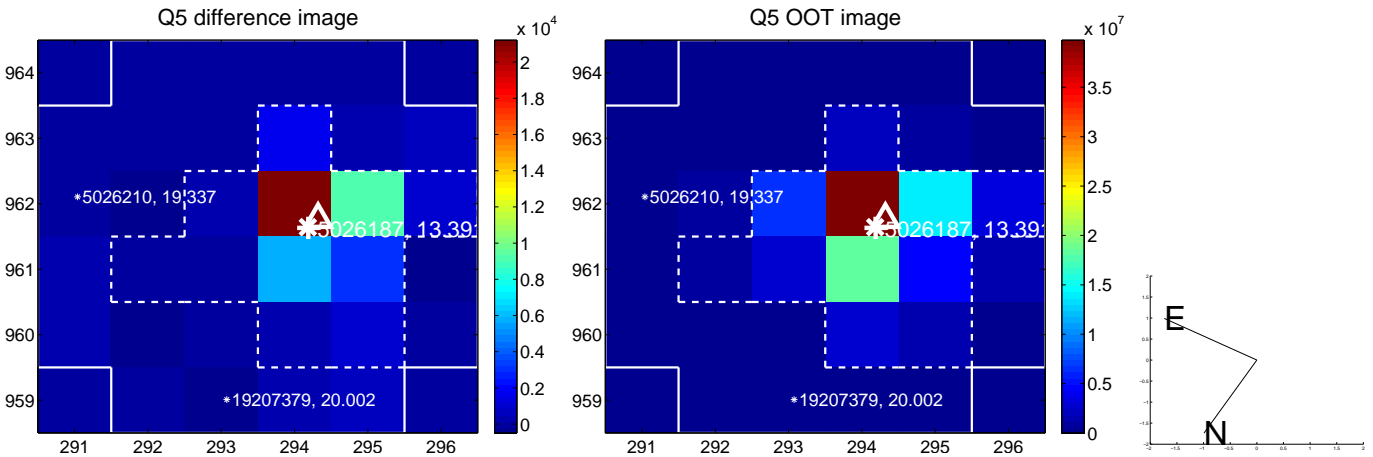


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

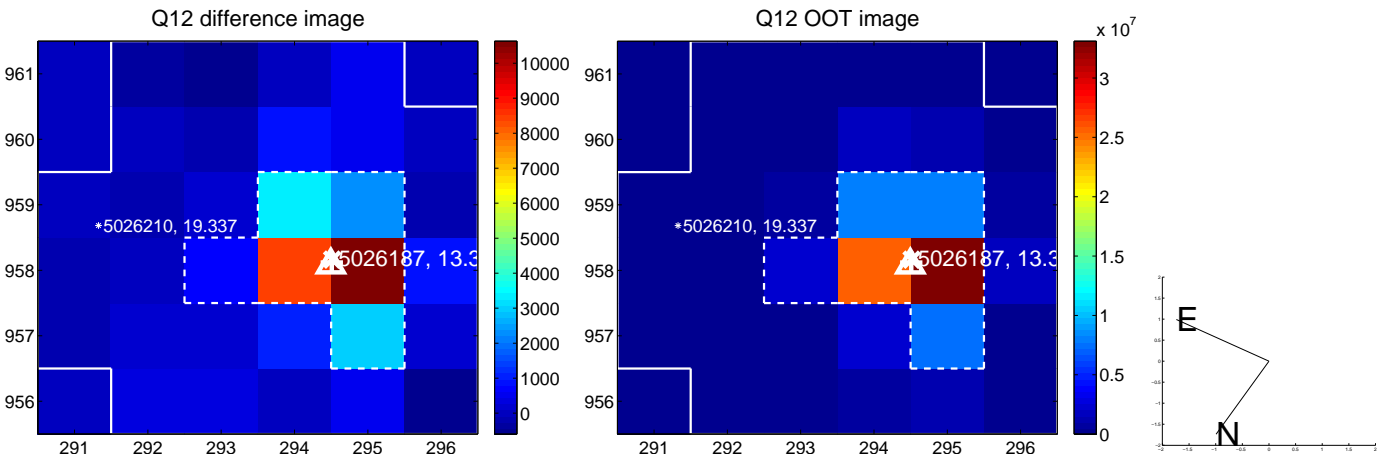
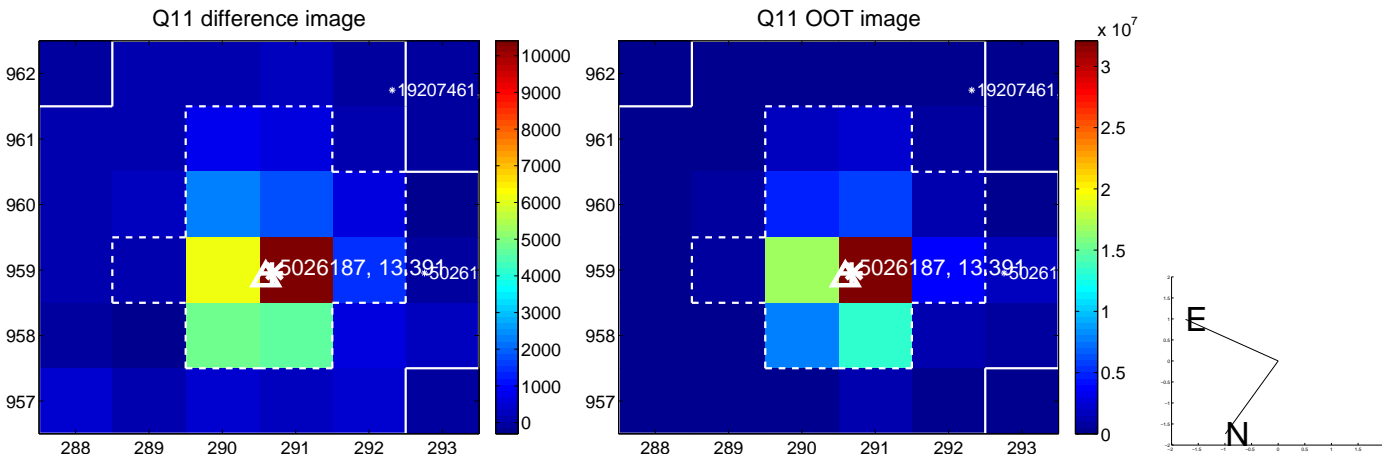
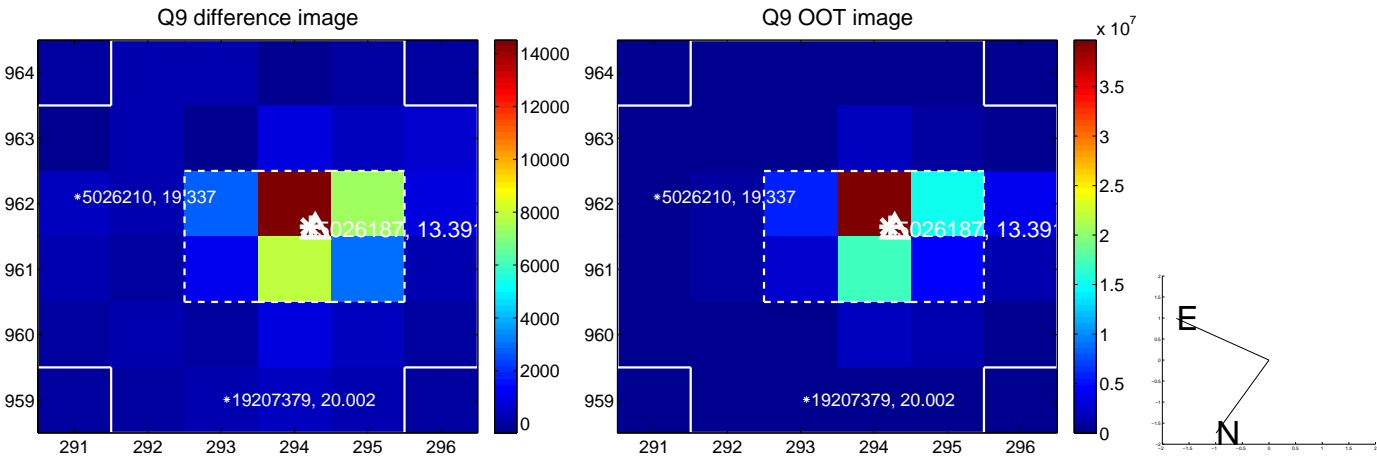
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



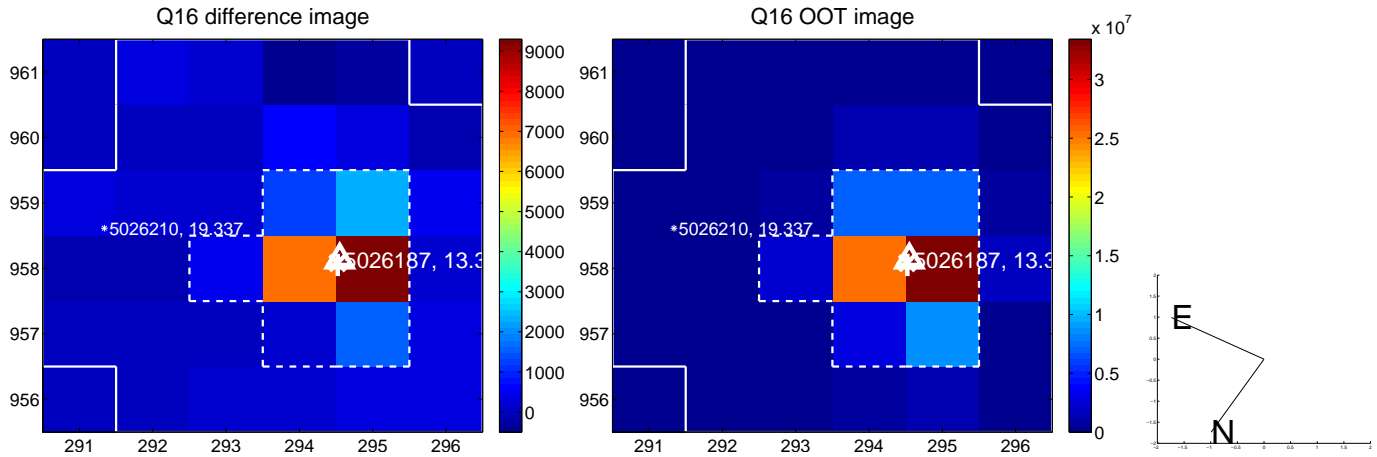
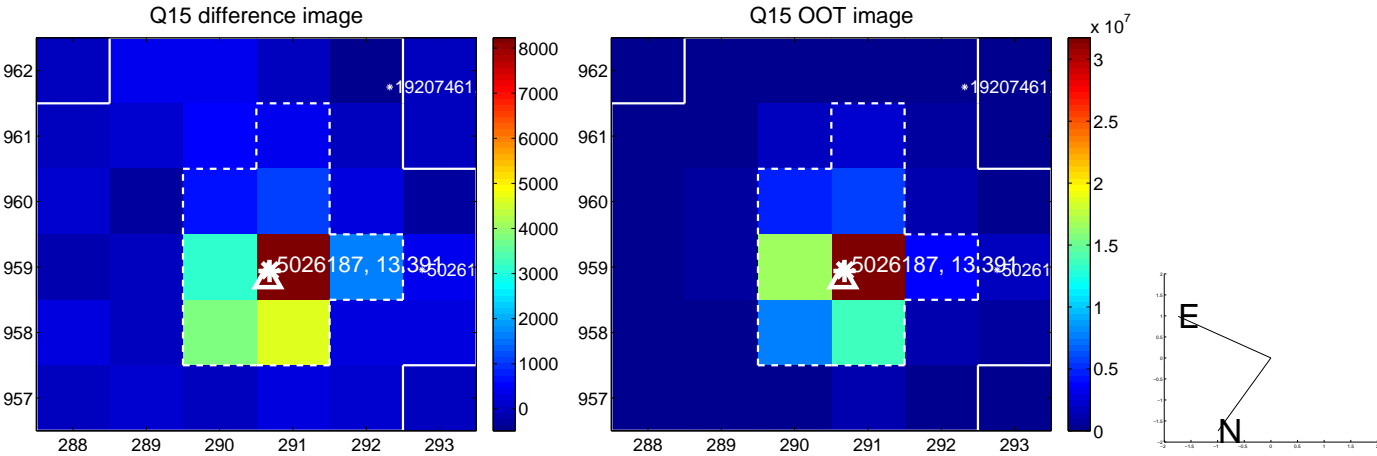
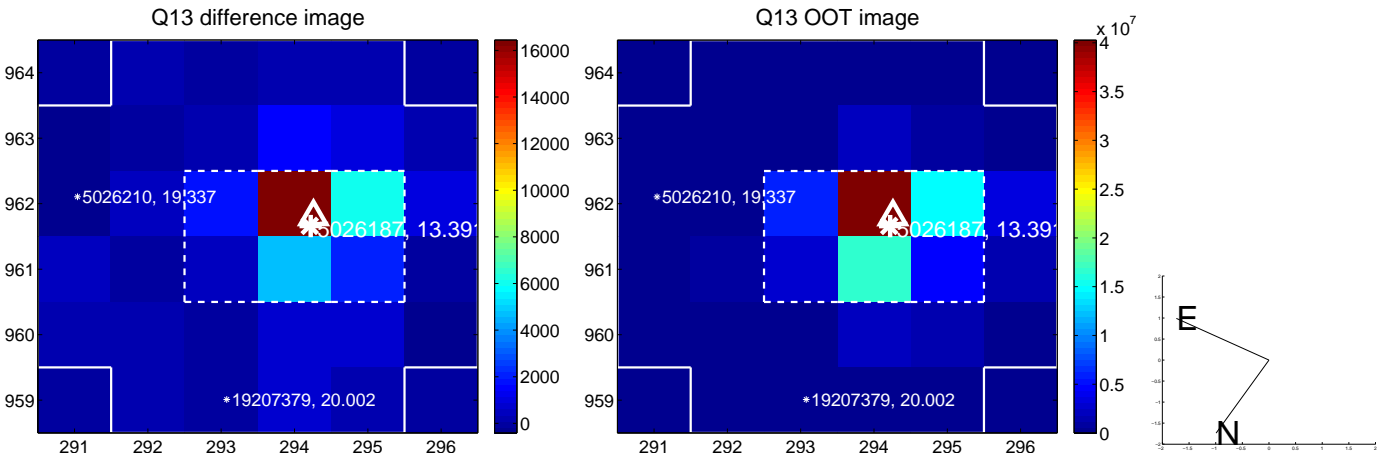
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

