

KIC 005288019

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})
005288019-01	OBS	No	179.175763	220.521710	59.7	3.709	9.8	2.4	39.34	3991	38.23	718.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005288019-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

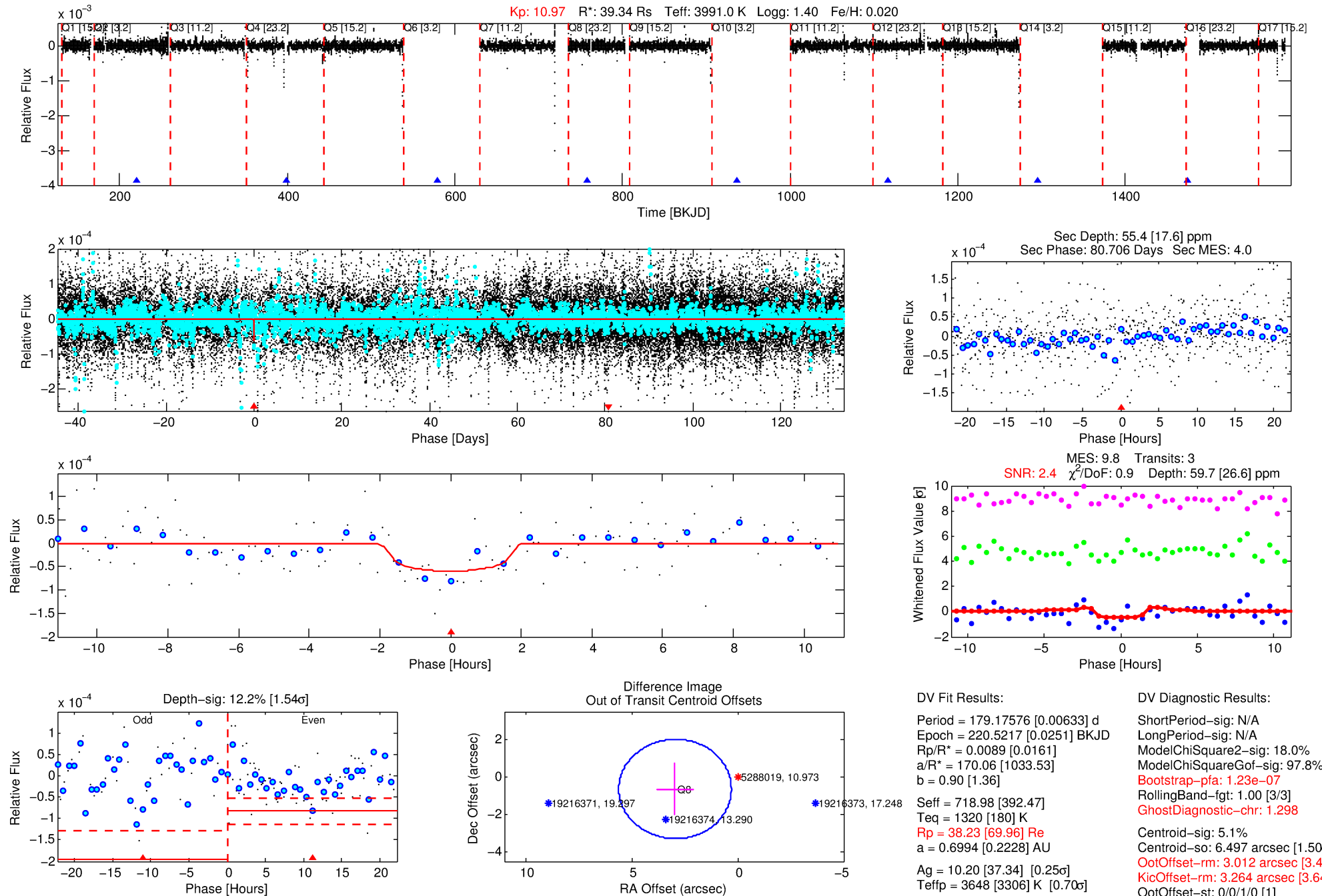
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005288019-01

No Significant Match Found

DV One-Page Summary

KIC: 5288019 Candidate: 1 of 1 Period: 179.176 d



DV Fit Results:

Period = 179.17576 [0.00633] d
Epoch = 220.5217 [0.0251] BKJD
Rp/R* = 0.0089 [0.0161]
a/R* = 170.06 [1033.53]
b = 0.90 [1.36]
Seff = 718.98 [392.47]
Teq = 1320 [180] K
Rp = 38.23 [69.96] Re
a = 0.6994 [0.2228] AU
Ag = 10.20 [37.34] [0.25 σ]
Teffp = 3648 [3306] K [0.70 σ]

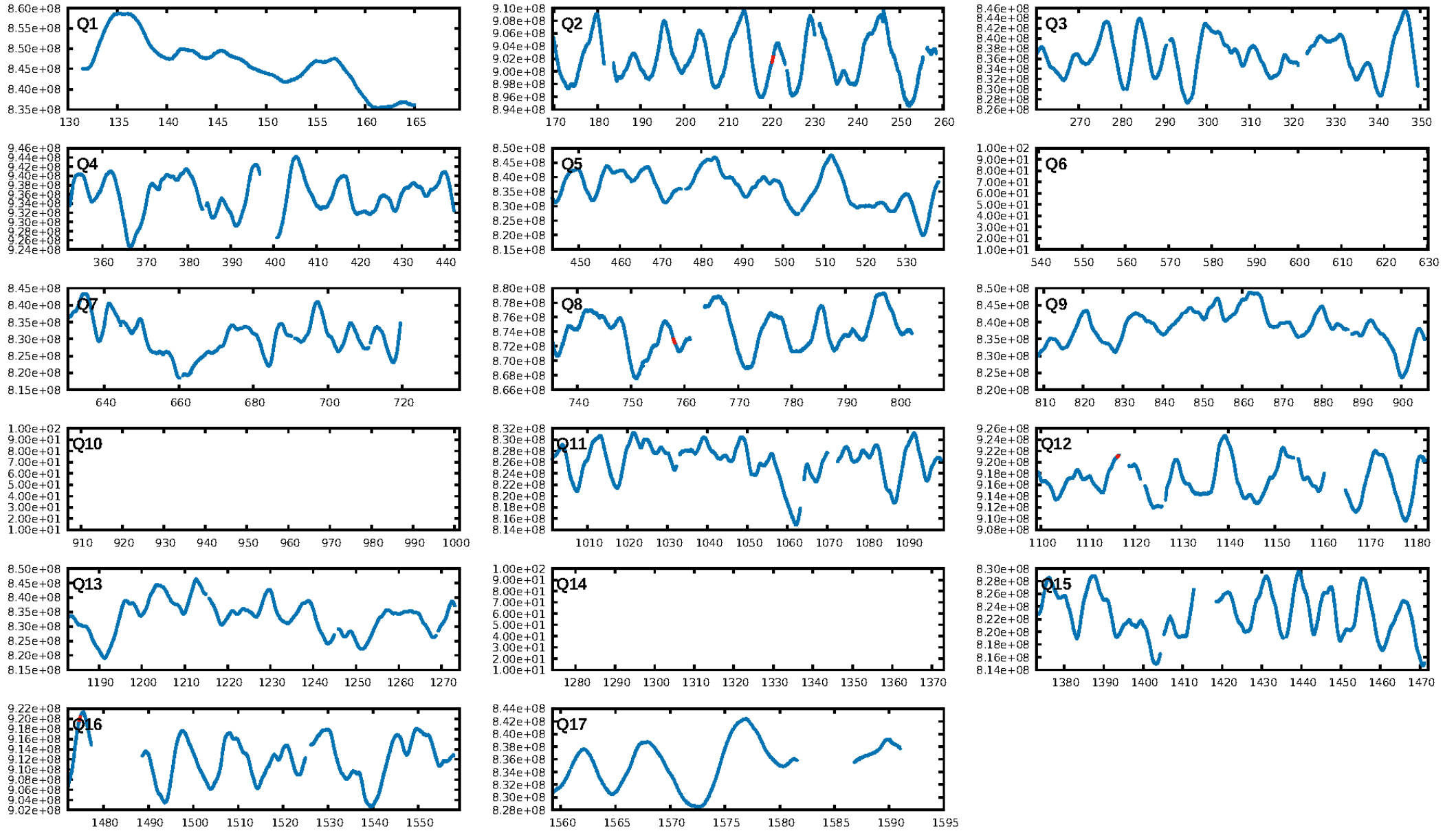
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 18.0%
ModelChiSquareGof-sig: 97.8%
Bootstrap-pfa: 1.23e-07
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.298
Centroid-sig: 5.1%
Centroid-so: 6.497 arcsec [1.50 σ]
OotOffset-rm: 3.012 arcsec [3.40 σ]
KicOffset-rm: 3.264 arcsec [3.64 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

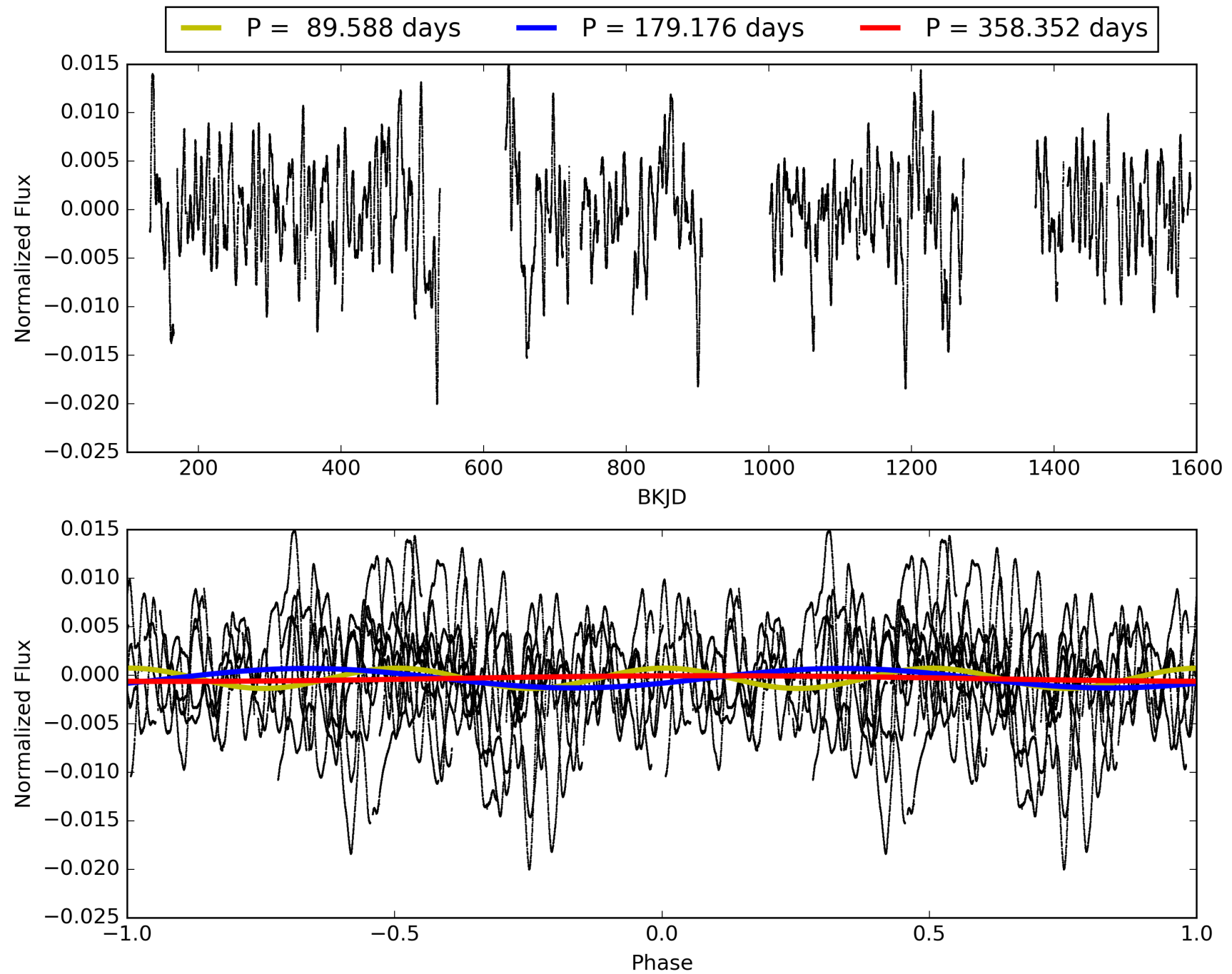
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:19:21 Z

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

TCE 005288019-01, PDC Light Curves

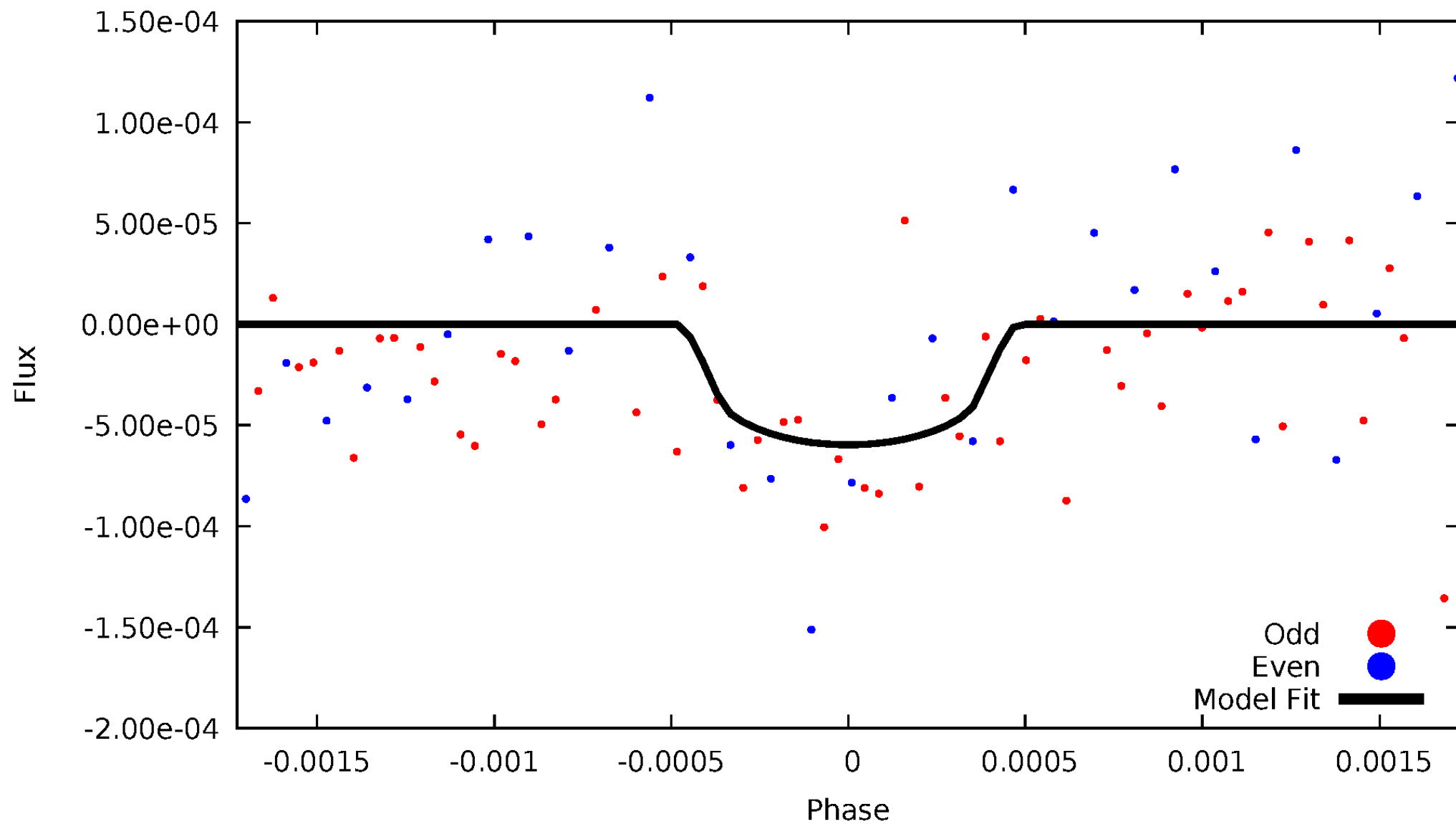


TCE 005288019-01



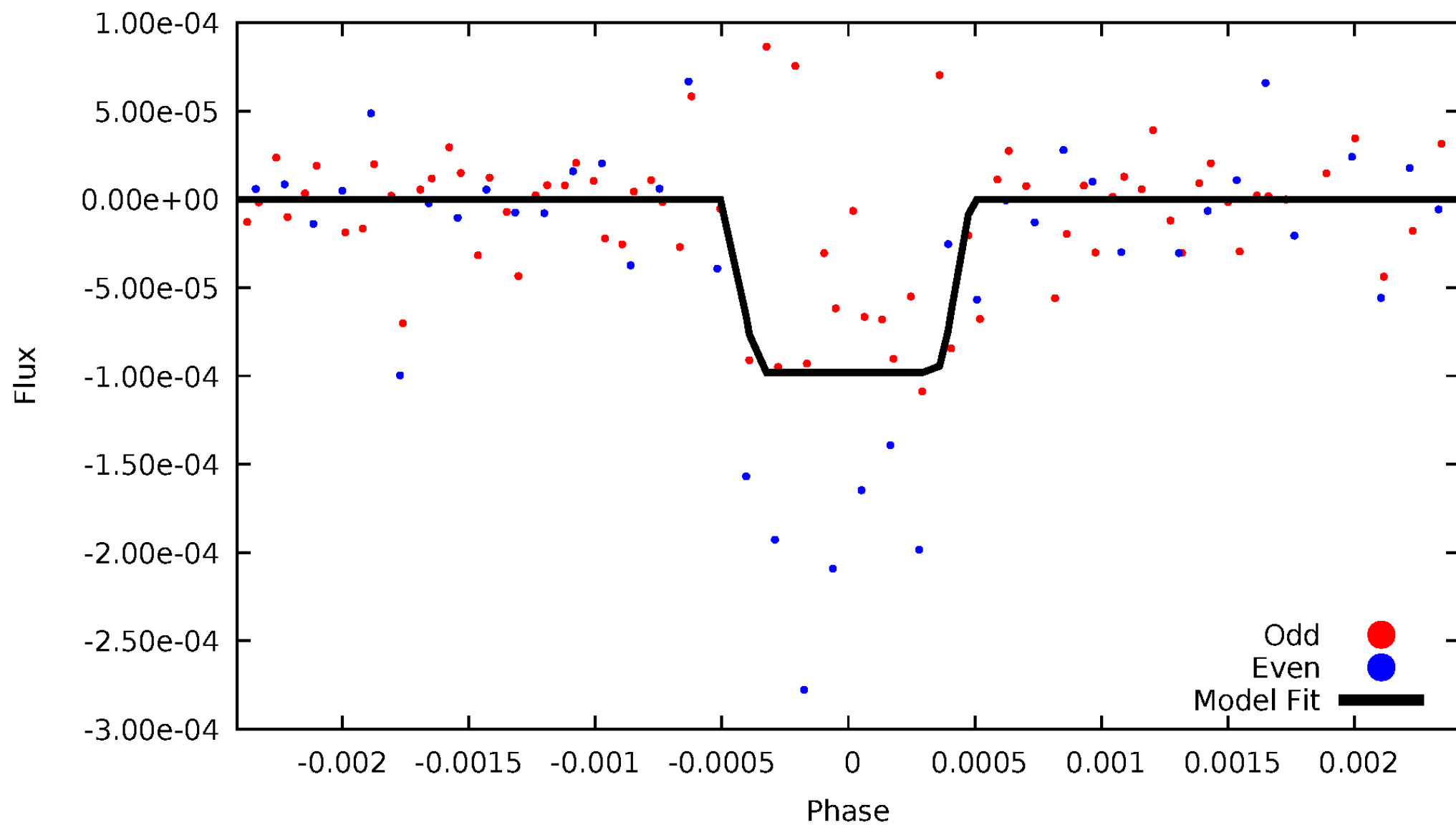
DV Odd/Even

TCE 005288019-01



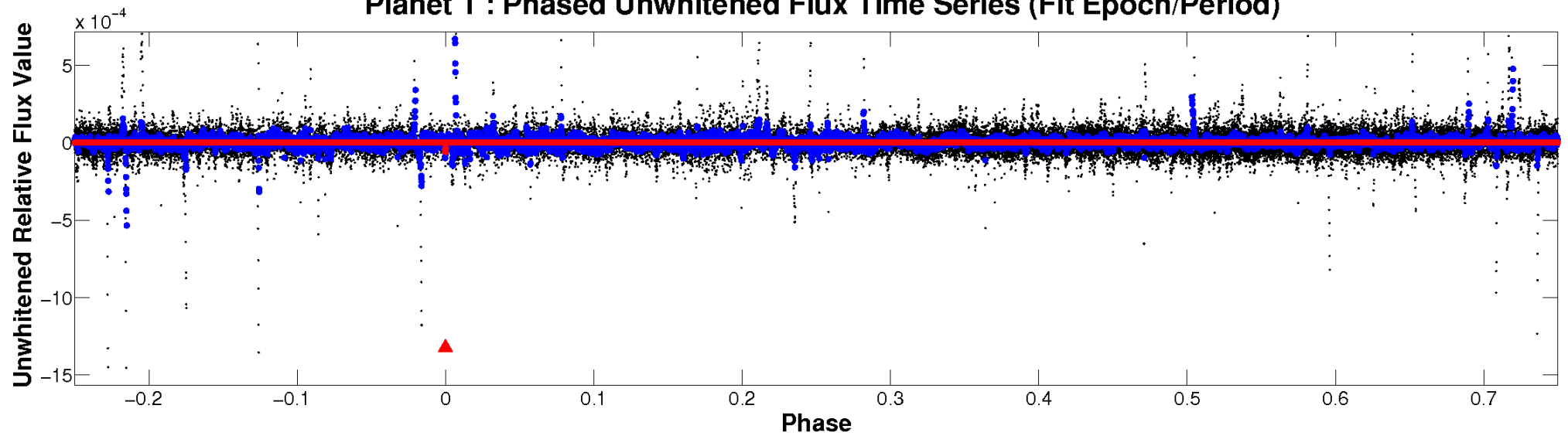
ALT Odd/Even

TCE 005288019-01

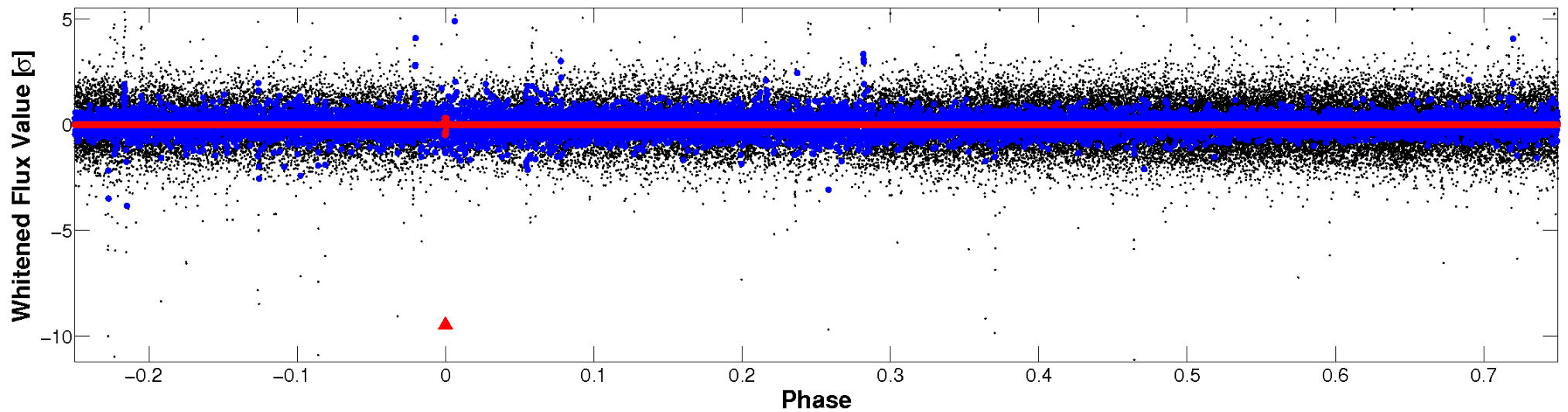


Non-Whitened Vs. Whitened Light Curve

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

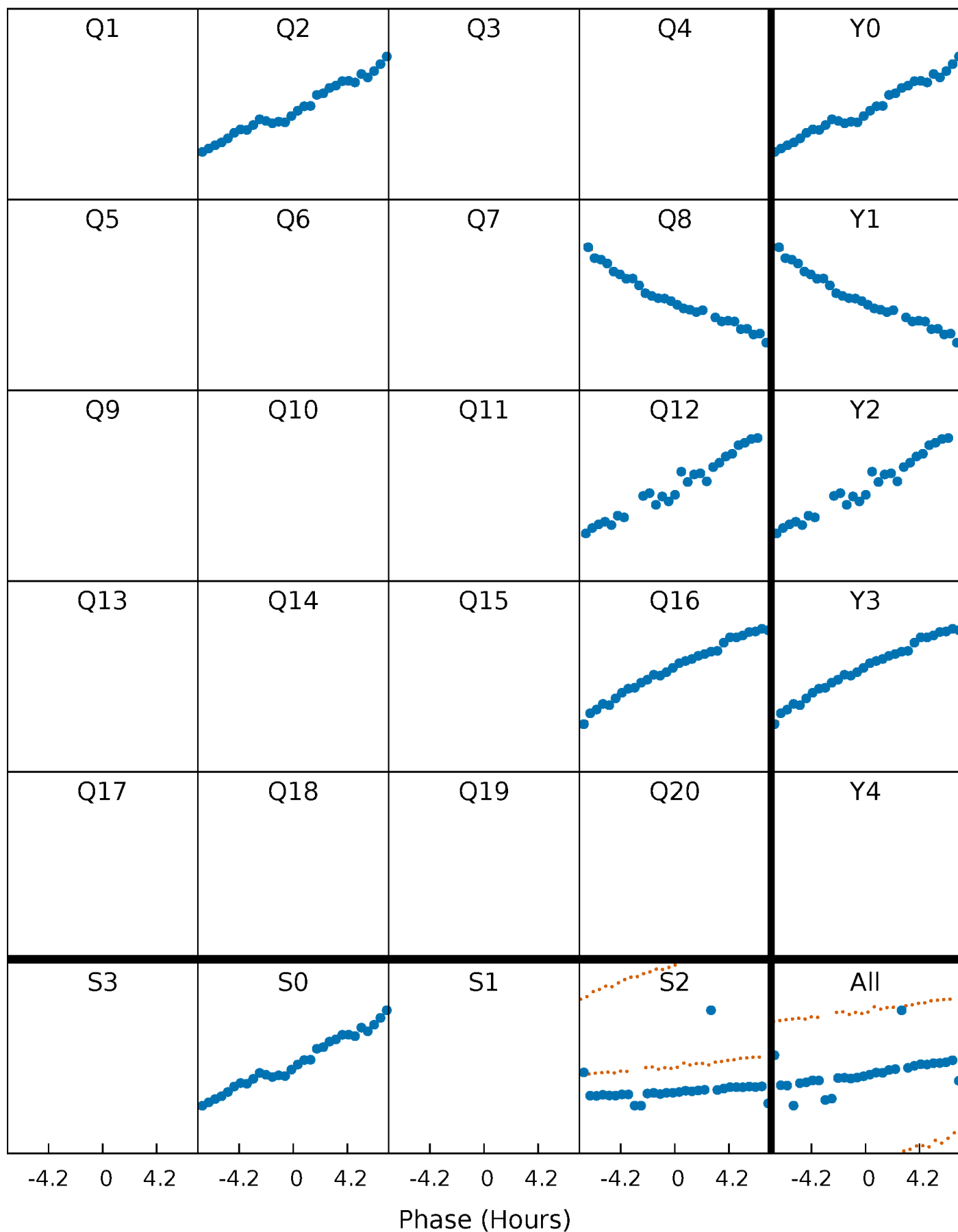


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



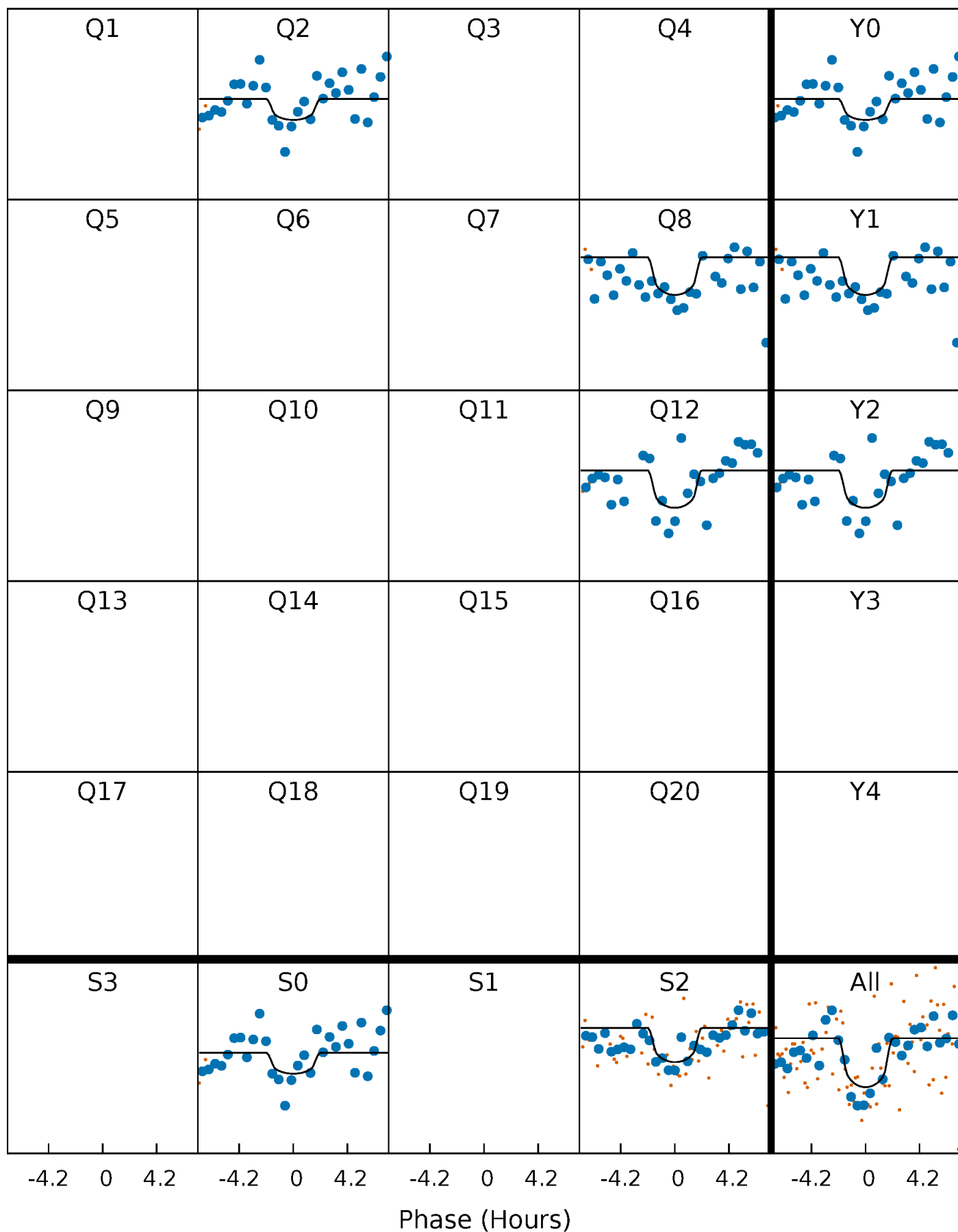
PDC Quarter-Phased Transit Curves

TCE 005288019-01 P=179.175762 Days $T_0=220.521710$ (BKJD)



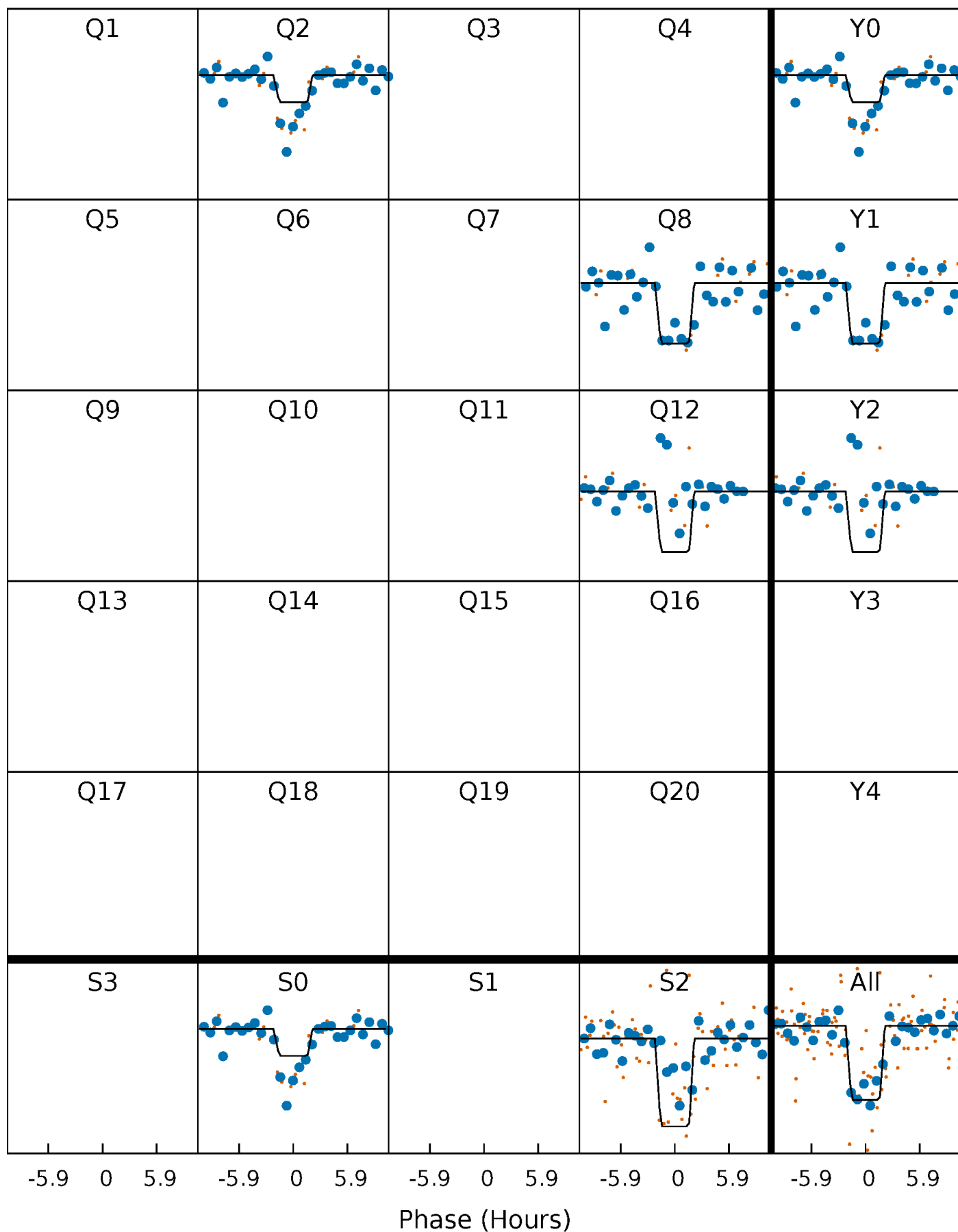
DV Quarter-Phased Transit Curves

TCE 005288019-01 P=179.175762 Days $T_0=220.521710$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

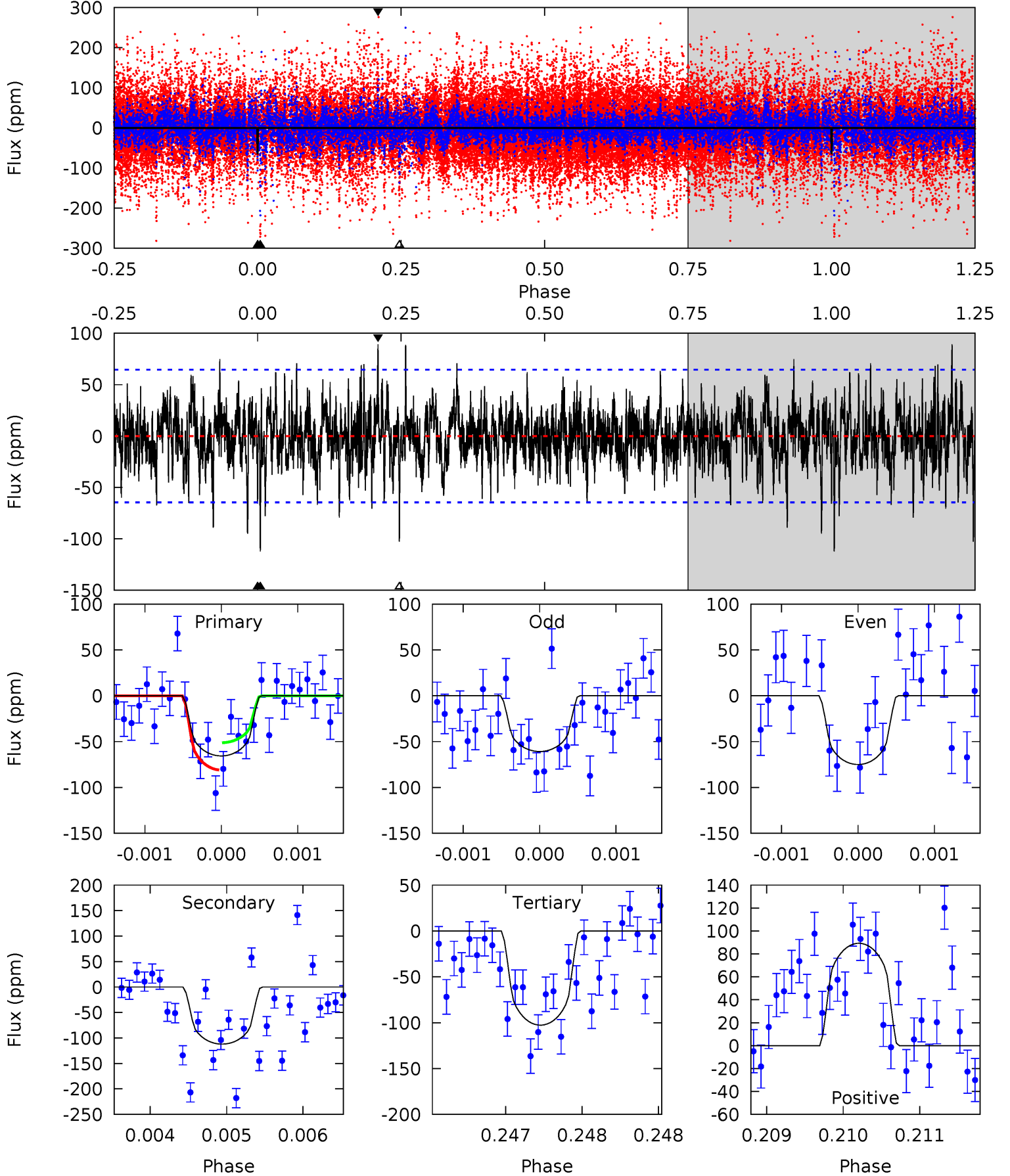
TCE 005288019-01 P=179.165992 Days $T_0=220.534483$ (BKJD)



DV Model-Shift Uniqueness Test

005288019-01, P = 179.175762 Days, E = 41.345948 Days

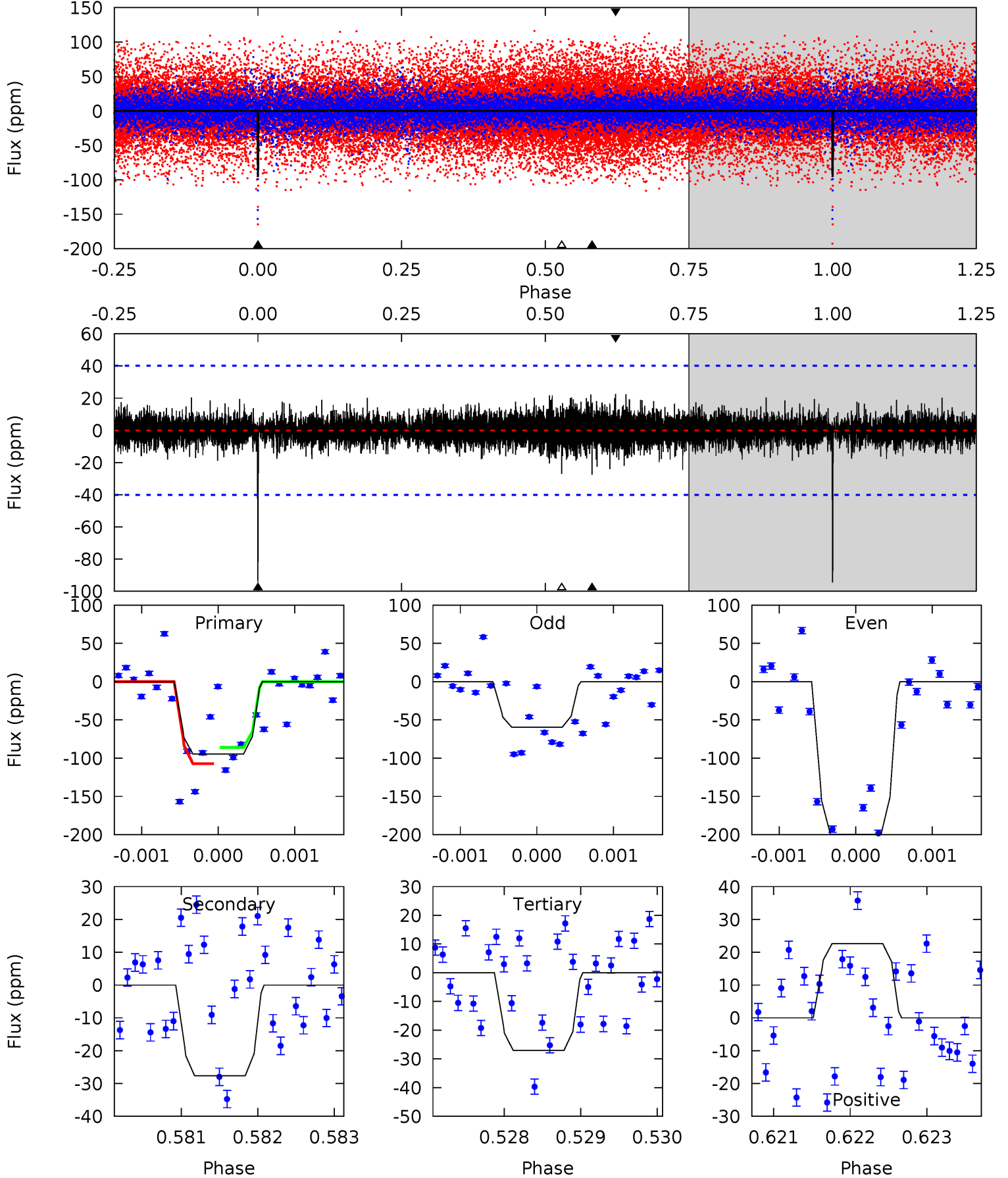
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.56	9.48	8.69	7.55	5.46	3.31	1.74	-3.13	-2.00	0.79	1.93	0.53	0.91	0.44	1.26



Alt Model-Shift Uniqueness Test

005288019-01, P = 179.165992 Days, E = 41.368491 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	3.77	3.69	3.08	5.47	3.33	0.74	9.20	9.81	0.08	0.68	10.2	0.98	0.19	1.41



Stellar Parameters For KIC 005288019

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3991^{+133}_{-109}	$1.401^{+0.318}_{-0.212}$	$0.020^{+0.250}_{-0.250}$	$39.337^{+12.081}_{-12.081}$	$1.419^{+0.314}_{-0.345}$	$0.000^{+0.000}_{-0.000}$
	+3%/-3%	+23%/-15%	+1250%/-1250%	+31%/-31%	+22%/-24%	+198%/-51%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 005288019-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-112 ± 12	$62.47^{+57.29}_{-42.31}$	1824^{+171}_{-174}	3528^{+1769}_{-666}	$7.894^{+64.612}_{-5.800}$
Alt.	-28 ± 7	$67.95^{+62.09}_{-45.35}$	1847^{+163}_{-178}	2719^{+1213}_{-625}	$1.504^{+12.410}_{-1.076}$

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

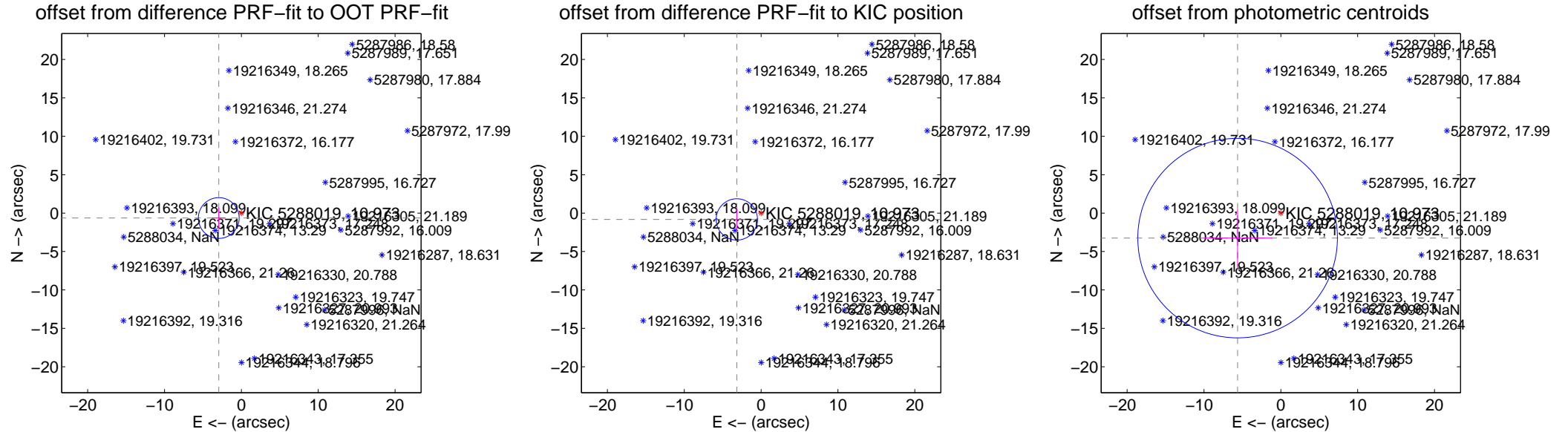
DV Centroid Data

Supplemental centroid analysis for 005288019-01. **Kepler magnitude: 10.97.** Transit SNR 2.38

There are 0 quarters with good PRF difference image offsets

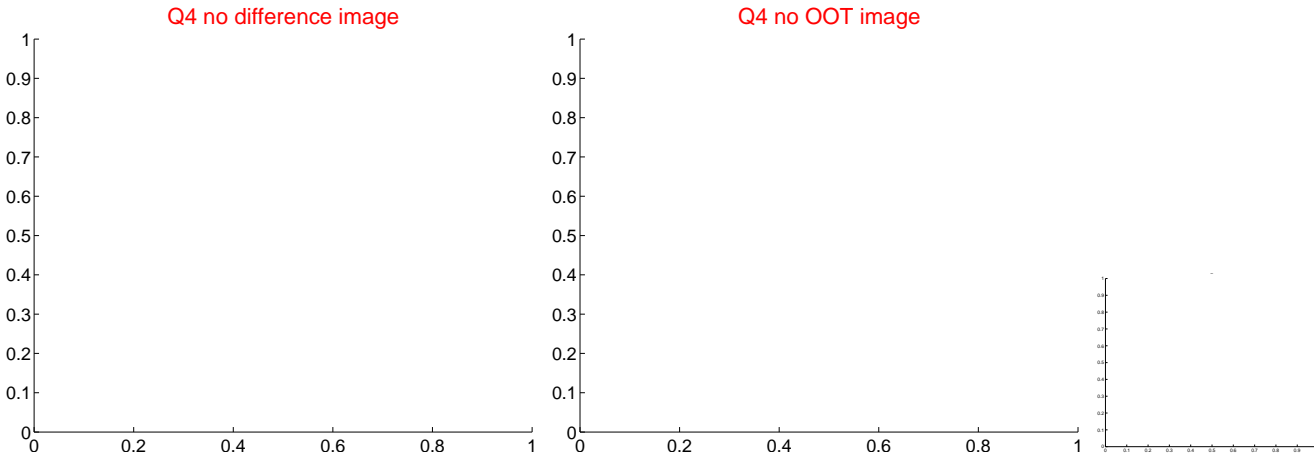
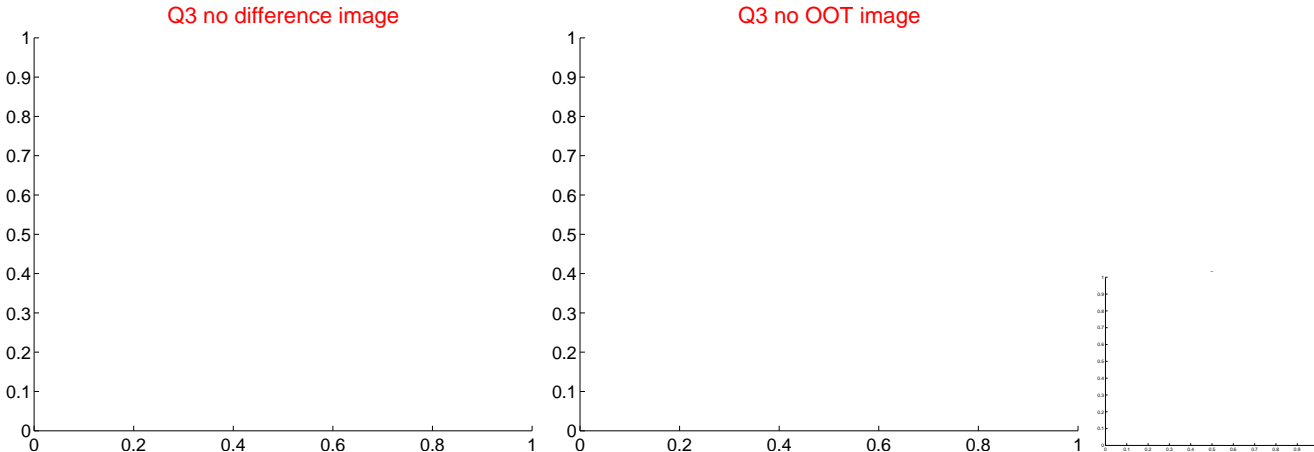
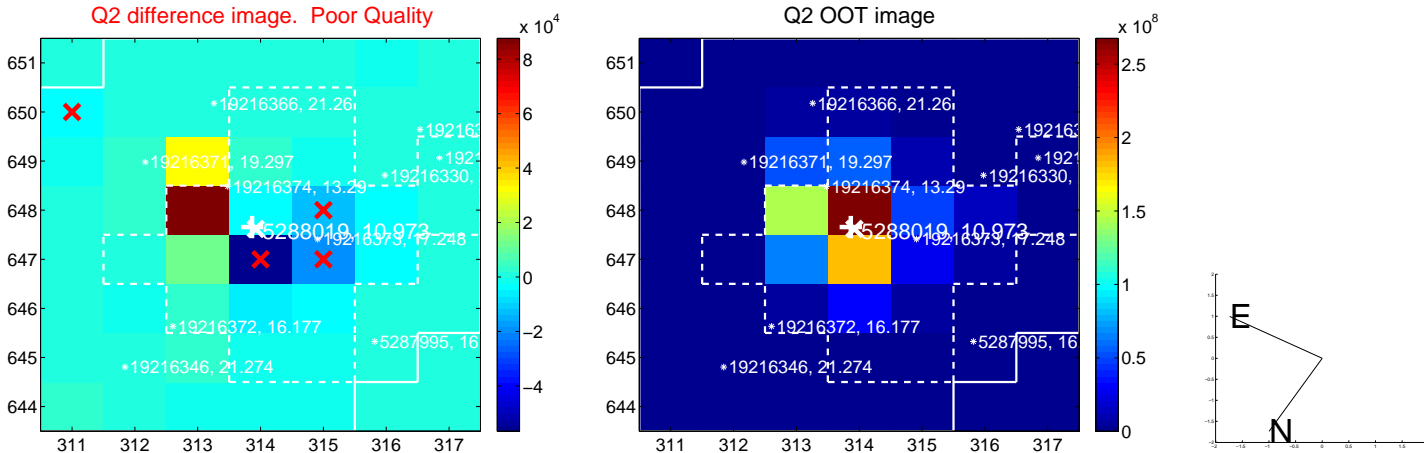
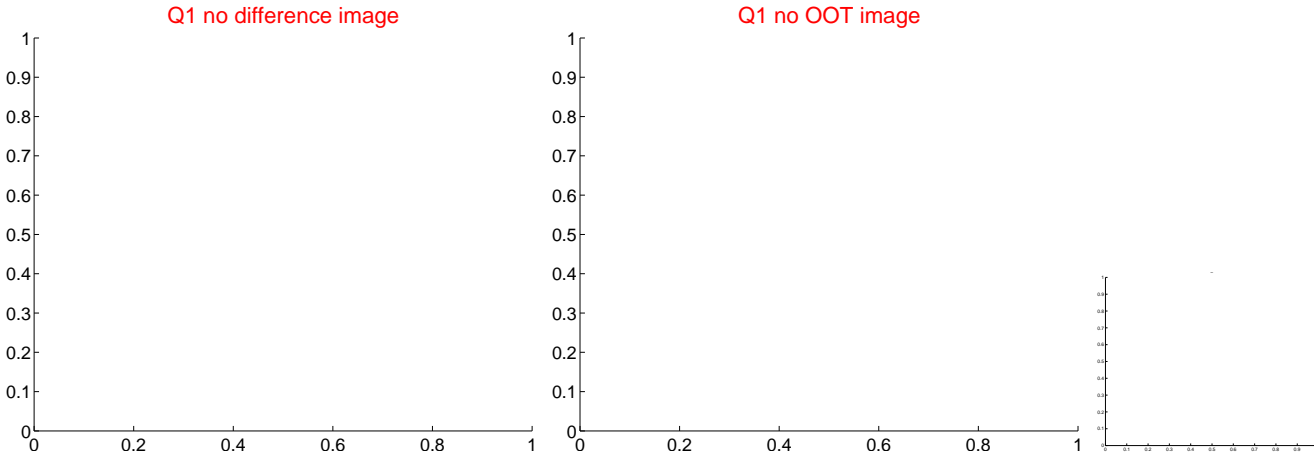
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.012 ± 0.885	3.40	2.943 ± 0.855	-0.640 ± 1.364
PRF-fit source offset from KIC position	3.264 ± 0.896	3.64	3.159 ± 0.855	-0.822 ± 1.364
photometric centroid source offset	6.50 ± 4.33	1.50	5.62 ± 4.51	-3.25 ± 3.74



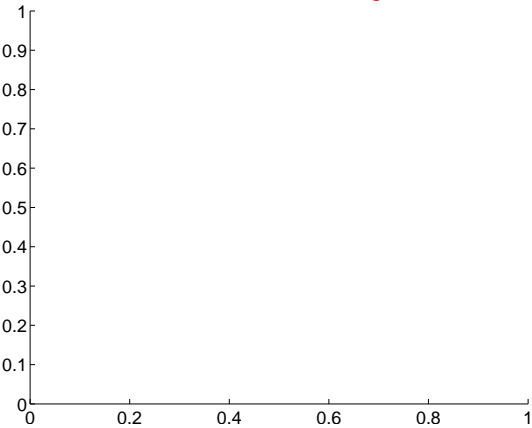
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

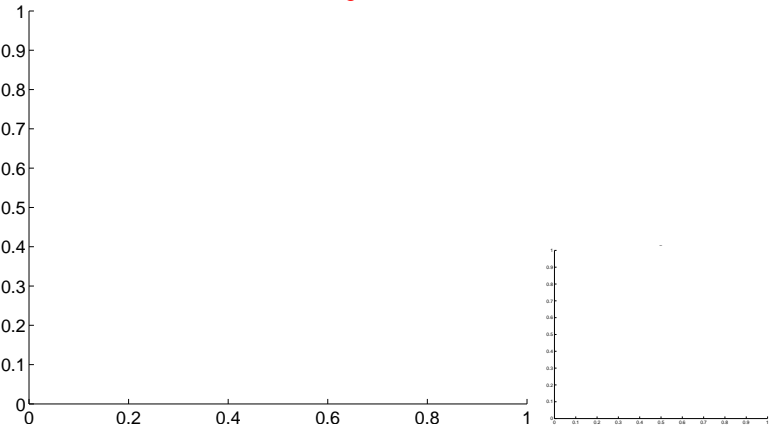


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

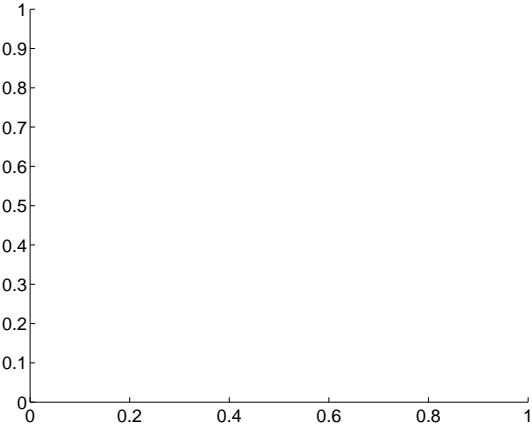
Q5 no difference image



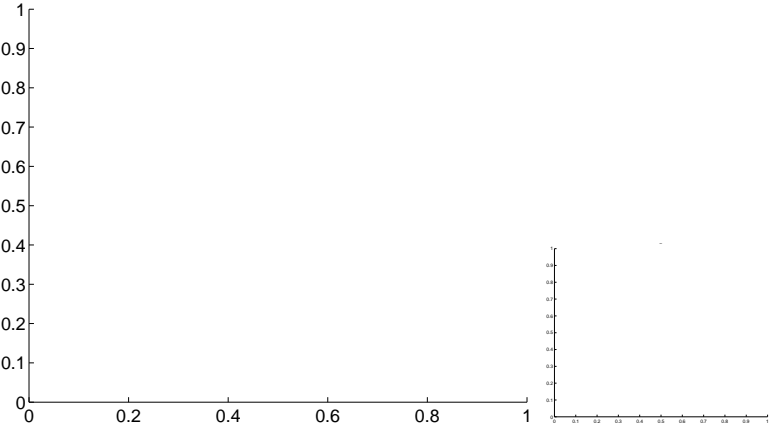
Q5 no OOT image



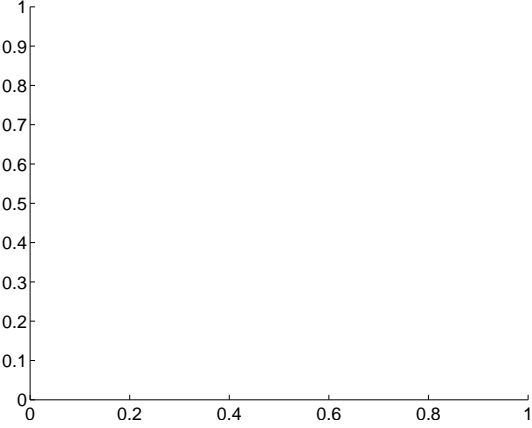
Q6 no difference image



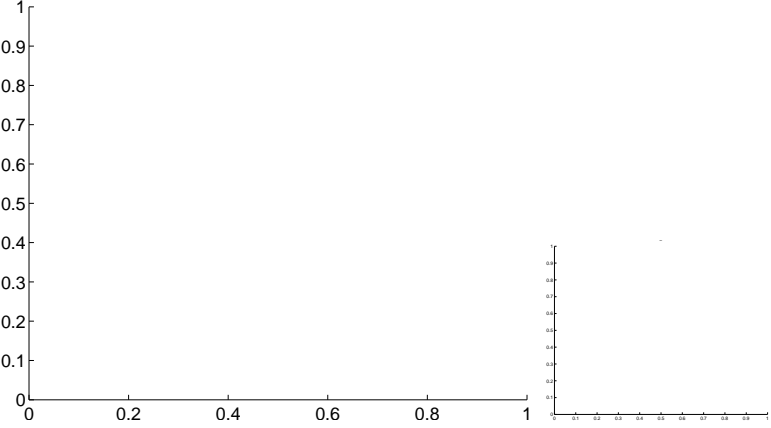
Q6 no OOT image



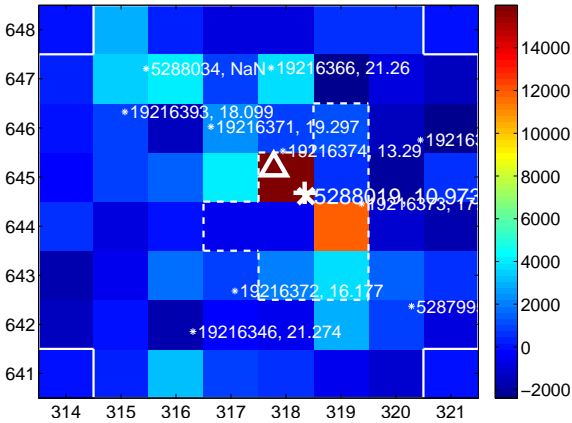
Q7 no difference image



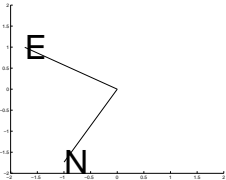
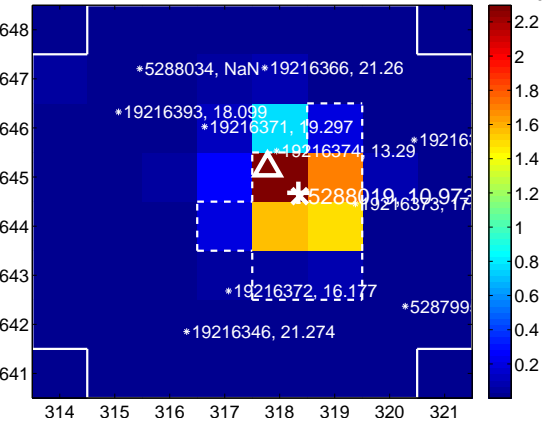
Q7 no OOT image



Q8 difference image. Poor Quality



Q8 OOT image



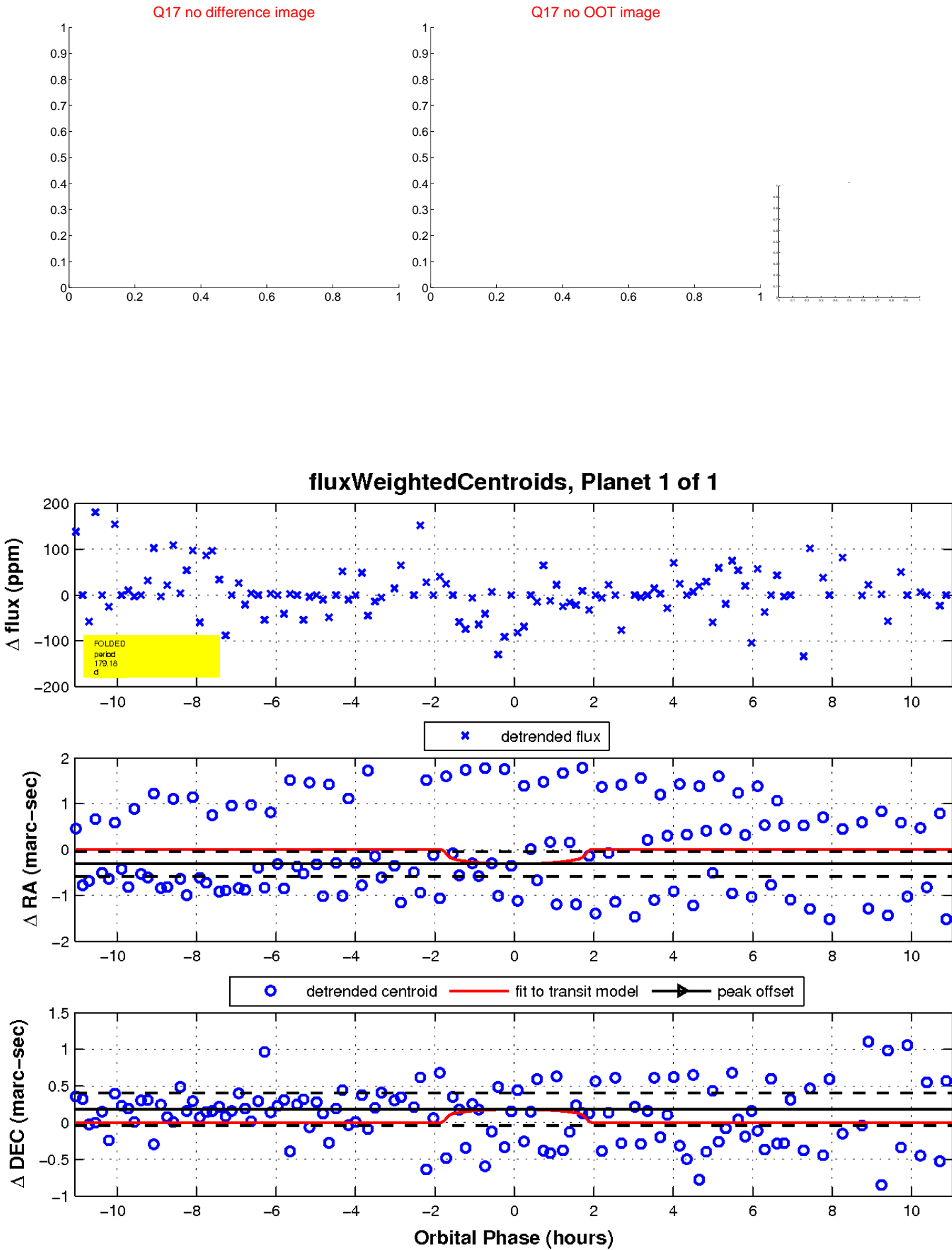
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

