

KIC 008884985

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})
008884985-01	OBS	No	375.059089	137.025552	544.5	66.460	7.9	12.9	1.04	6217	3.20	1.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008884985-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--CENT_FEW_DIFFS

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

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

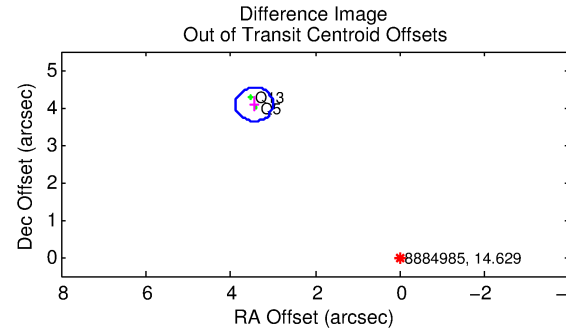
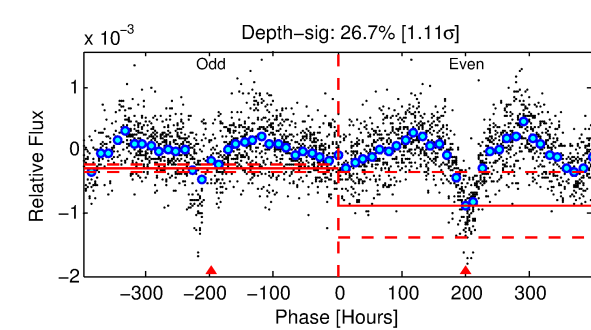
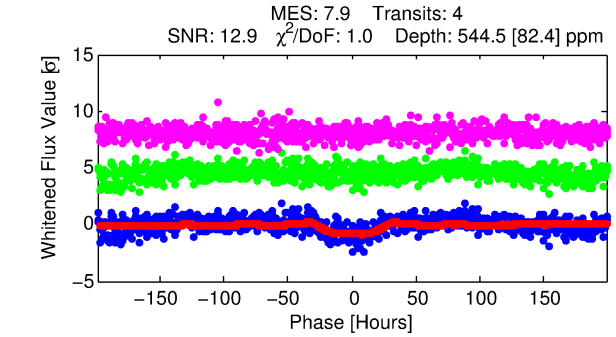
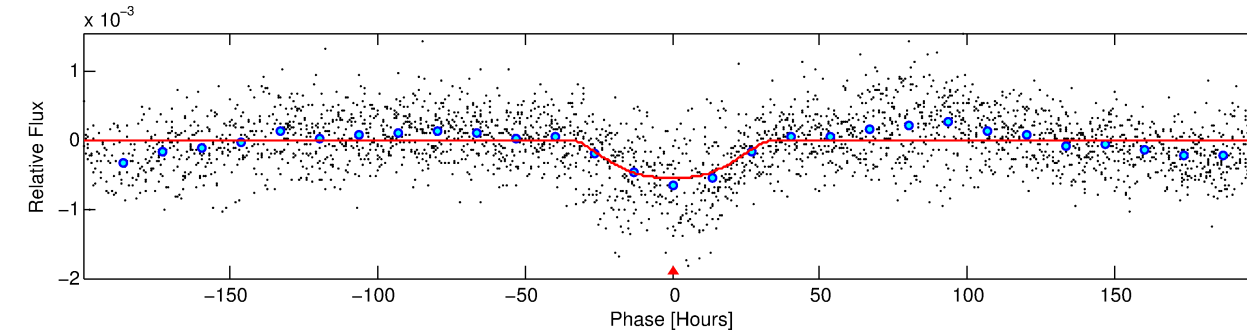
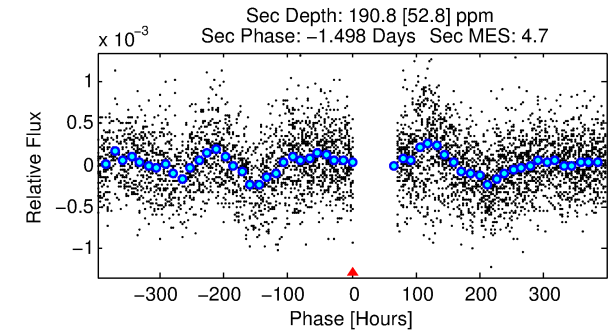
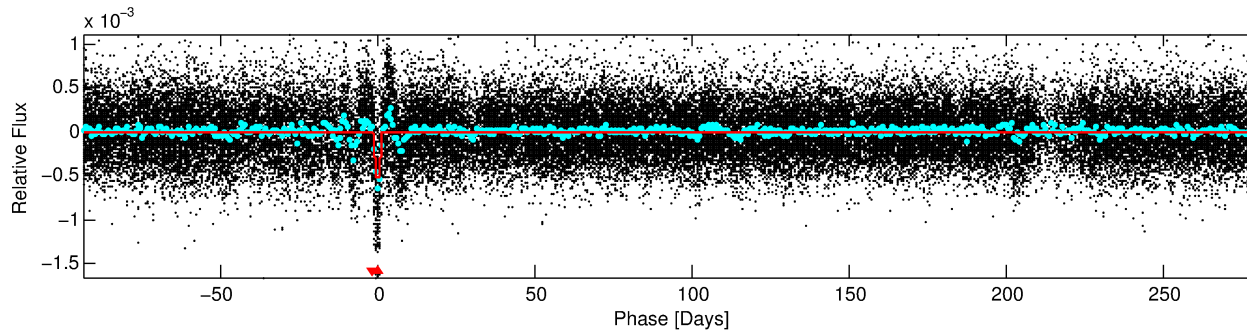
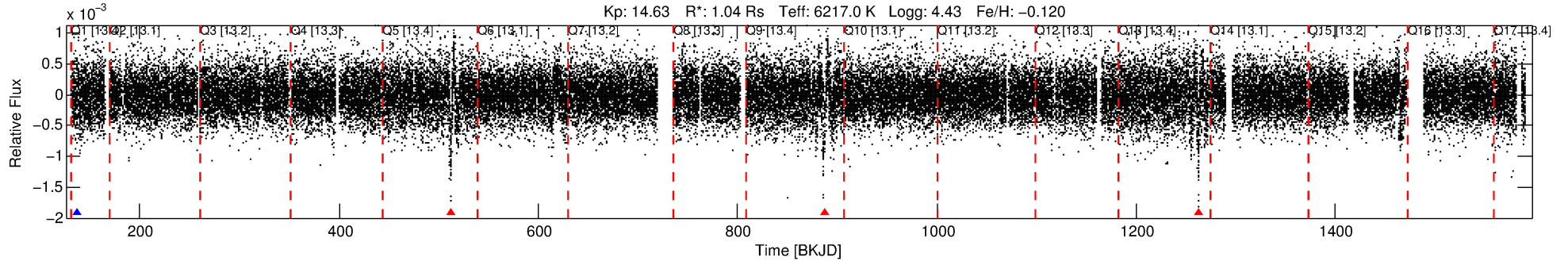
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008884985-01

No Significant Match Found

DV One-Page Summary

KIC: 8884985 Candidate: 1 of 1 Period: 375.059 d



DV Fit Results:

Period = 375.05909 [0.04501] d
Epoch = 137.0256 [0.0844] BKJD
Rp/R* = 0.0282 [0.0031]
a/R* = 14.44 [1.67]
b = 0.97 [0.01]
Seff = 1.33 [0.58]
Teq = 274 [30] K
Rp = 3.20 [1.13] Re
a = 1.0425 [0.2940] AU
Ag = 11136.27 [6042.61] [1.84σ]
Teffp = 4353 [417] K [9.76σ]

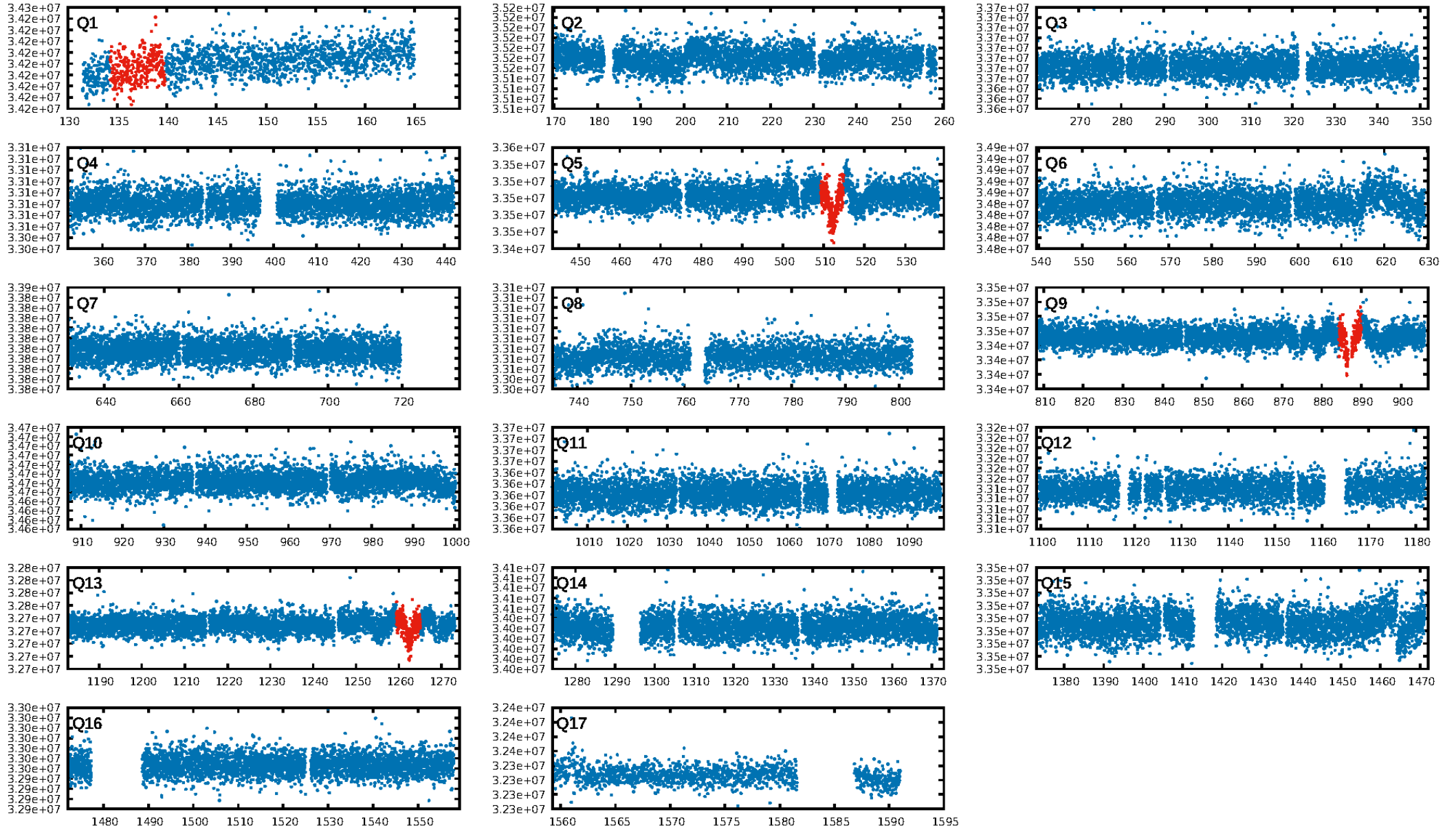
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.97e-14
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: -0.3003
Centroid-sig: 0.0%
Centroid-so: 2.740 arcsec [3.37σ]
OotOffset-rm: 5.343 arcsec [35.72σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-rm: 5.254 arcsec [35.61σ]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

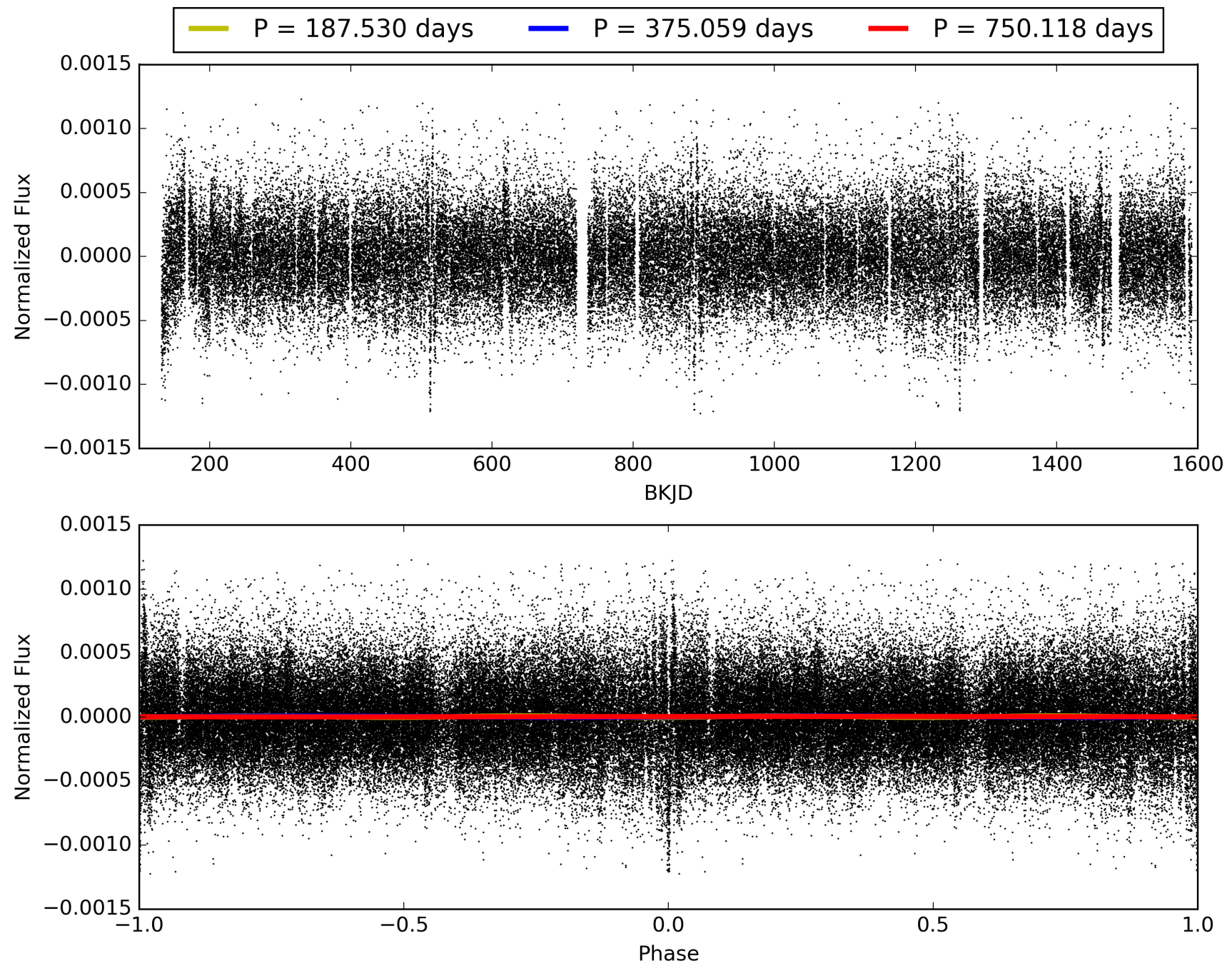
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:06:43 Z

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

TCE 008884985-01, PDC Light Curves

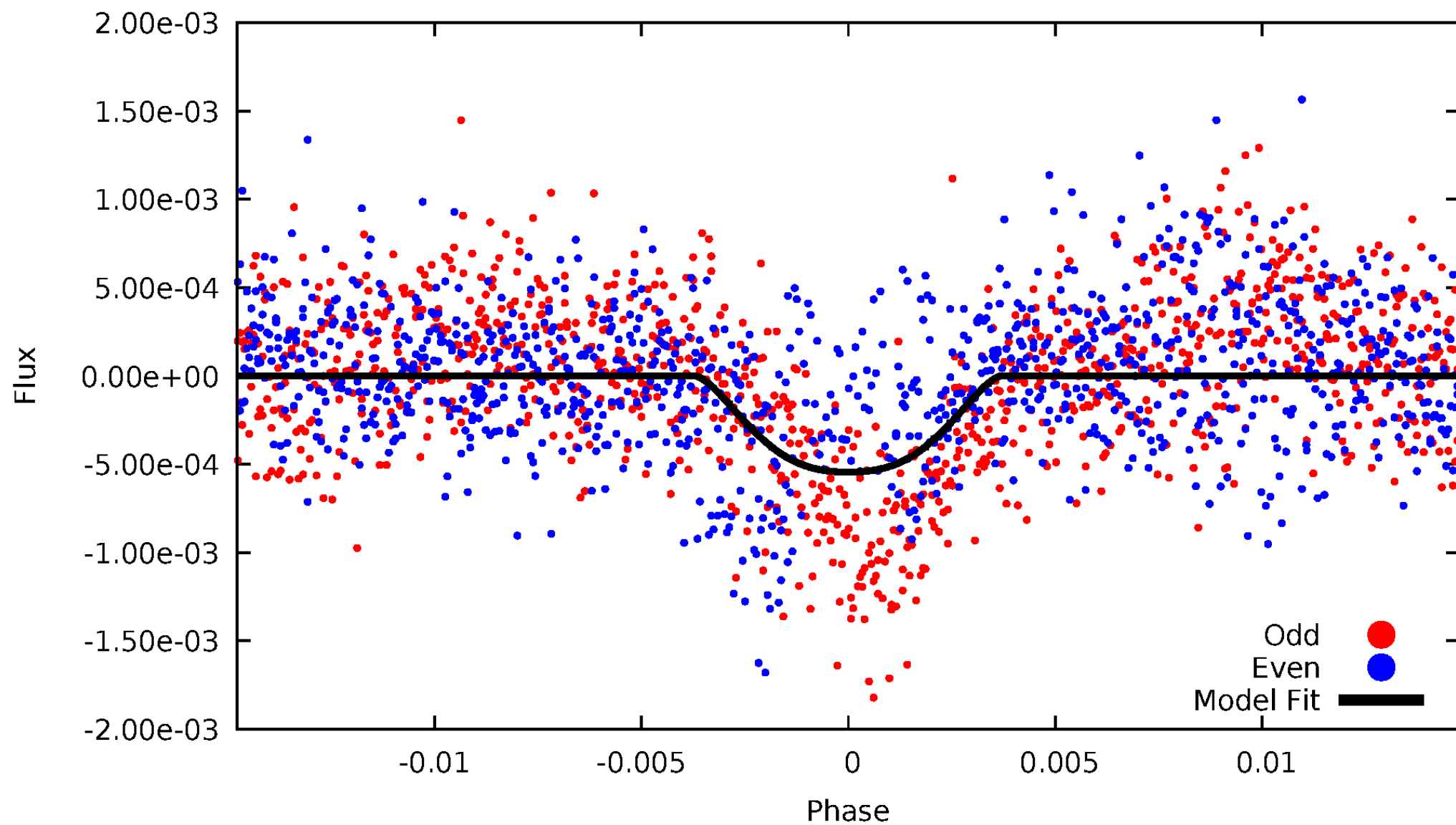


TCE 008884985-01



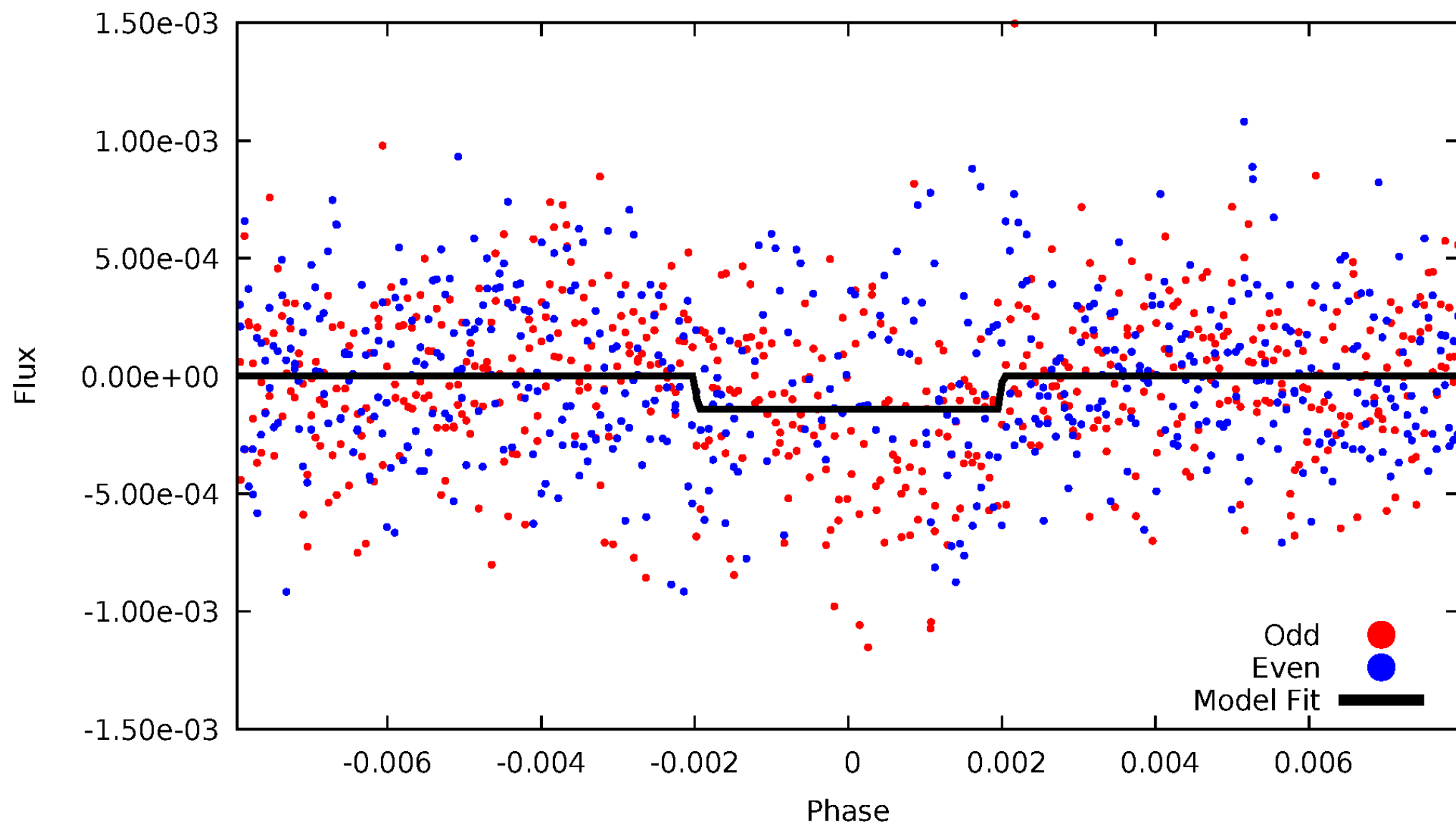
DV Odd/Even

TCE 008884985-01



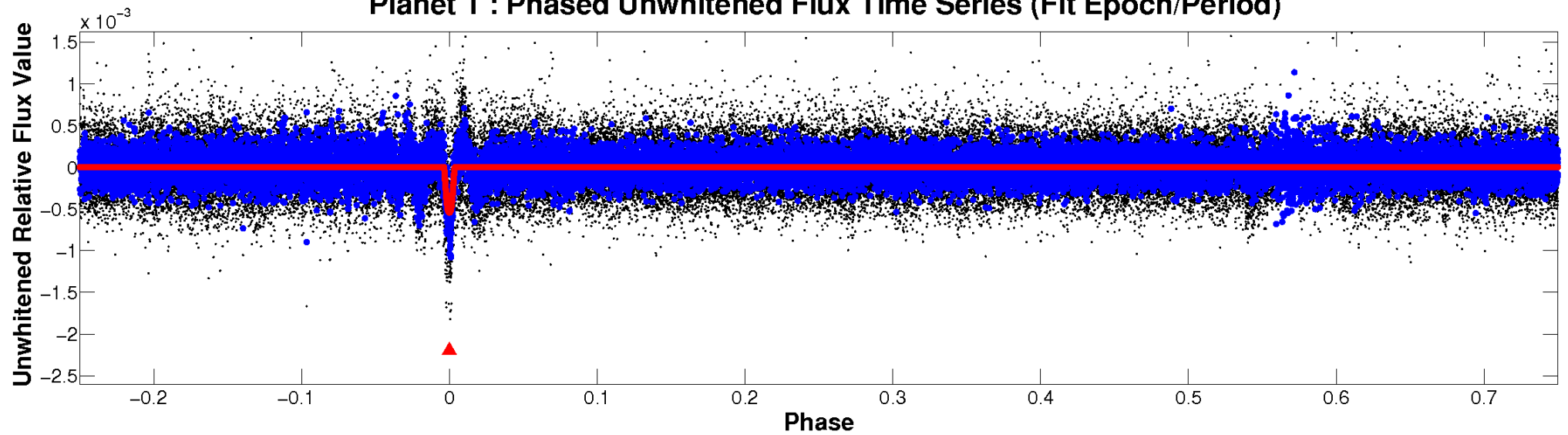
ALT Odd/Even

TCE 008884985-01

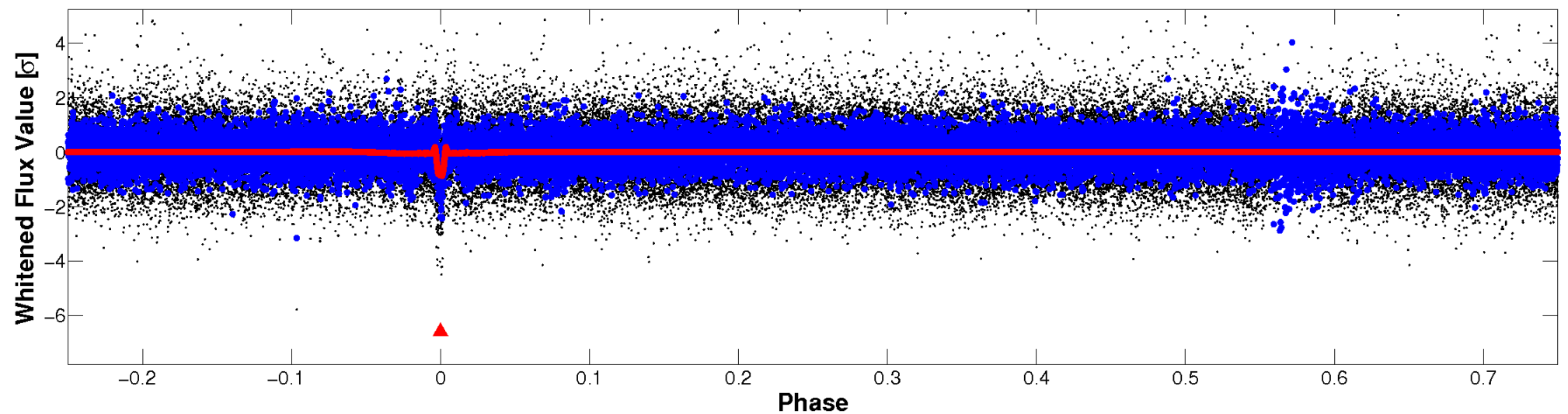


Non-Whitened Vs. Whitened Light Curve

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

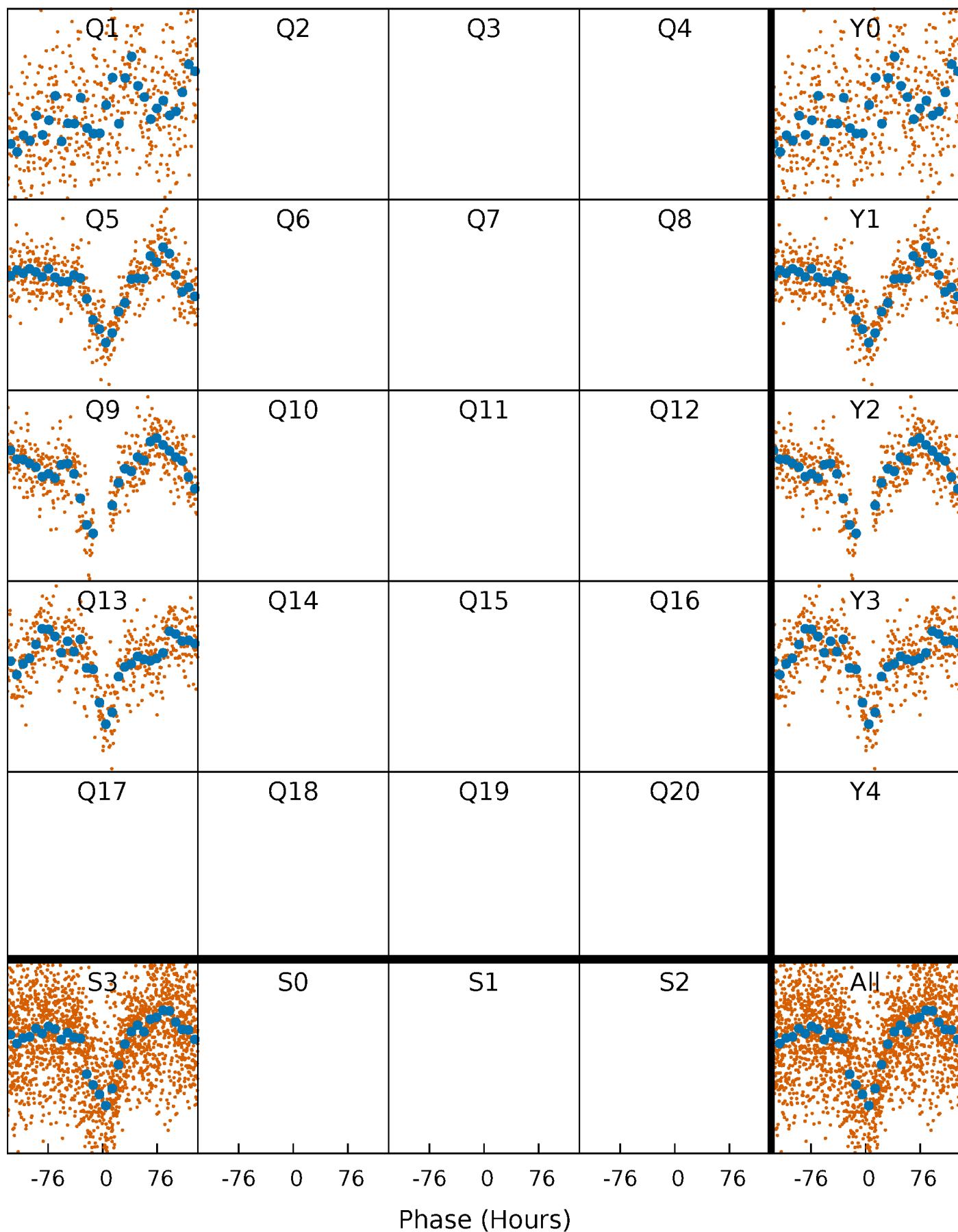


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



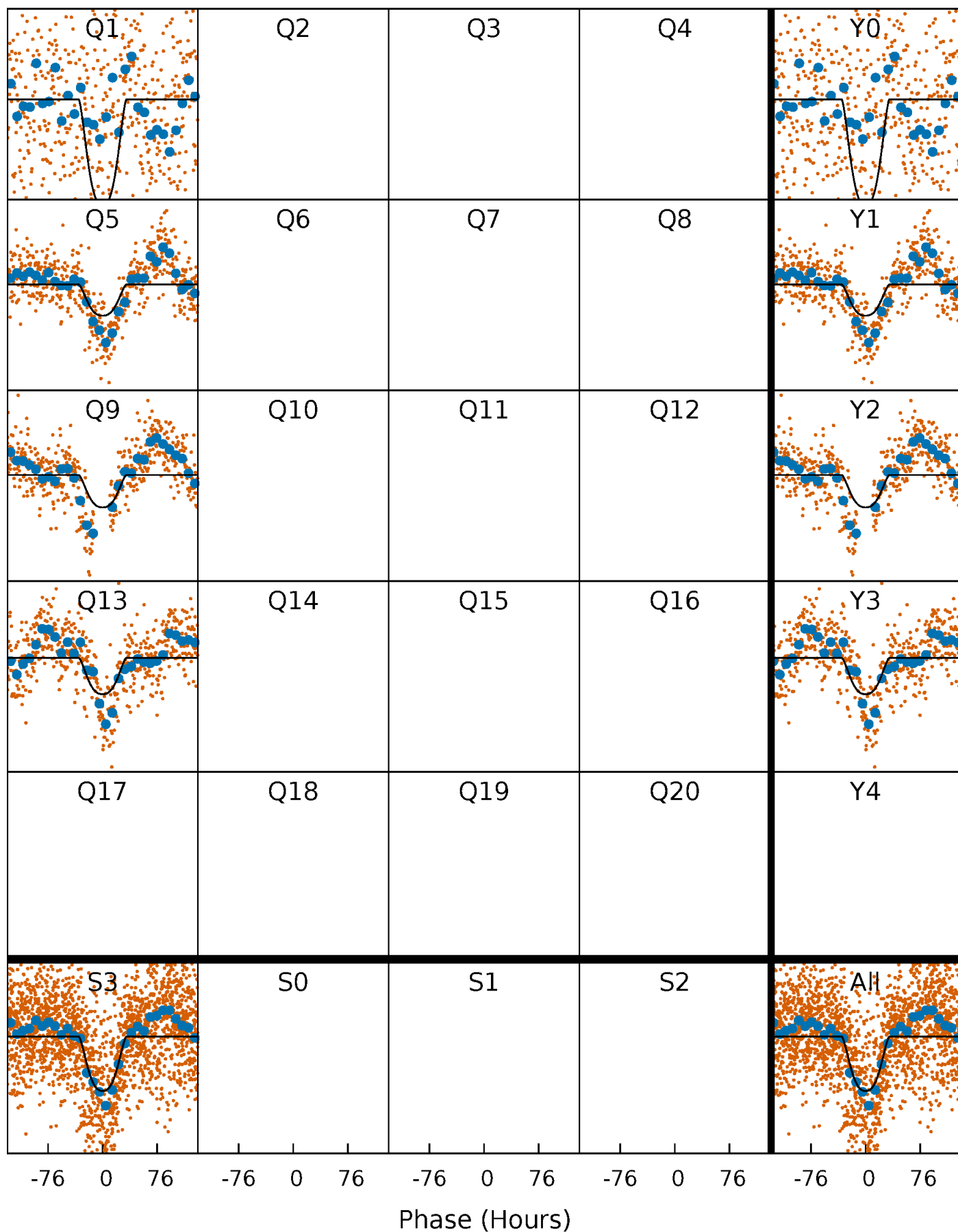
PDC Quarter-Phased Transit Curves

TCE 008884985-01 P=375.059089 Days $T_0=137.025552$ (BKJD)



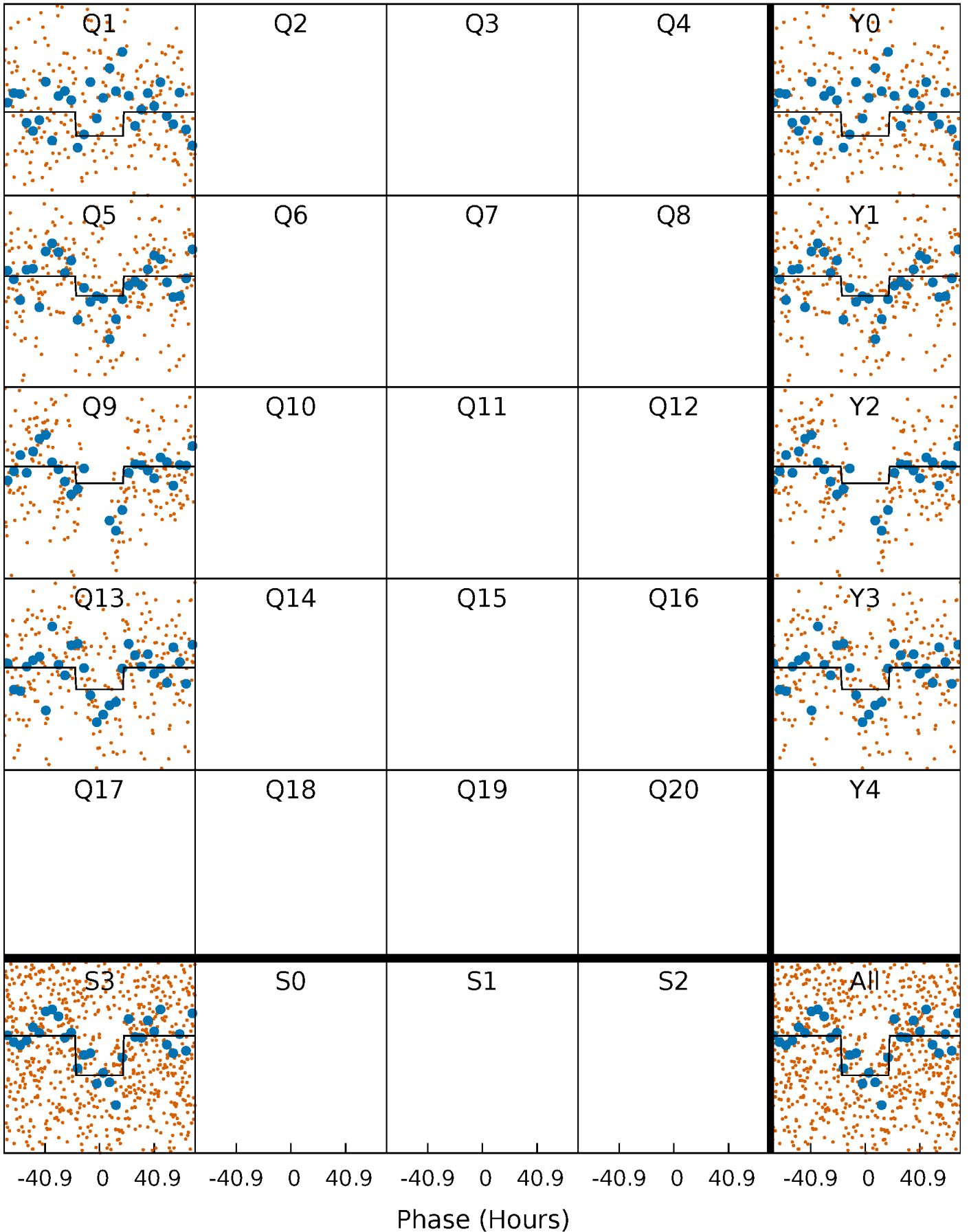
DV Quarter-Phased Transit Curves

TCE 008884985-01 $P=375.059089$ Days $T_0=137.025552$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

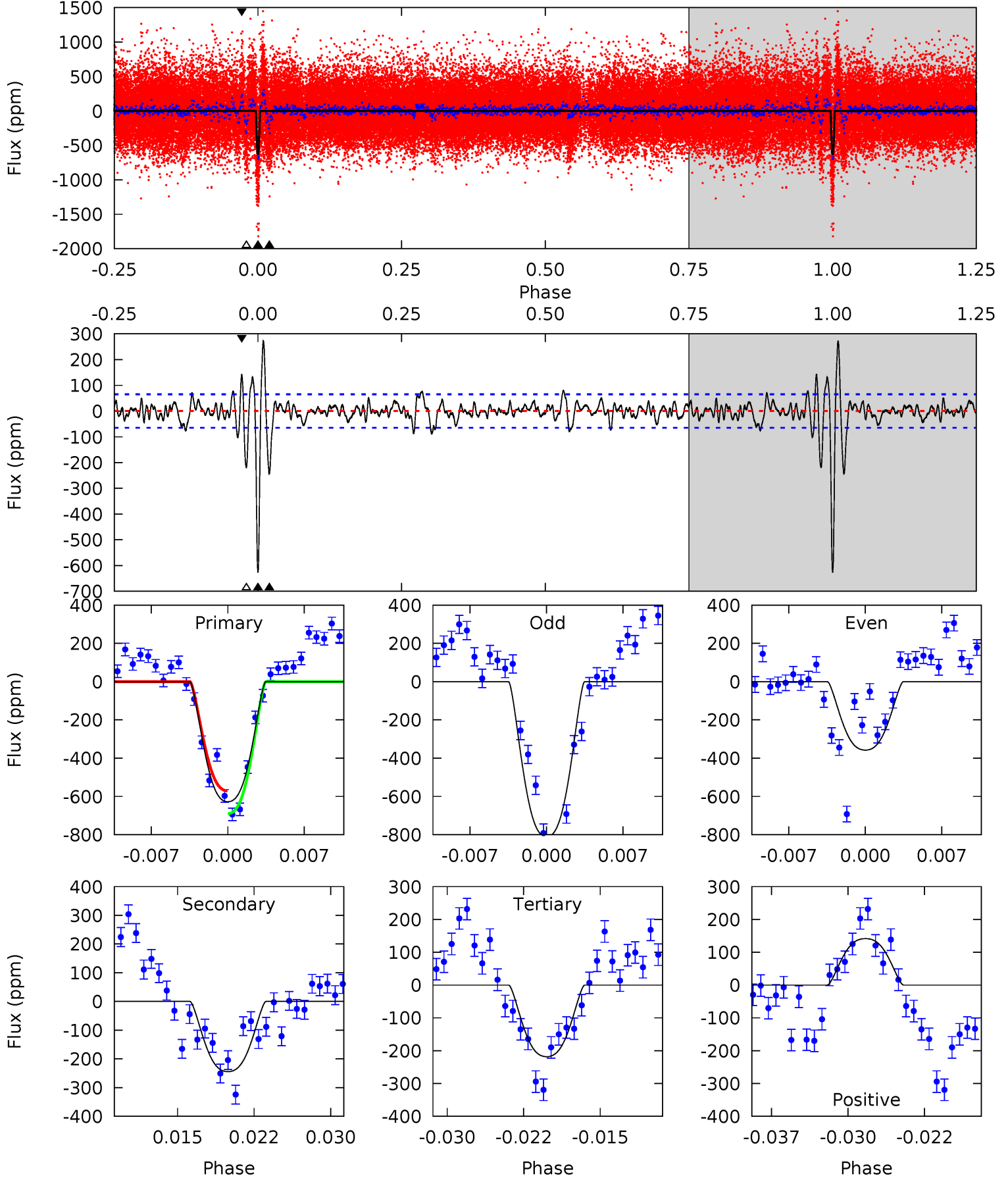
TCE 008884985-01 P=375.139728 Days $T_0=136.914920$ (BKJD)



DV Model-Shift Uniqueness Test

008884985-01, P = 375.059089 Days, E = 137.025552 Days

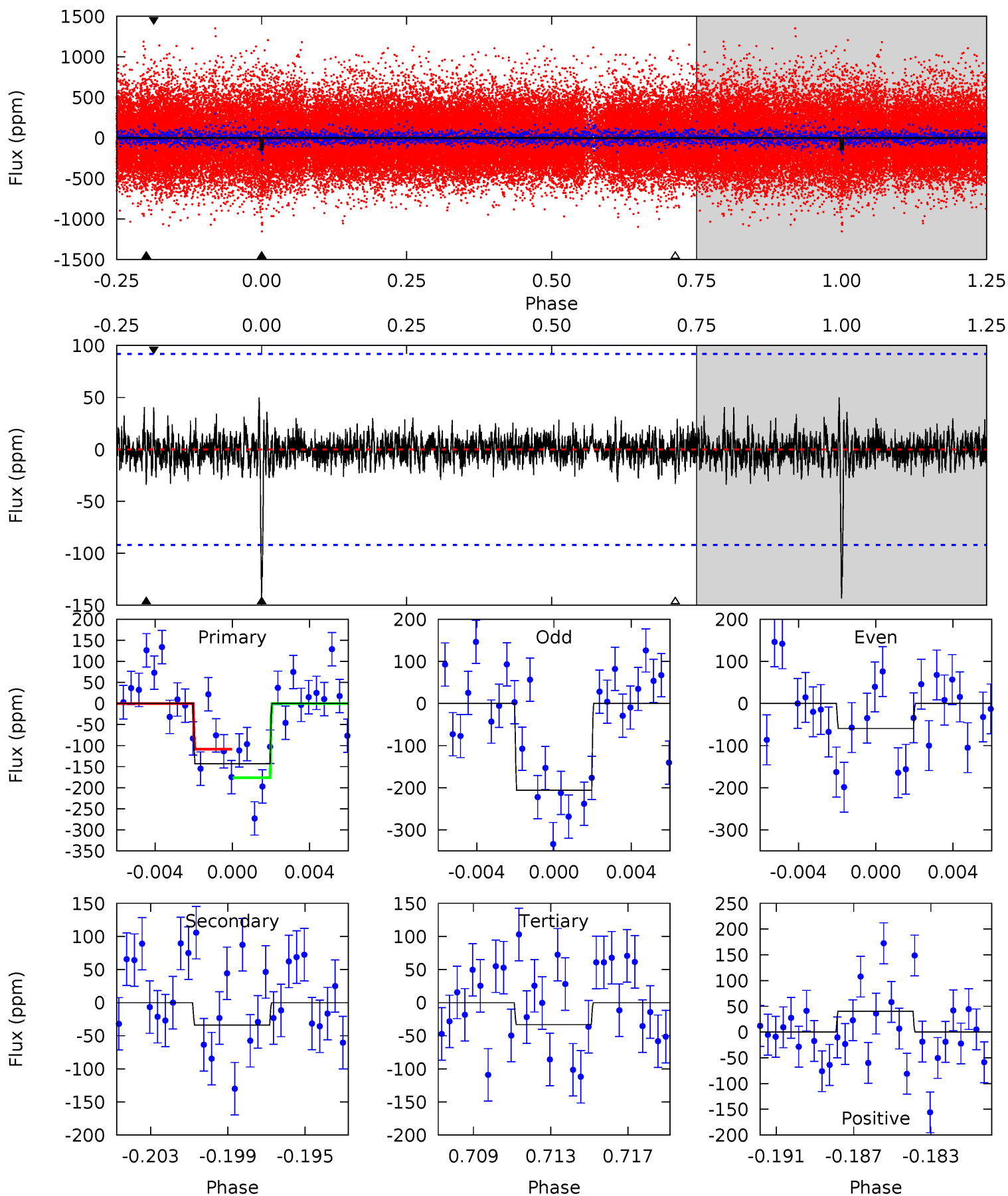
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.9	19.0	17.0	11.0	5.08	2.68	2.85	31.9	37.9	2.04	8.03	17.6	0.84	0.30	4.60



Alt Model-Shift Uniqueness Test

008884985-01, P = 375.139728 Days, E = 136.914920 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.11	1.91	1.88	2.29	5.20	2.88	0.54	6.23	5.82	0.03	-0.38	4.09	0.88	0.26	1.90



Stellar Parameters For KIC 008884985

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6217^{+166}_{-222}	$4.434^{+0.070}_{-0.224}$	$-0.120^{+0.250}_{-0.300}$	$1.041^{+0.349}_{-0.116}$	$1.067^{+0.169}_{-0.127}$	$1.332^{+0.407}_{-0.728}$
	+3%/-4%	+2%/-5%	+208%/-250%	+34%/-11%	+16%/-12%	+31%/-55%
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 008884985-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-244 ± 13	$3.30^{+0.63}_{-0.52}$	388^{+31}_{-21}	4755^{+278}_{-238}	13164^{+5052}_{-3761}
Alt.	-34 ± 18	$1.42^{+0.42}_{-0.41}$	387^{+31}_{-18}	4467^{+745}_{-641}	9406^{+12042}_{-5823}

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

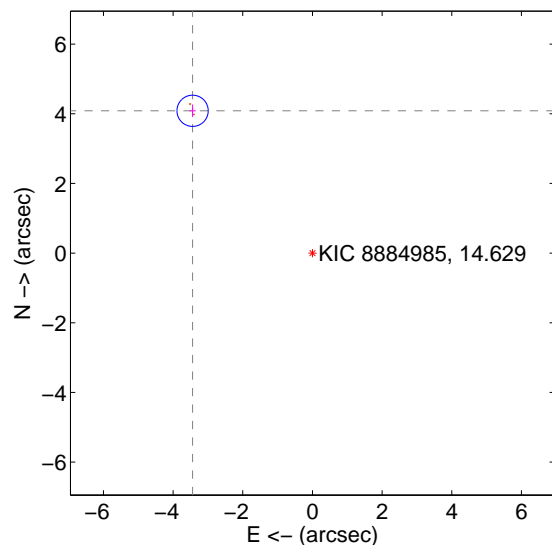
Supplemental centroid analysis for 008884985-01. Kepler magnitude: 14.63. Transit SNR 12.90

There are 0 quarters with good PRF difference image offsets

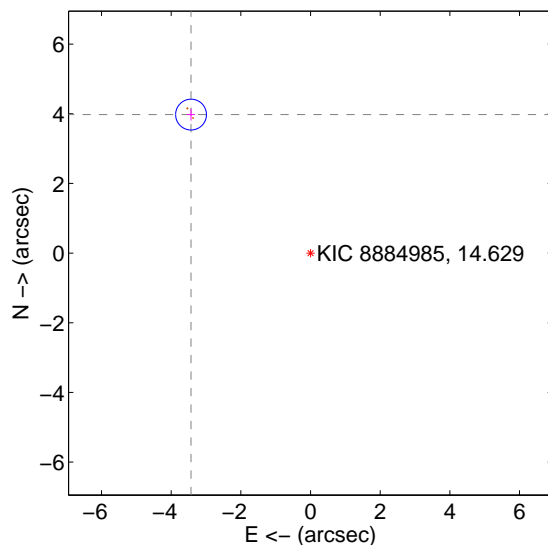
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.343 ± 0.150	35.72	3.442 ± 0.091	4.087 ± 0.180
PRF-fit source offset from KIC position	5.254 ± 0.148	35.61	3.432 ± 0.112	3.978 ± 0.169
photometric centroid source offset	2.74 ± 0.81	3.37	0.29 ± 0.66	2.72 ± 0.82

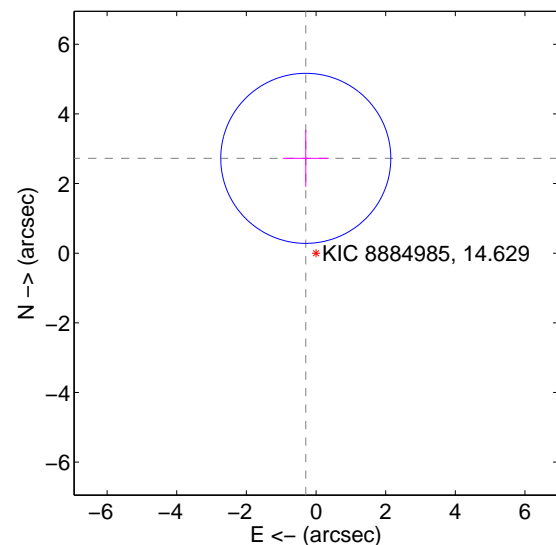
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

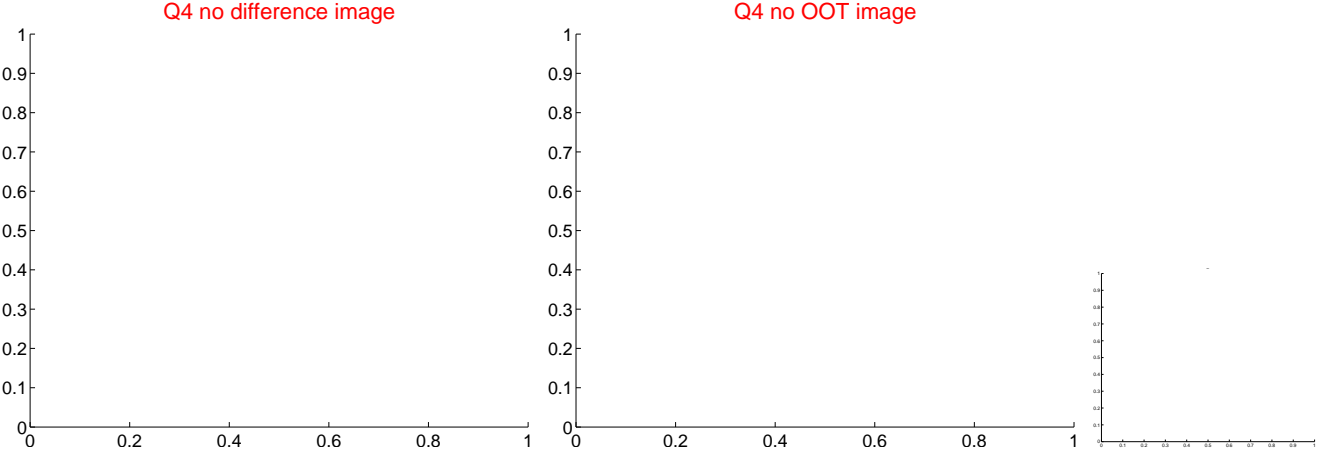
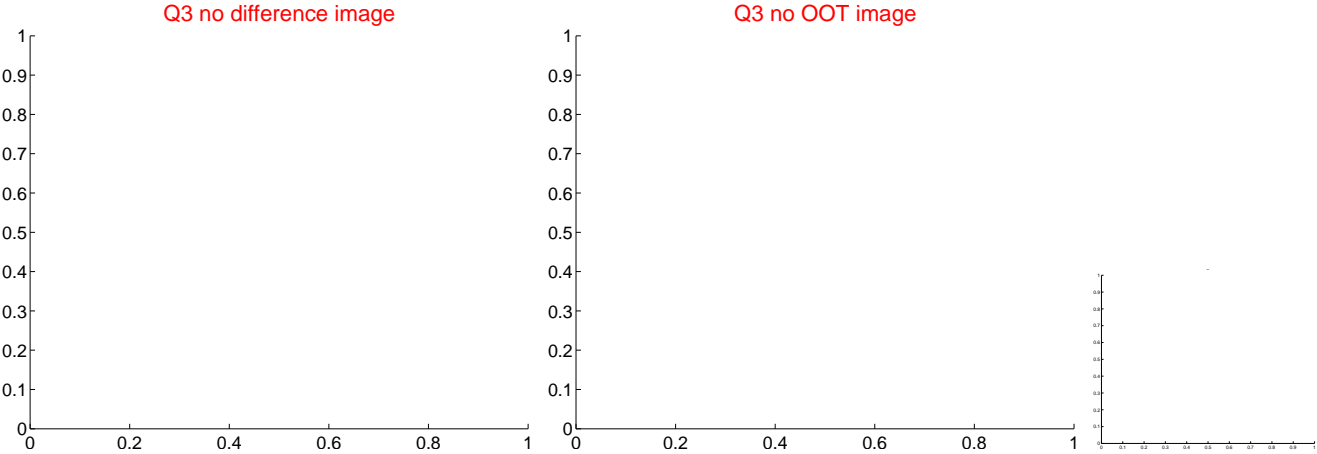
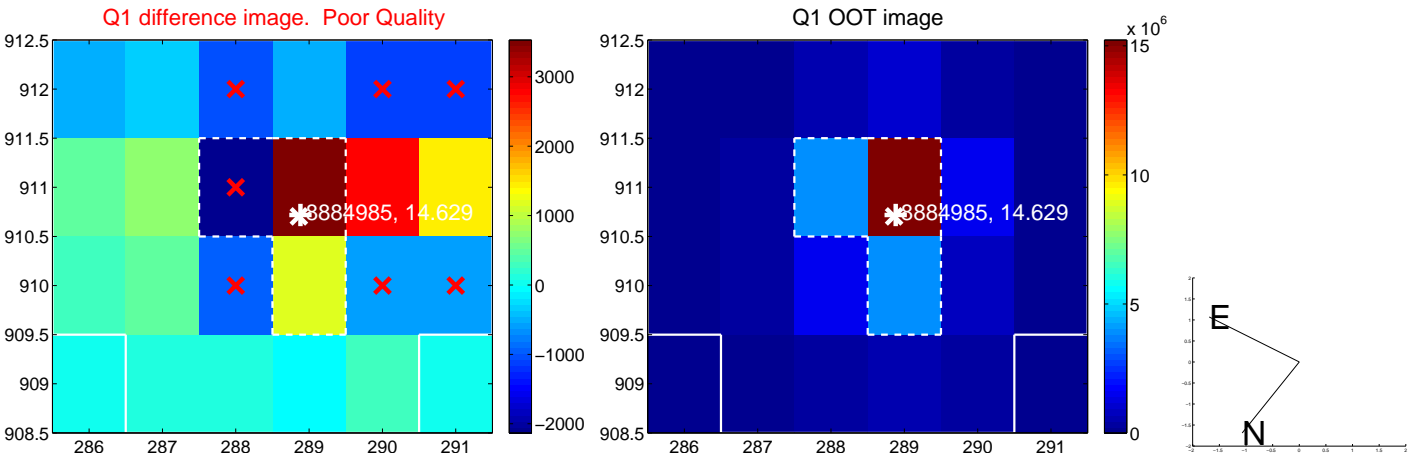


offset from photometric centroids

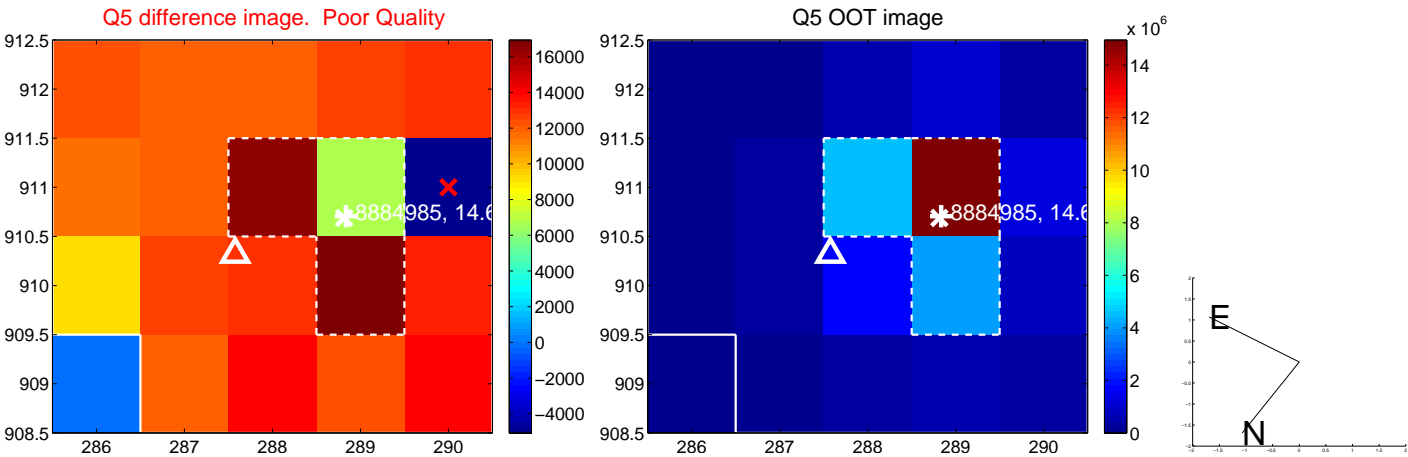


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



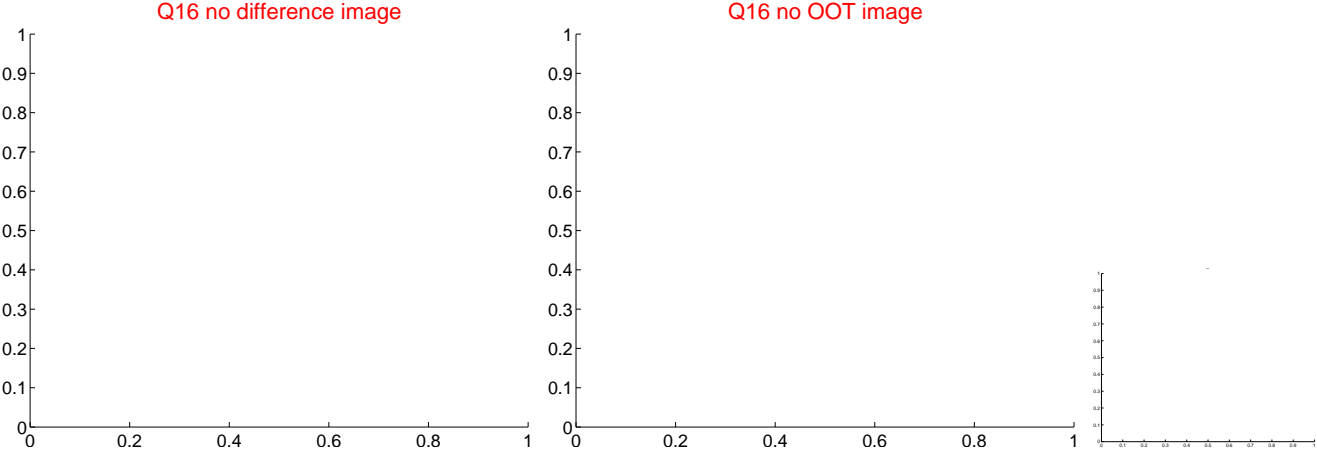
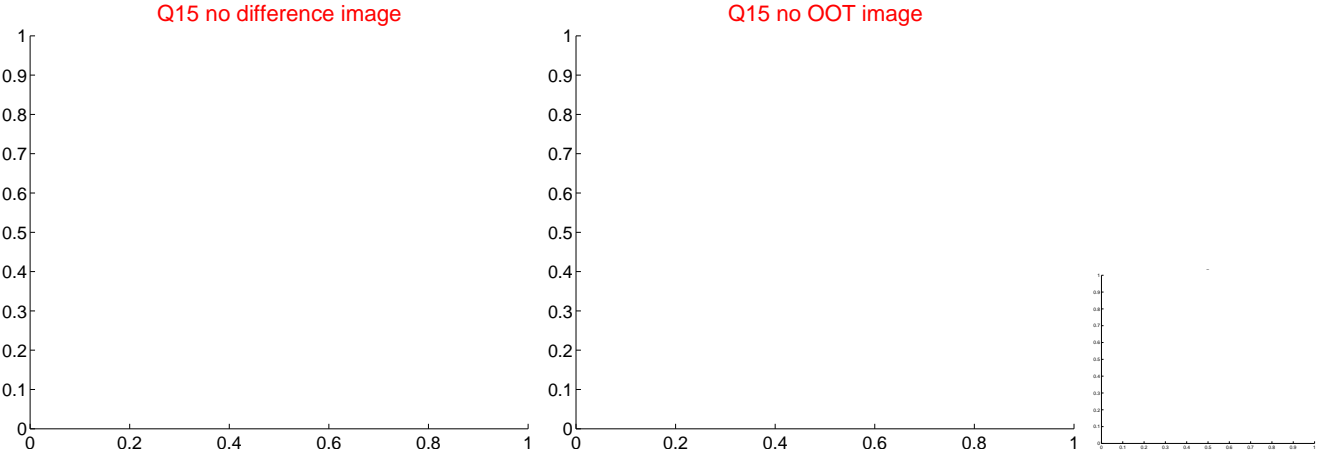
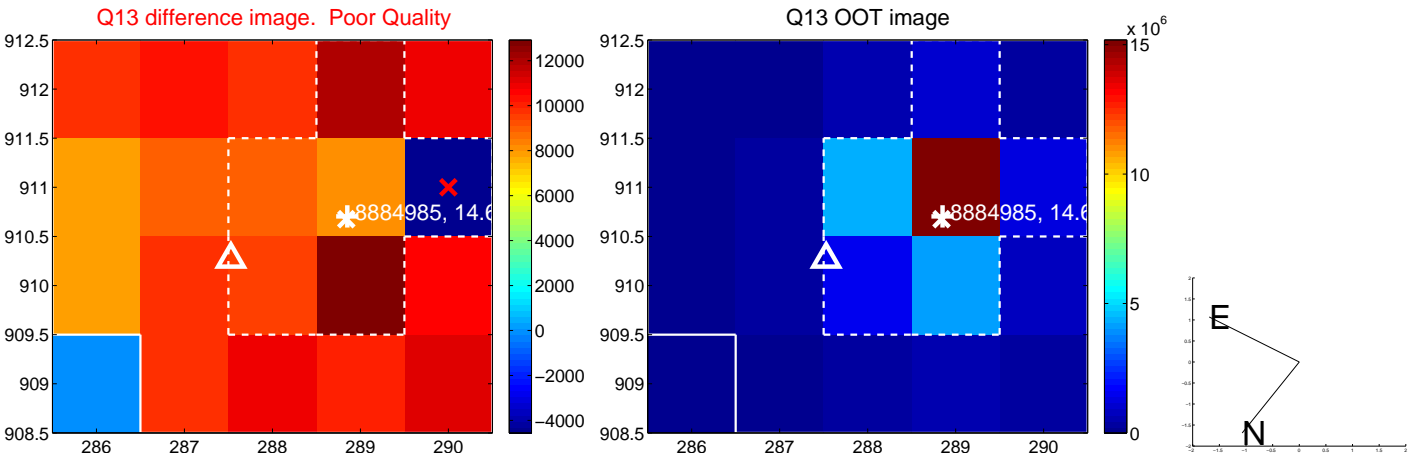
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



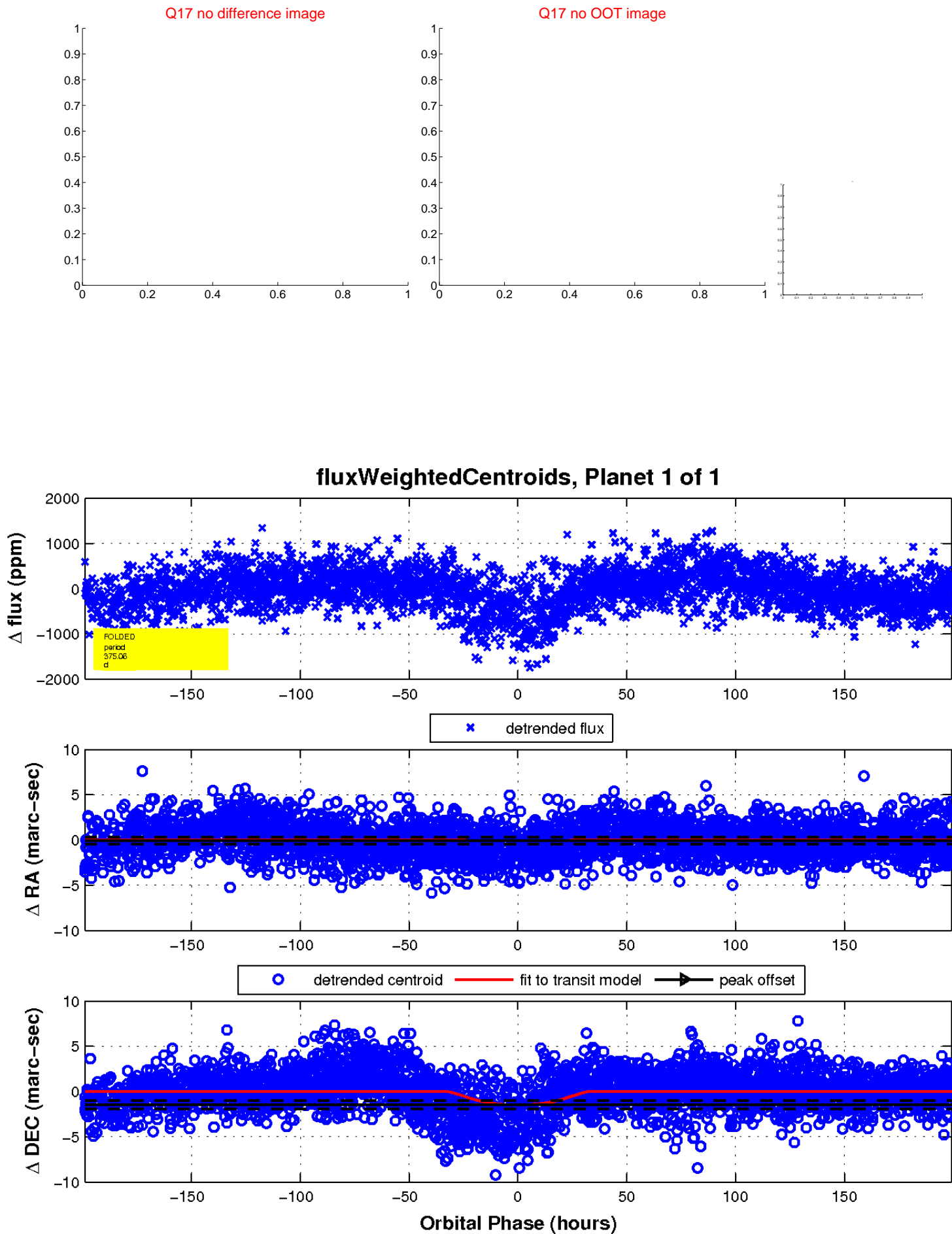
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

