

KIC 006219880

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})
006219880-01	OBS	No	437.041952	387.582284	194.3	4.289	10.7	4.3	3.77	5842	6.08	9.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006219880-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—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.

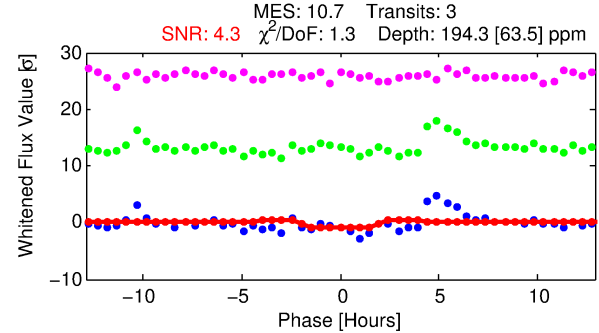
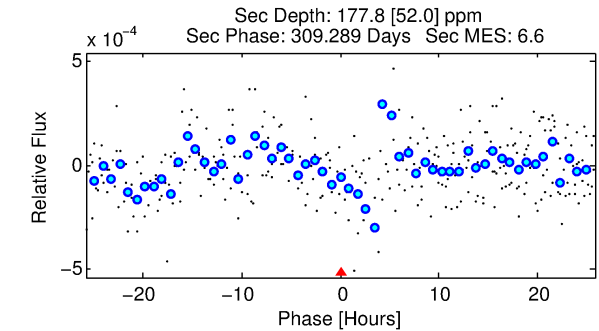
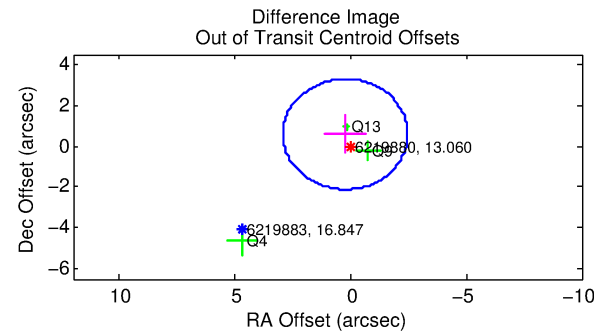
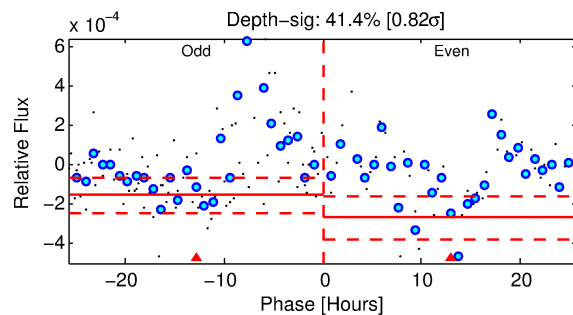
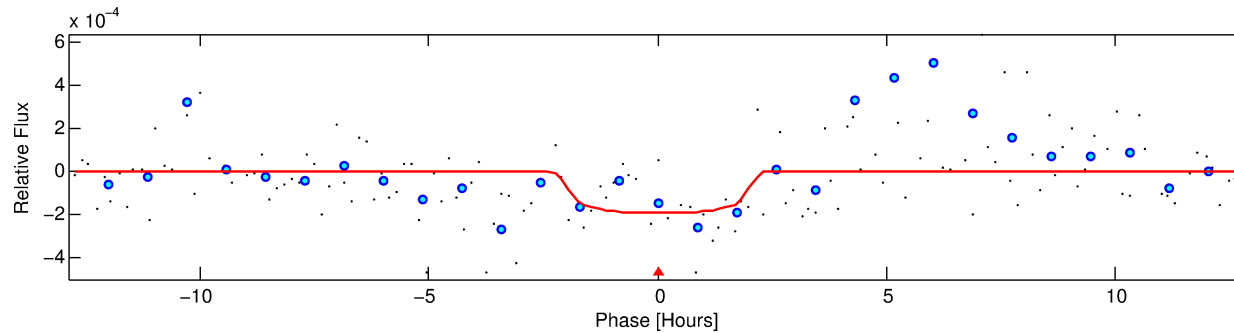
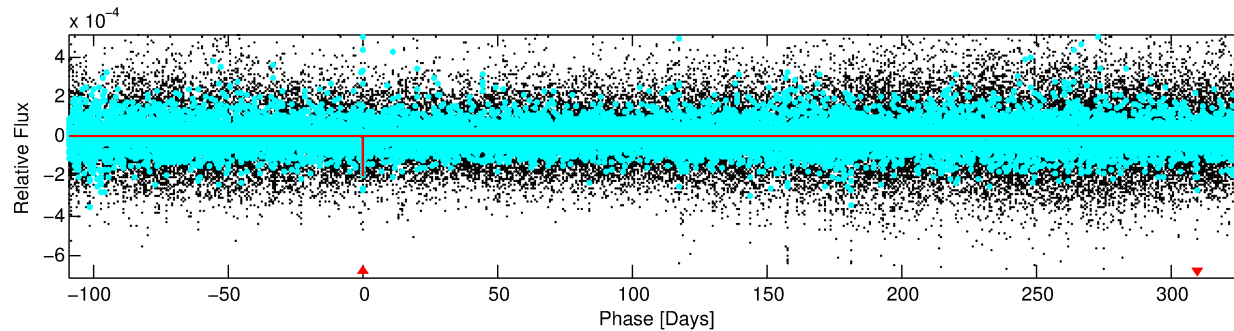
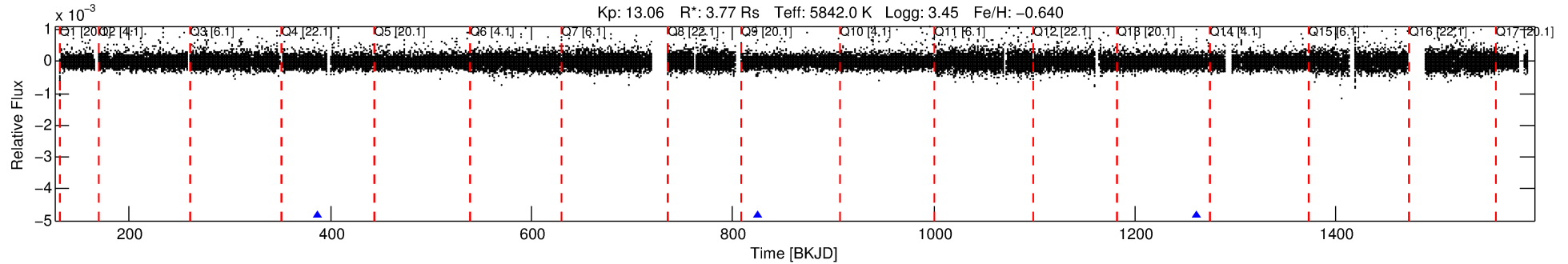
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006219880-01

No Significant Match Found

DV One-Page Summary

KIC: 6219880 Candidate: 1 of 1 Period: 437.042 d



DV Fit Results:

Period = 437.04195 [0.01356] d
Epoch = 387.5823 [0.0163] BKJD
Rp/R* = 0.0148 [0.0136]
a/R* = 396.34 [1845.53]
b = 0.88 [1.23]
Seff = 9.06 [5.11]
Teq = 442 [62] K
Rp = 6.08 [6.11] Re
a = 1.2811 [0.4619] AU
Ag = 4343.67 [8426.17] [0.52σ]
Teffp = 5552 [2592] K [1.97σ]

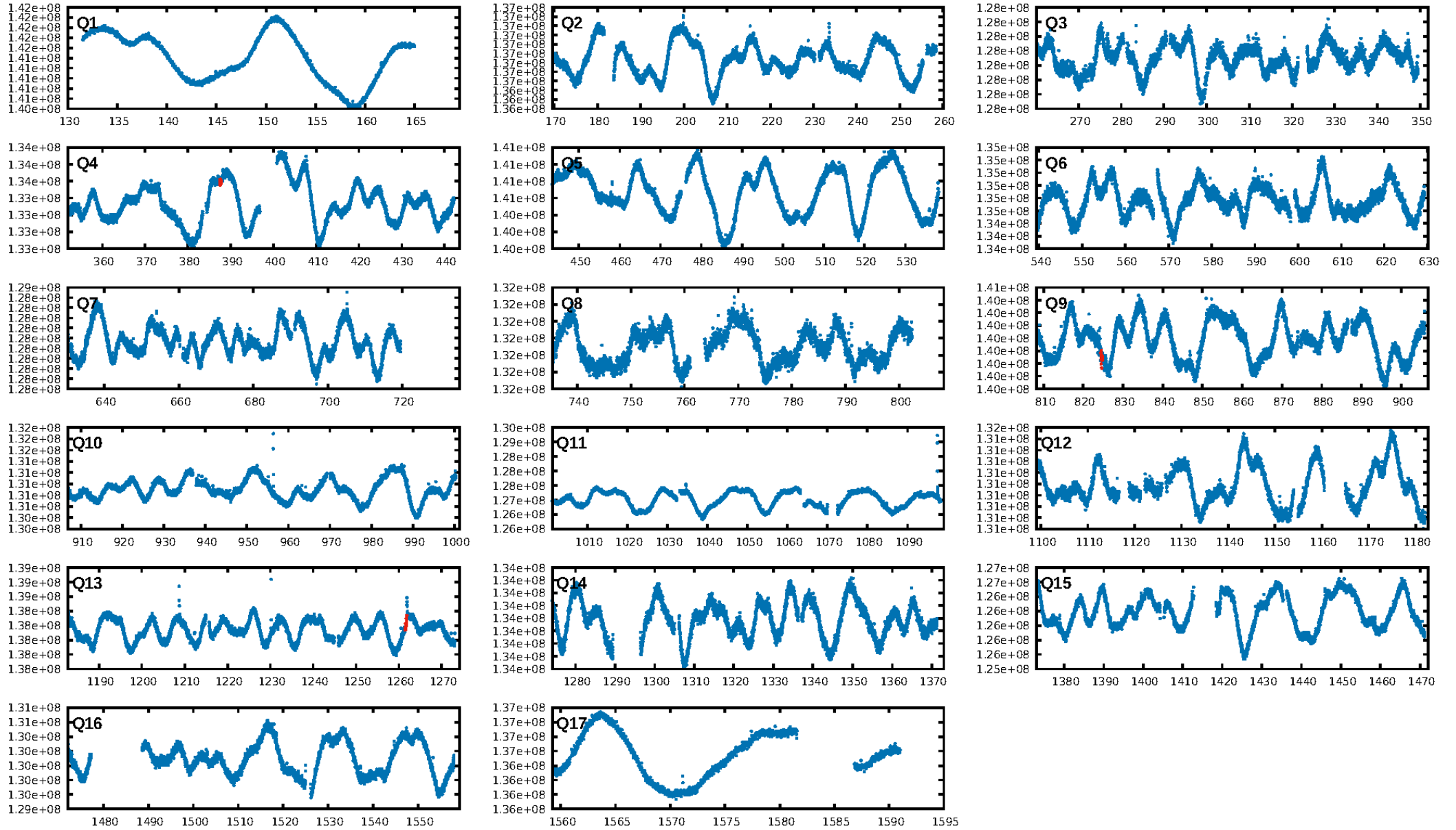
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.5%
ModelChiSquareGof-sig: 71.9%
Bootstrap-pfa: 1.16e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 6.289
Centroid-sig: 0.1%
Centroid-so: 4.996 arcsec [2.08σ]
OotOffset-rm: 0.632 arcsec [0.70σ]
KicOffset-rm: 0.756 arcsec [0.83σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

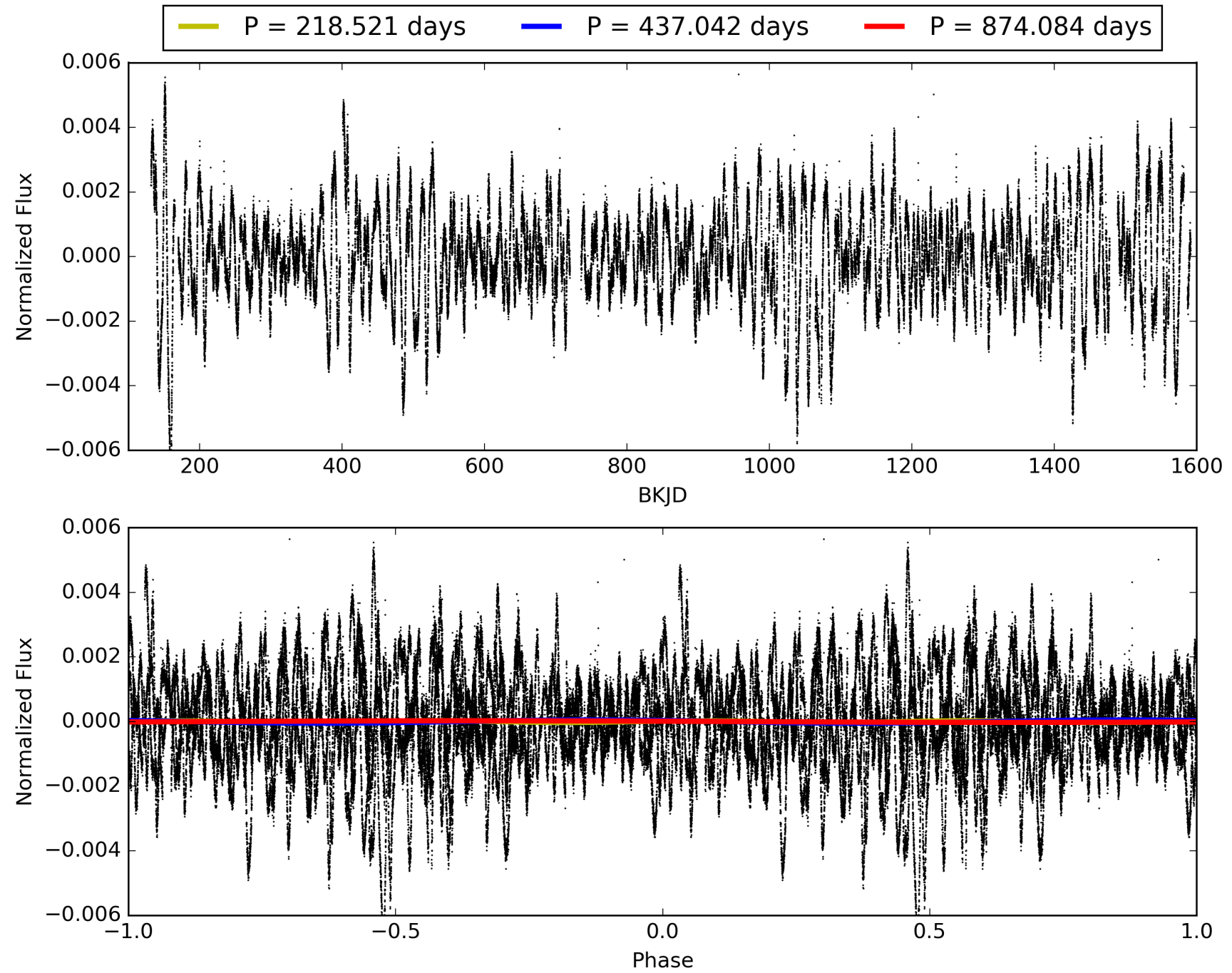
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:58:09 Z

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

TCE 006219880-01, PDC Light Curves

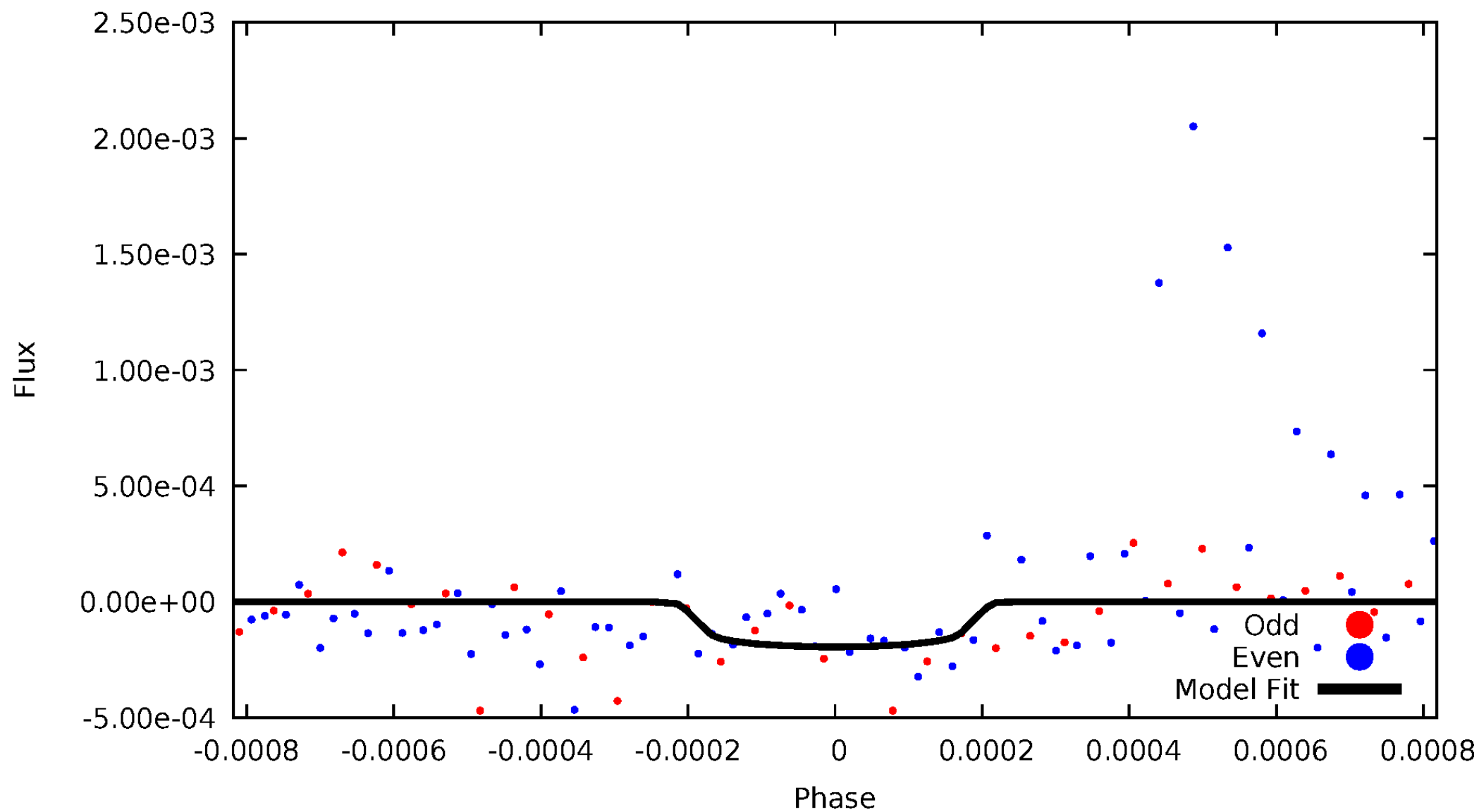


TCE 006219880-01



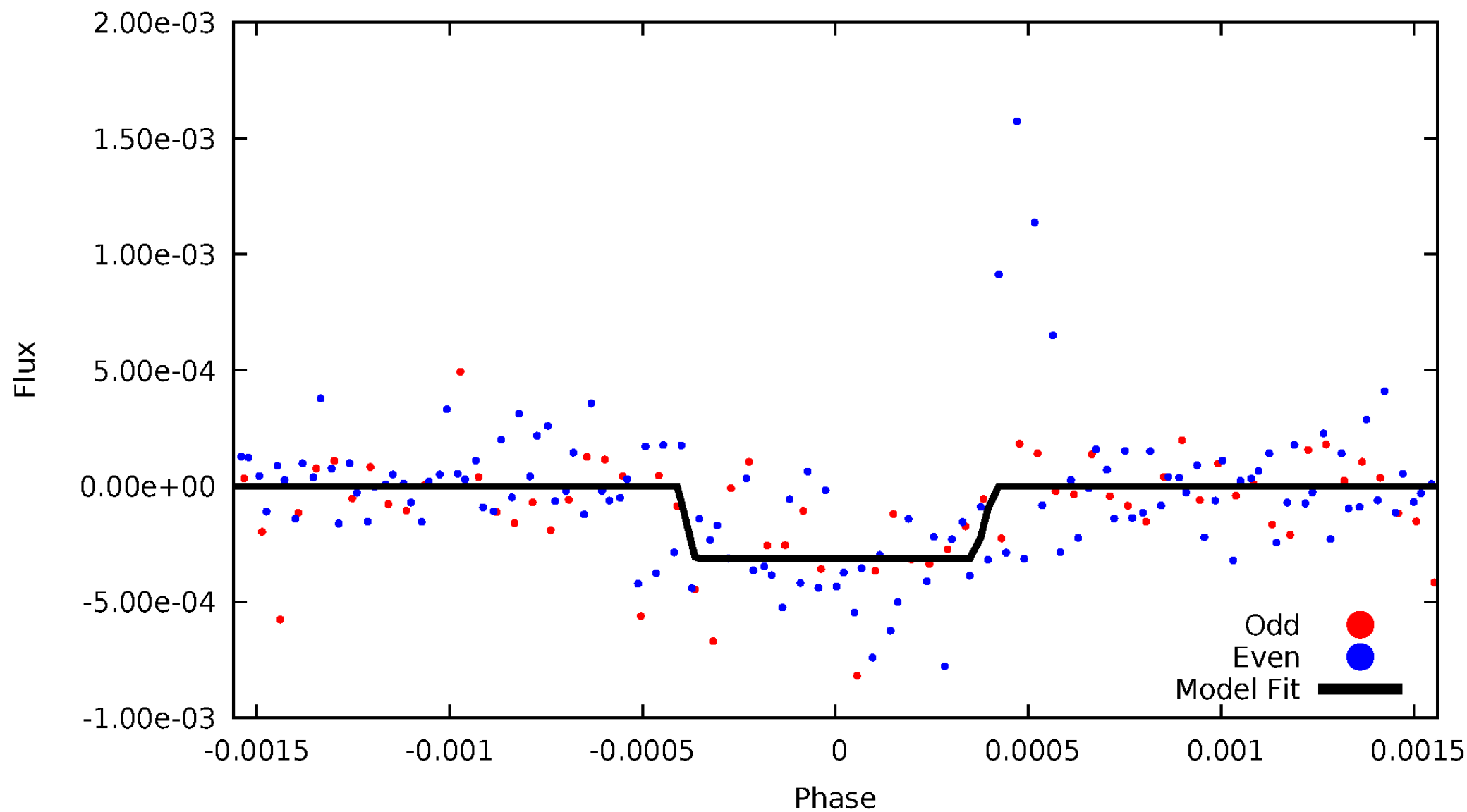
DV Odd/Even

TCE 006219880-01



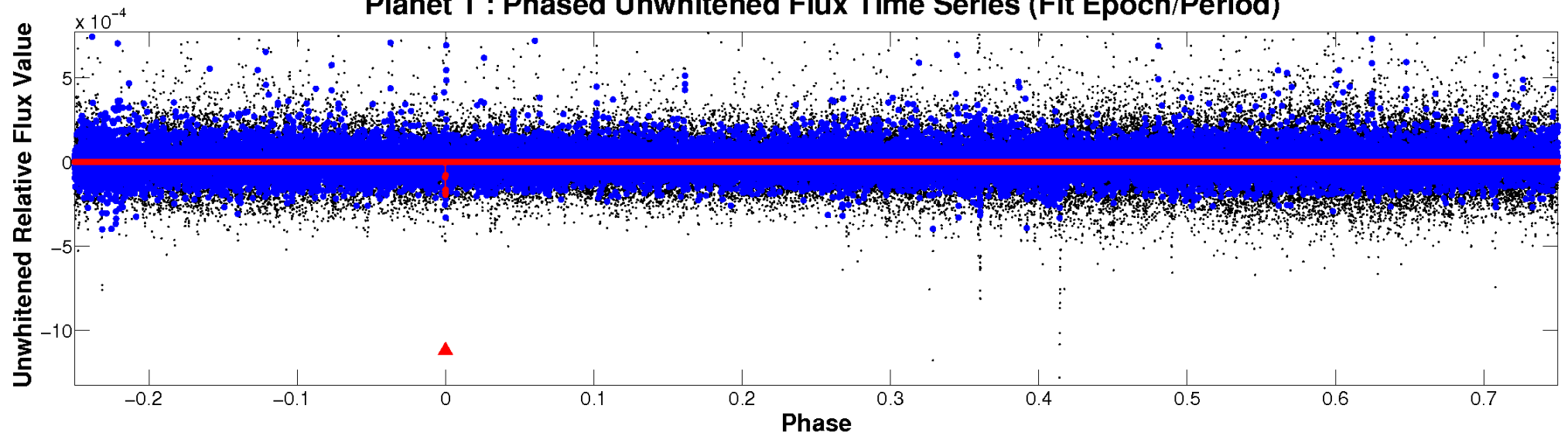
ALT Odd/Even

TCE 006219880-01

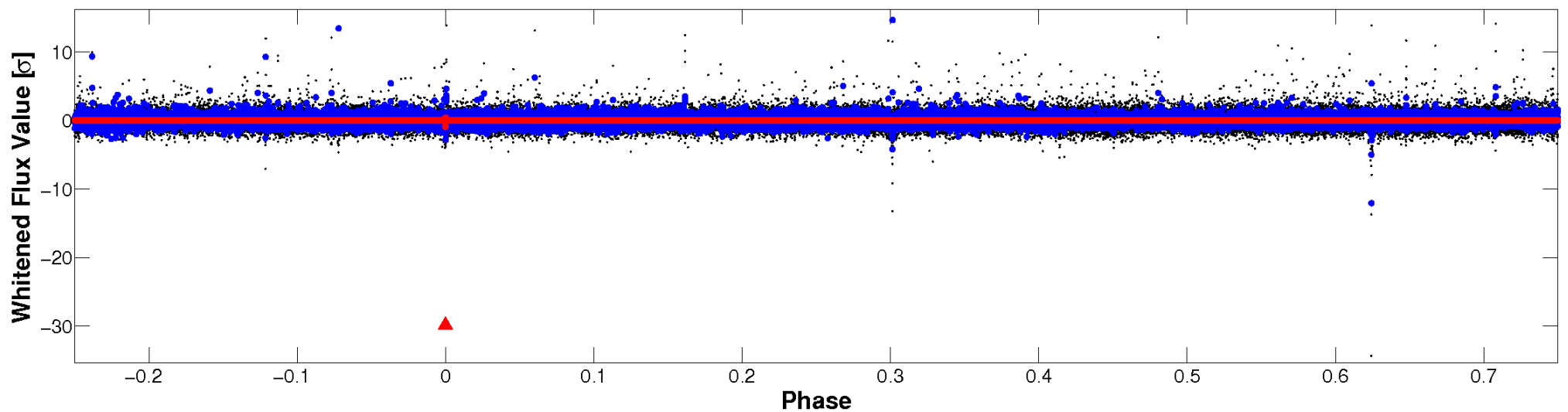


Non-Whitened Vs. Whitened Light Curve

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

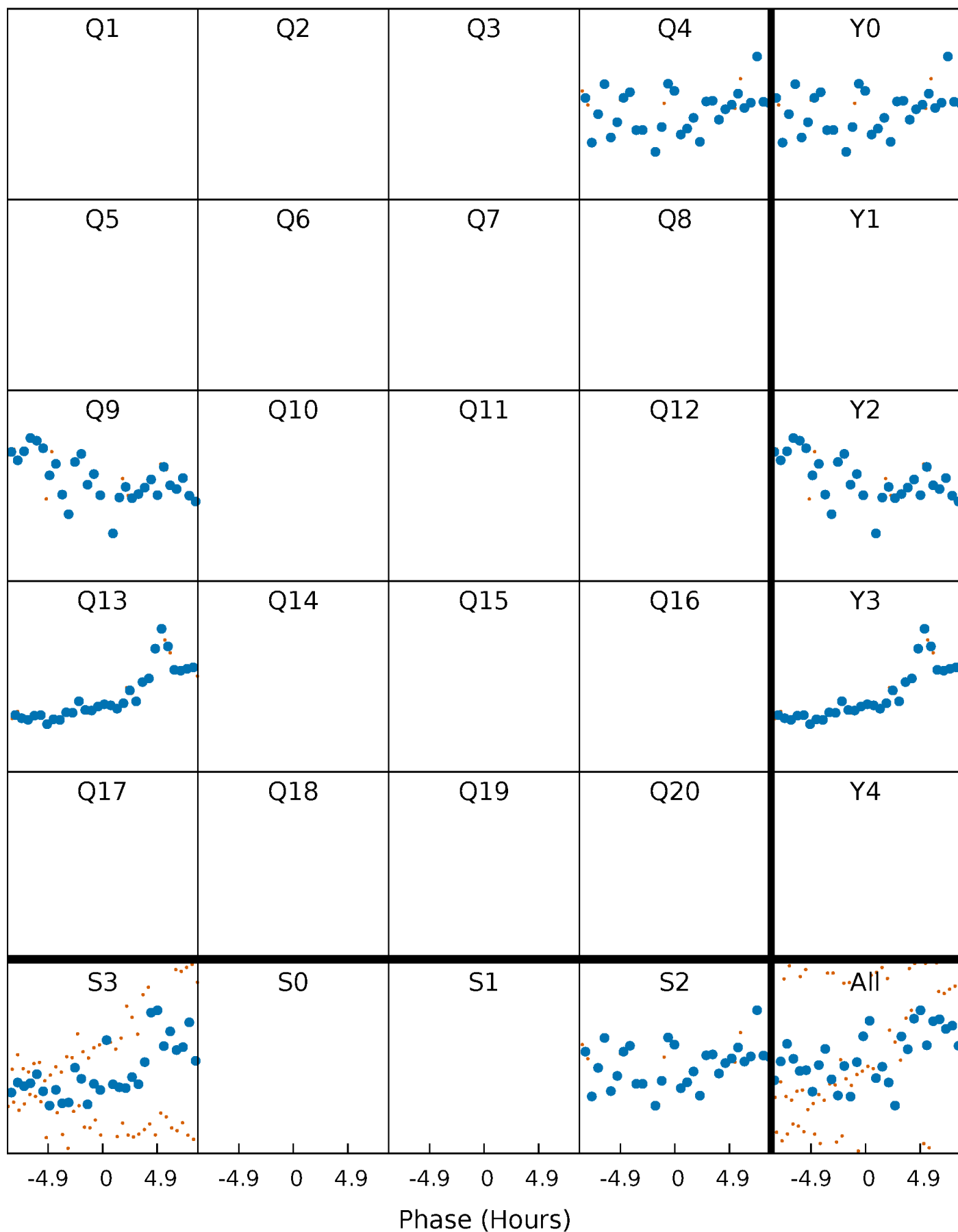


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



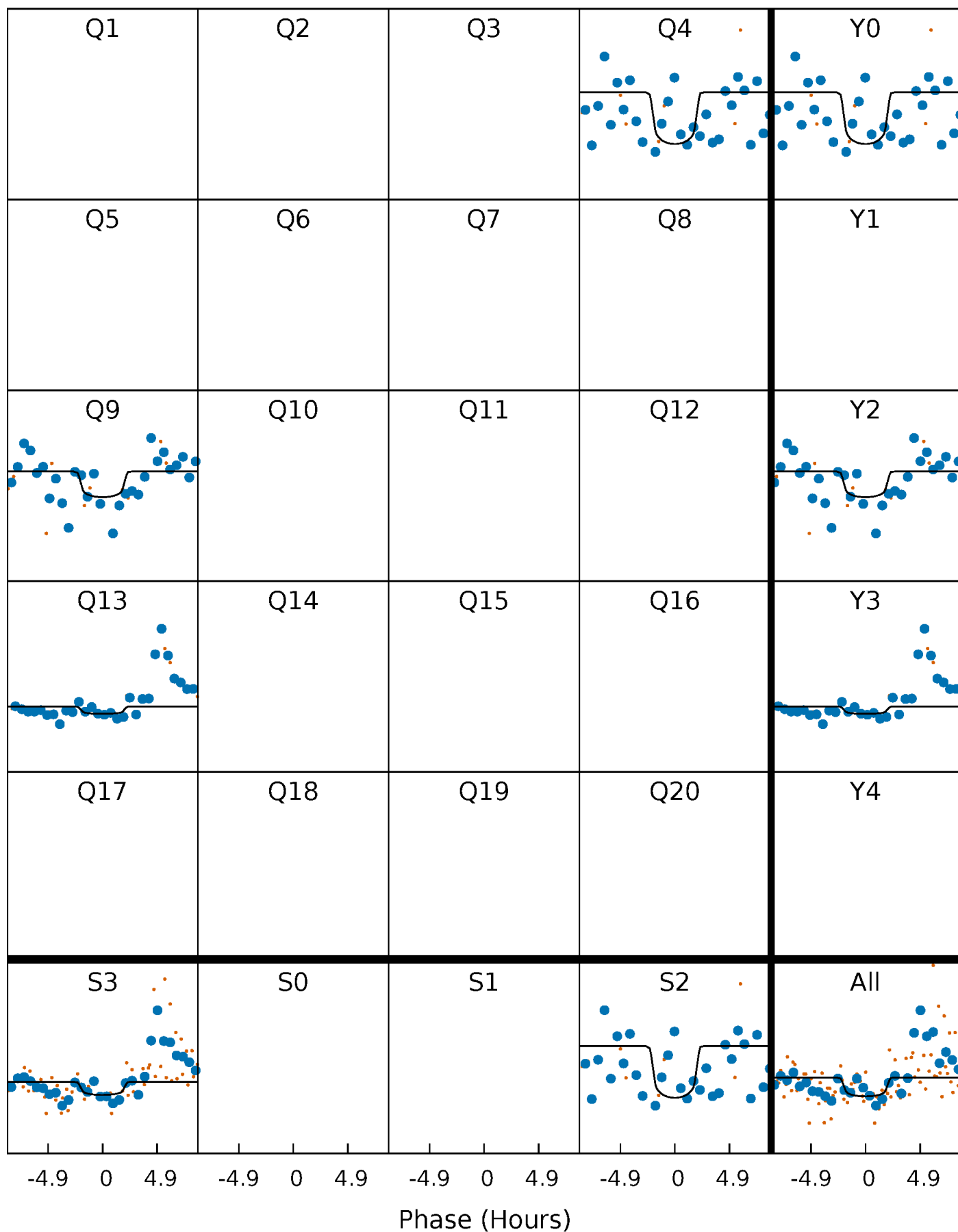
PDC Quarter-Phased Transit Curves

TCE 006219880-01 P=437.041952 Days $T_0=387.582284$ (BKJD)



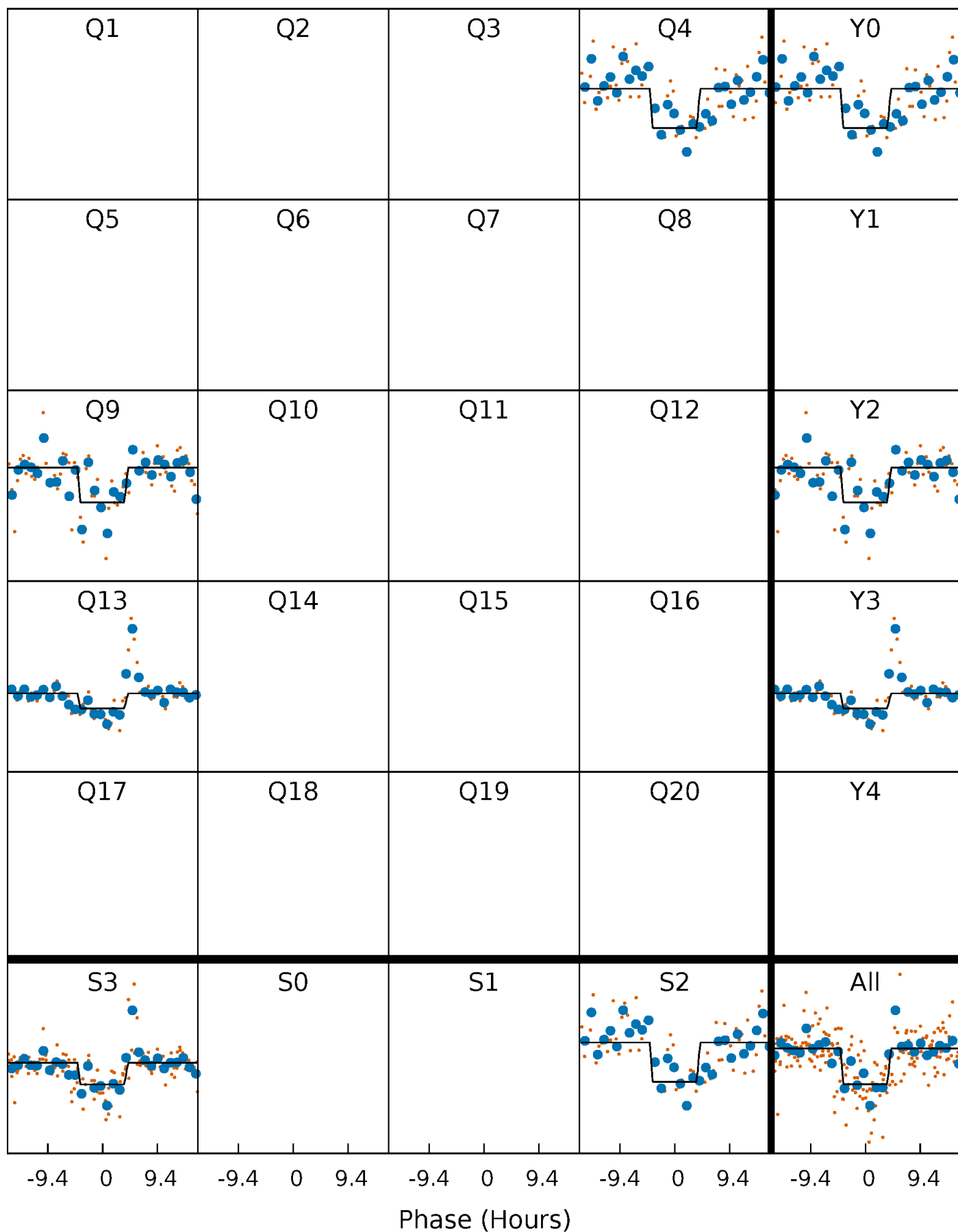
DV Quarter-Phased Transit Curves

TCE 006219880-01 P=437.041952 Days $T_0=387.582284$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

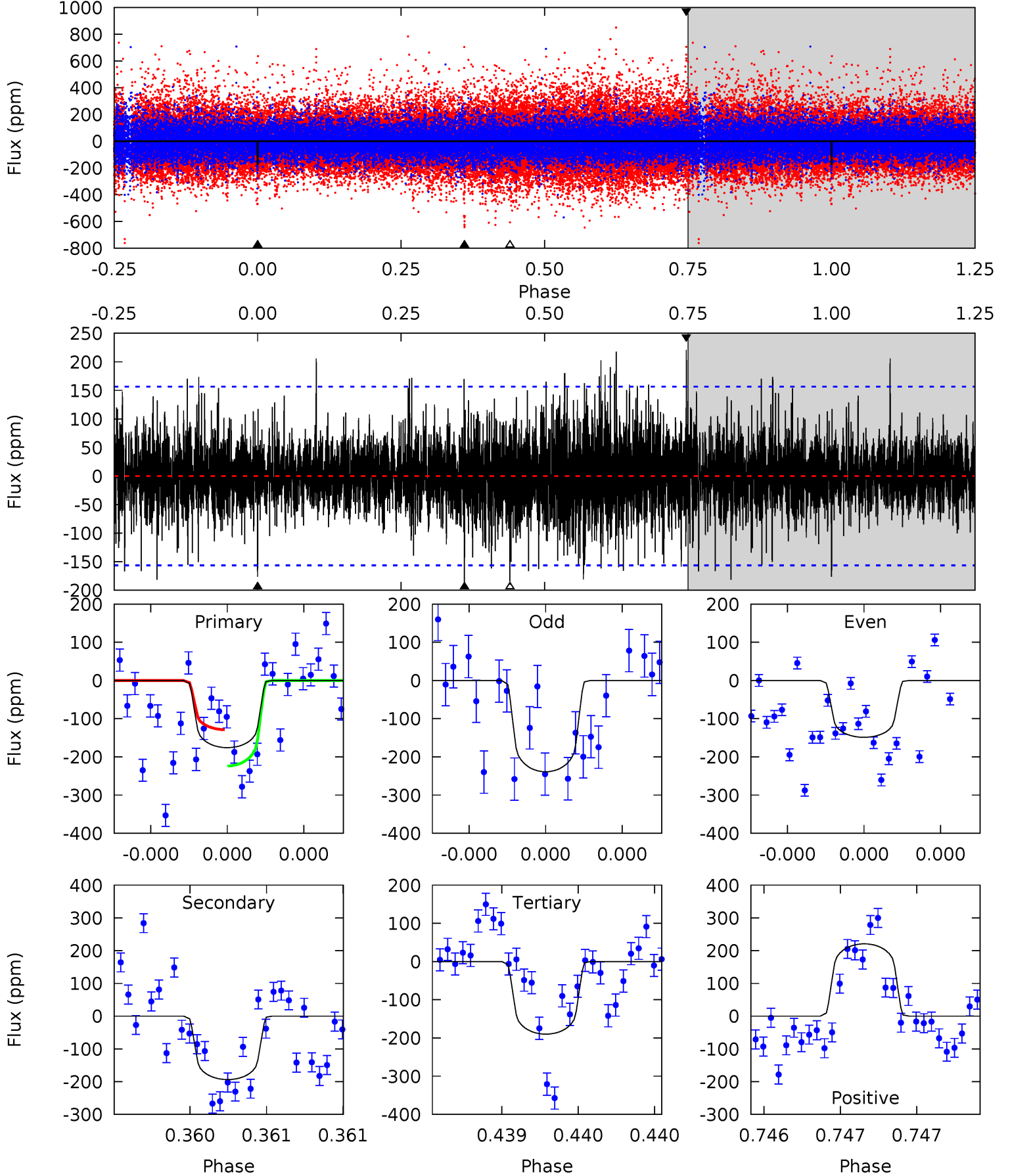
TCE 006219880-01 P=437.039792 Days $T_0=387.593971$ (BKJD)



DV Model-Shift Uniqueness Test

006219880-01, P = 437.041952 Days, E = 387.582284 Days

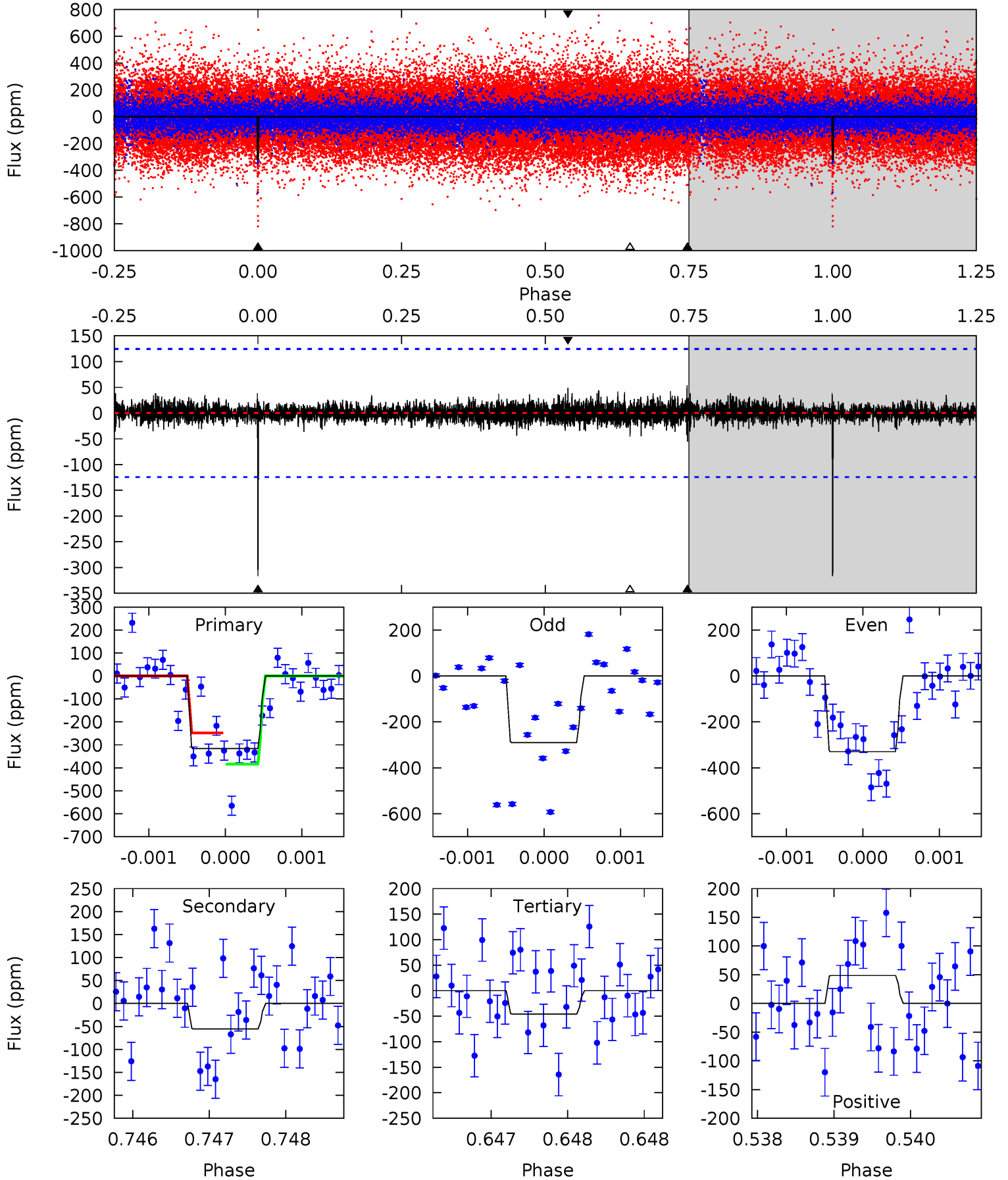
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.29	6.93	6.80	7.90	5.60	3.52	1.67	-0.50	-1.60	0.13	-0.97	1.40	1.02	0.53	1.70



Alt Model-Shift Uniqueness Test

006219880-01, P = 437.039792 Days, E = 387.593971 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	2.44	2.01	2.15	5.49	3.34	0.44	12.0	11.8	0.43	0.29	0.81	1.08	0.15	3.00



Stellar Parameters For KIC 006219880

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5842^{+156}_{-208}	$3.451^{+0.308}_{-0.103}$	$-0.640^{+0.300}_{-0.350}$	$3.774^{+0.661}_{-1.541}$	$1.467^{+0.159}_{-0.445}$	$0.038^{+0.088}_{-0.013}$
	+3%/-4%	+9%/-3%	+47%/-55%	+18%/-41%	+11%/-30%	+229%/-33%
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 006219880-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-194 ± 28	$6.38^{+5.05}_{-4.06}$	603^{+40}_{-55}	5316^{+3547}_{-1072}	4123^{+26601}_{-2820}
Alt.	-55 ± 23	$6.95^{+5.69}_{-4.40}$	607^{+40}_{-58}	3959^{+1947}_{-665}	894^{+5790}_{-614}

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 $A_{obs} \gg 1.0$

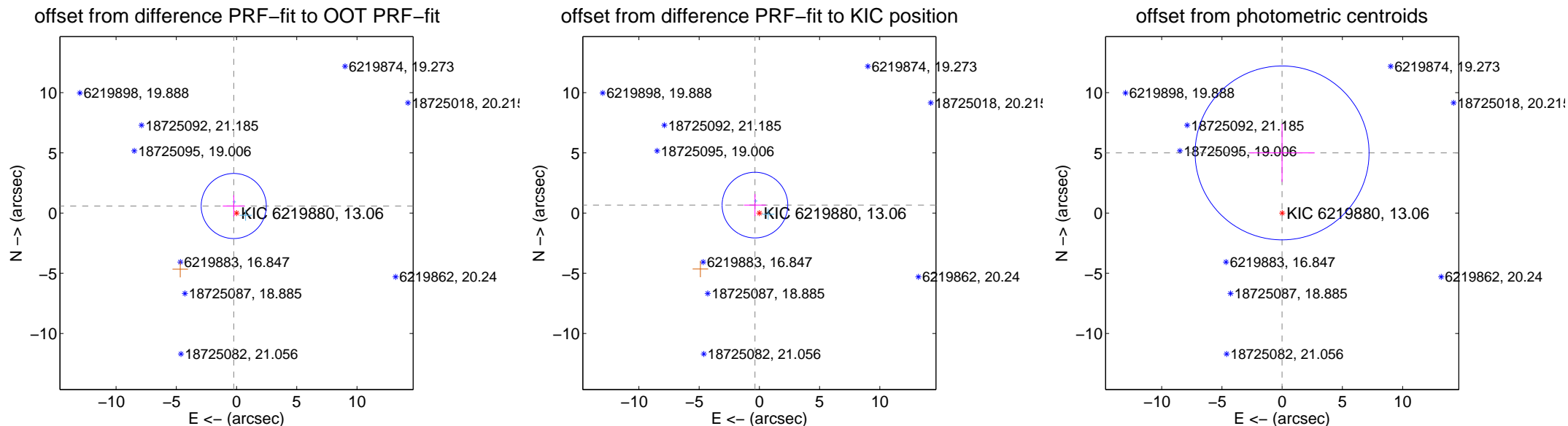
DV Centroid Data

Supplemental centroid analysis for 006219880-01. Kepler magnitude: 13.06. Transit SNR 4.32

There are 2 quarters with good PRF difference image offsets

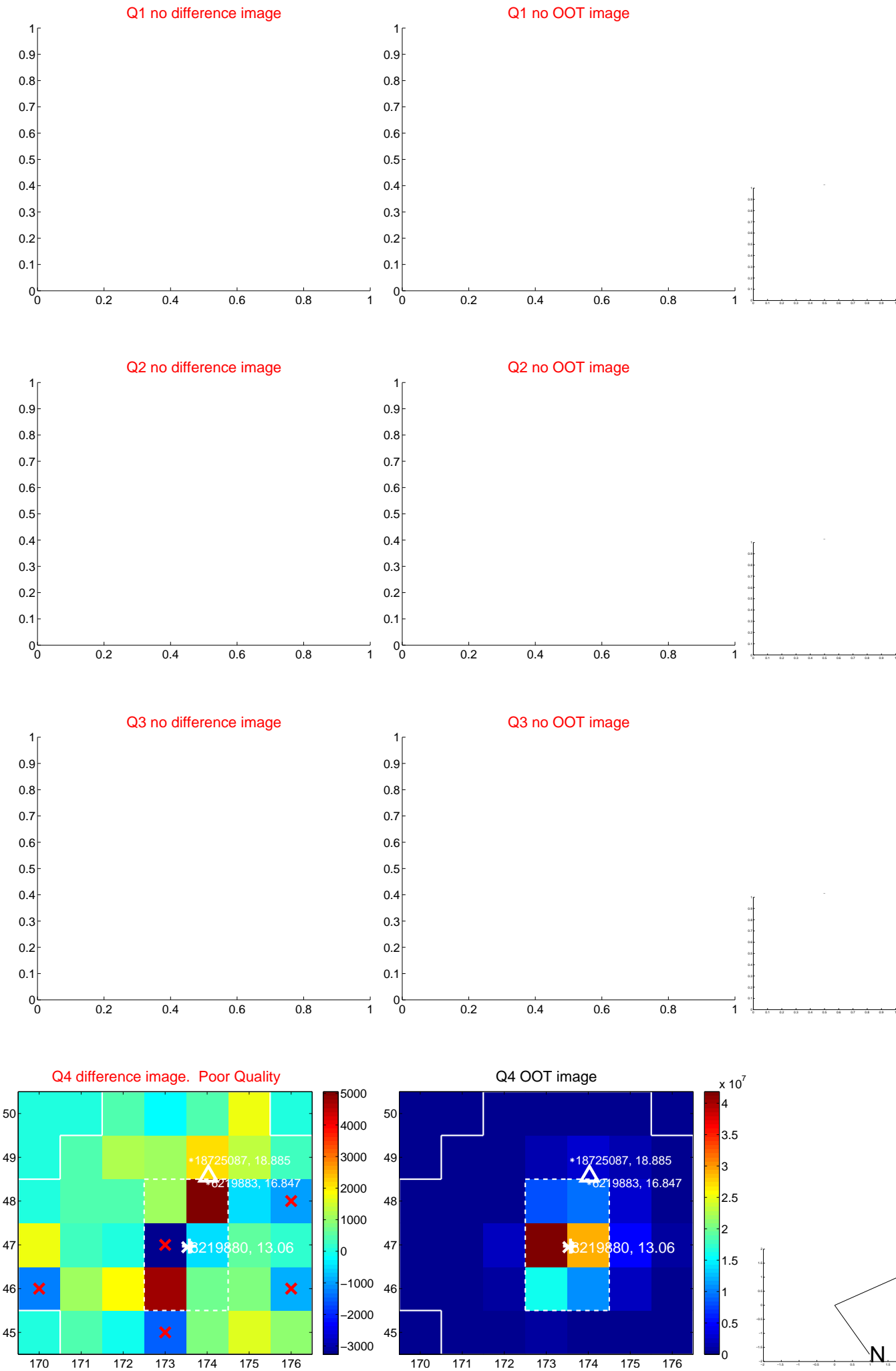
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.632 ± 0.901	0.70	0.233 ± 0.910	0.587 ± 0.899
PRF-fit source offset from KIC position	0.756 ± 0.909	0.83	0.366 ± 0.910	0.662 ± 0.908
photometric centroid source offset	5.00 ± 2.41	2.08	0.01 ± 2.70	5.00 ± 2.41



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.

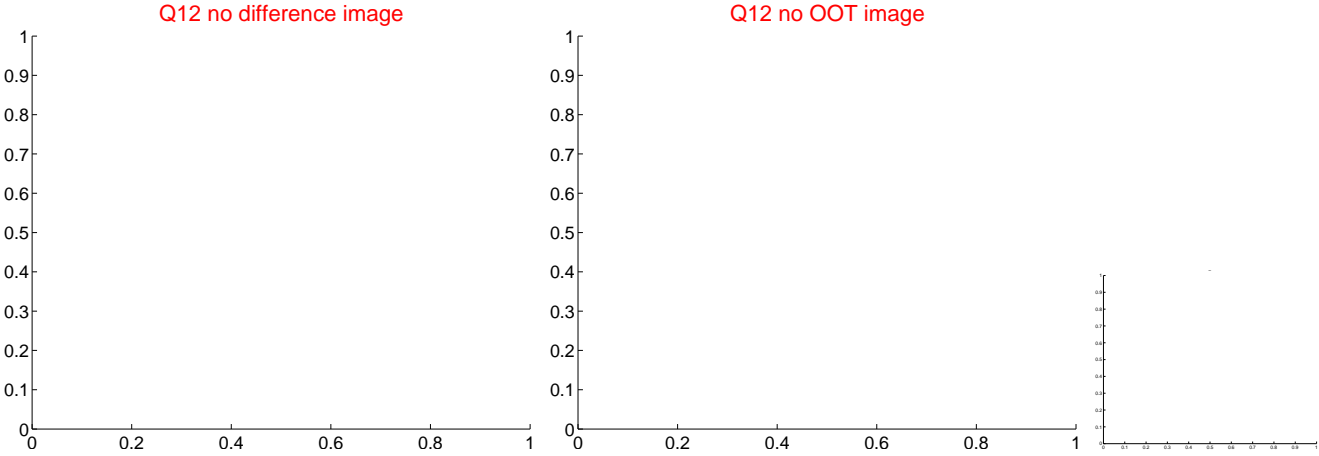
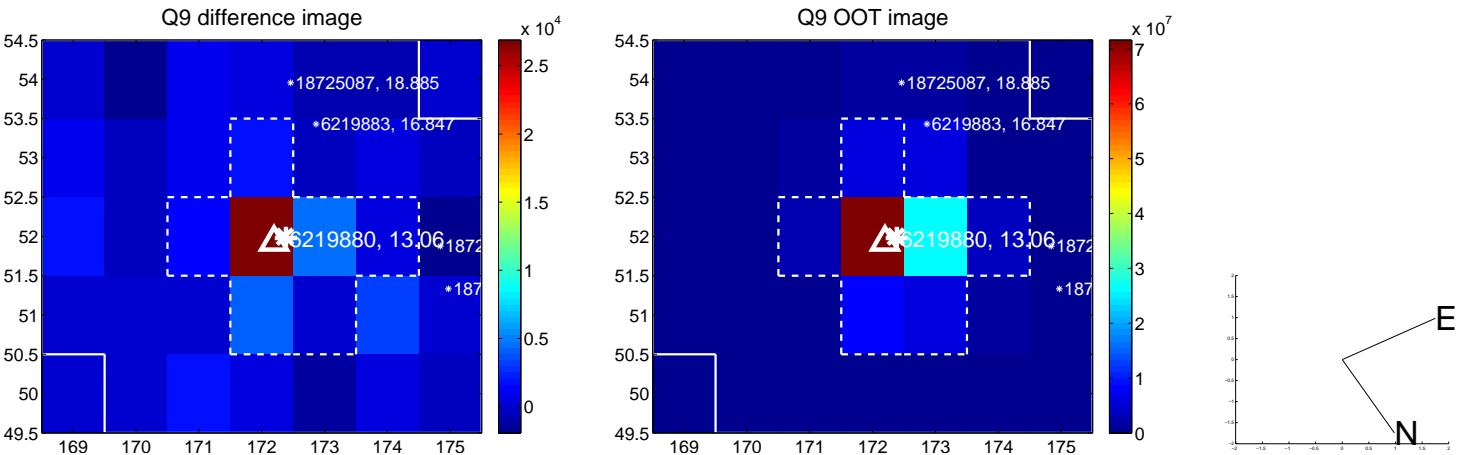
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



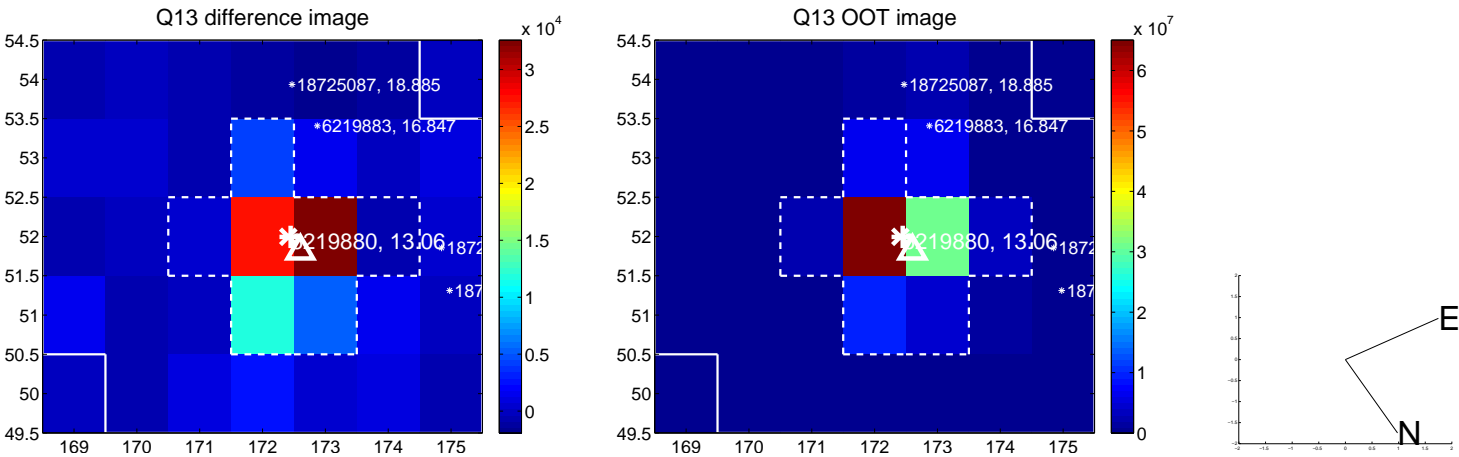
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



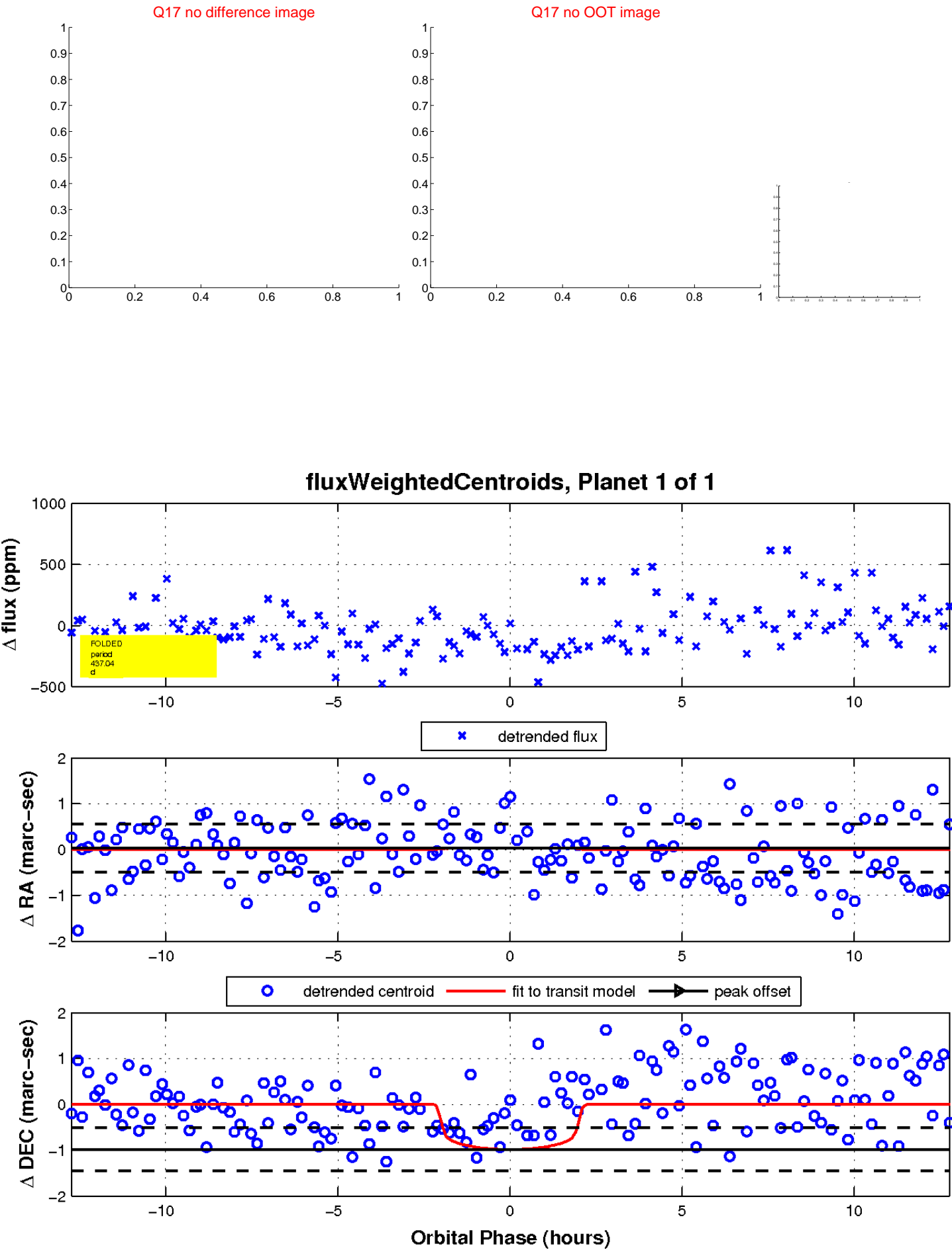
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

