

KIC 005808416

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})
005808416-01	OBS	No	442.733954	299.698903	929.7	4.506	7.2	5.6	0.64	4405	2.14	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005808416-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

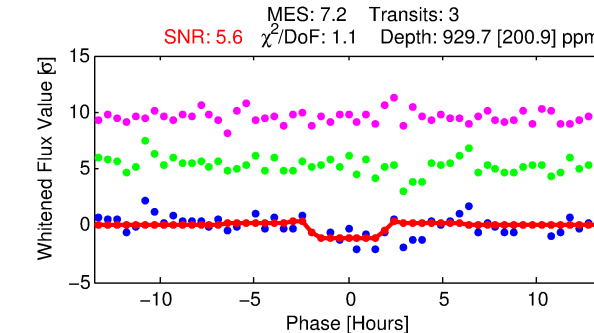
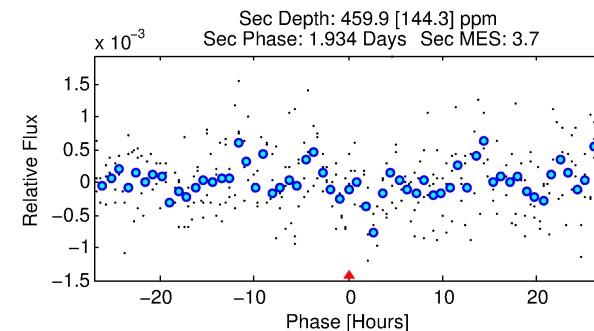
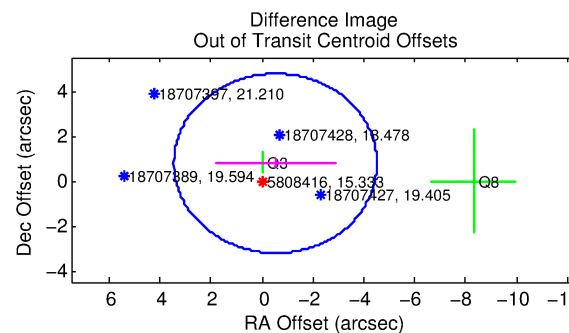
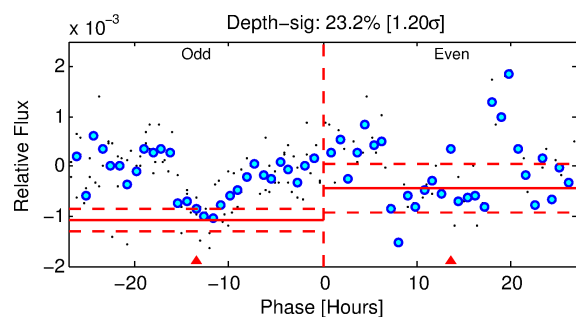
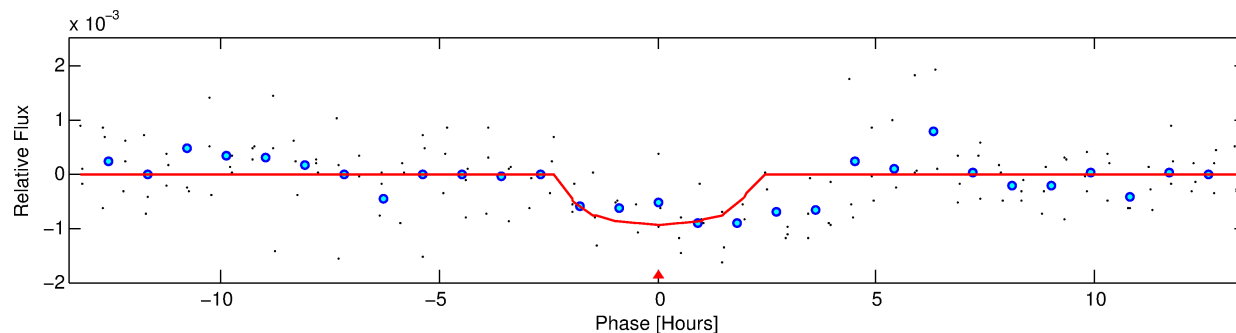
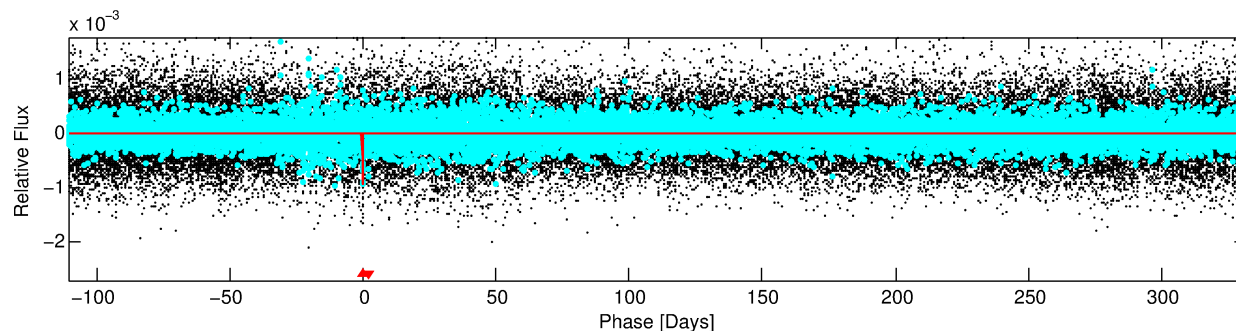
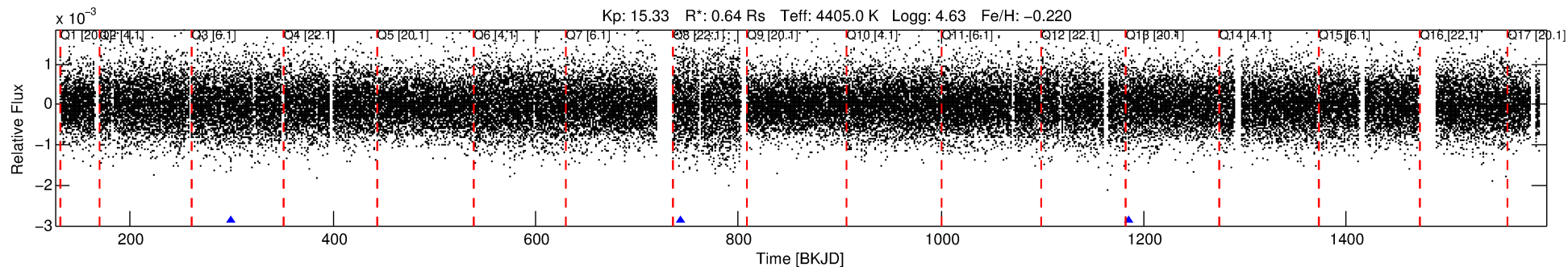
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005808416-01

No Significant Match Found

DV One-Page Summary

KIC: 5808416 Candidate: 1 of 1 Period: 442.734 d



DV Fit Results:

Period = 442.73395 [0.00859] d
Epoch = 299.6989 [0.0132] BKJD
Rp/R* = 0.0308 [0.0432]
a/R* = 514.35 [2498.46]
b = 0.77 [2.62]
Seff = 0.14 [0.02]
Teq = 157 [6] K
Rp = 2.14 [3.00] Re
a = 0.9749 [0.0625] AU
Ag = 52678.76 [148533.83] [0.35 σ]
Teffp = 3674 [2591] K [1.36 σ]

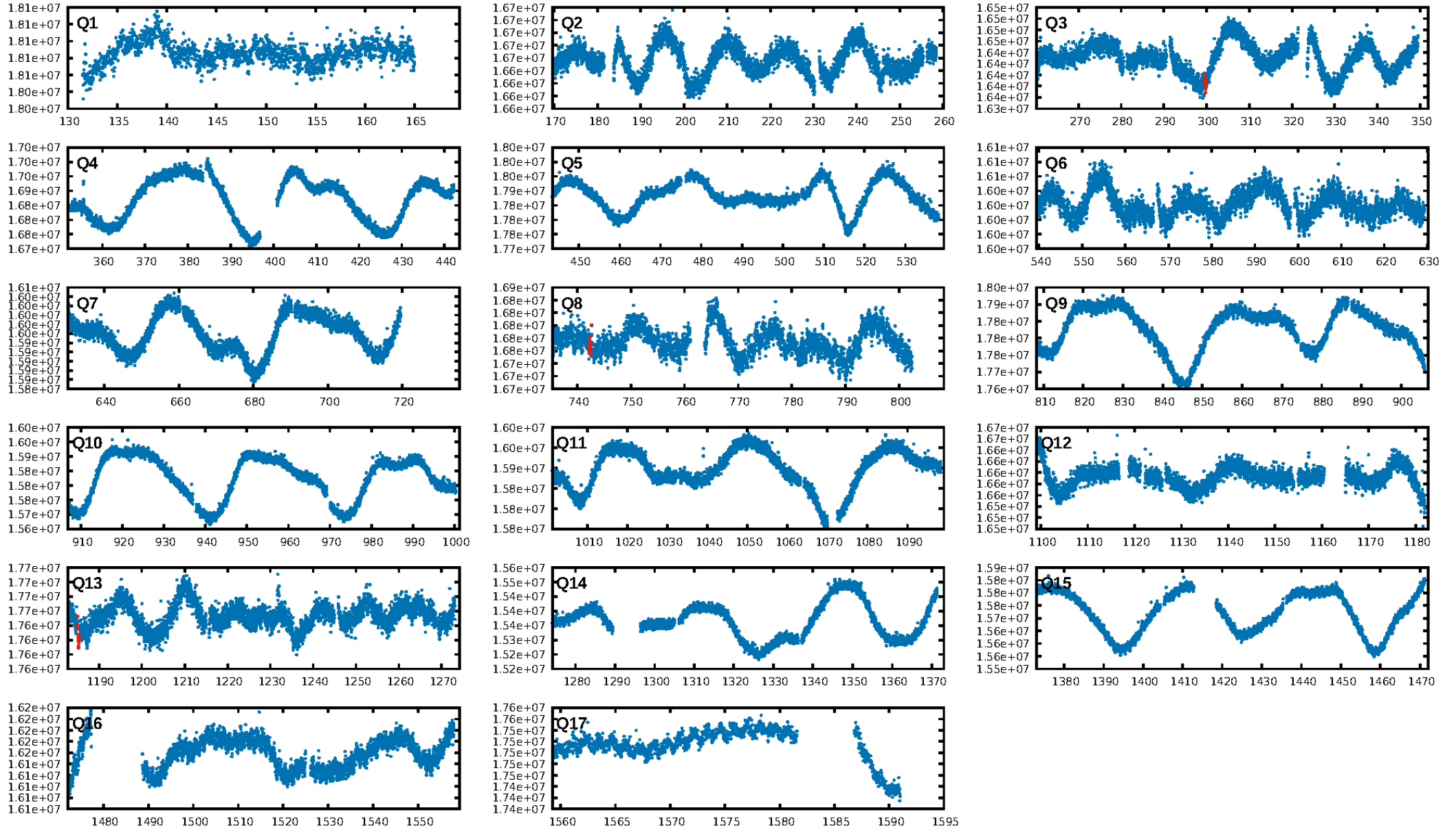
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 26.9%
ModelChiSquareGof-sig: 98.1%
Bootstrap-pfa: 5.58e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.8216
Centroid-sig: 67.4%
Centroid-so: 1.037 arcsec [0.65 σ]
OotOffset-rm: 0.944 arcsec [0.71 σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-rm: 0.929 arcsec [0.75 σ]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

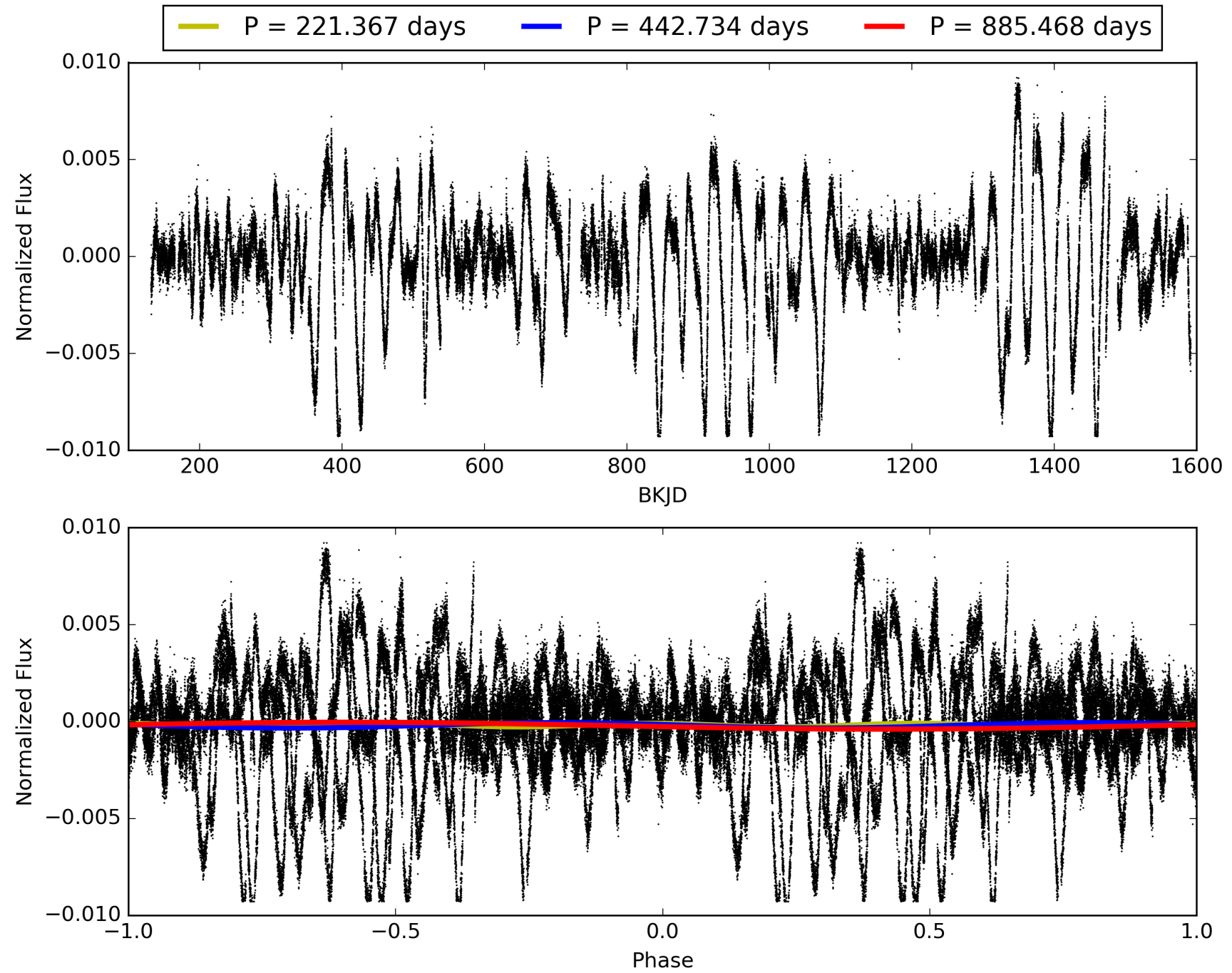
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:38:27 Z

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

TCE 005808416-01, PDC Light Curves

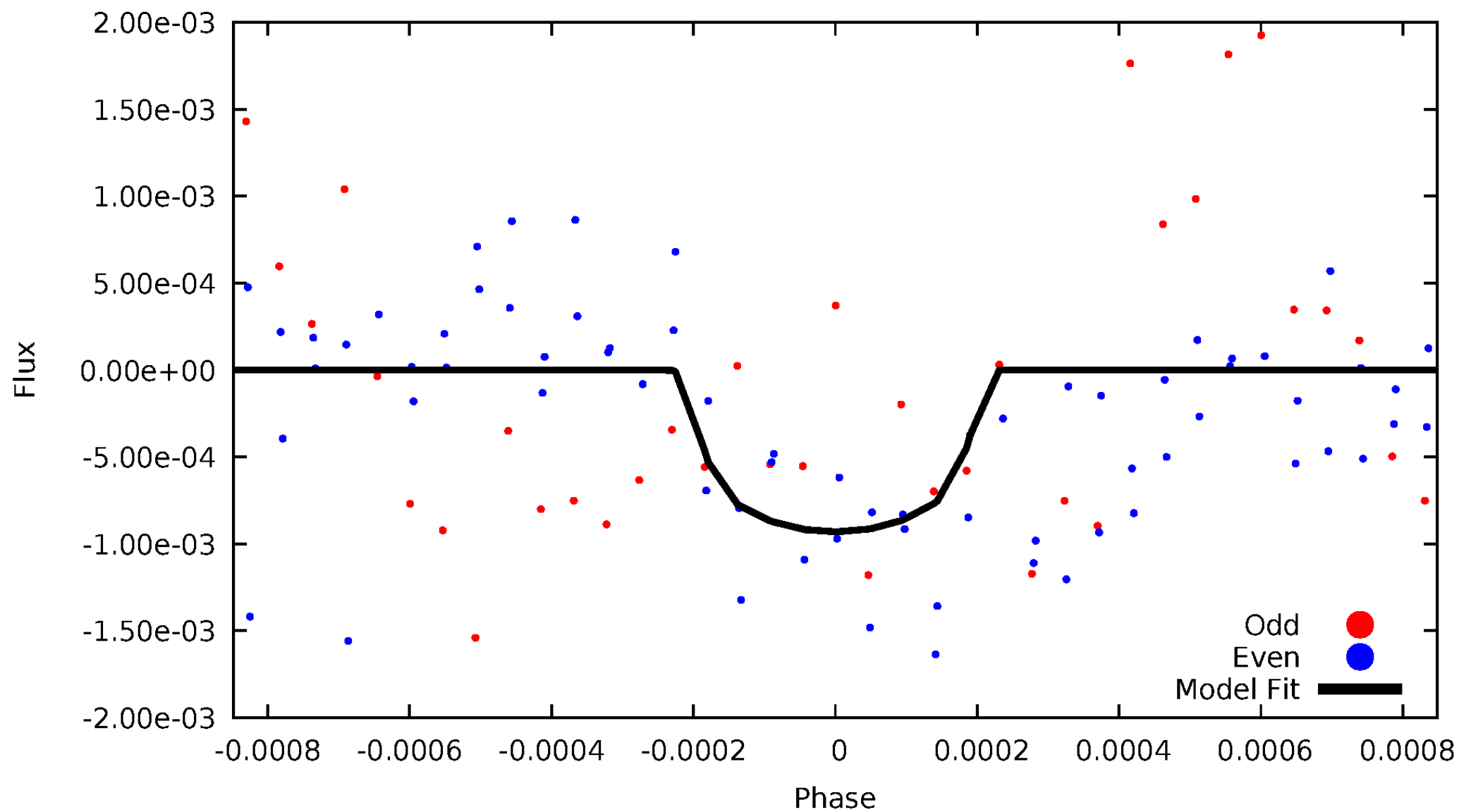


TCE 005808416-01



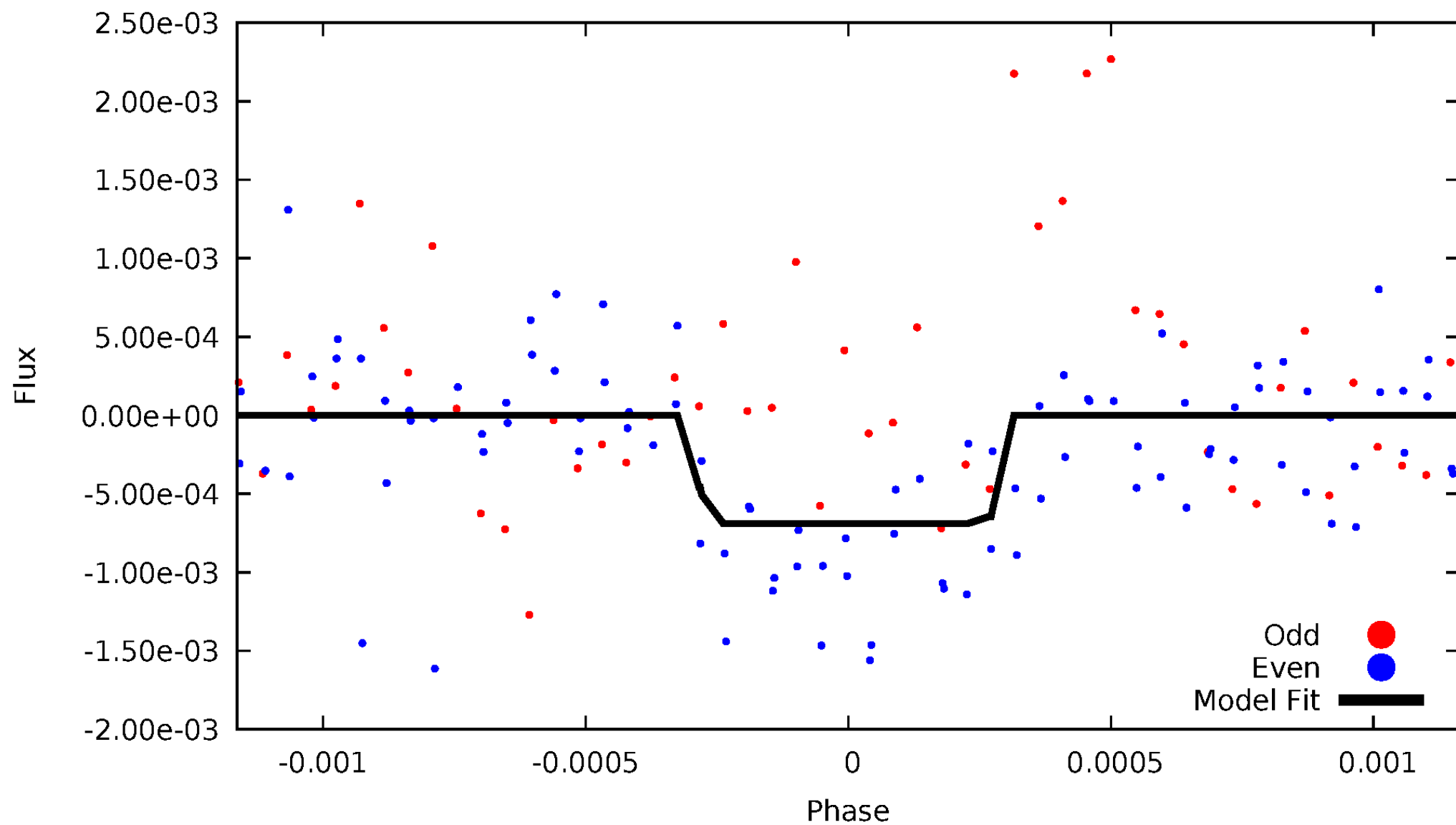
DV Odd/Even

TCE 005808416-01



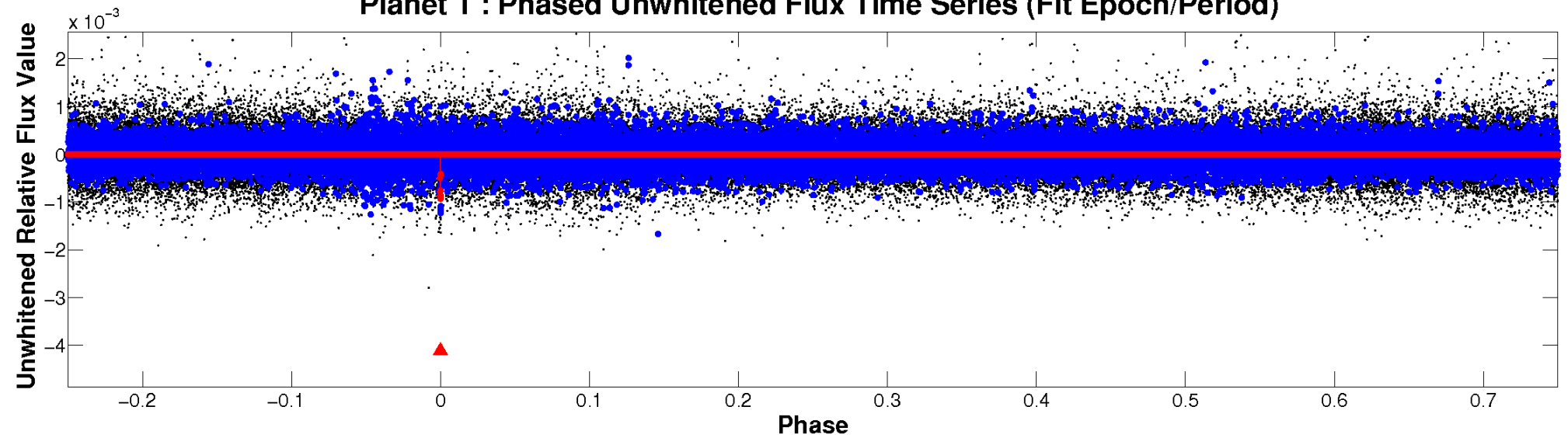
ALT Odd/Even

TCE 005808416-01

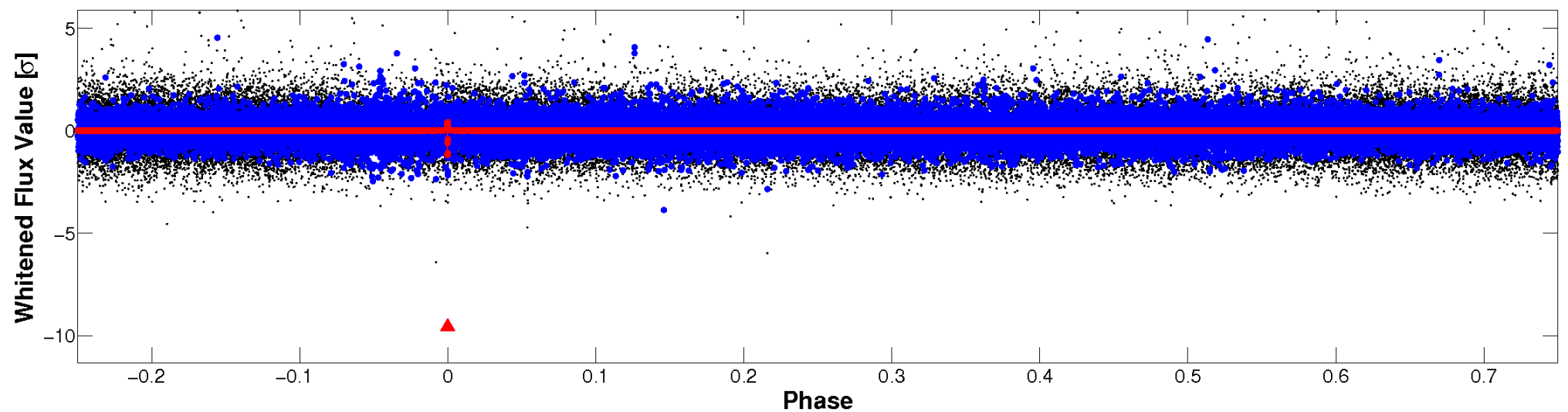


Non-Whitened Vs. Whitened Light Curve

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

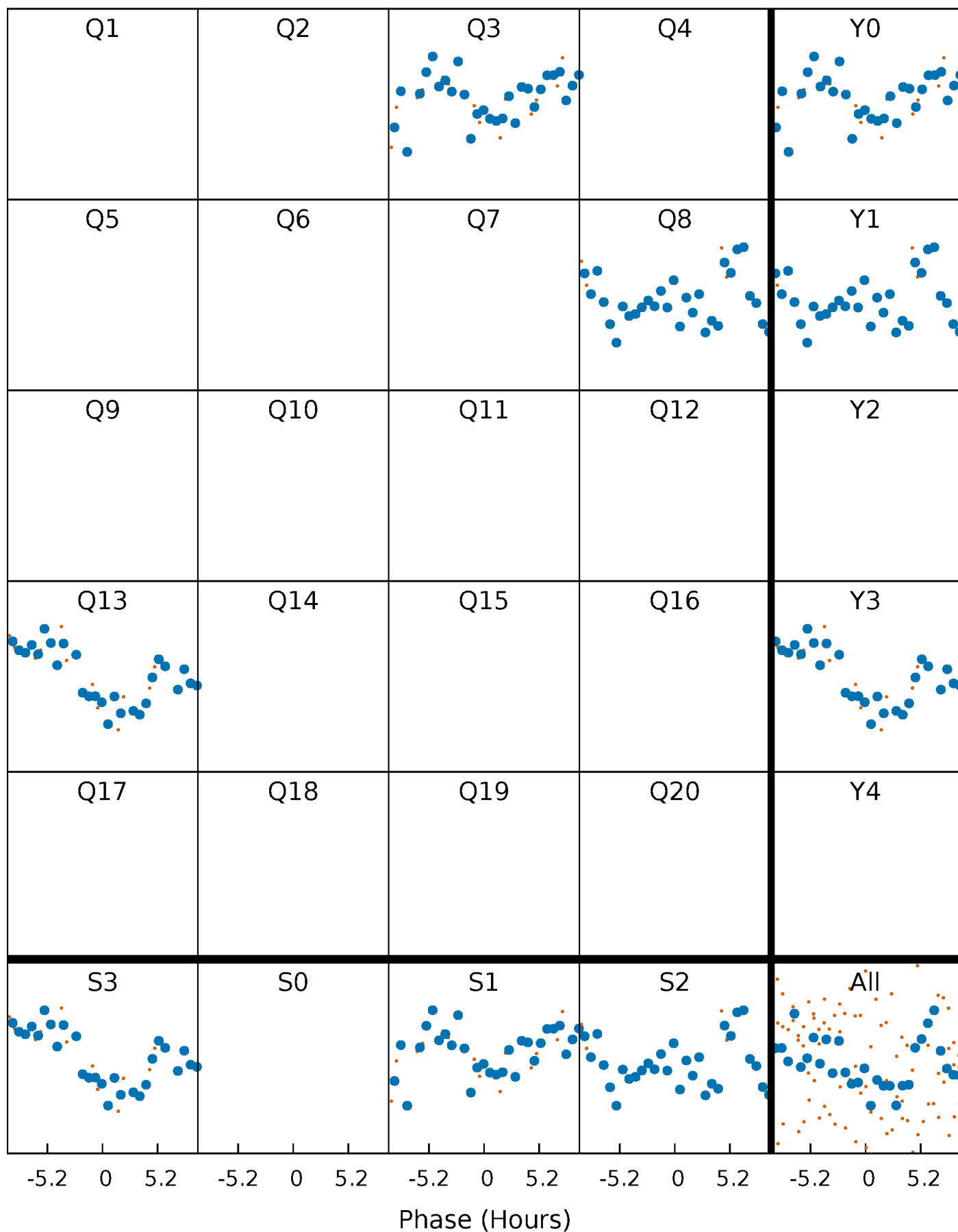


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



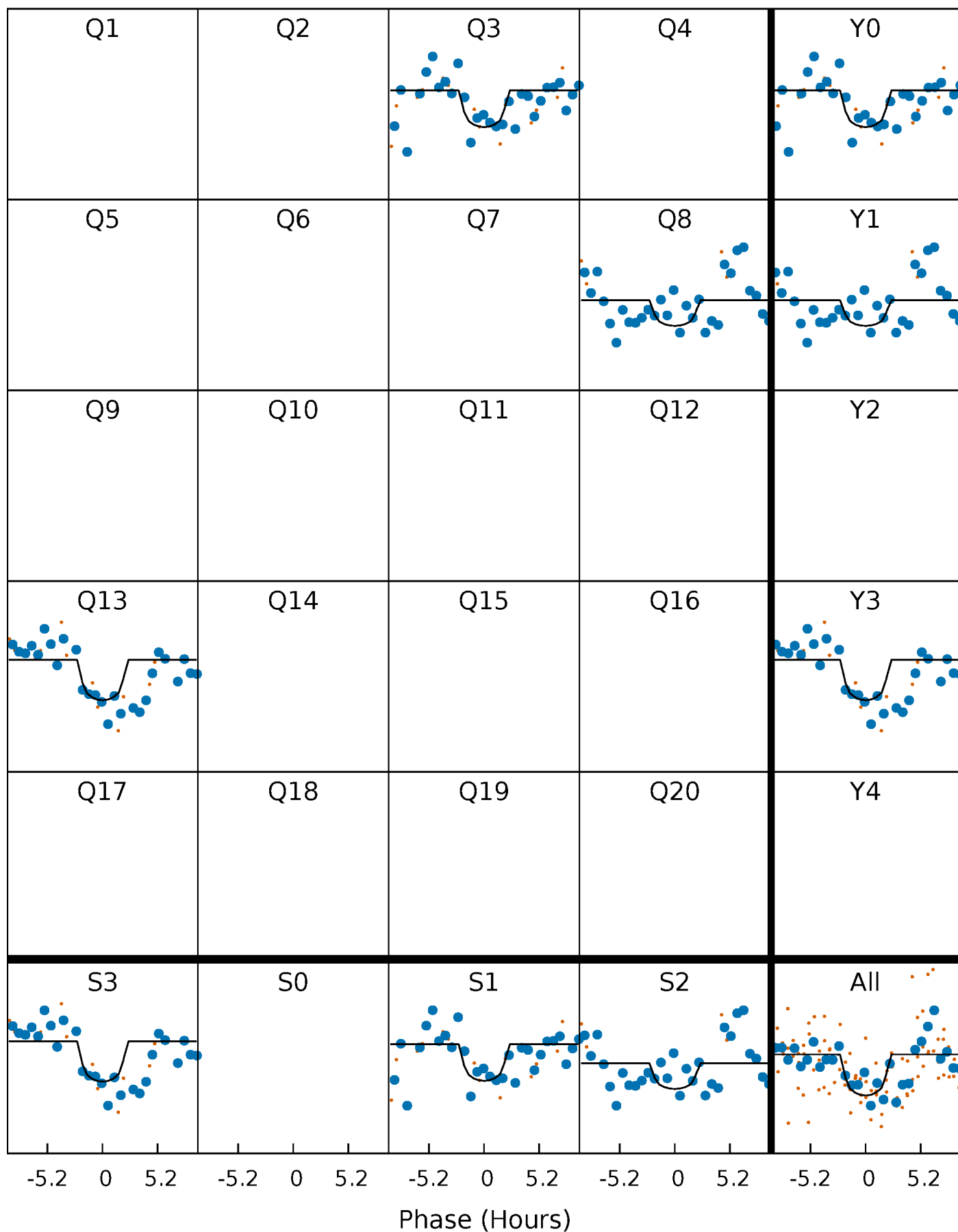
PDC Quarter-Phased Transit Curves

TCE 005808416-01 P=442.733954 Days $T_0=299.698903$ (BKJD)



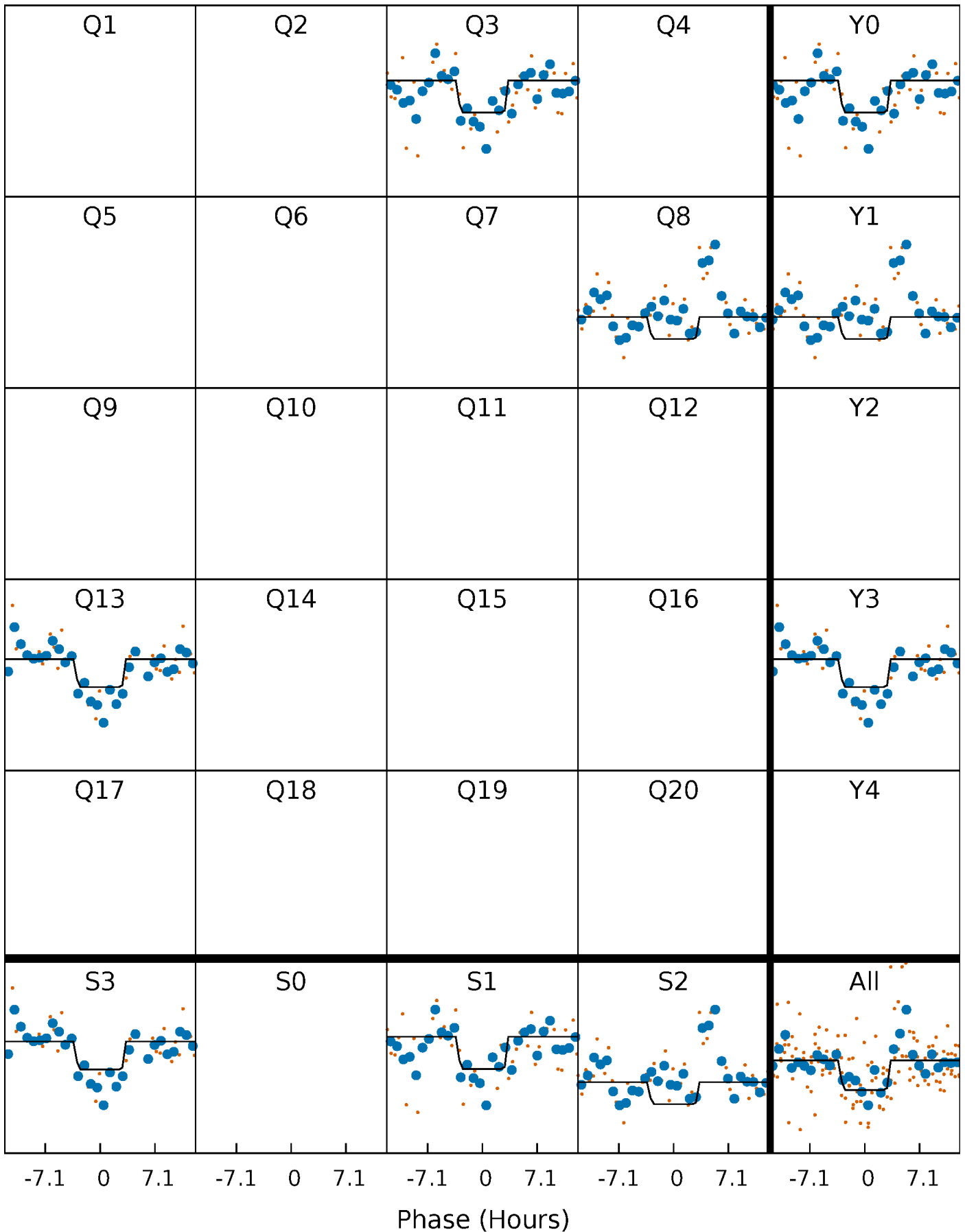
DV Quarter-Phased Transit Curves

TCE 005808416-01 P=442.733954 Days $T_0=299.698903$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

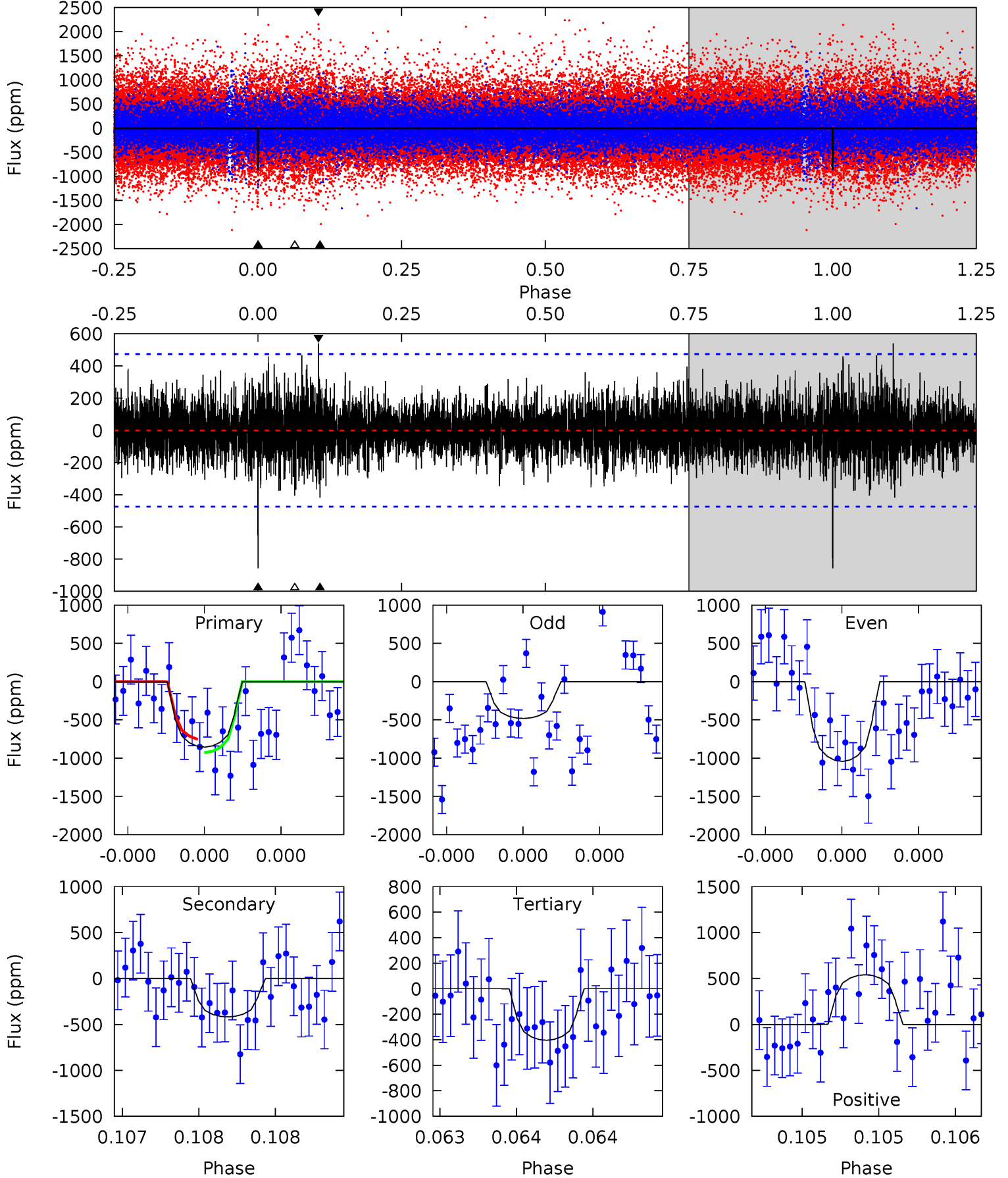
TCE 005808416-01 P=442.733945 Days $T_0=299.743282$ (BKJD)



DV Model-Shift Uniqueness Test

005808416-01, P = 442.733954 Days, E = 299.698903 Days

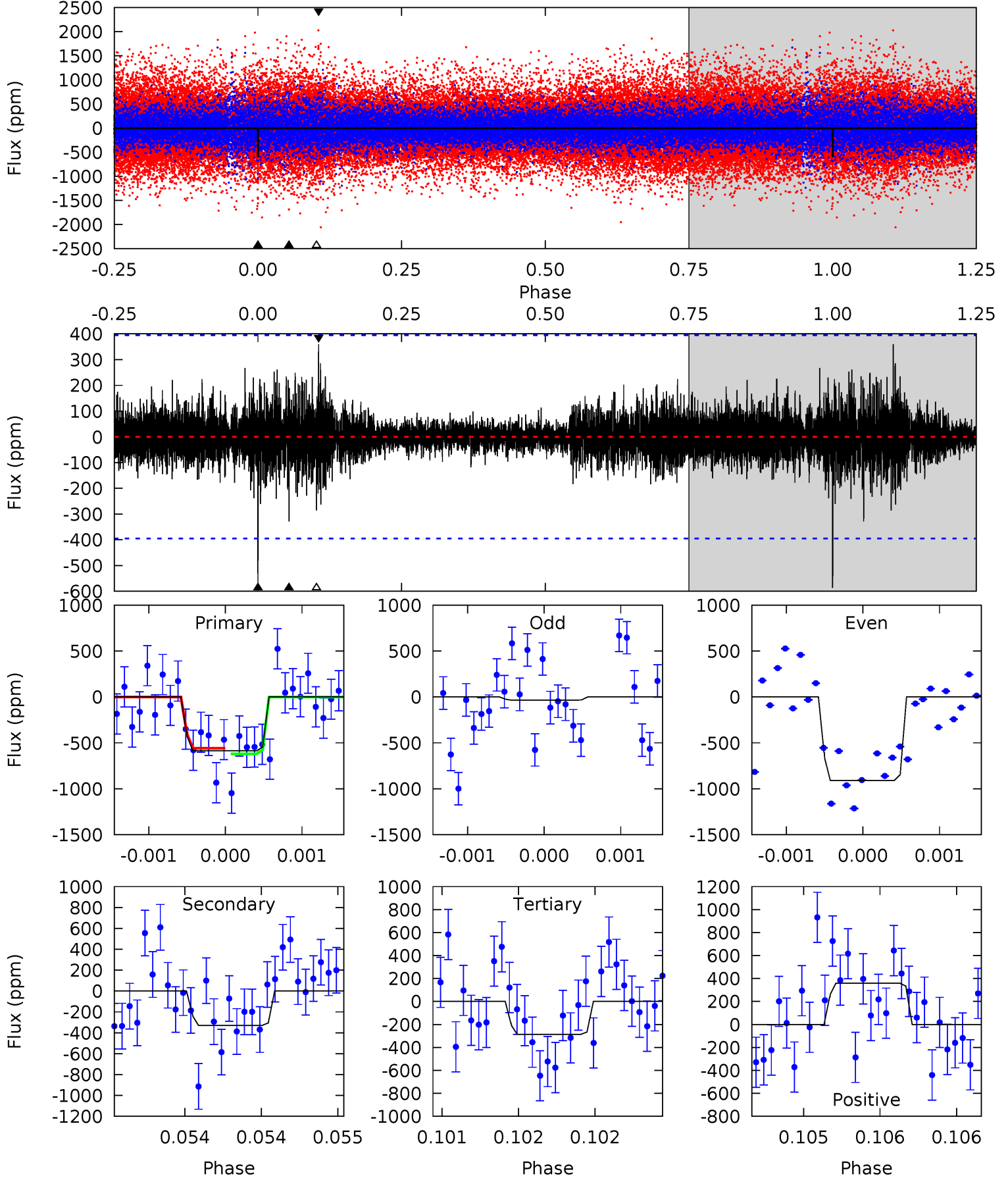
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	4.93	4.76	6.37	5.59	3.50	1.28	5.32	3.71	0.17	-1.44	3.11	0.92	0.39	1.02



Alt Model-Shift Uniqueness Test

005808416-01, P = 442.733945 Days, E = 299.743282 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.24	4.62	4.02	5.05	5.55	3.45	0.80	4.22	3.19	0.60	-0.43	5.80	0.75	0.38	0.44



Stellar Parameters For KIC 005808416

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4405^{+119}_{-132}	$4.632^{+0.046}_{-0.025}$	$-0.220^{+0.300}_{-0.300}$	$0.635^{+0.051}_{-0.051}$	$0.631^{+0.068}_{-0.051}$	$3.464^{+0.735}_{-0.416}$
	+3%/-3%	+1%/-1%	+136%/-136%	+8%/-8%	+11%/-8%	+21%/-12%
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 005808416-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-418 ± 85	$3.00^{+2.67}_{-1.85}$	218^{+7}_{-8}	3384^{+1396}_{-572}	$24955^{+133301}_{-18438}$
Alt.	-329 ± 71	$2.83^{+2.46}_{-1.89}$	218^{+7}_{-8}	3333^{+1594}_{-562}	$21476^{+165160}_{-15644}$

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 $A_{obs} \gg 1.0$

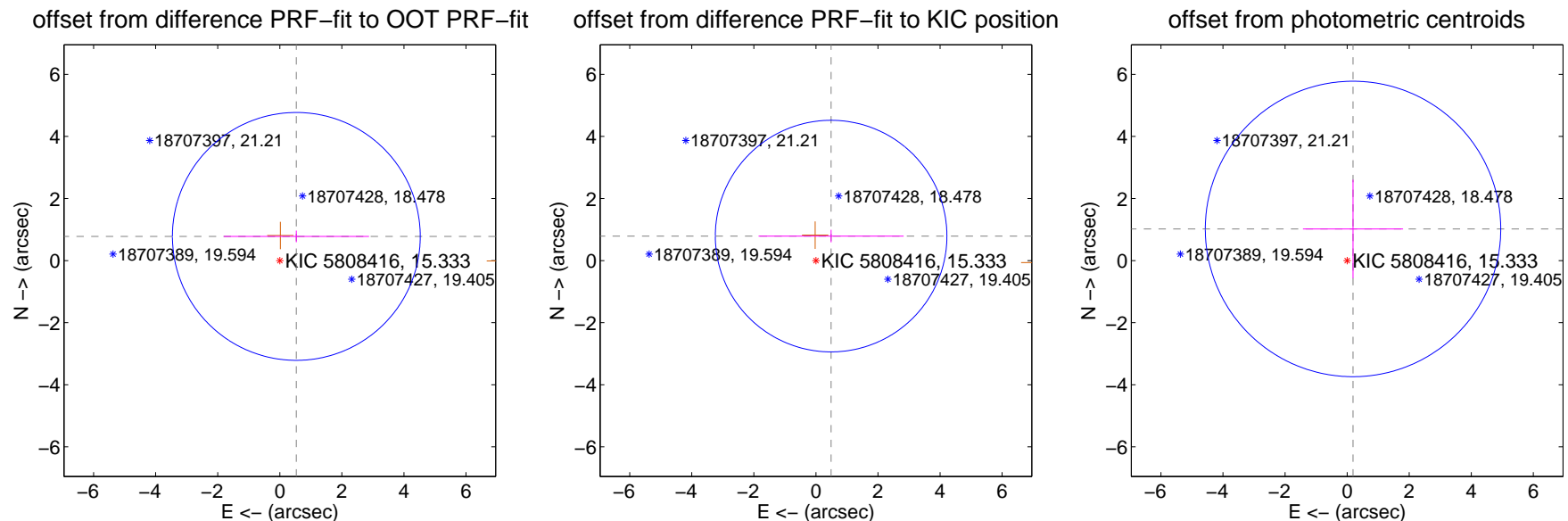
DV Centroid Data

Supplemental centroid analysis for 005808416-01. Kepler magnitude: 15.33. Transit SNR 5.58

There are 0 quarters with good PRF difference image offsets

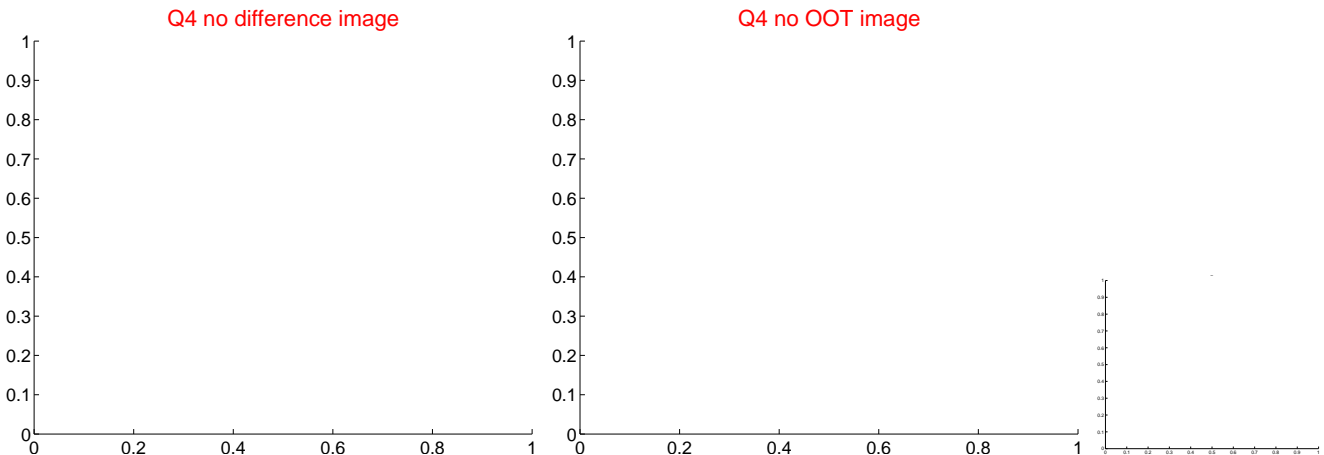
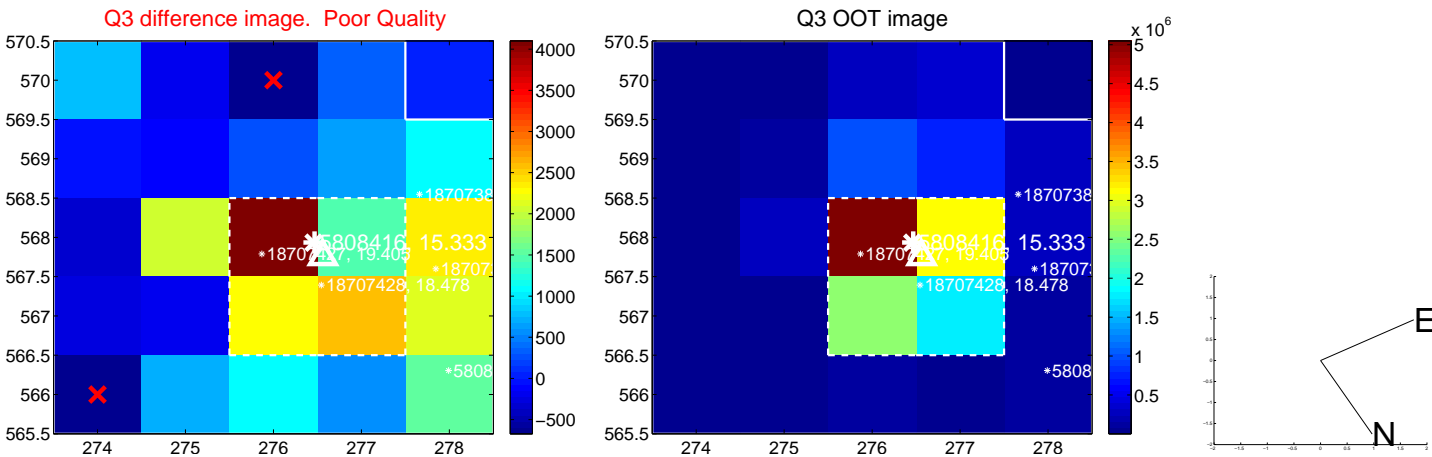
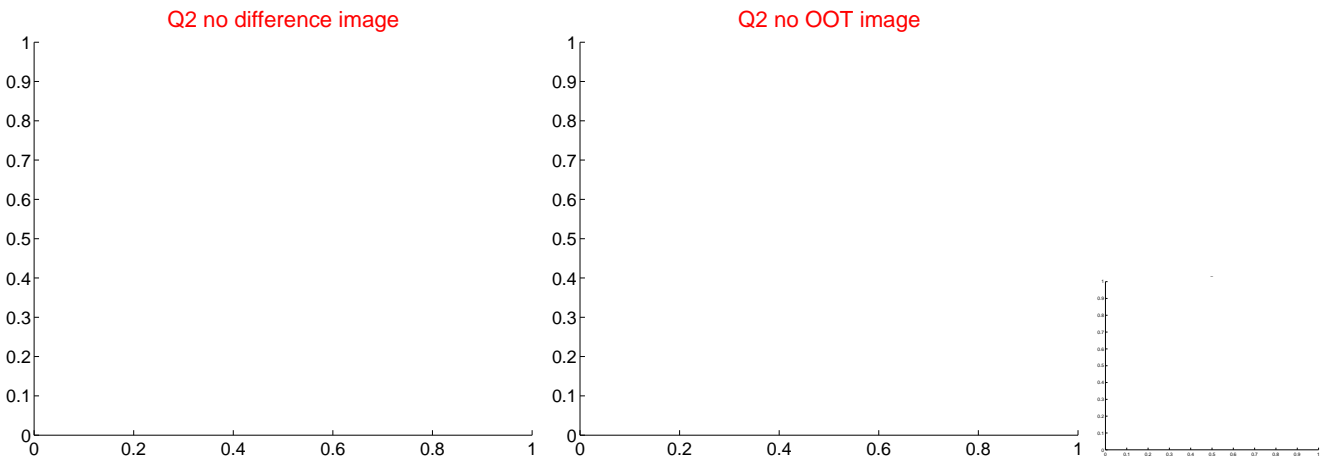
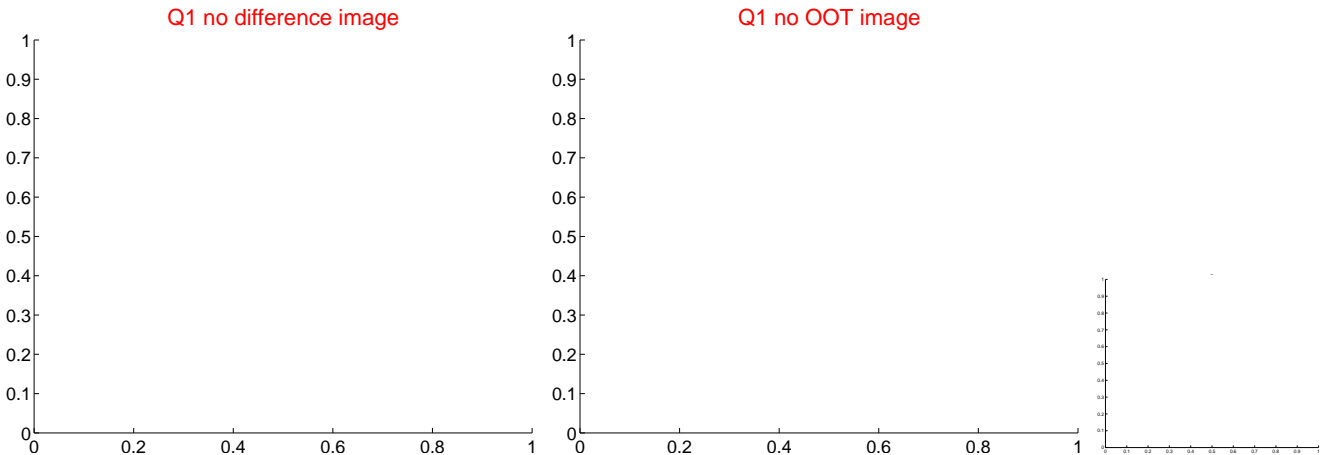
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.944 ± 1.331	0.71	-0.533 ± 2.342	0.779 ± 0.189
PRF-fit source offset from KIC position	0.929 ± 1.244	0.75	-0.489 ± 2.337	0.789 ± 0.202
photometric centroid source offset	1.04 ± 1.59	0.65	-0.19 ± 1.61	1.02 ± 1.59

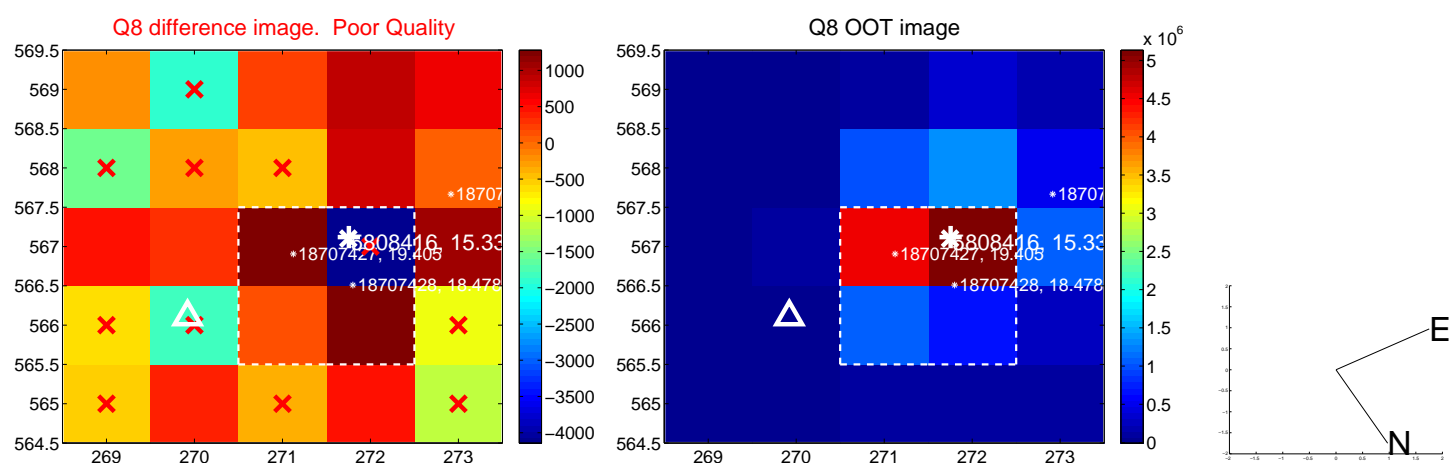
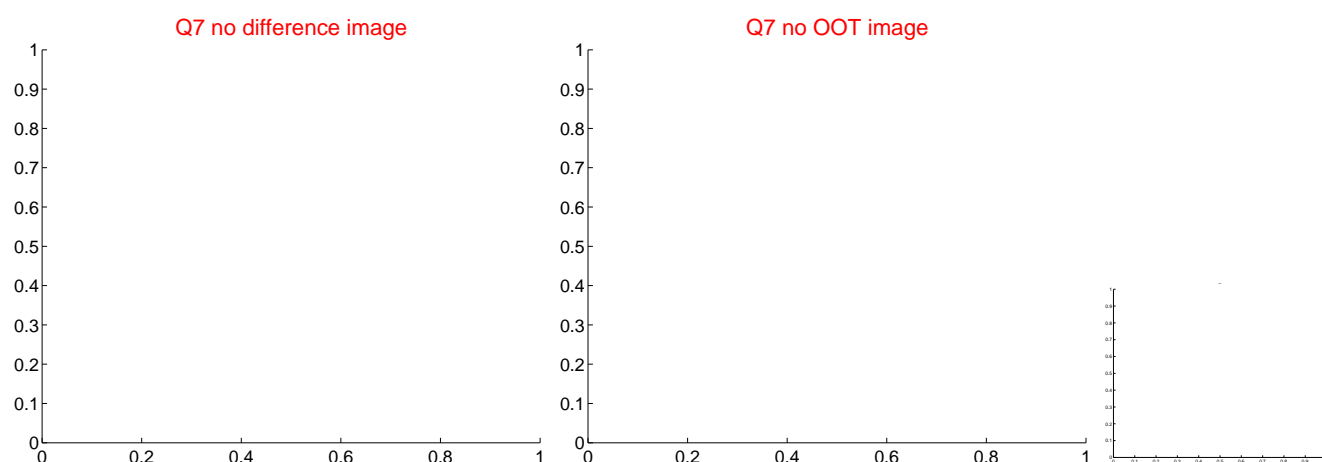
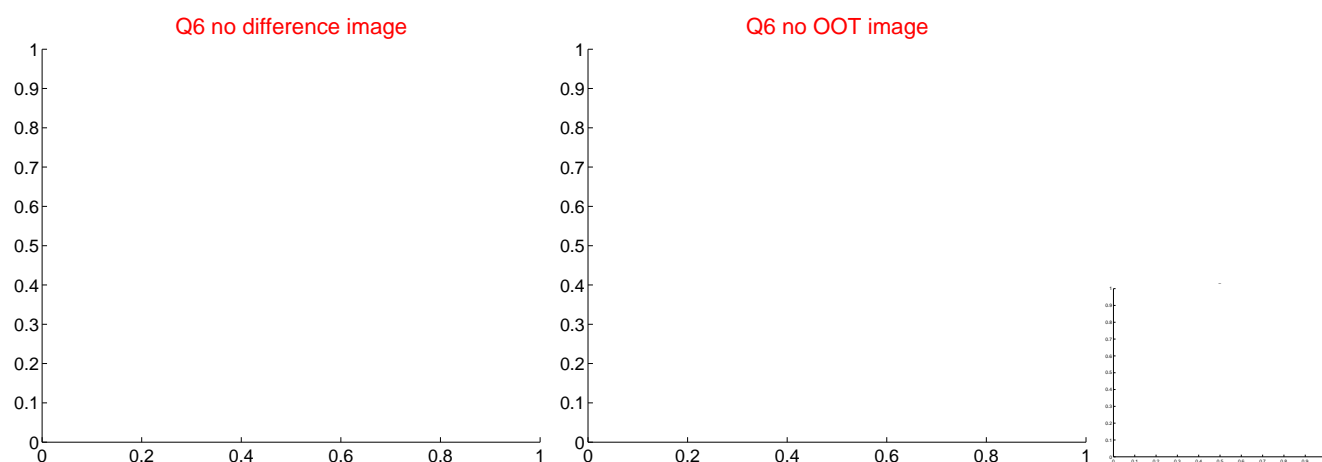
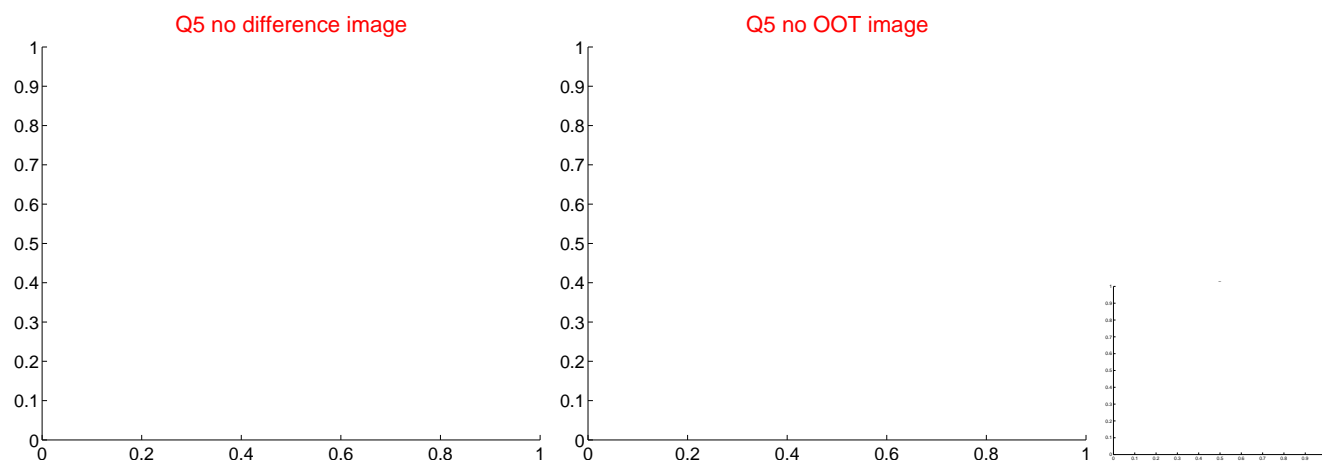


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



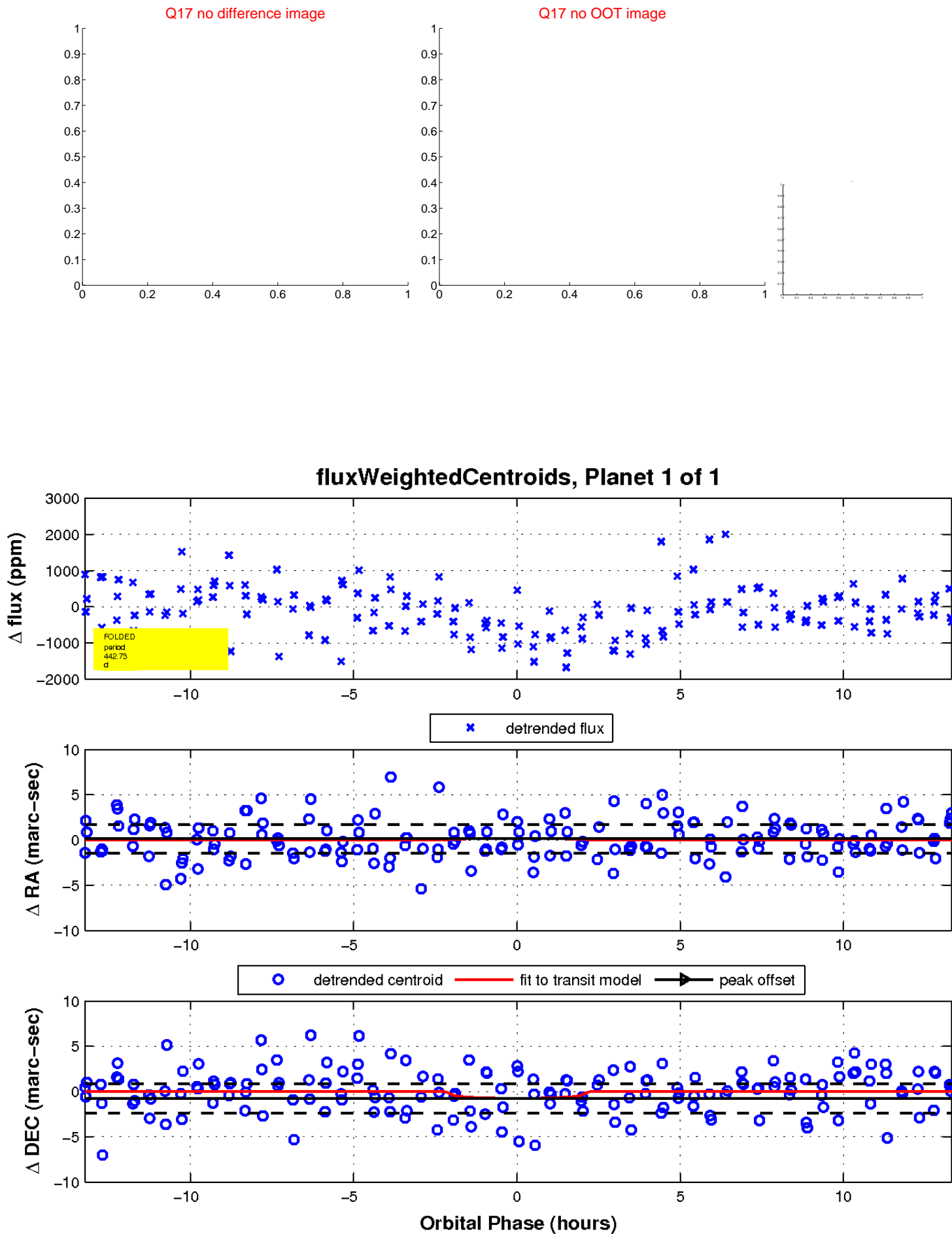
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

