

KIC 003547996

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})
003547996-01	OBS	No	341.842363	446.002667	160.3	2.354	11.8	8.2	60.23	4023	76.54	670.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003547996-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—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.

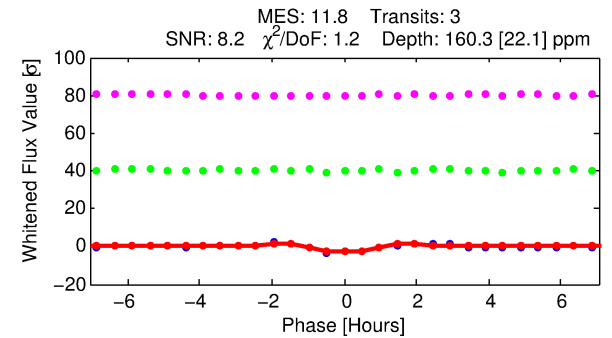
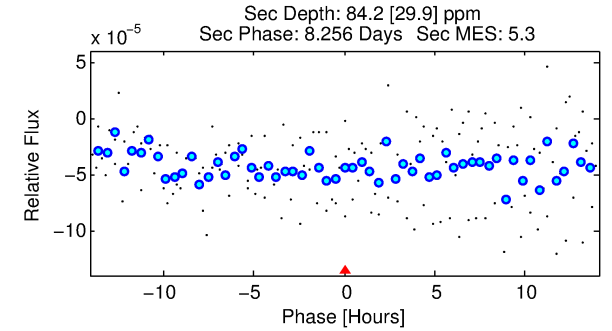
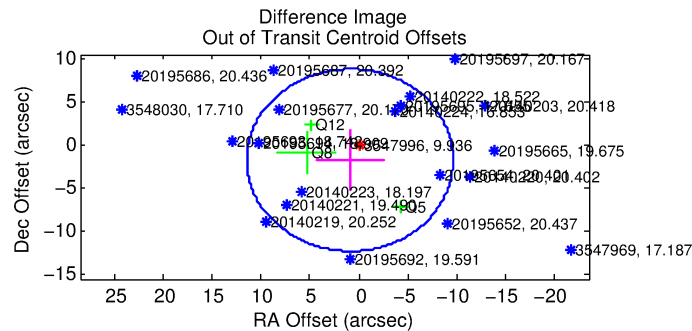
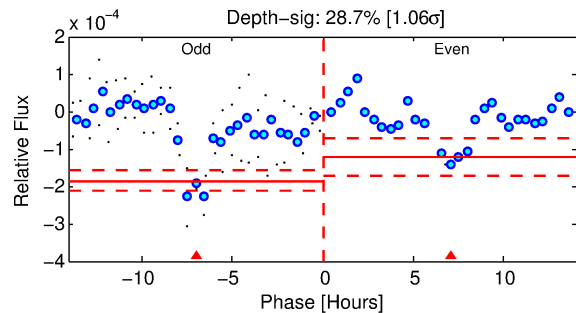
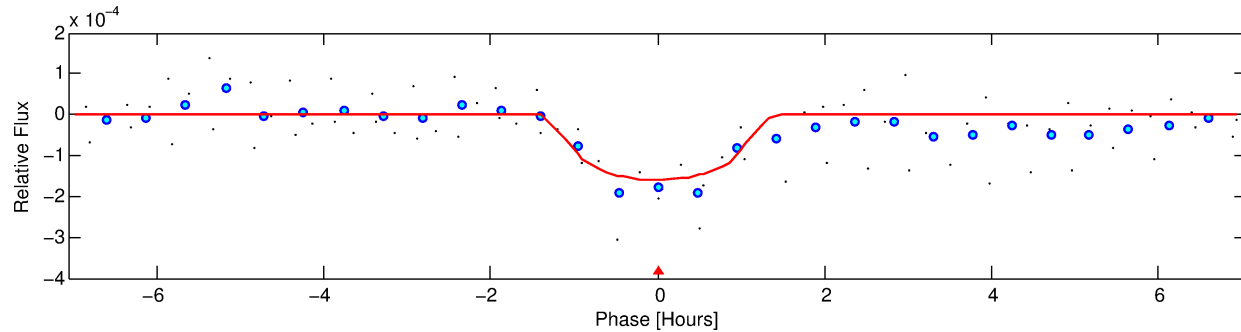
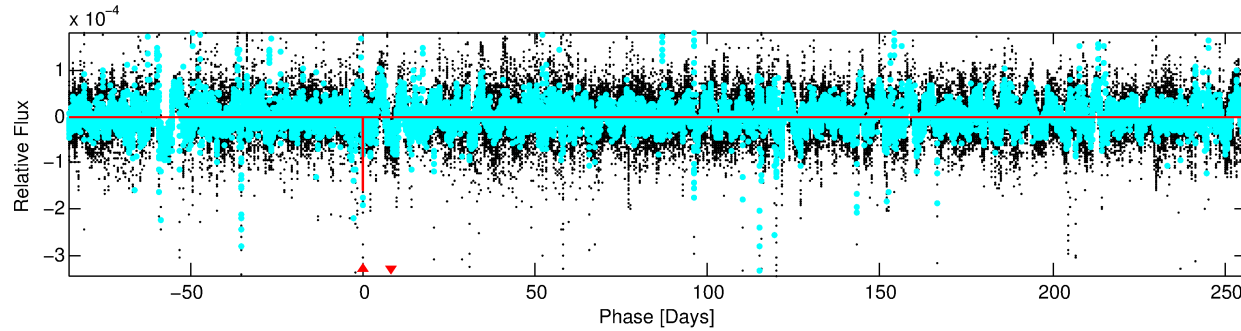
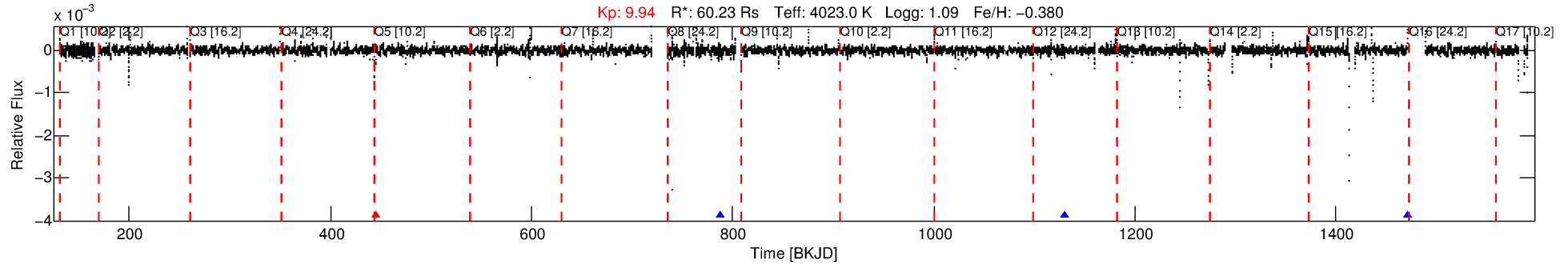
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003547996-01

No Significant Match Found

DV One-Page Summary

KIC: 3547996 Candidate: 1 of 1 Period: 341.842 d



DV Fit Results:

Period = 341.84236 [0.00438] d
Epoch = 446.0027 [0.0057] BKJD
Rp/R* = 0.0116 [0.0120]
a/R* = 954.76 [2545.75]
b = 0.53 [3.75]
Seff = 670.70 [114.85]
Teq = 1298 [56] K
Rp = 76.54 [80.56] Re
a = 1.1266 [0.1505] AU
Ag = 10.03 [21.10] [0.43 σ]
Teffp = 3571 [1875] K [1.21 σ]

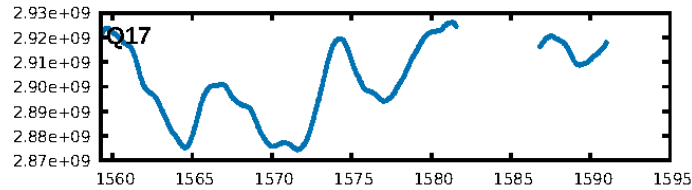
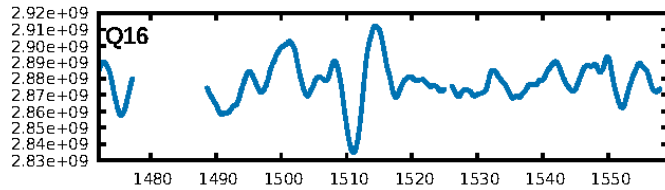
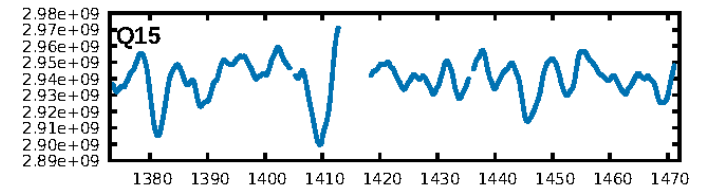
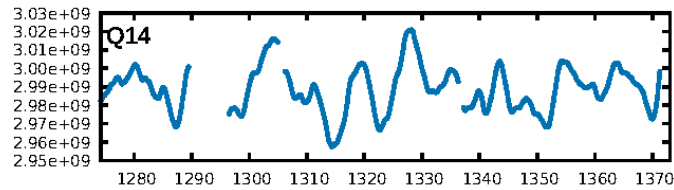
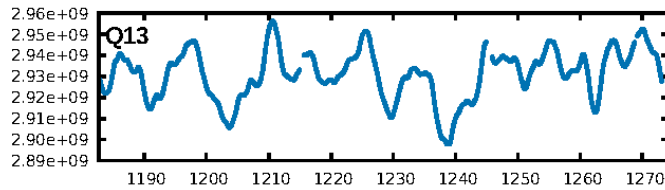
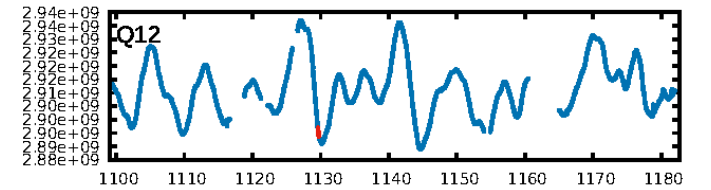
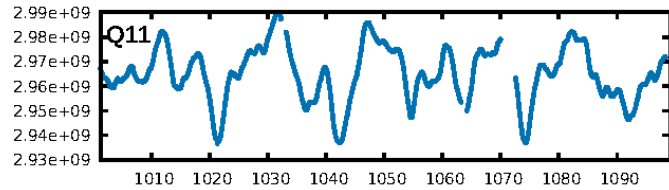
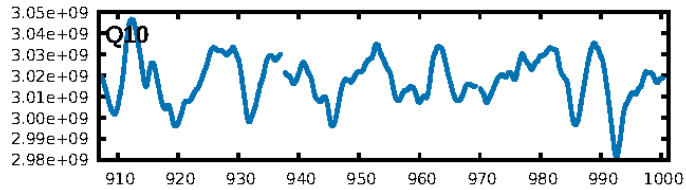
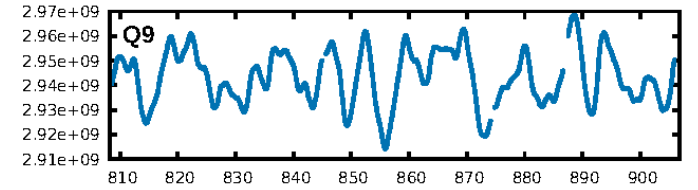
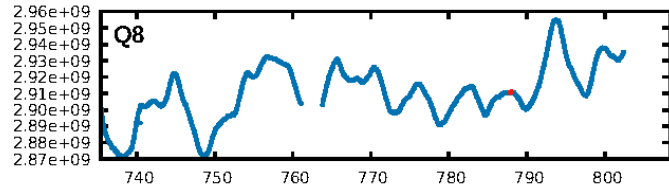
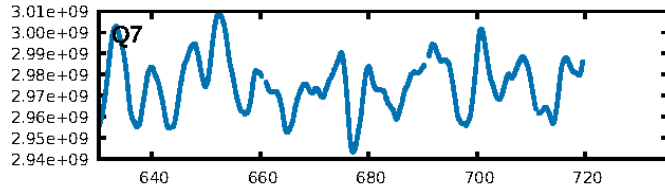
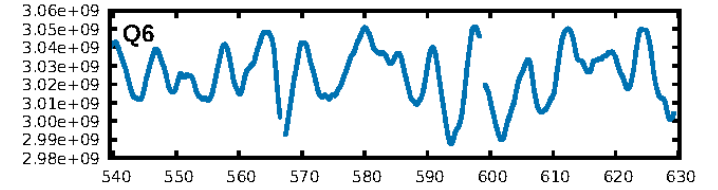
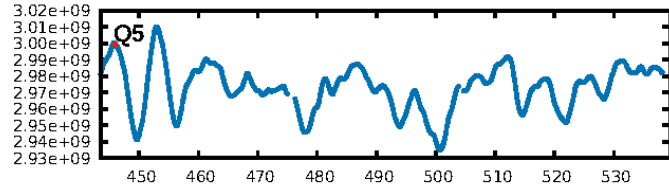
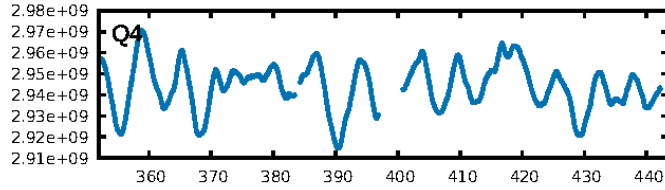
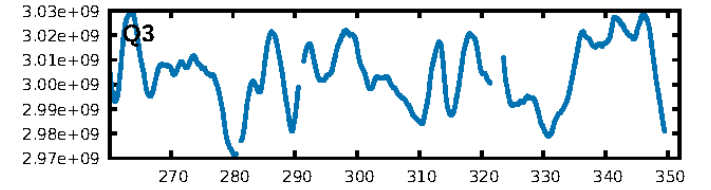
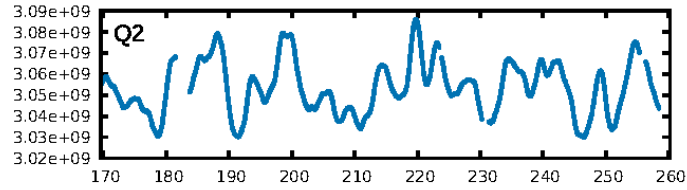
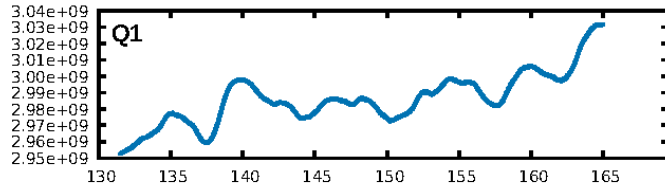
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.1%
ModelChiSquareGof-sig: 92.5%
Bootstrap-pfa: 1.65e-05
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 66.7%
Centroid-so: 1.153 arcsec [0.48 σ]
OotOffset-rm: 1.974 arcsec [0.56 σ]
KicOffset-rm: 2.137 arcsec [0.61 σ]
OotOffset-st: 0/0/2/1 [3]
KicOffset-st: 0/0/2/1 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

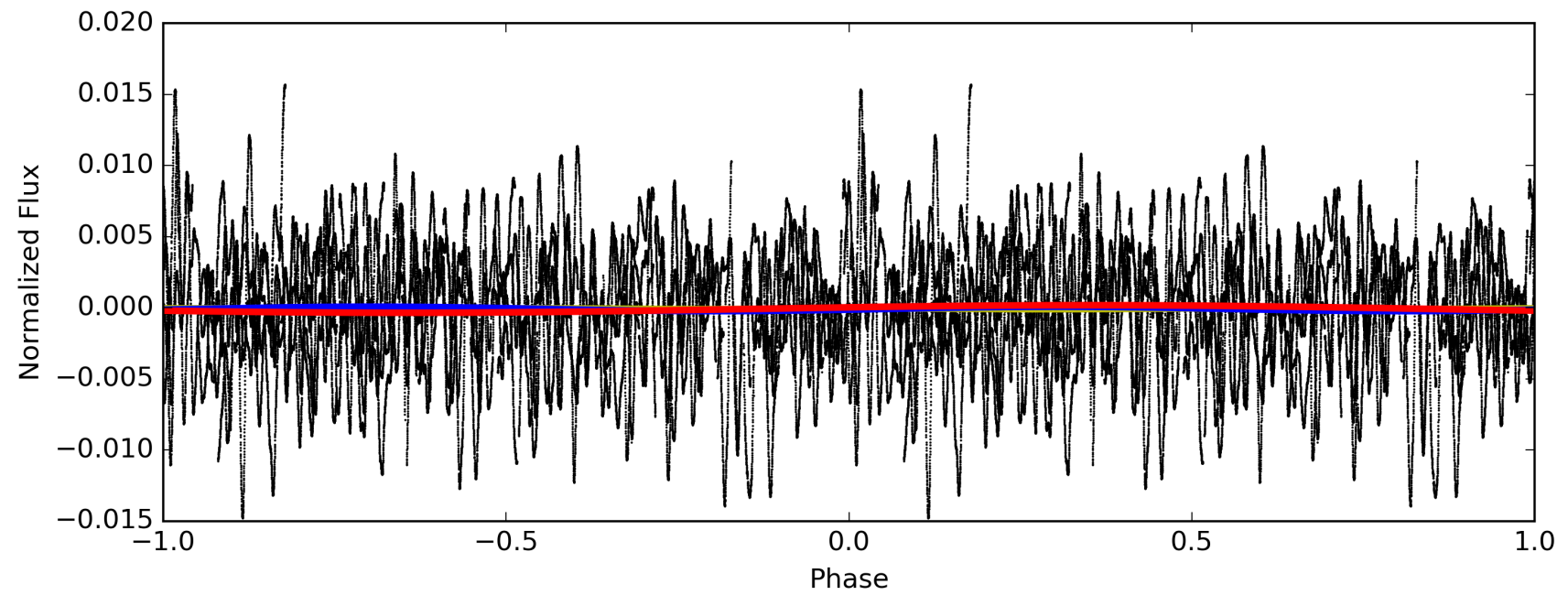
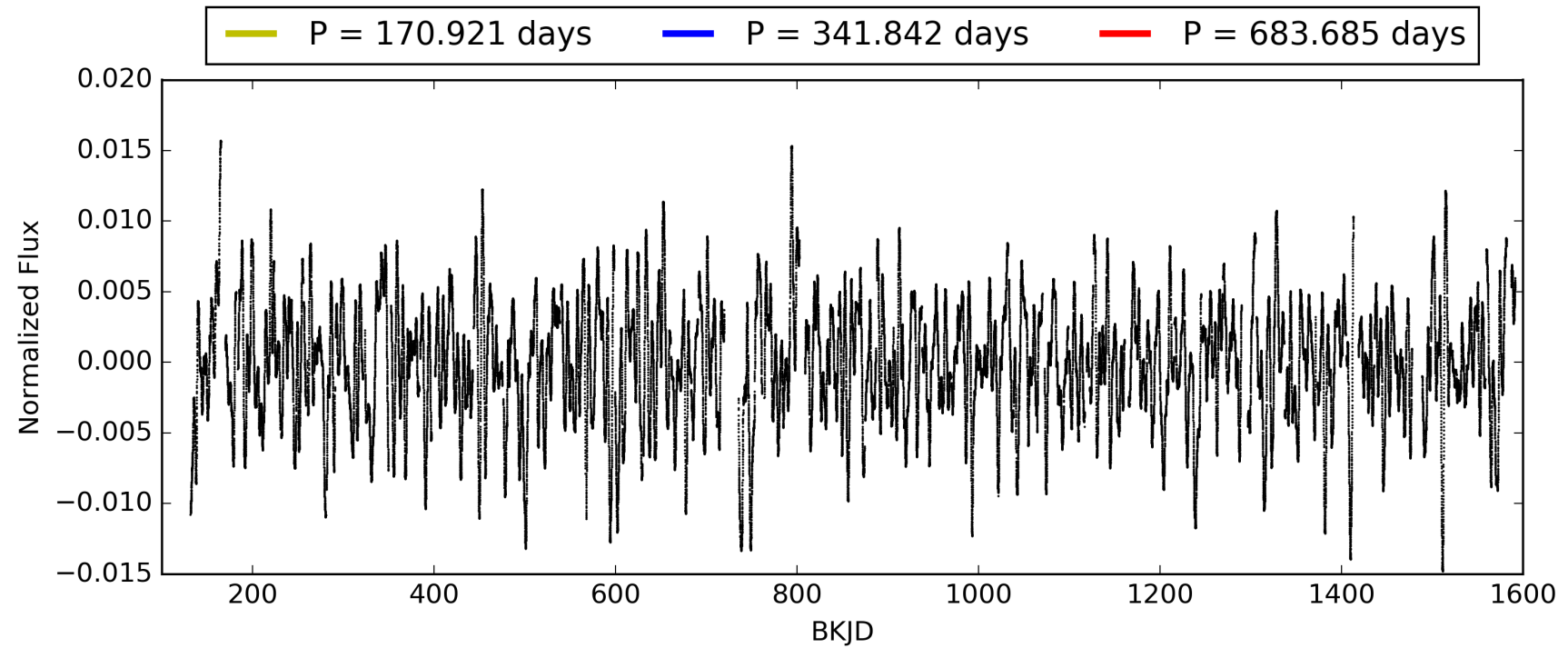
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:45:38 Z

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

TCE 003547996-01, PDC Light Curves

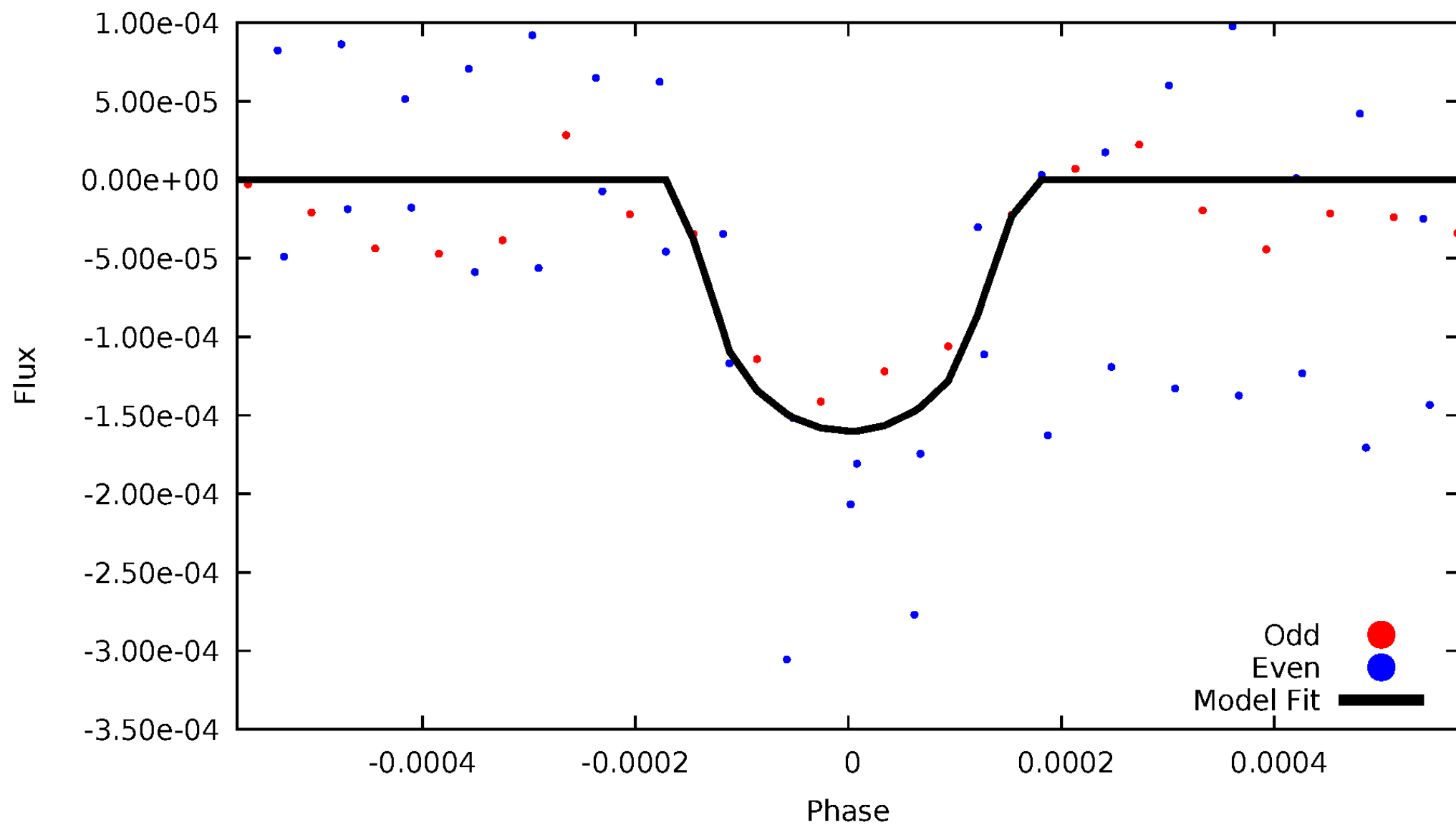


TCE 003547996-01



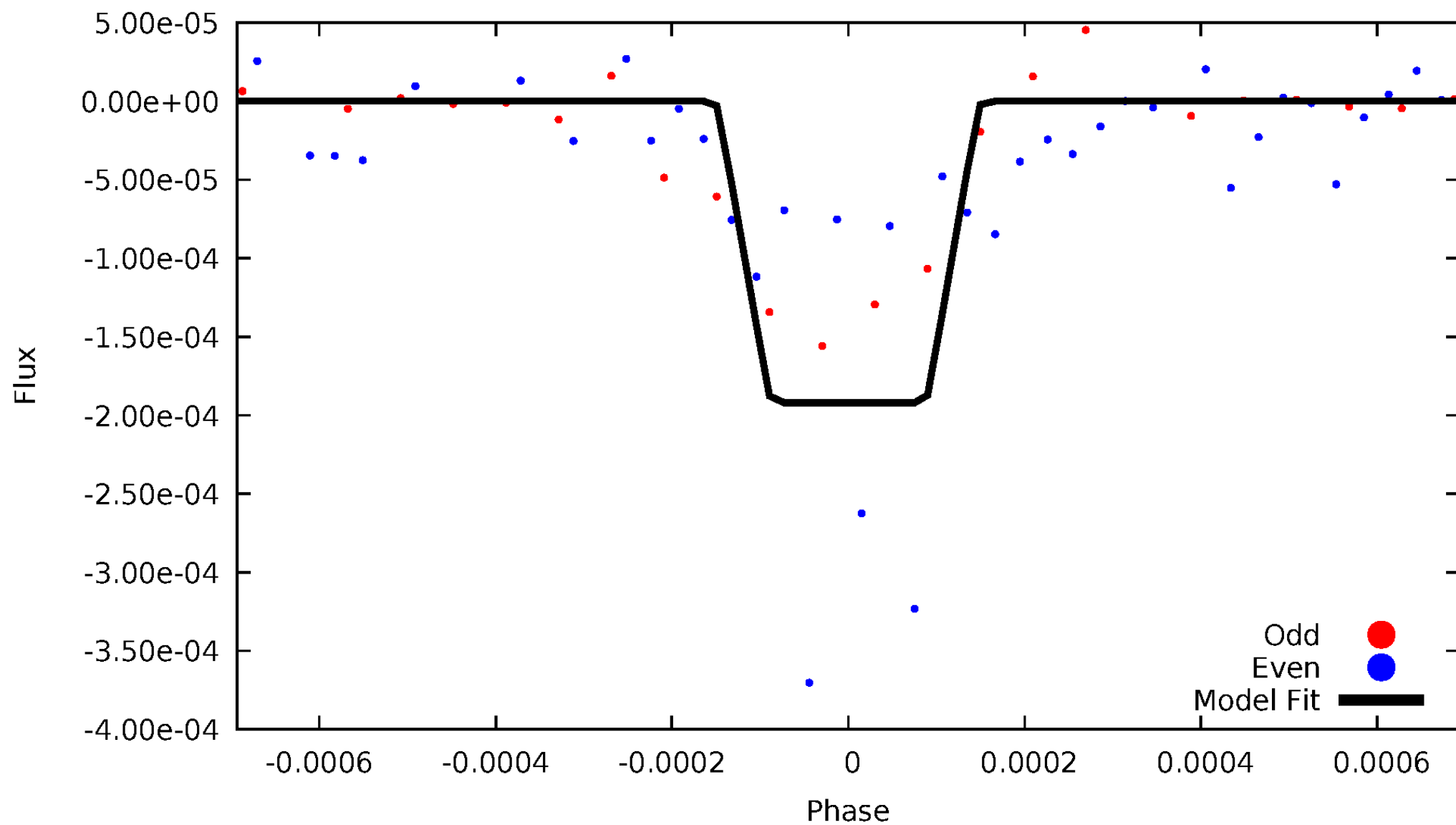
DV Odd/Even

TCE 003547996-01



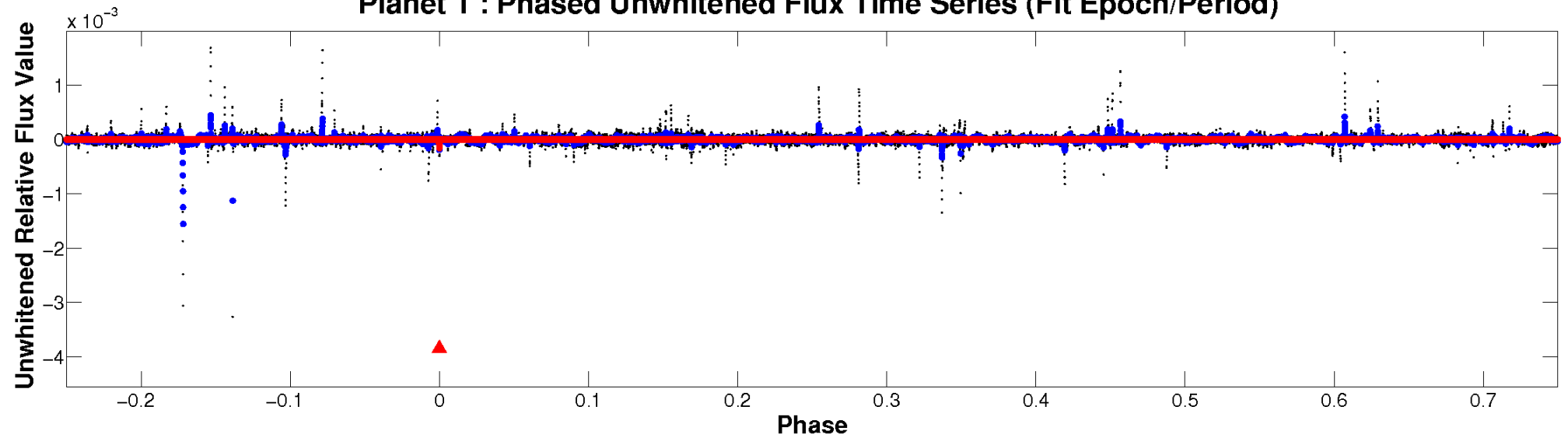
ALT Odd/Even

TCE 003547996-01

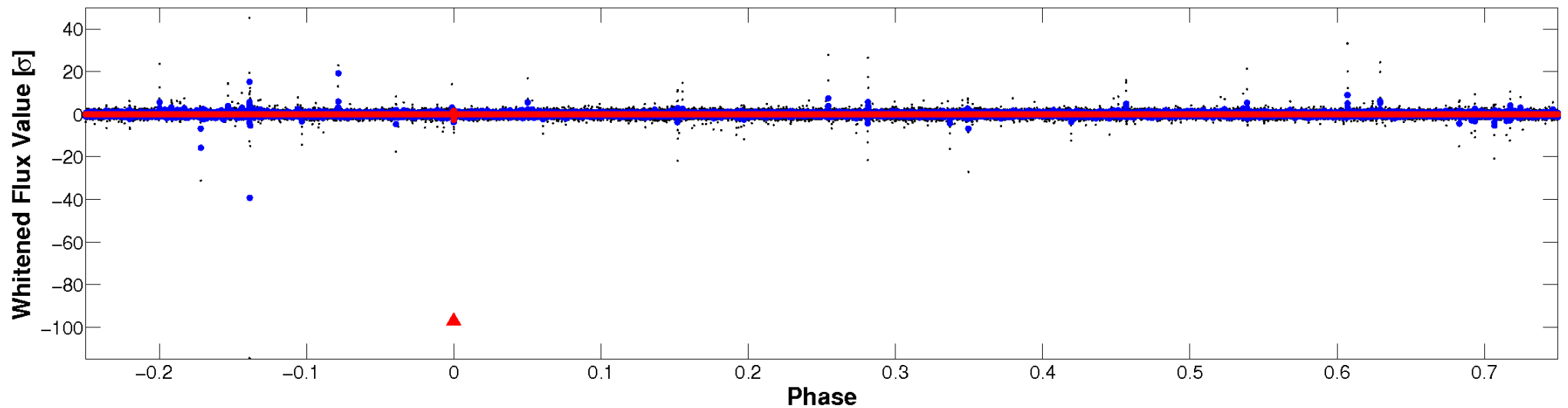


Non-Whitened Vs. Whitened Light Curve

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

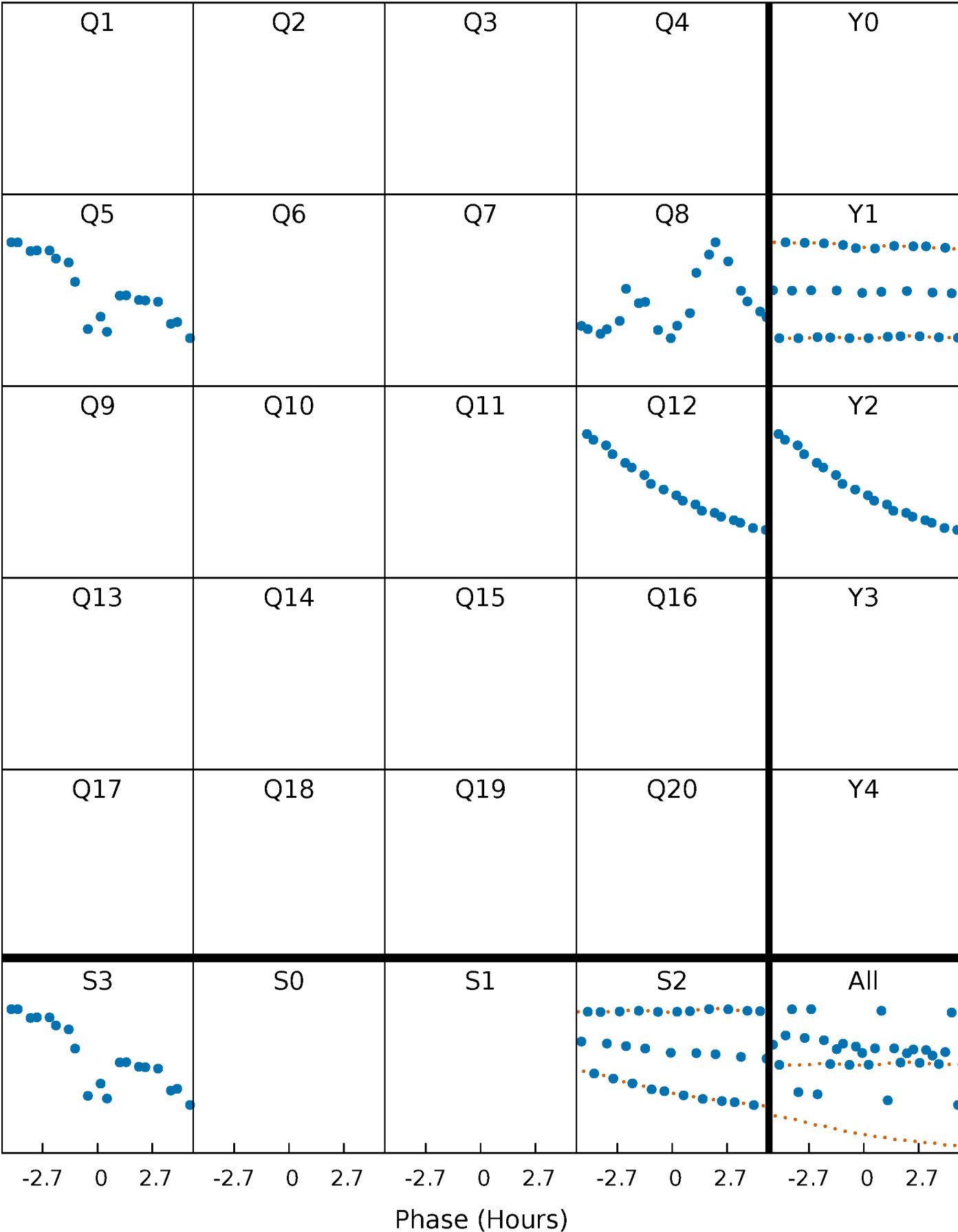


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



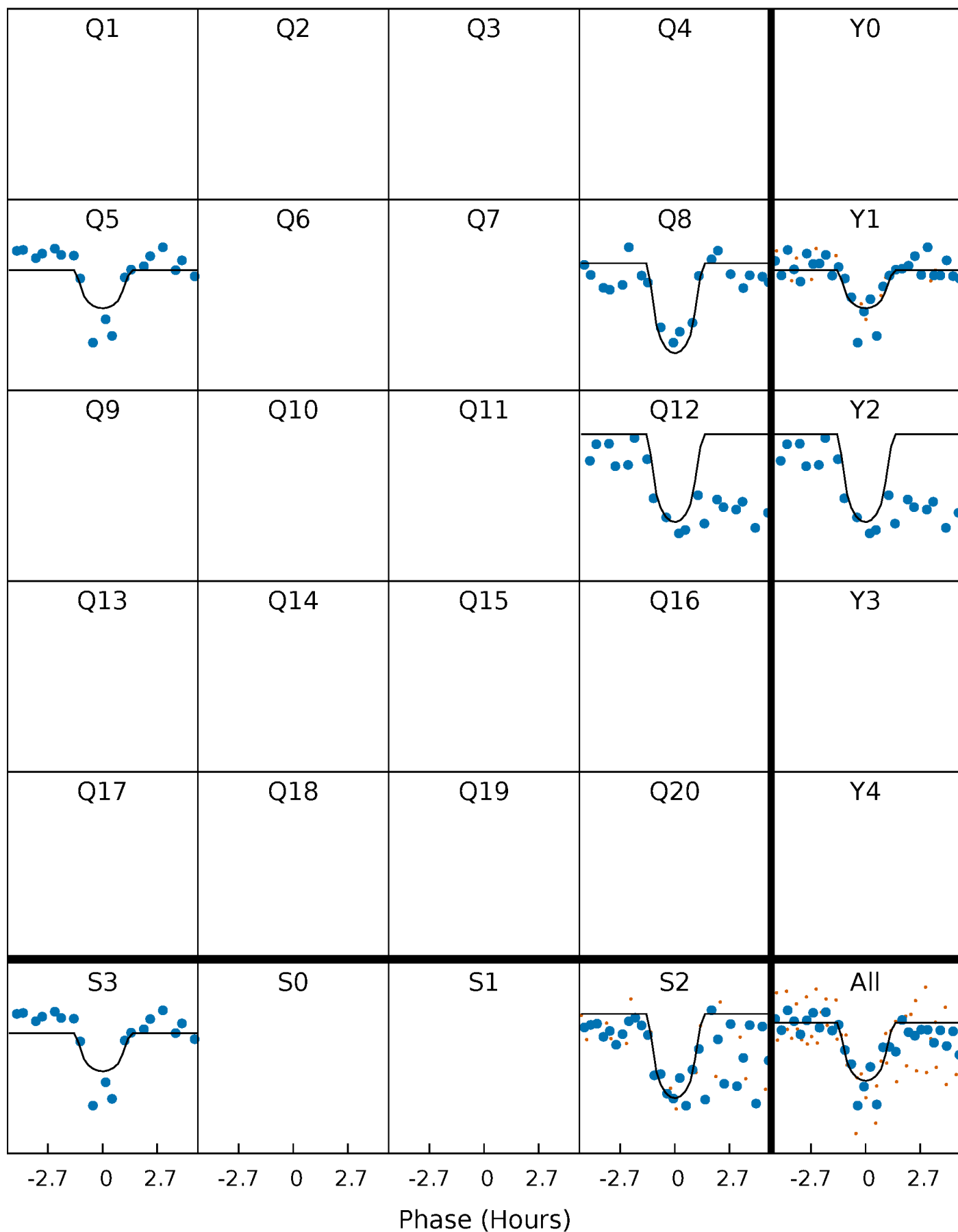
PDC Quarter-Phased Transit Curves

TCE 003547996-01 P=341.842363 Days T₀=446.002667 (BKJD)



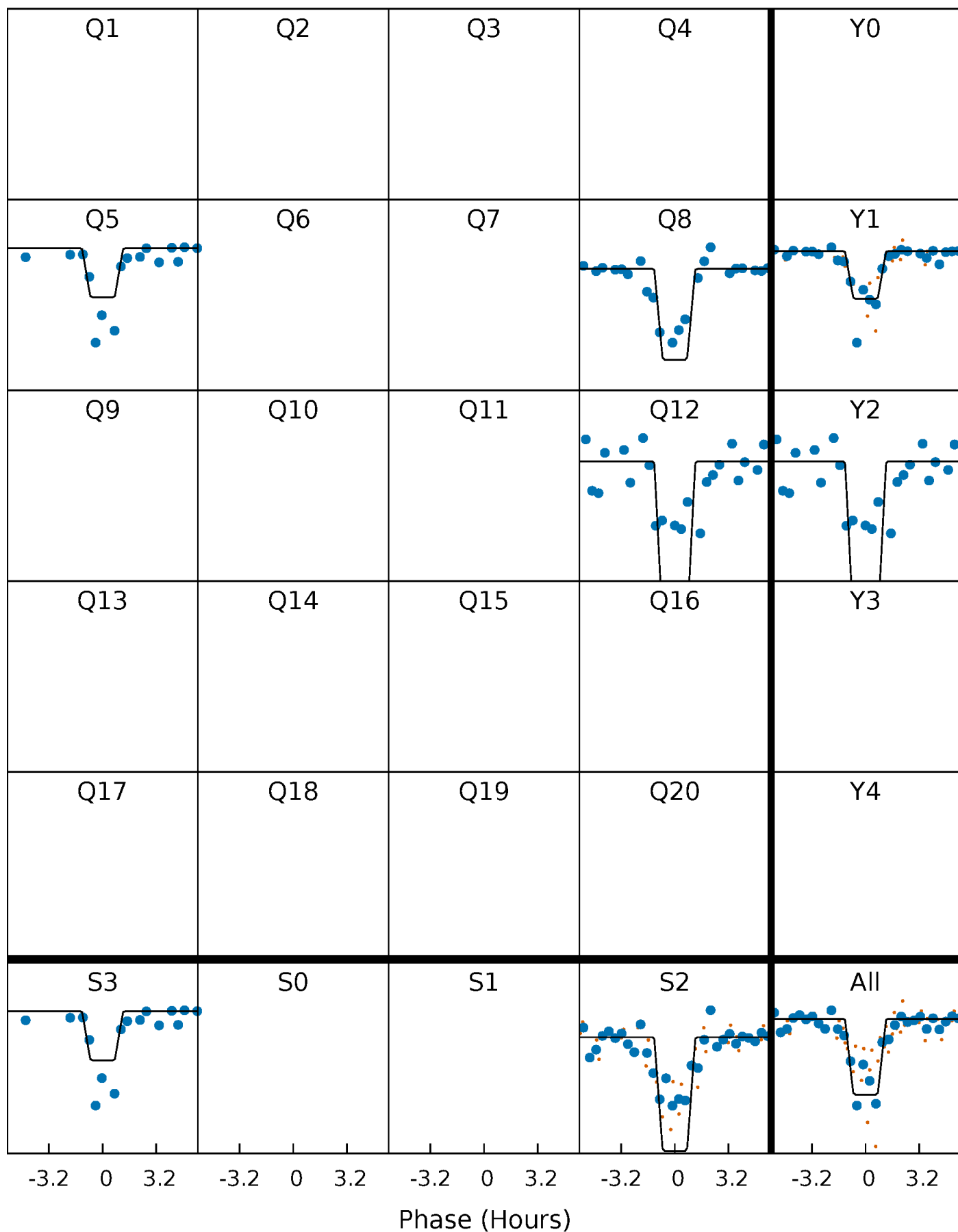
DV Quarter-Phased Transit Curves

TCE 003547996-01 P=341.842363 Days $T_0=446.002667$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

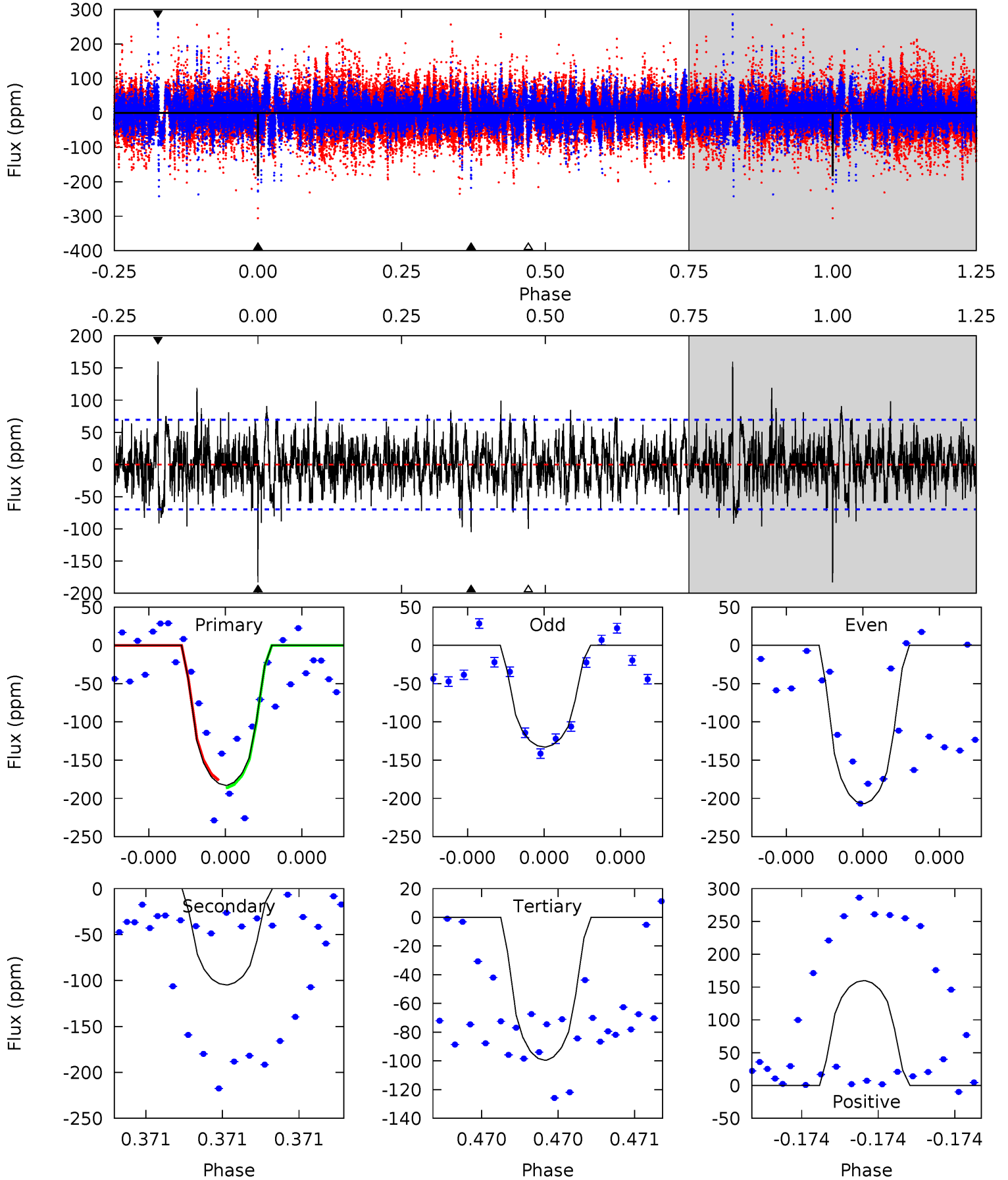
TCE 003547996-01 P=341.848181 Days $T_0=445.998167$ (BKJD)



DV Model-Shift Uniqueness Test

003547996-01, P = 341.842363 Days, E = 104.160304 Days

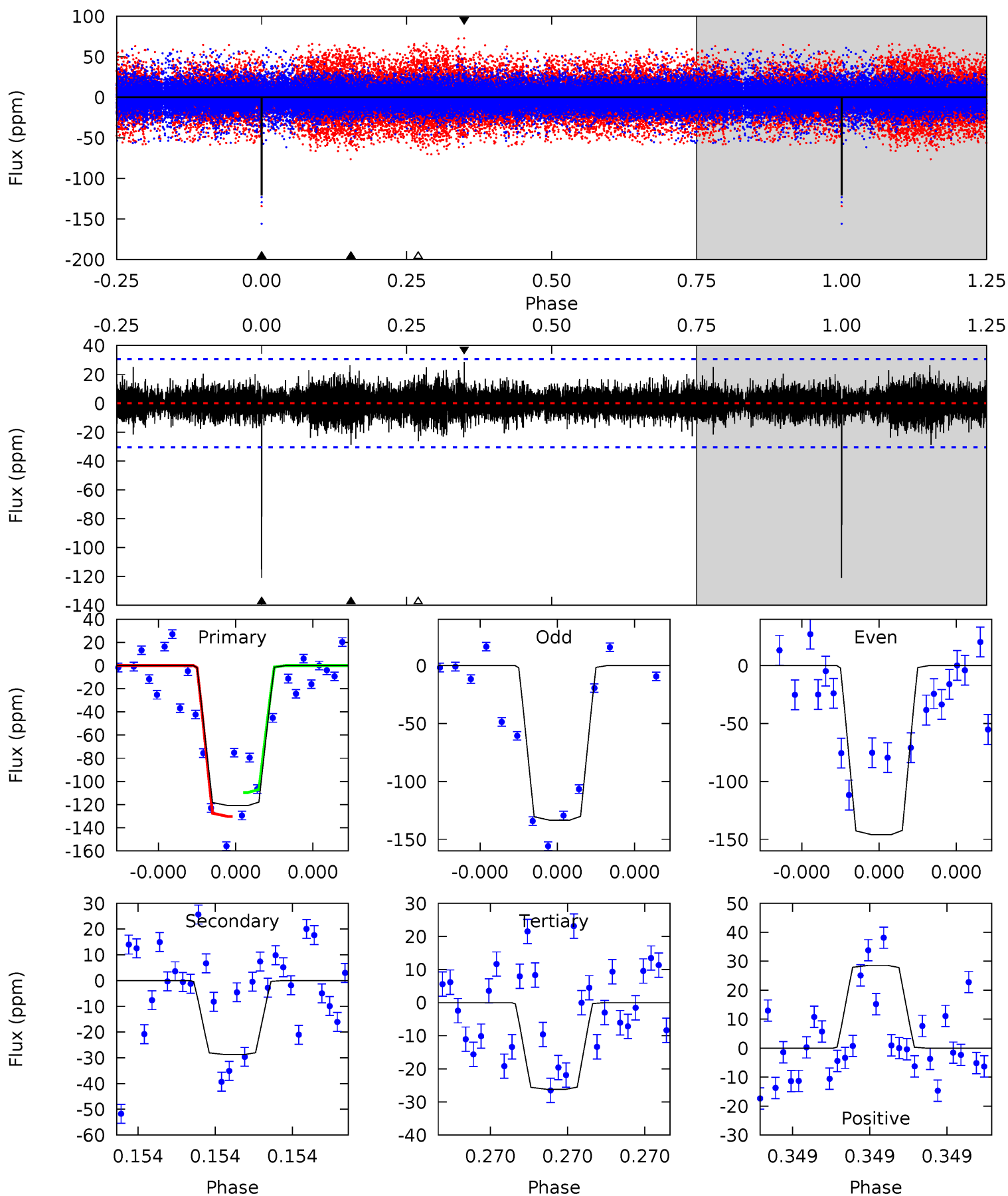
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	8.53	8.10	13.0	5.66	3.62	2.15	6.78	1.88	0.43	-4.47	2.35	1.01	0.47	0.40



Alt Model-Shift Uniqueness Test

003547996-01, P = 341.848181 Days, E = 104.149986 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.4	5.32	4.85	5.29	5.66	3.62	1.00	17.5	17.1	0.48	0.03	1.18	1.26	0.19	1.91



Stellar Parameters For KIC 003547996

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4023^{+90}_{-100}	$1.091^{+0.030}_{-0.030}$	$-0.380^{+0.200}_{-0.200}$	$60.229^{+2.972}_{-11.888}$	$1.633^{+0.098}_{-0.588}$	$0.000^{+0.000}_{-0.000}$
	+2%/-2%	+3%/-3%	+53%/-53%	+5%/-20%	+6%/-36%	+27%/-9%
Source	PHO54	AST54	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 003547996-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-105 ± 12	$91.86^{+71.48}_{-58.18}$	1817^{+45}_{-54}	3581^{+1623}_{-618}	$8.529^{+53.997}_{-5.879}$
Alt.	-29 ± 5	$105.33^{+73.91}_{-64.48}$	1820^{+43}_{-50}	2795^{+998}_{-482}	$1.801^{+10.062}_{-1.197}$

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 $A_{obs} \gg 1.0$

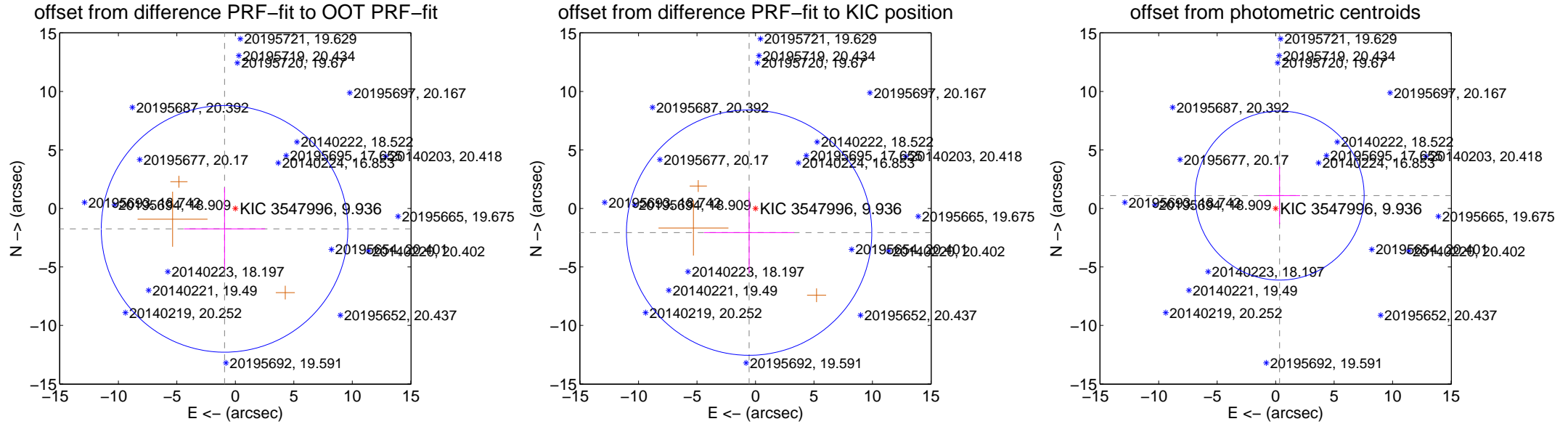
DV Centroid Data

Supplemental centroid analysis for 003547996-01. **Kepler magnitude: 9.94.** Transit SNR 8.20

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.38 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.974 ± 3.514	0.56	0.921 ± 3.472	-1.747 ± 3.526
PRF-fit source offset from KIC position	2.137 ± 3.496	0.61	0.544 ± 3.856	-2.067 ± 3.470
photometric centroid source offset	1.15 ± 2.41	0.48	-0.34 ± 1.75	1.10 ± 2.46

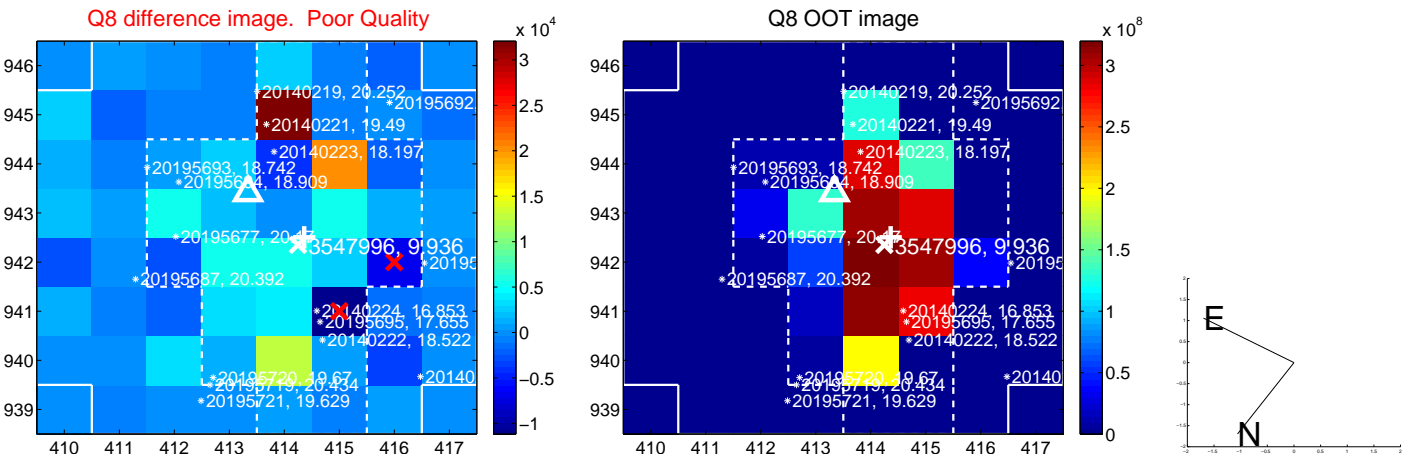
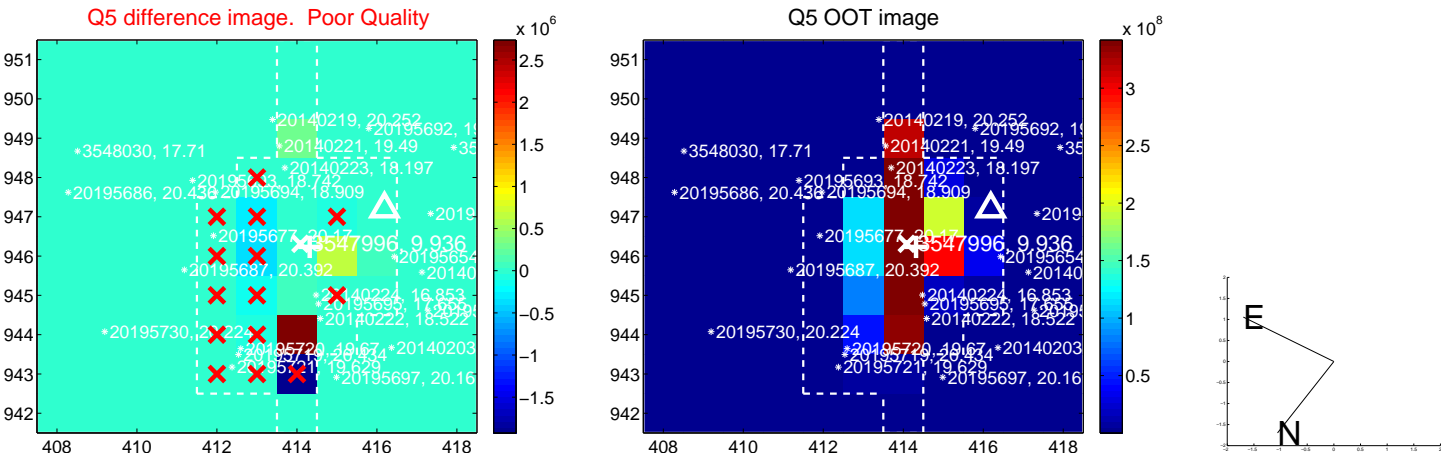


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

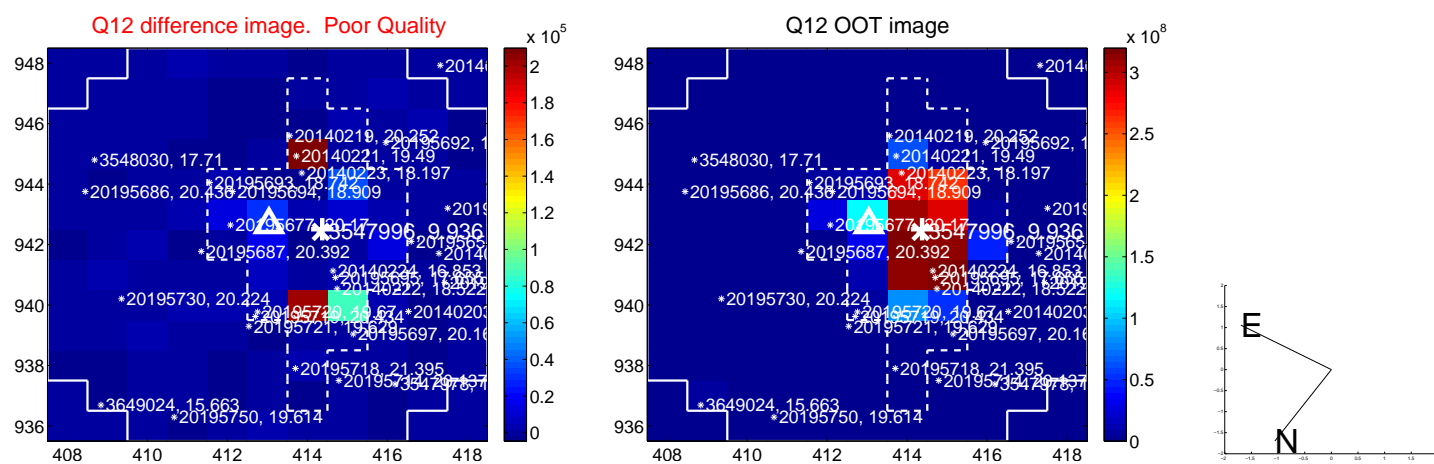
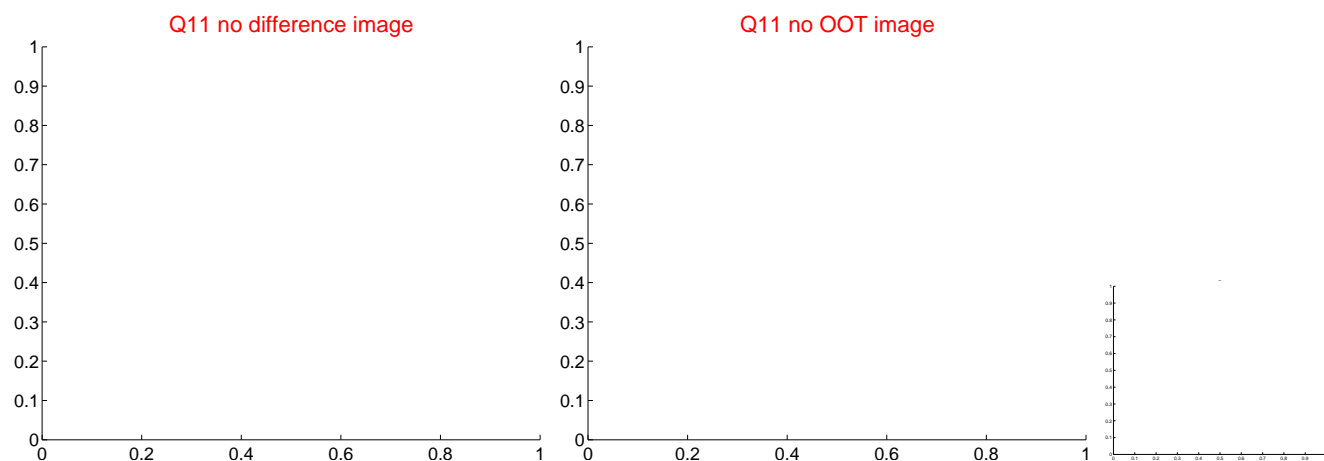
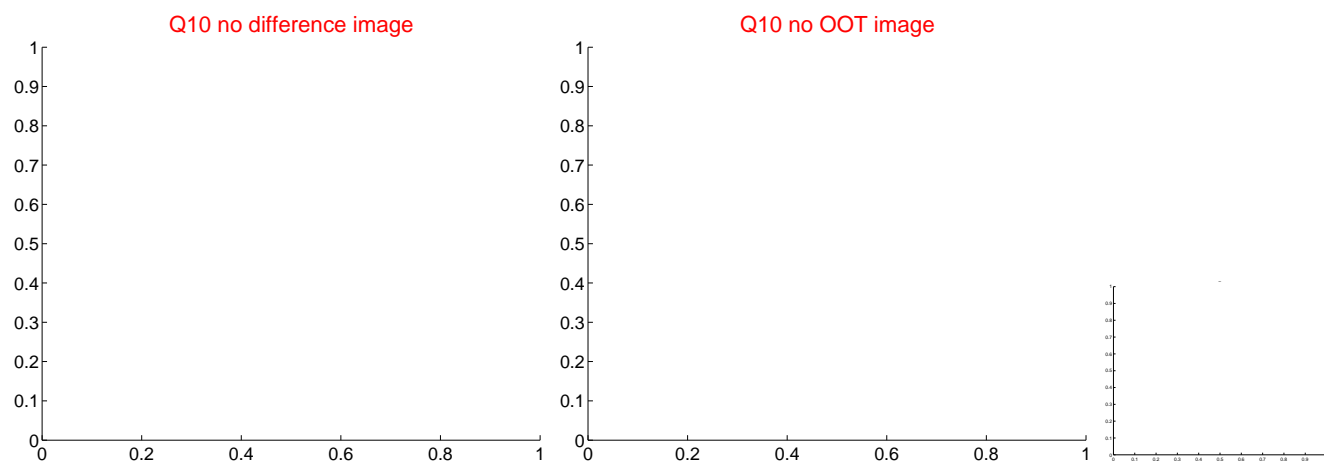
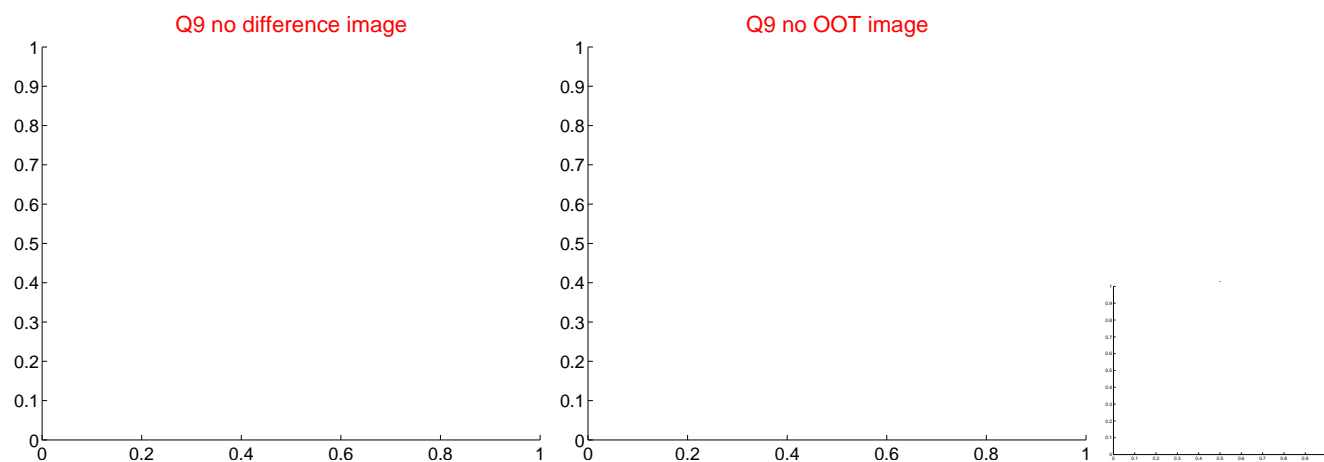
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



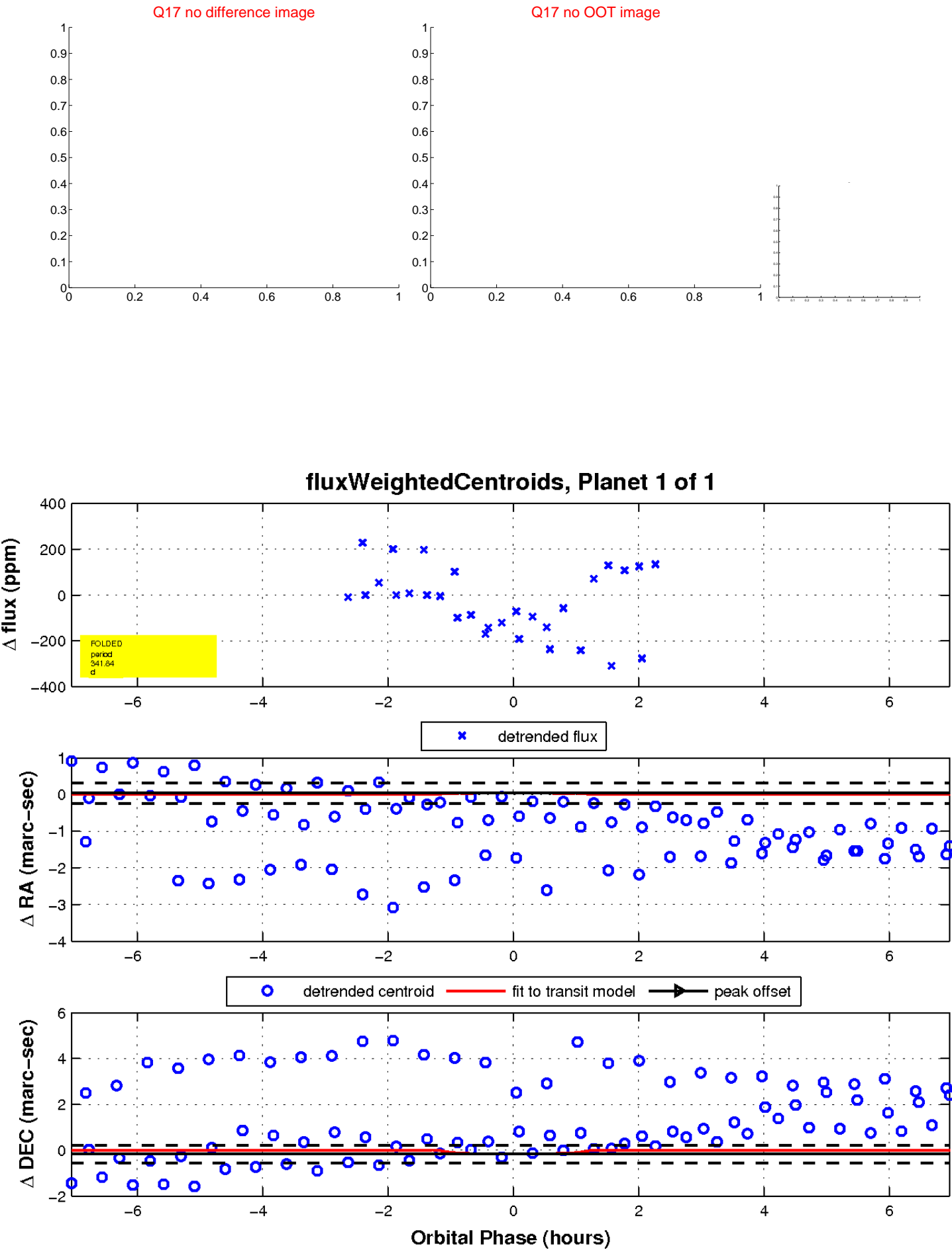
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

