

KIC 005397900

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})
005397900-01	OBS	No	449.485823	527.666949	1684.9	4.883	14.6	5.1	0.95	5872	3.90	0.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005397900-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—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.

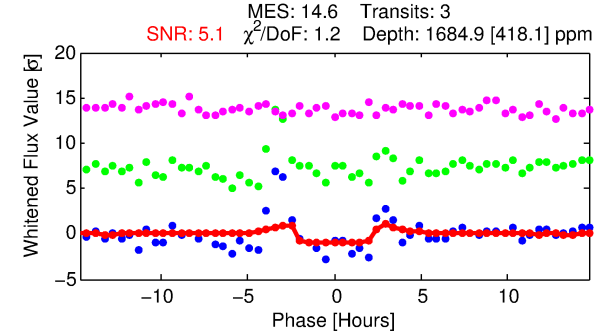
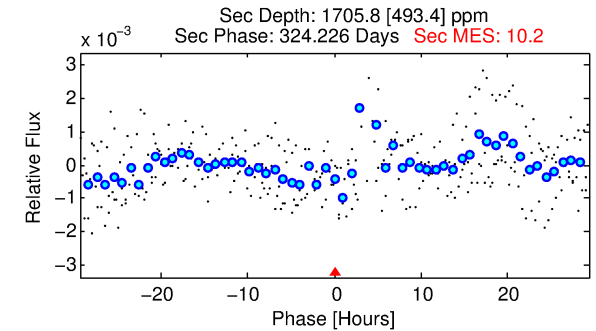
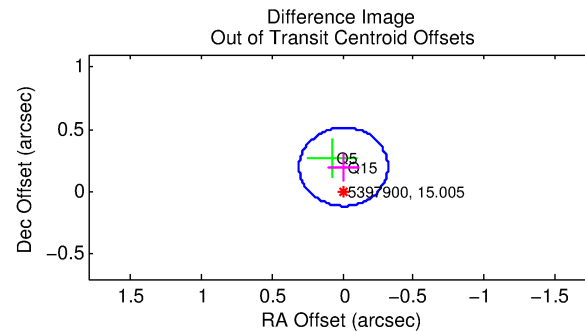
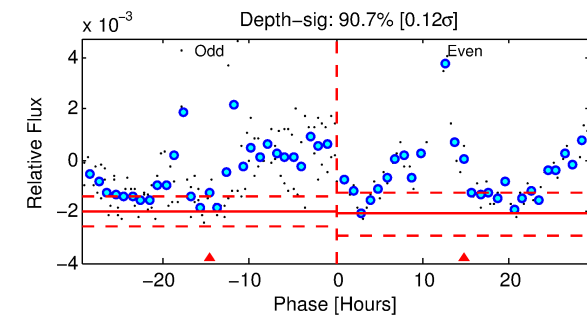
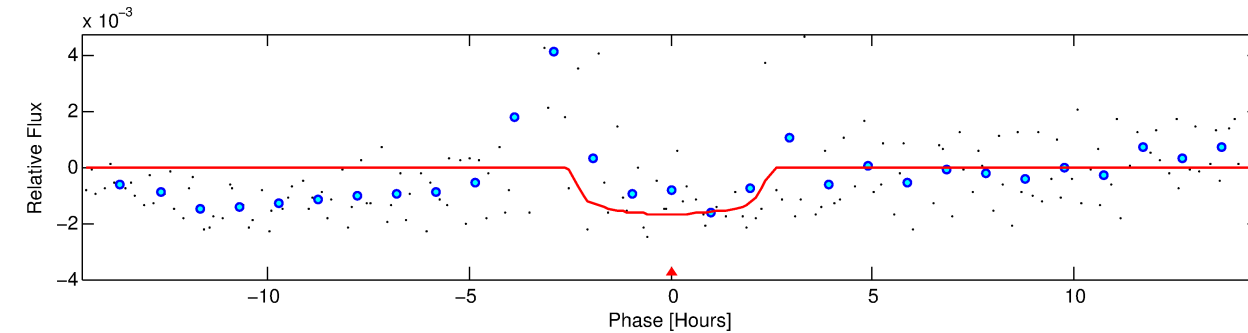
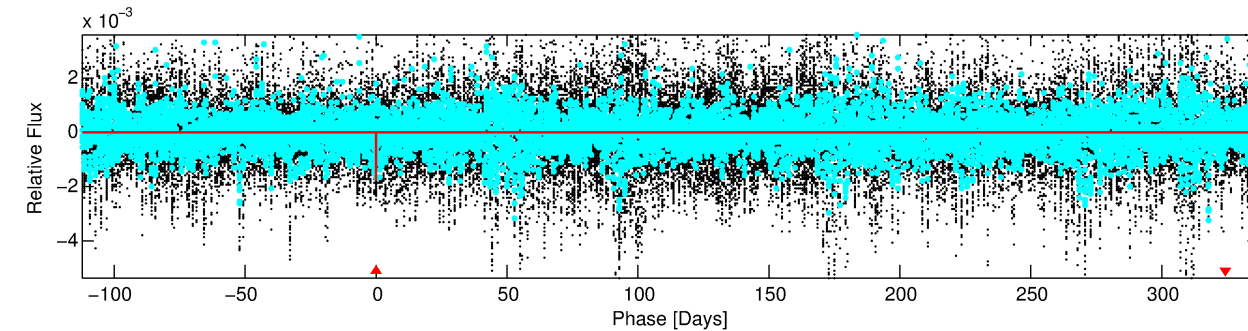
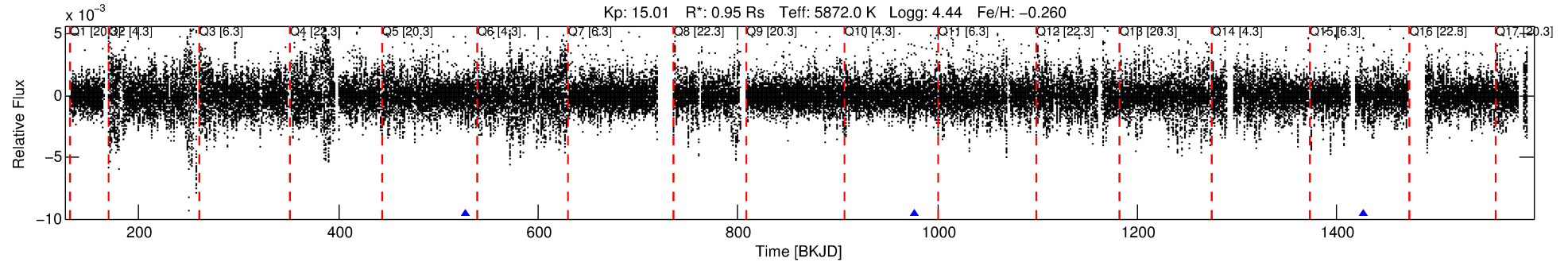
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005397900-01

No Significant Match Found

DV One-Page Summary

KIC: 5397900 Candidate: 1 of 1 Period: 449.486 d



DV Fit Results:

Period = 449.48582 [0.00731] d
Epoch = 527.6669 [0.0087] BKJD
Rp/R* = 0.0374 [0.0557]
a/R* = 728.90 [4928.69]
b = 0.04 [164.45]
Seff = 0.78 [0.28]
Teq = 240 [22] K
Rp = 3.90 [5.89] Re
a = 1.1131 [0.2570] AU
Ag = 76556.38 [230217.22] [0.33 σ]
Teffp = 6168 [4611] K [1.29 σ]

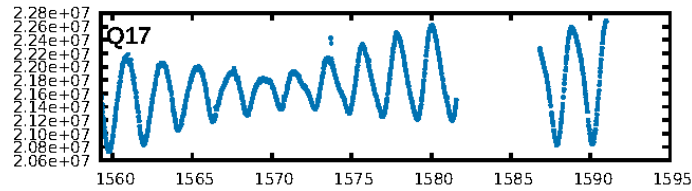
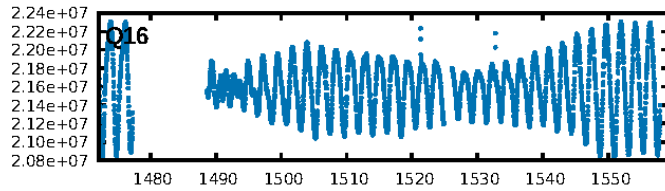
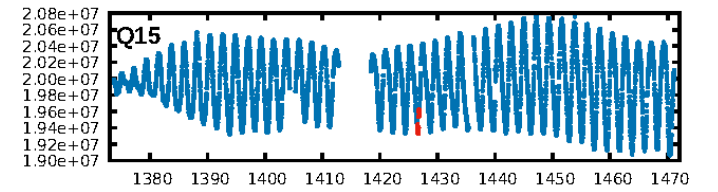
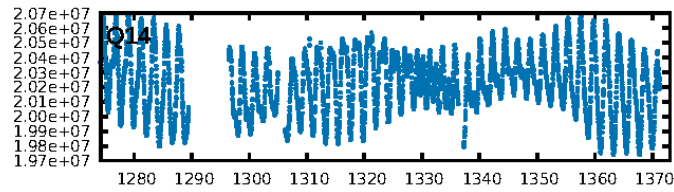
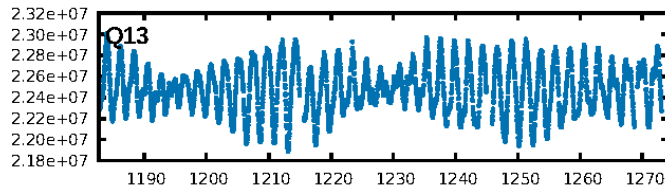
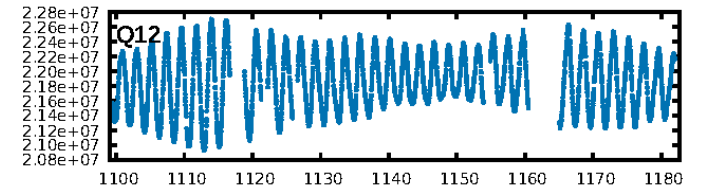
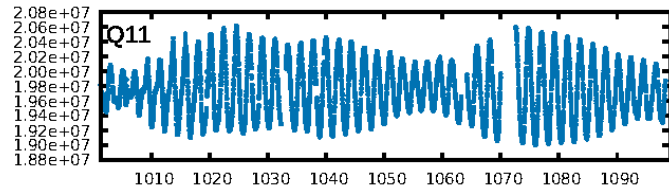
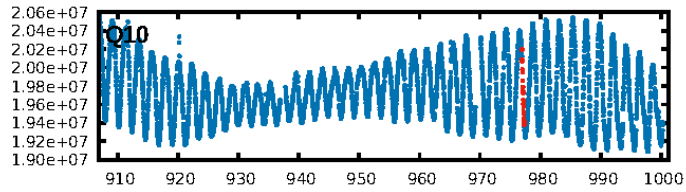
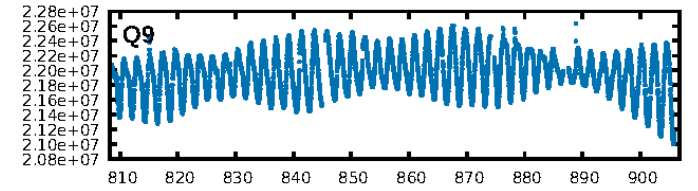
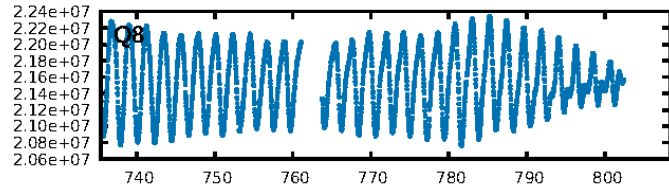
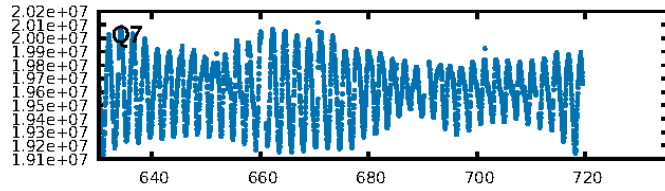
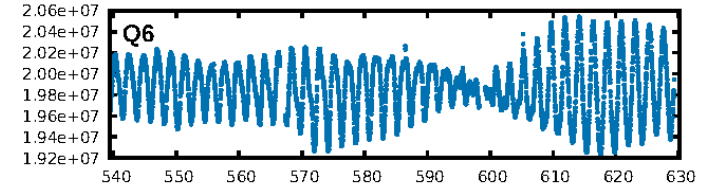
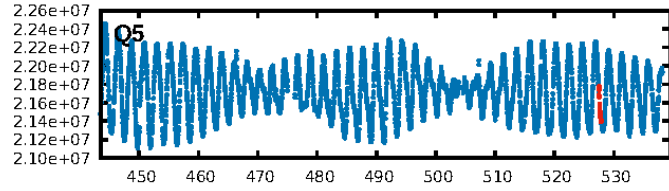
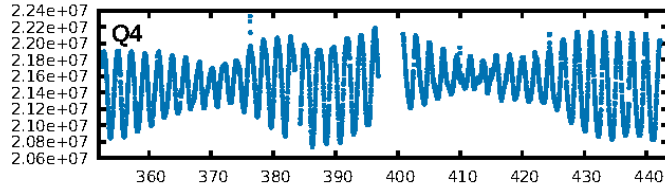
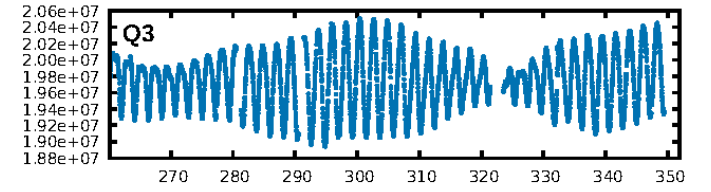
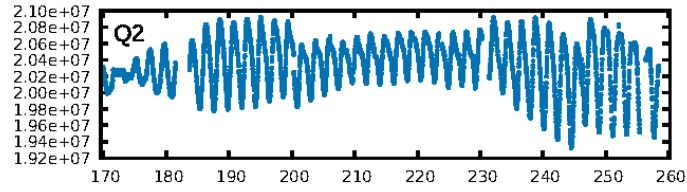
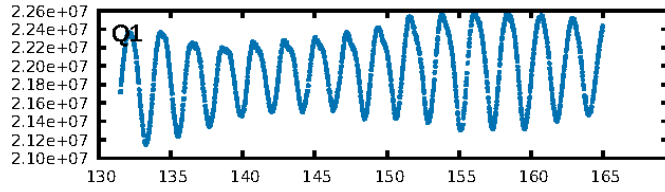
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 55.4%
ModelChiSquareGof-sig: 73.4%
Bootstrap-pfa: 6.78e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.5242
Centroid-sig: 45.2%
Centroid-so: 2.461 arcsec [1.85 σ]
OotOffset-rm: 0.198 arcsec [1.89 σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-rm: 0.099 arcsec [0.90 σ]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

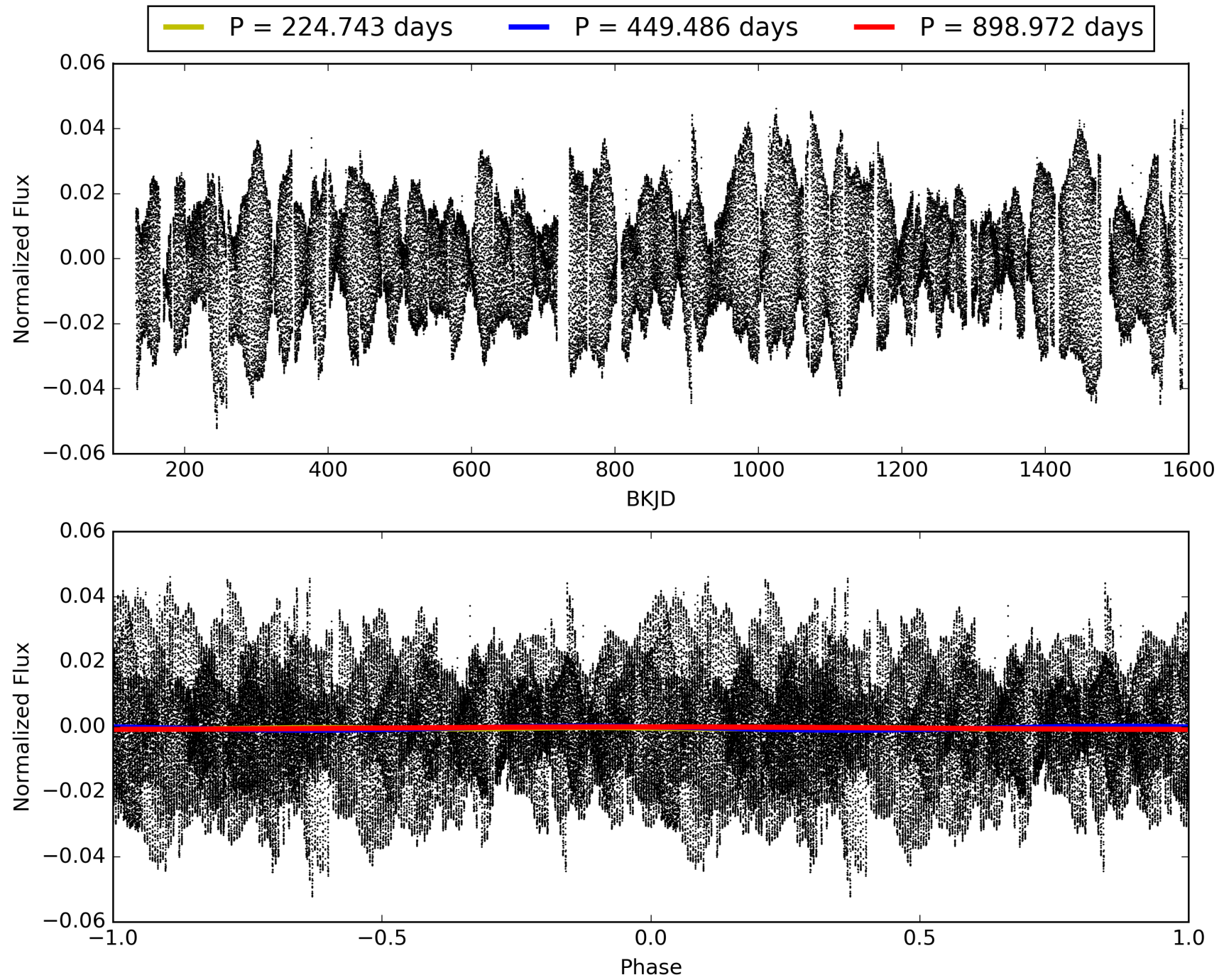
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:14:55 Z

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

TCE 005397900-01, PDC Light Curves

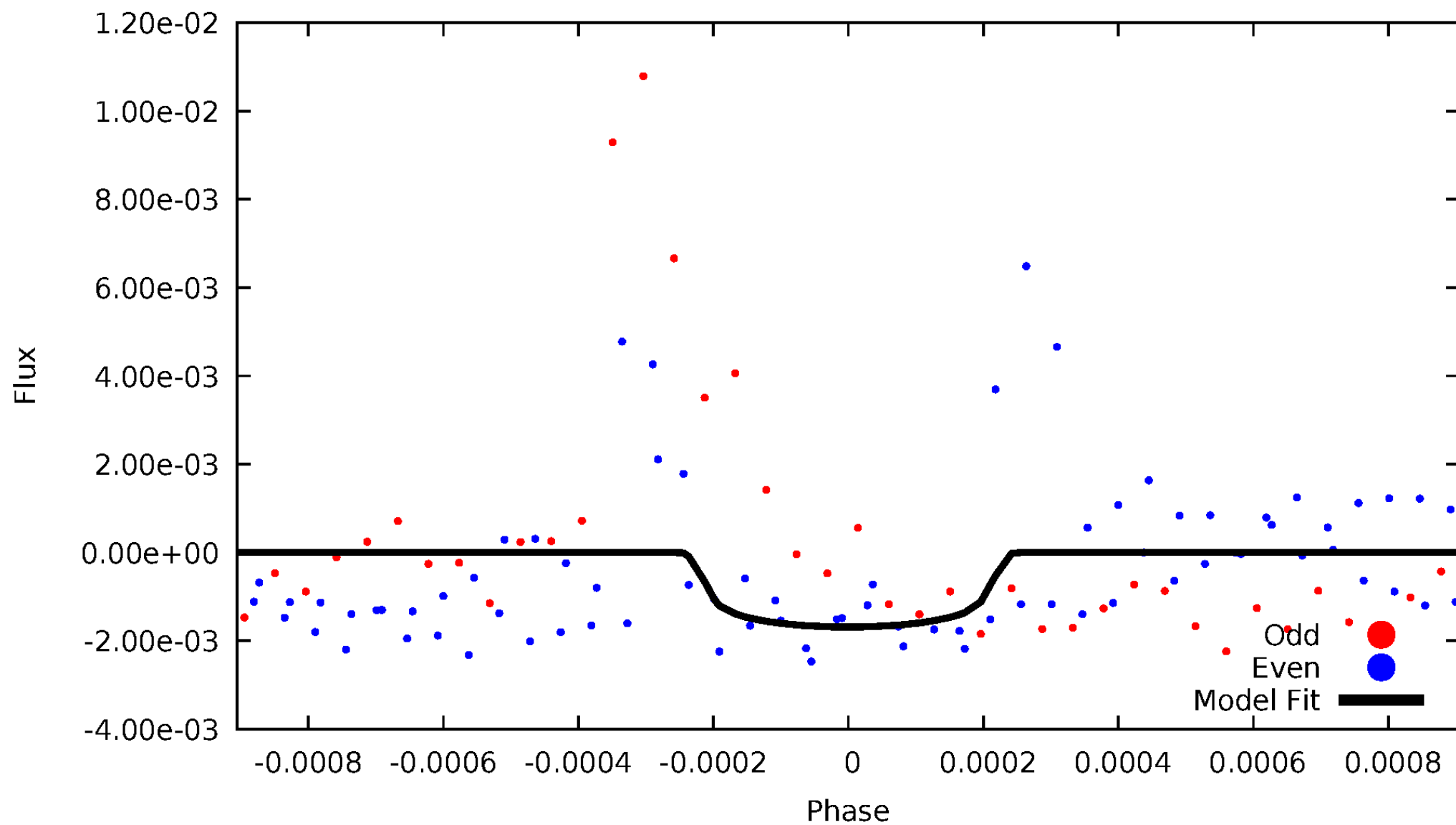


TCE 005397900-01



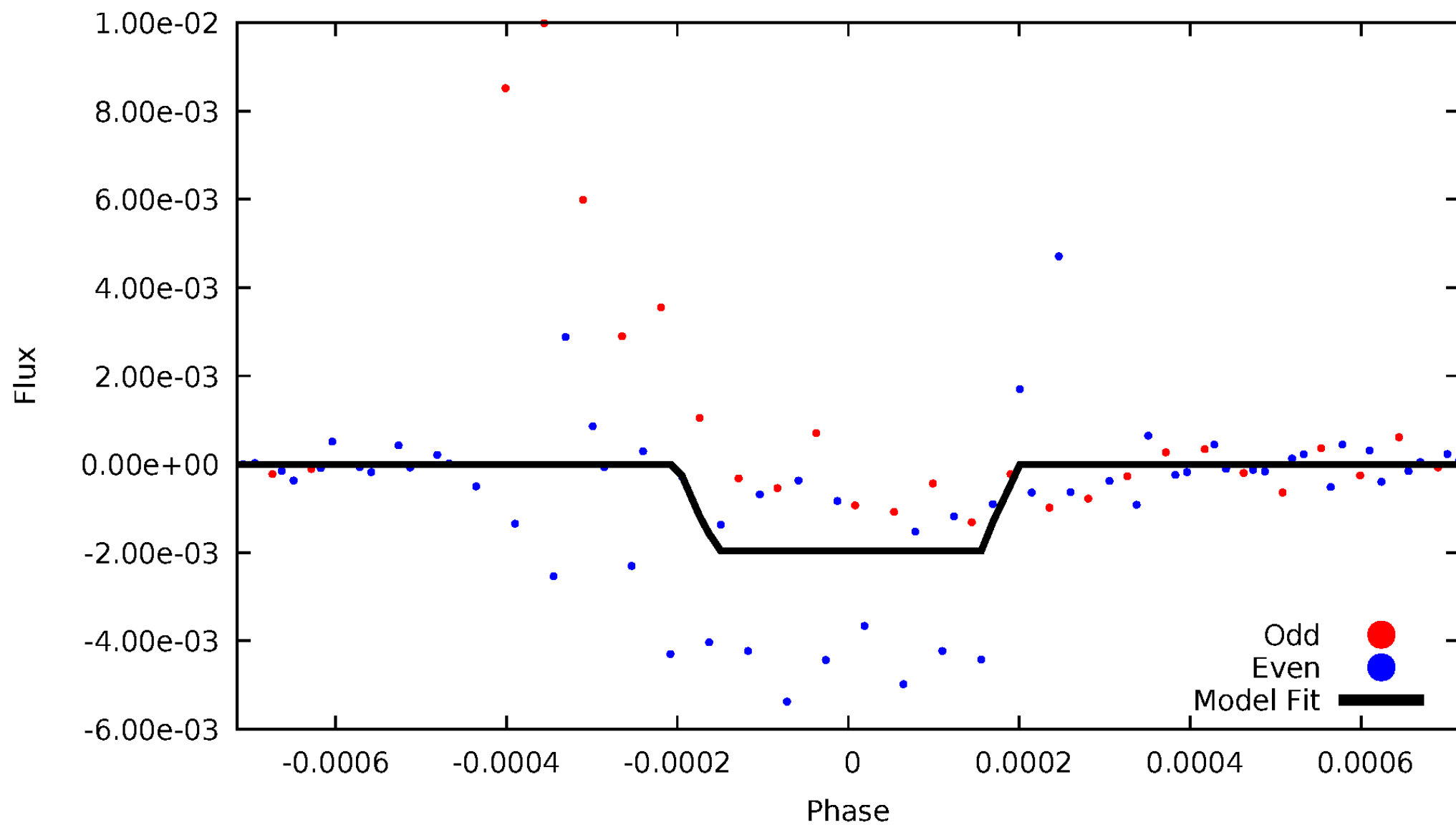
DV Odd/Even

TCE 005397900-01

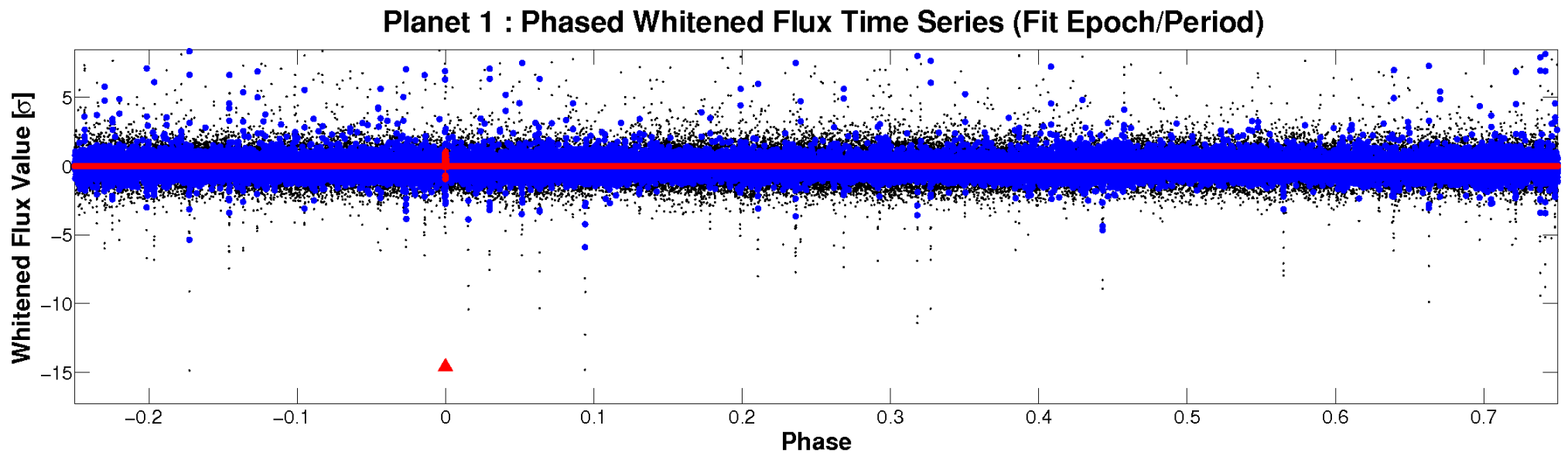
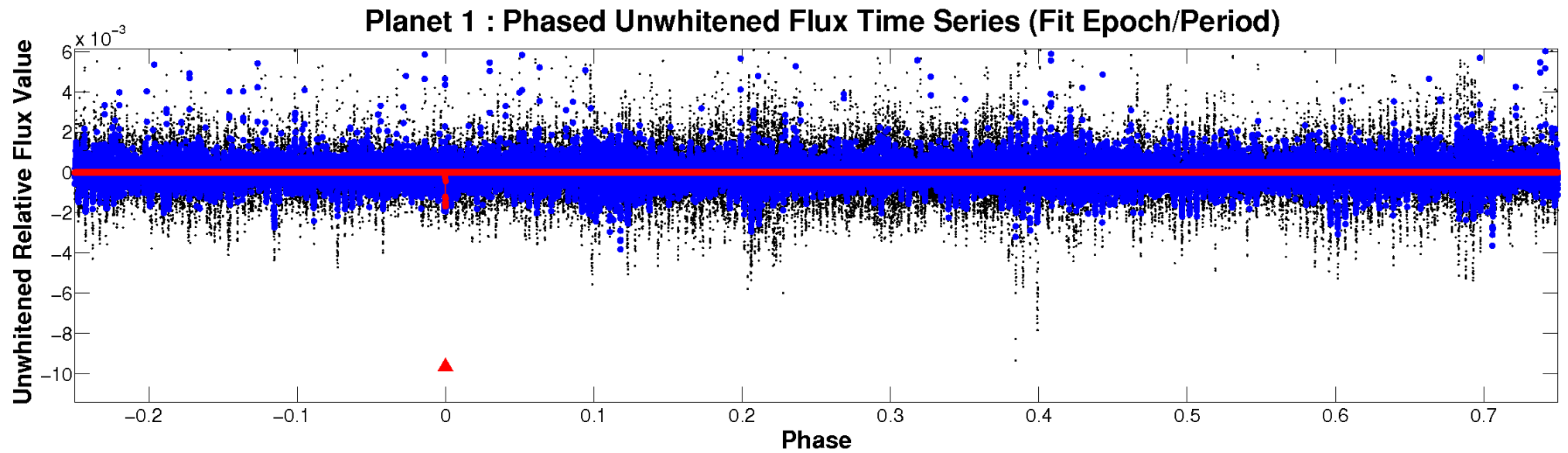


ALT Odd/Even

TCE 005397900-01

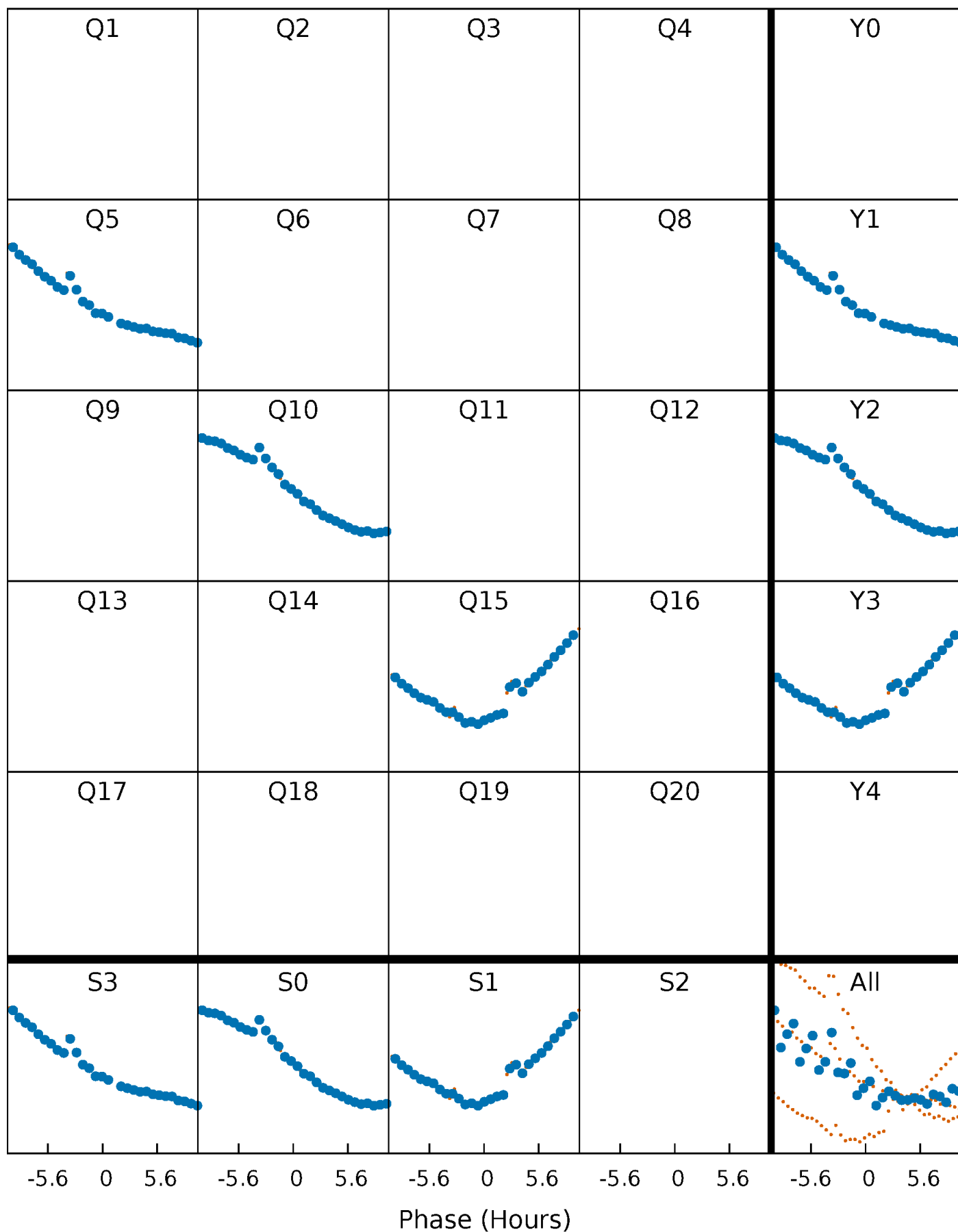


Non-Whitened Vs. Whitened Light Curve



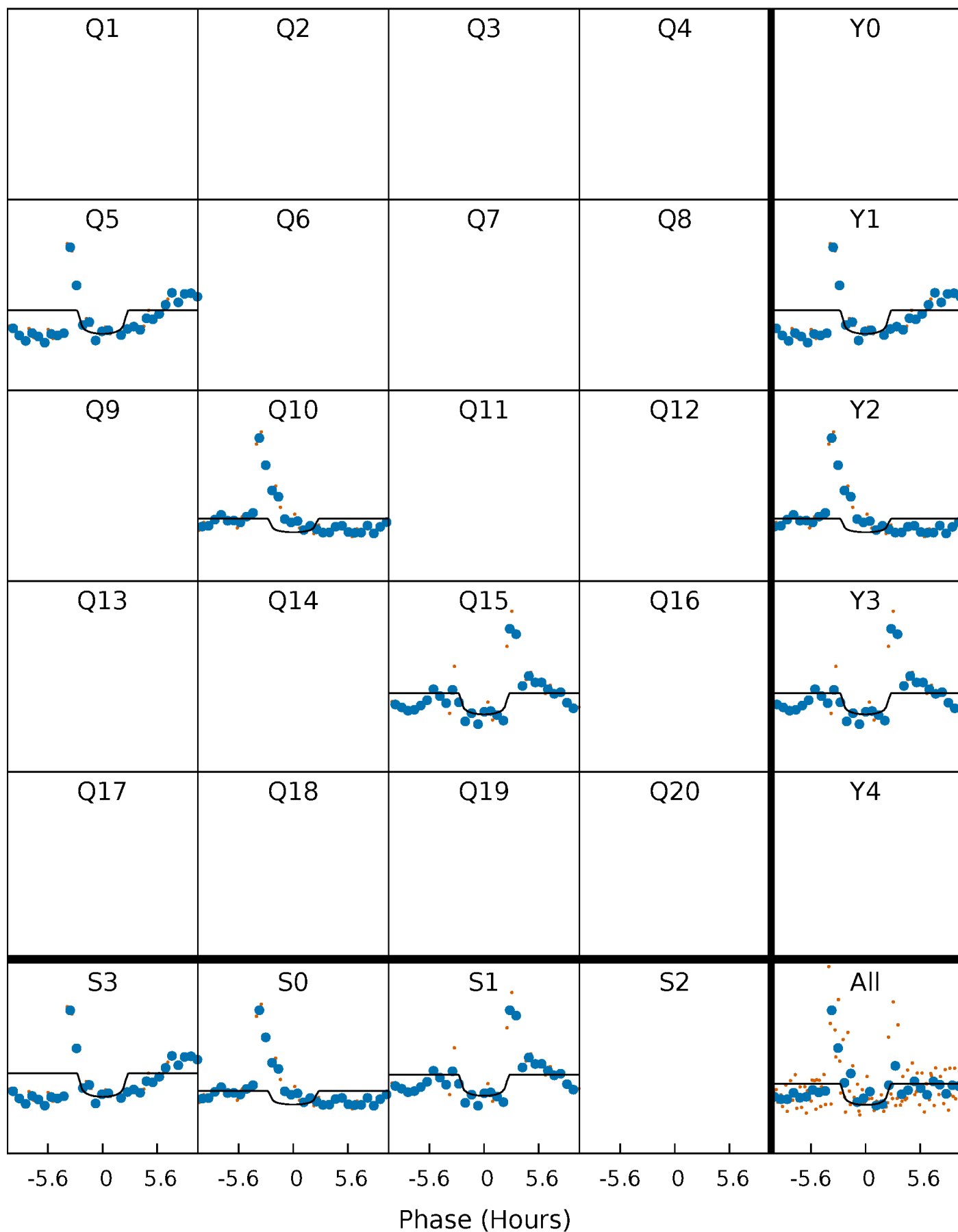
PDC Quarter-Phased Transit Curves

TCE 005397900-01 P=449.485823 Days $T_0=527.666949$ (BKJD)



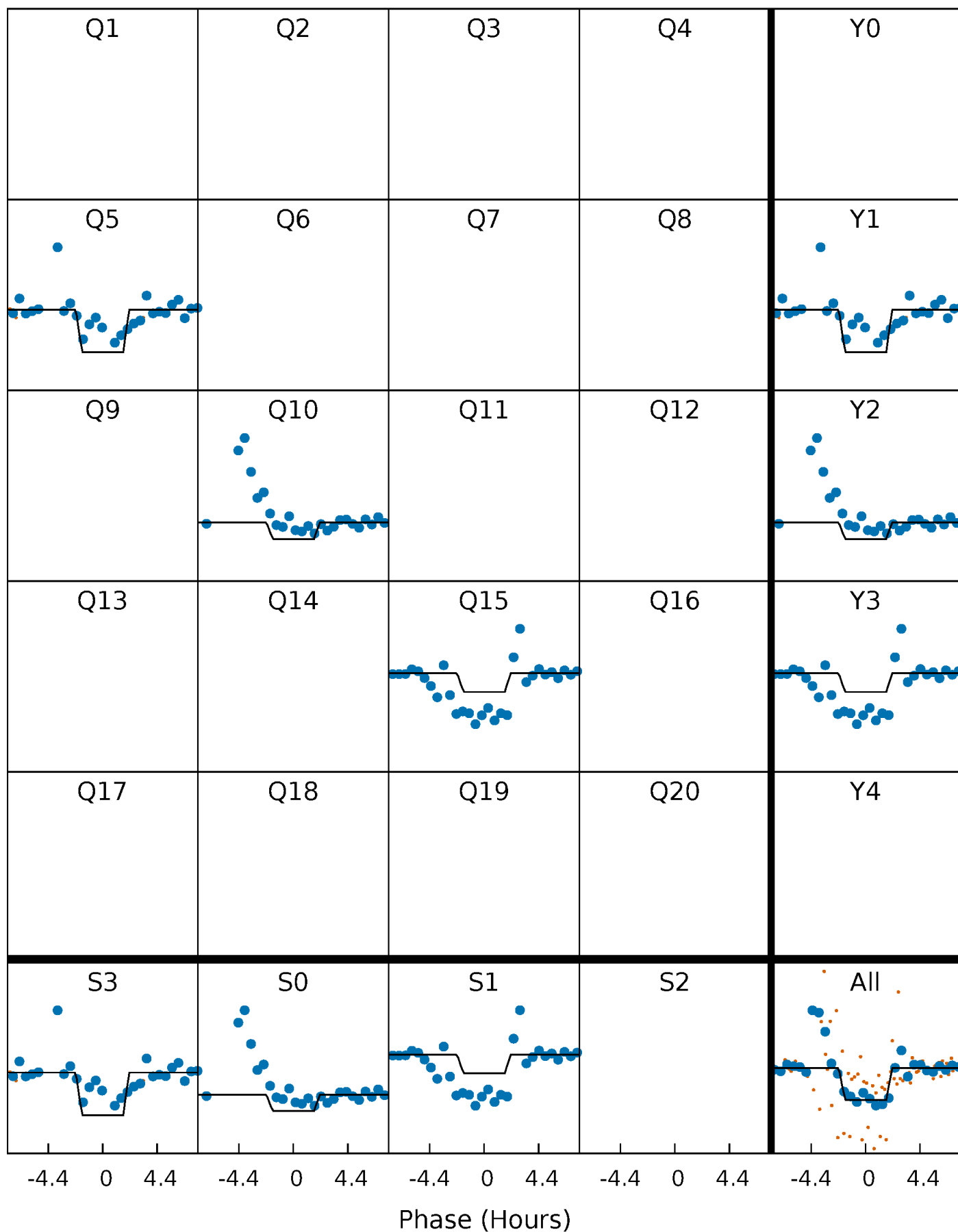
DV Quarter-Phased Transit Curves

TCE 005397900-01 $P=449.485823$ Days $T_0=527.666949$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

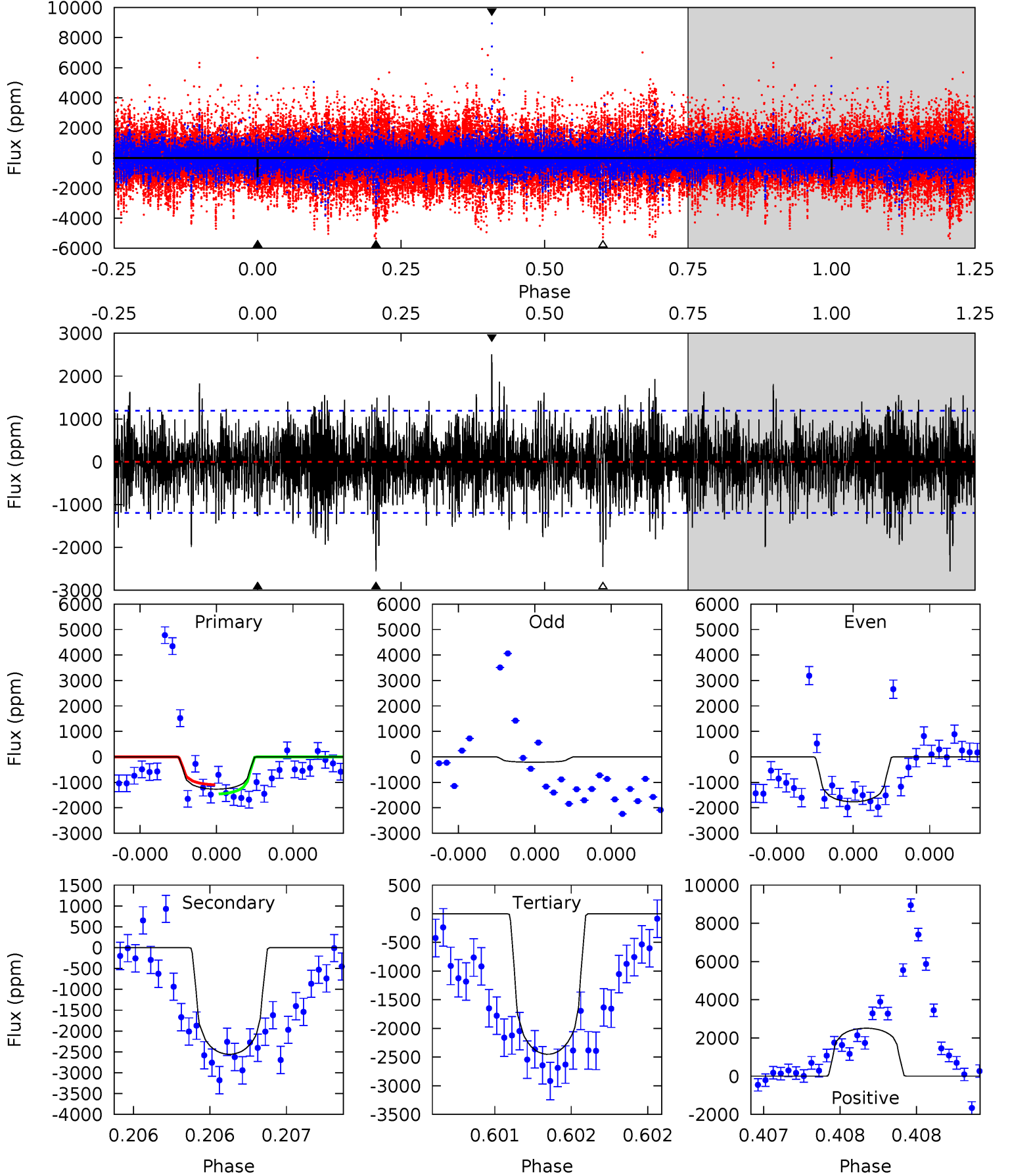
TCE 005397900-01 P=449.470208 Days $T_0=527.705895$ (BKJD)



DV Model-Shift Uniqueness Test

005397900-01, P = 449.485823 Days, E = 78.181126 Days

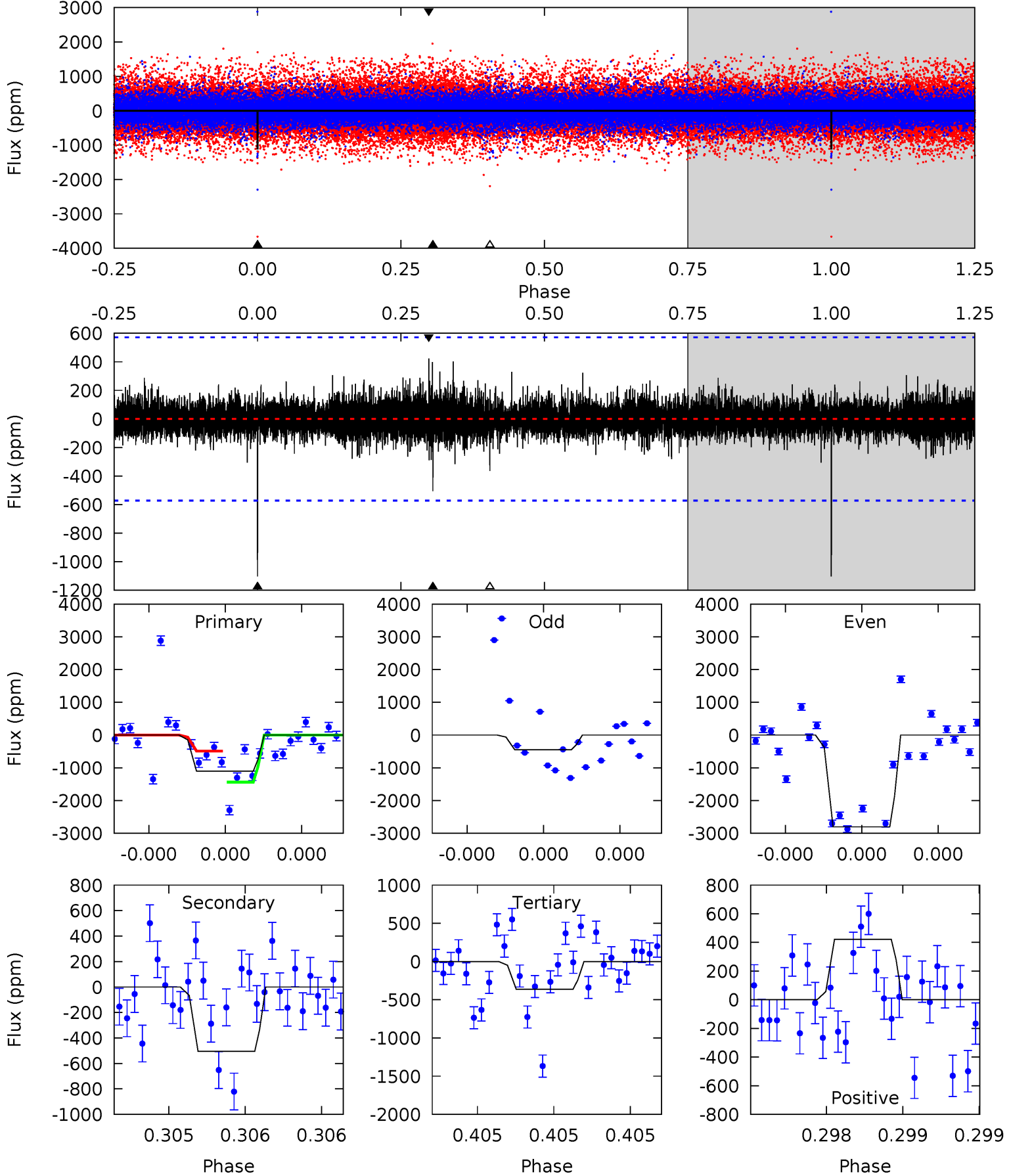
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.93	12.0	11.5	11.7	5.58	3.49	2.46	-5.53	-5.80	0.50	0.23	3.28	0.66	0.50	0.85



Alt Model-Shift Uniqueness Test

005397900-01, P = 449.470208 Days, E = 78.235687 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	4.96	3.58	4.15	5.61	3.54	0.66	7.26	6.69	1.38	0.81	14.0	1.96	0.28	4.81



Stellar Parameters For KIC 005397900

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5872^{+175}_{-175}	$4.438^{+0.101}_{-0.188}$	$-0.260^{+0.300}_{-0.300}$	$0.954^{+0.258}_{-0.139}$	$0.911^{+0.119}_{-0.097}$	$1.477^{+0.662}_{-0.742}$
	+3%/-3%	+2%/-4%	+115%/-115%	+27%/-15%	+13%/-11%	+45%/-50%
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 005397900-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2558 ± 214	$6.28^{+5.53}_{-4.07}$	339^{+22}_{-19}	5511^{+4205}_{-1253}	$45248^{+312975}_{-32529}$
Alt.	-505 ± 102	$6.38^{+4.97}_{-4.02}$	339^{+22}_{-19}	3930^{+1883}_{-671}	8290^{+47903}_{-5689}

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 $A_{obs} \gg 1.0$

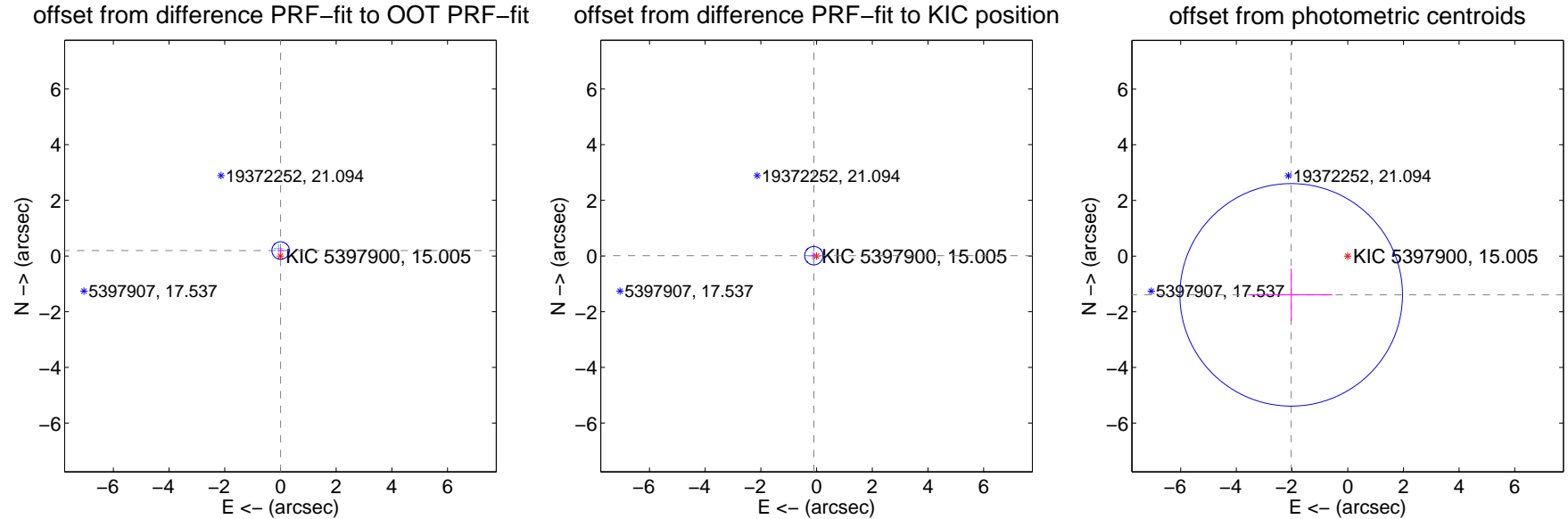
DV Centroid Data

Supplemental centroid analysis for 005397900-01. Kepler magnitude: 15.01. Transit SNR 5.14

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.198 ± 0.105	1.89	-0.006 ± 0.110	0.198 ± 0.105
PRF-fit source offset from KIC position	0.099 ± 0.110	0.90	0.098 ± 0.110	0.013 ± 0.105
photometric centroid source offset	2.46 ± 1.33	1.85	2.03 ± 1.48	-1.39 ± 0.94

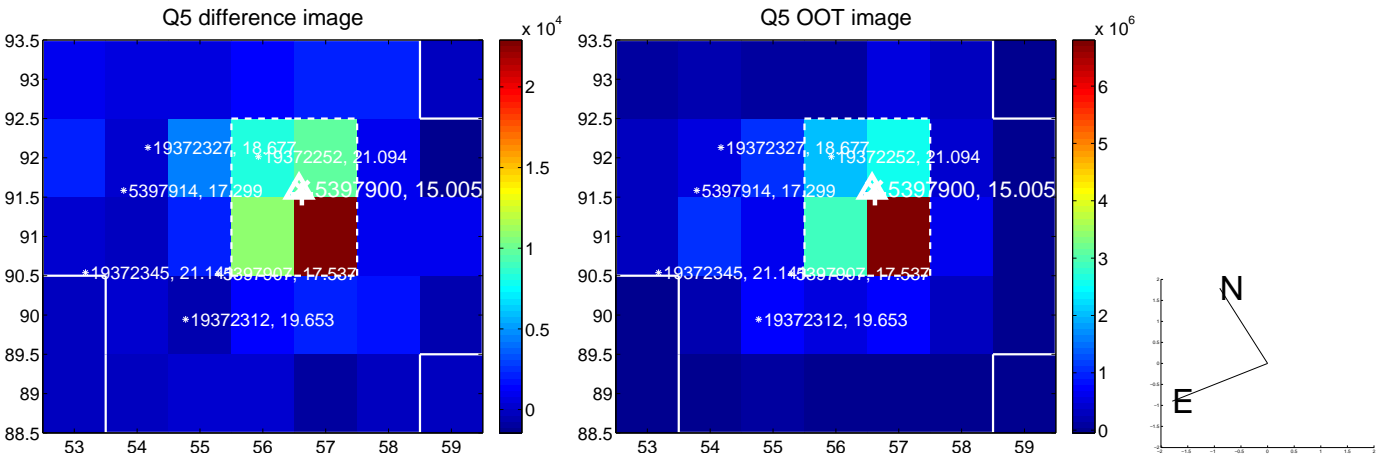


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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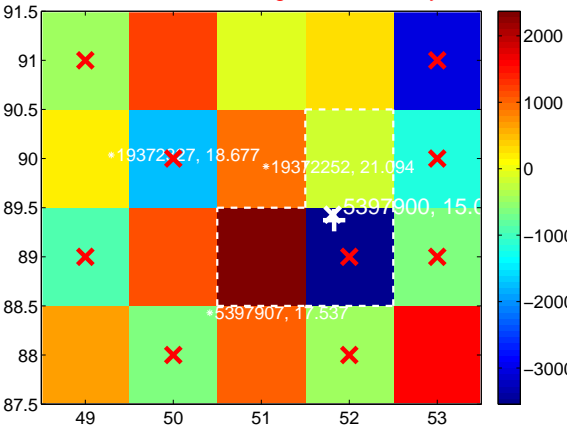
Q9 no difference image



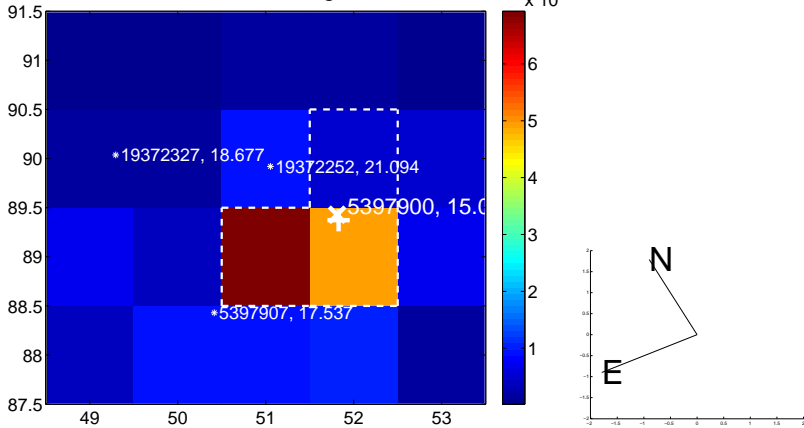
Q9 no OOT image



Q10 difference image. Poor Quality



Q10 OOT image



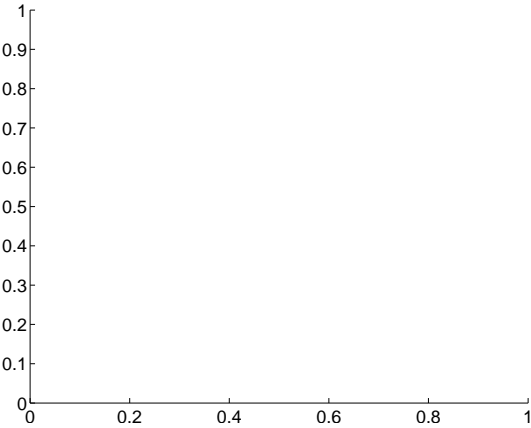
Q11 no difference image



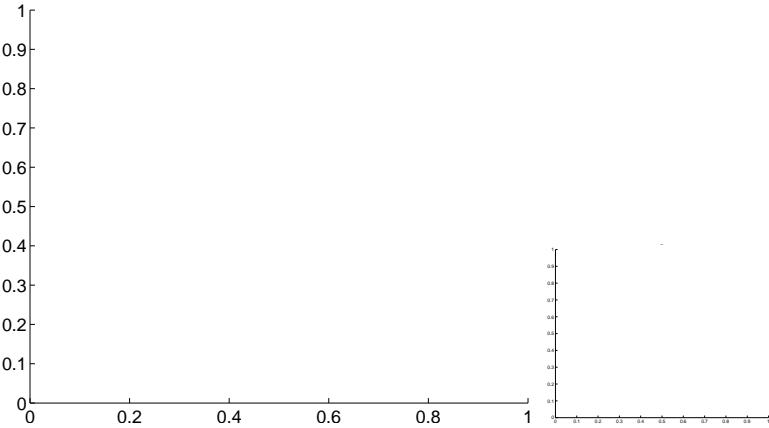
Q11 no OOT image



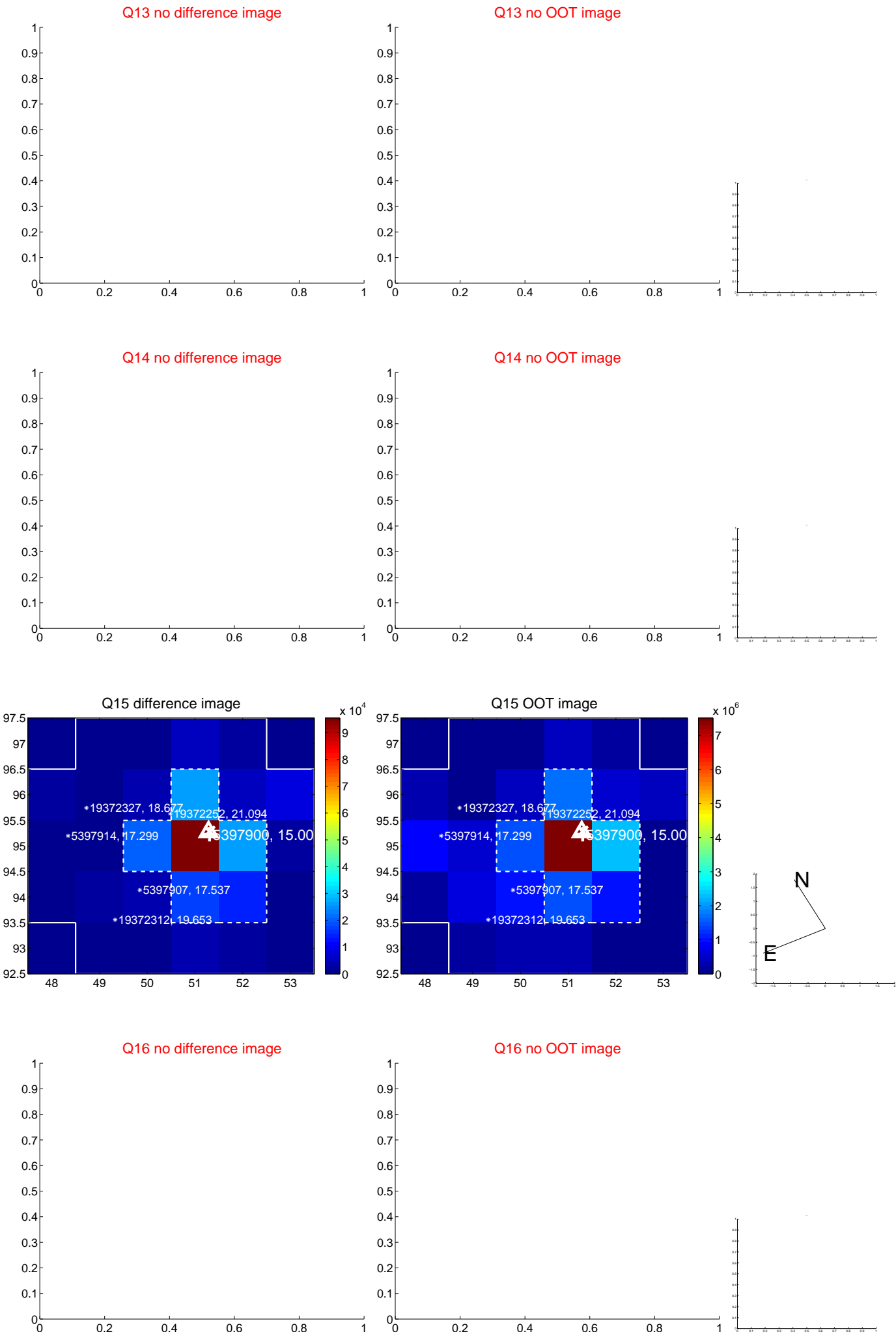
Q12 no difference image



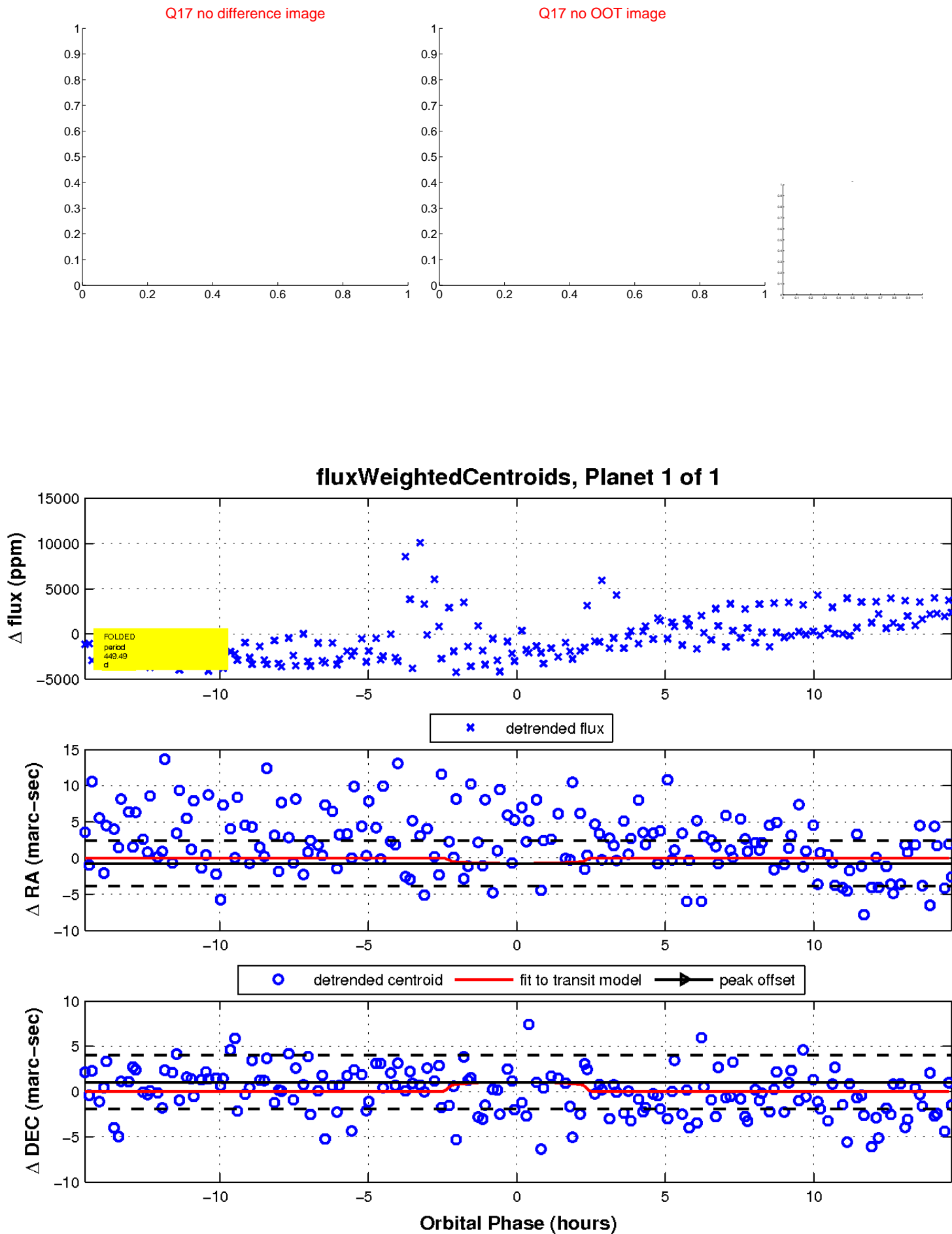
Q12 no OOT image



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



UKIRT Image

Declination

