

KIC 010583486

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})
010583486-01	OBS	No	570.469104	201.613631	589.1	5.518	8.1	5.8	0.58	4423	1.53	0.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583486-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_MEAS

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

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

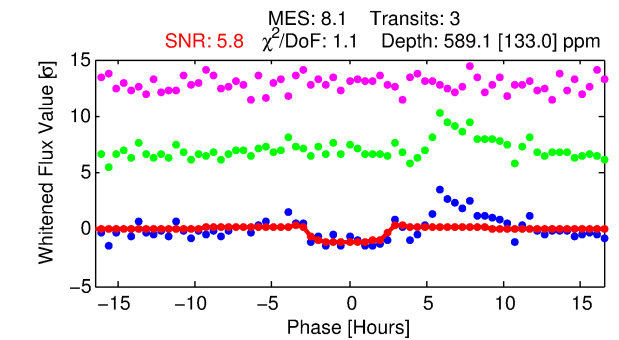
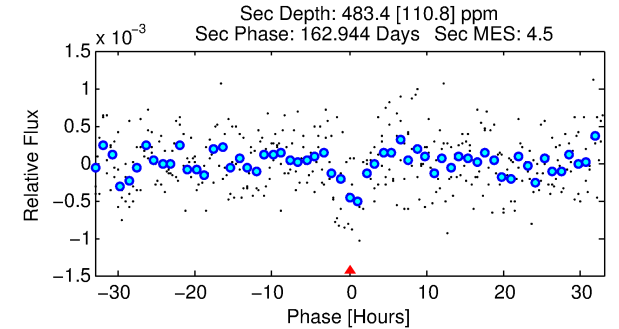
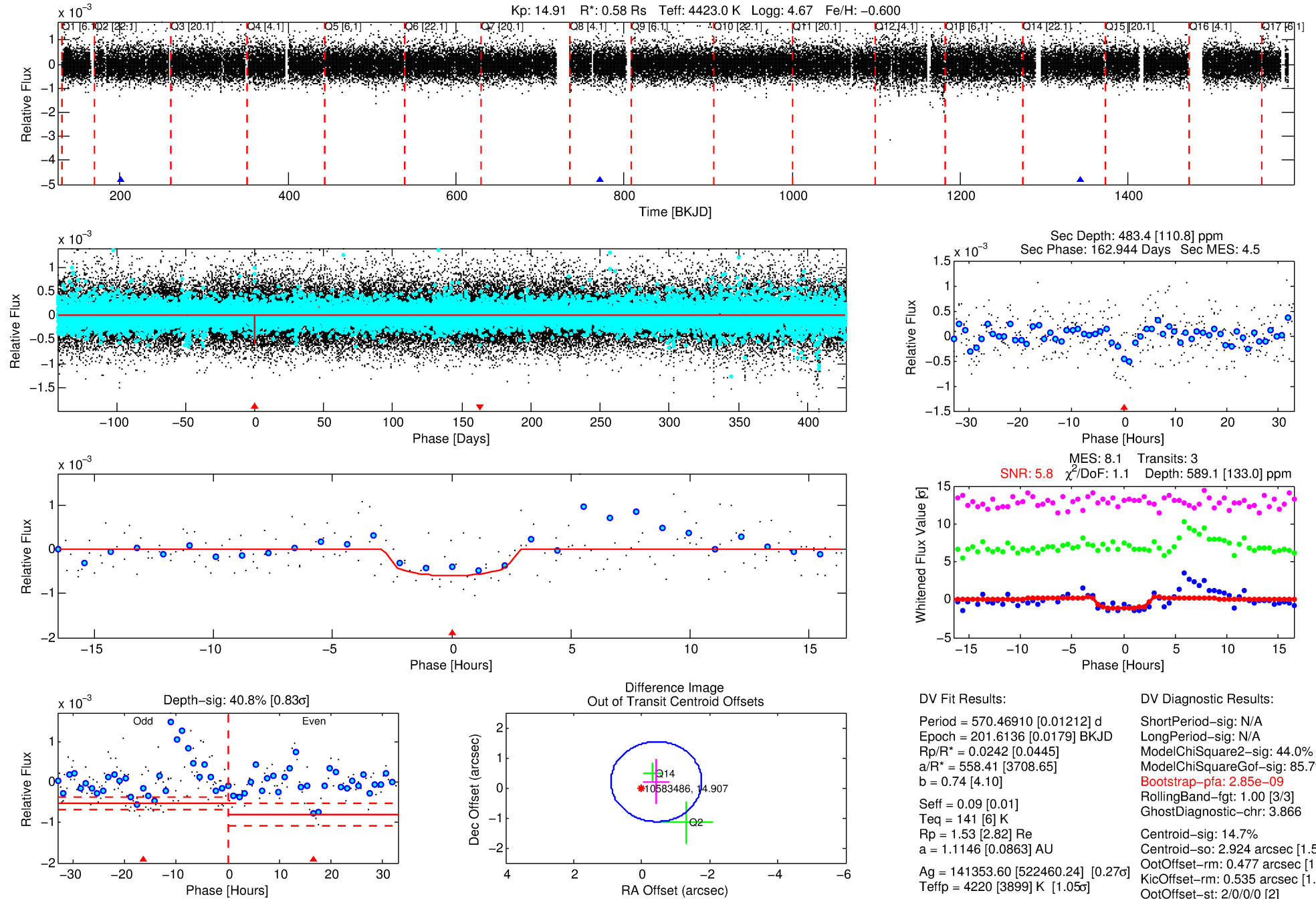
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583486-01

No Significant Match Found

DV One-Page Summary

KIC: 10583486 Candidate: 1 of 1 Period: 570.469 d



DV Fit Results:

Period = 570.46910 [0.01212] d
Epoch = 201.6136 [0.0179] BKJD
Rp/R* = 0.0242 [0.0445]
a/R* = 558.41 [3708.65]
b = 0.74 [4.10]
Seff = 0.09 [0.01]
Teq = 141 [6] K
Rp = 1.53 [2.82] Re
a = 1.1146 [0.0863] AU
Ag = 141353.60 [522460.24] [0.27 σ]
Teff = 4220 [3899] K [1.05 σ]

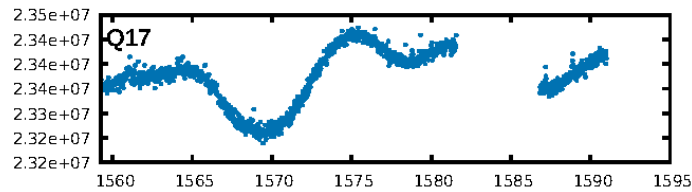
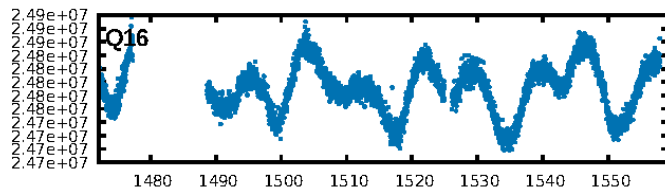
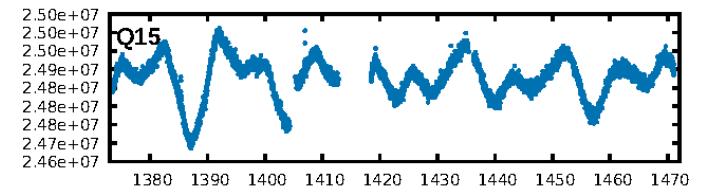
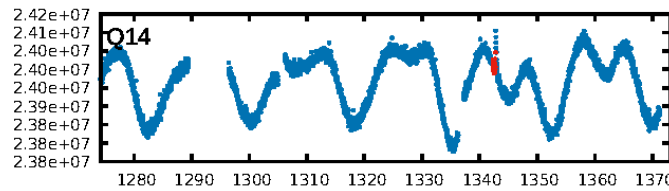
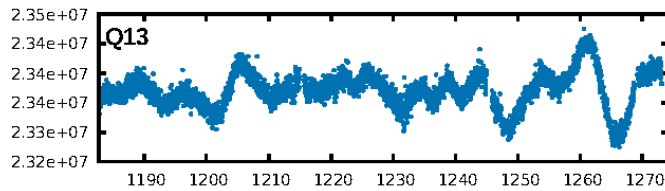
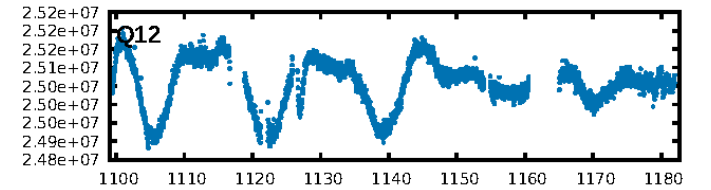
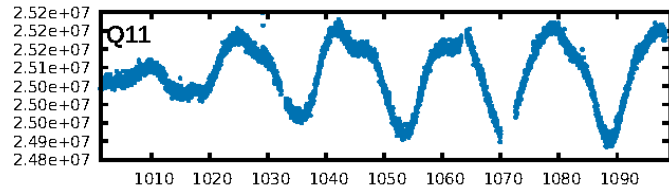
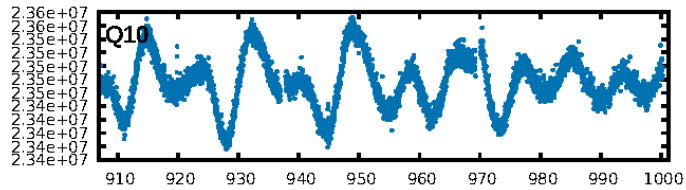
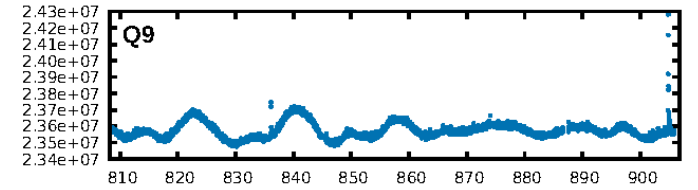
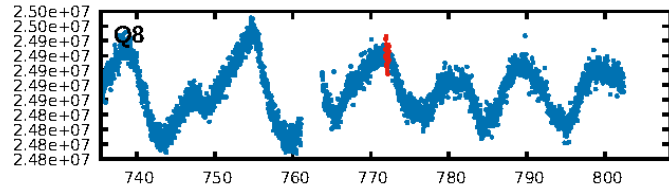
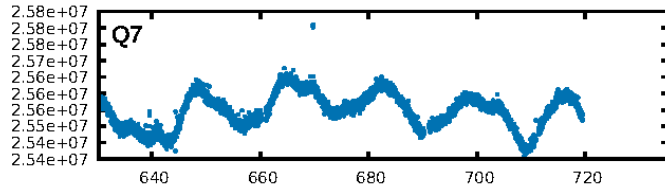
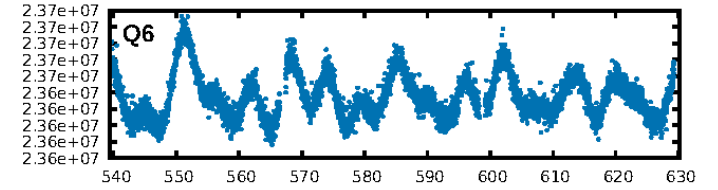
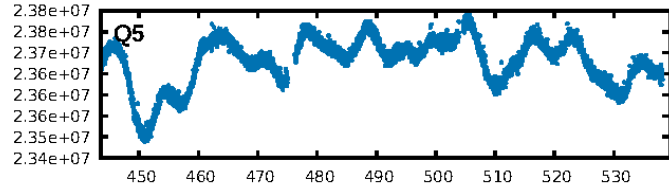
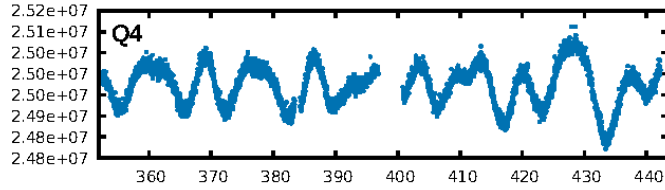
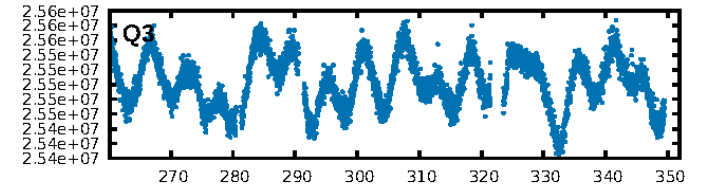
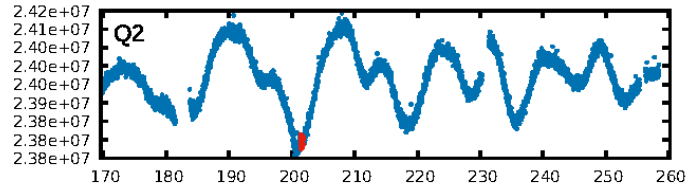
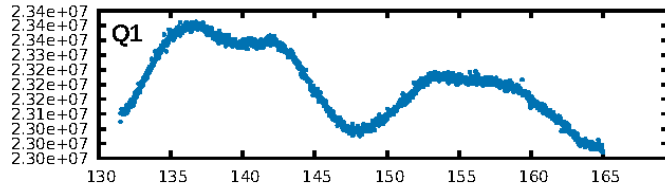
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 44.0%
ModelChiSquareGof-sig: 85.7%
Bootstrap-pfa: 2.85e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.866
Centroid-sig: 14.7%
Centroid-so: 2.924 arcsec [1.50 σ]
OotOffset-rm: 0.477 arcsec [1.07 σ]
KicOffset-rm: 0.535 arcsec [1.25 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

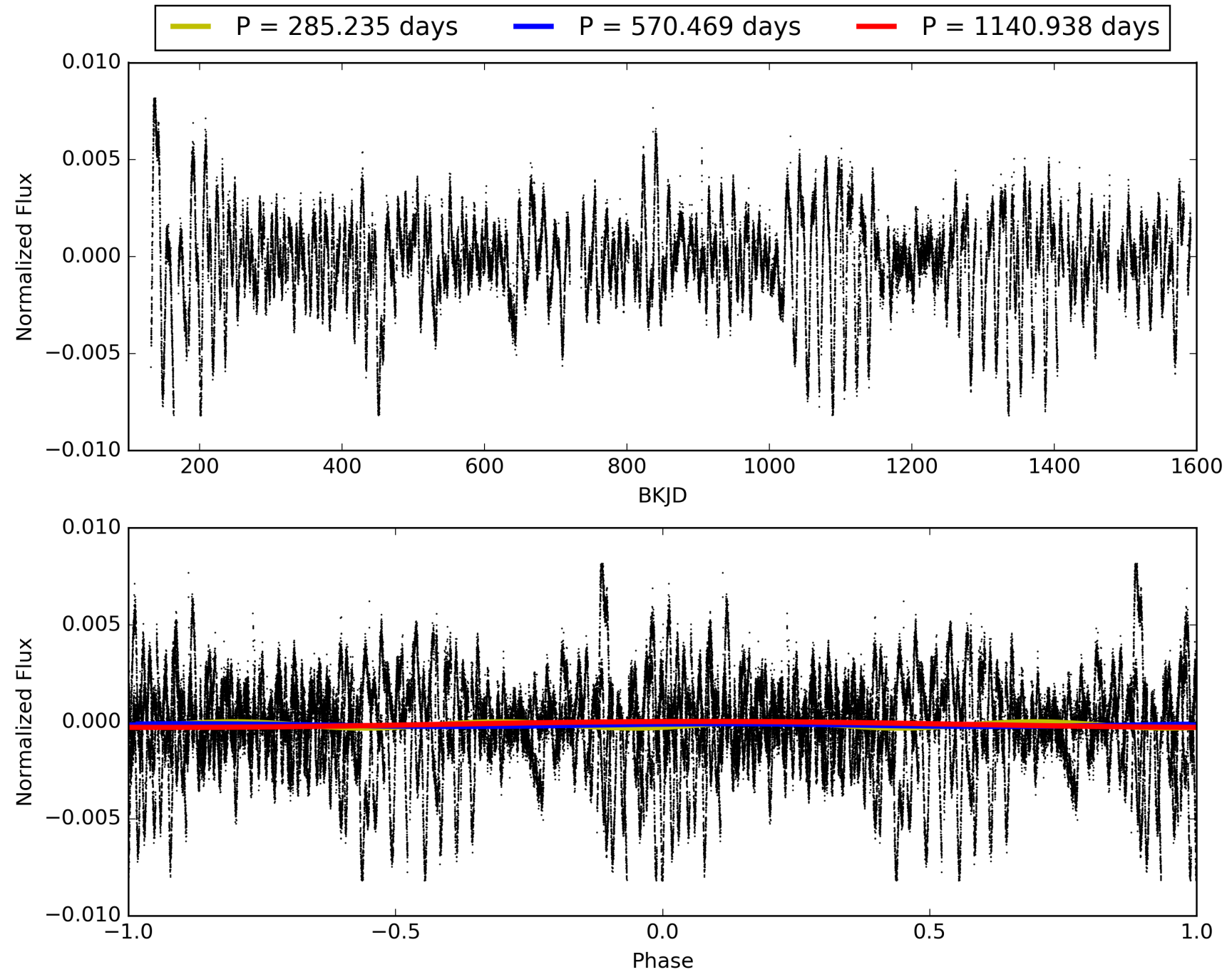
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:30:32 Z

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

TCE 010583486-01, PDC Light Curves

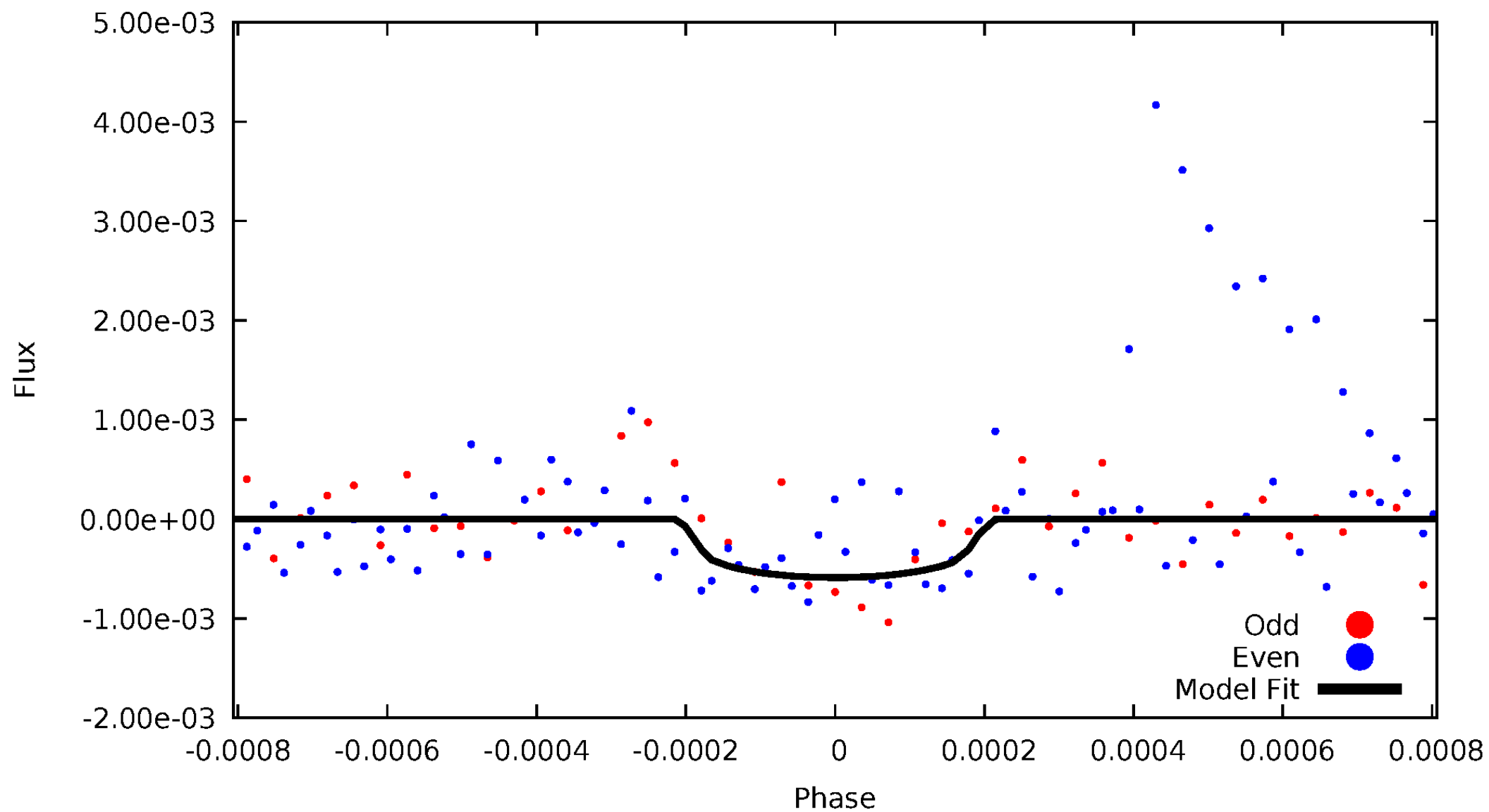


TCE 010583486-01



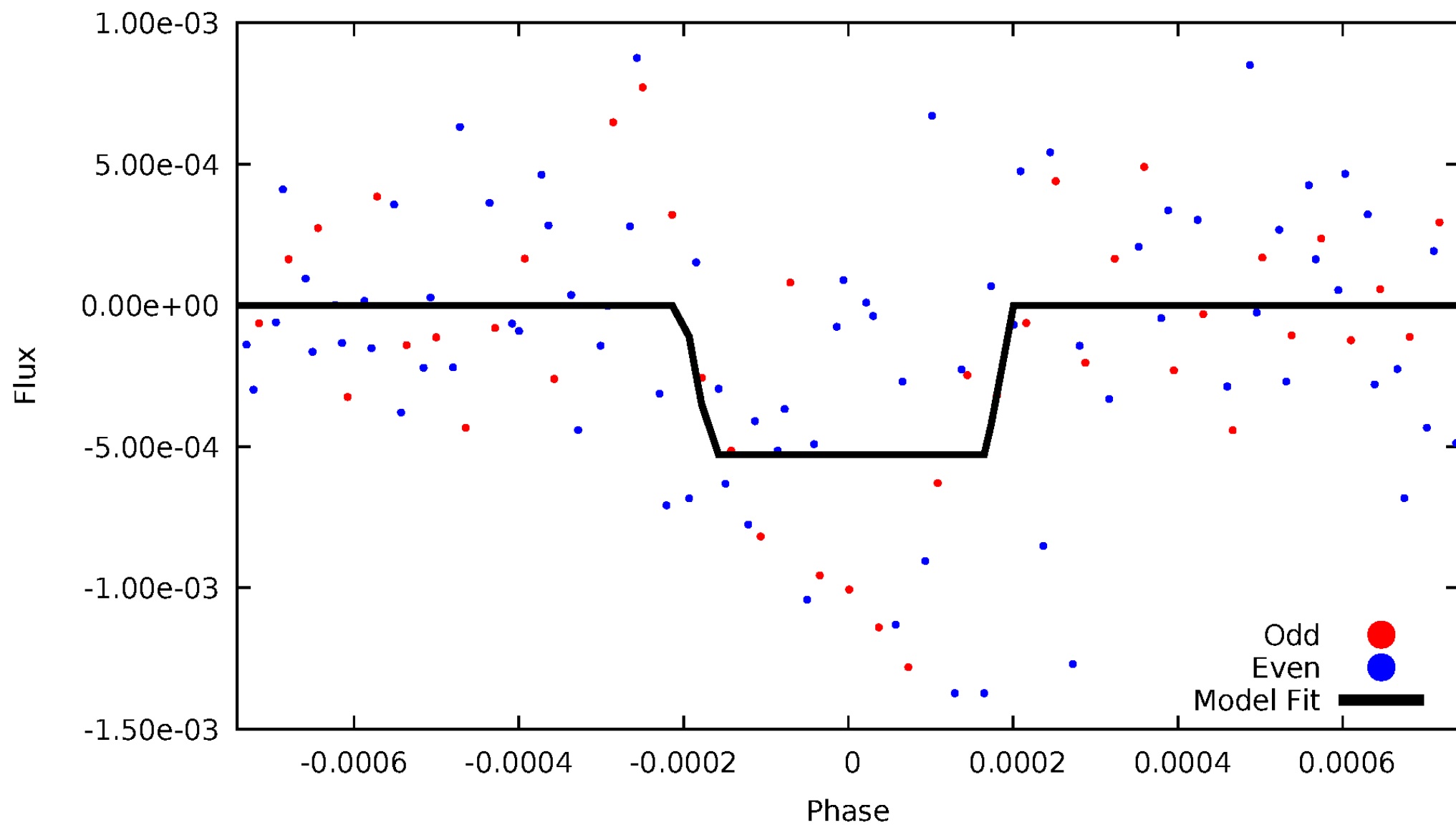
DV Odd/Even

TCE 010583486-01



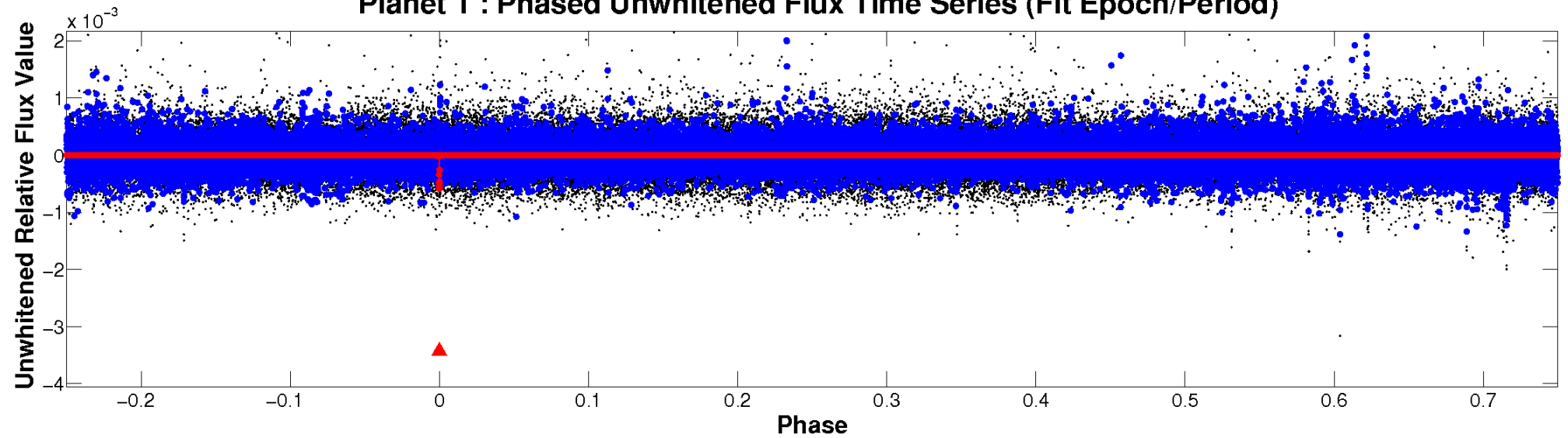
ALT Odd/Even

TCE 010583486-01

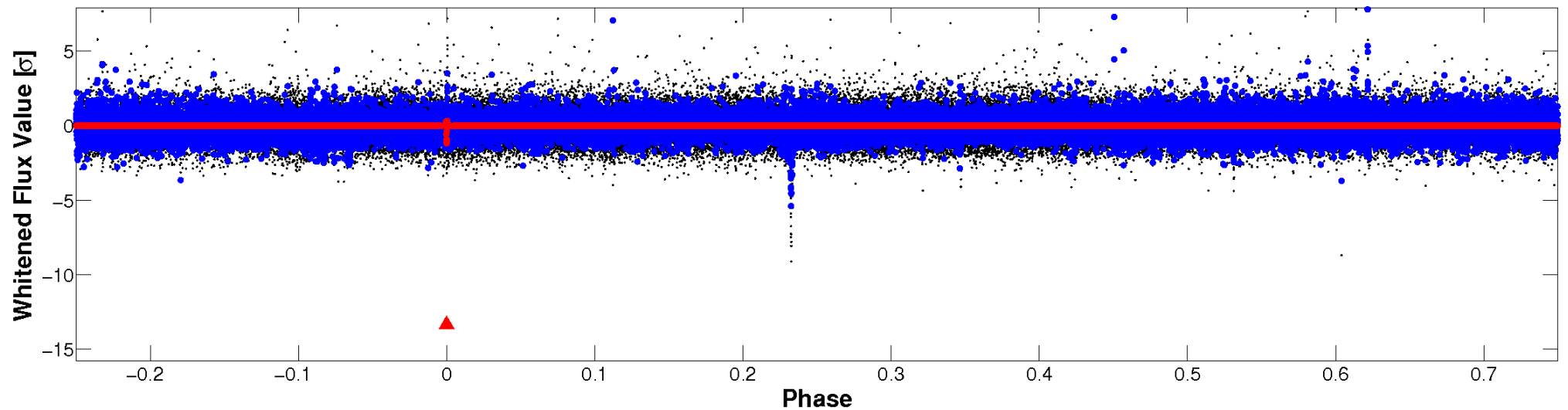


Non-Whitened Vs. Whitened Light Curve

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

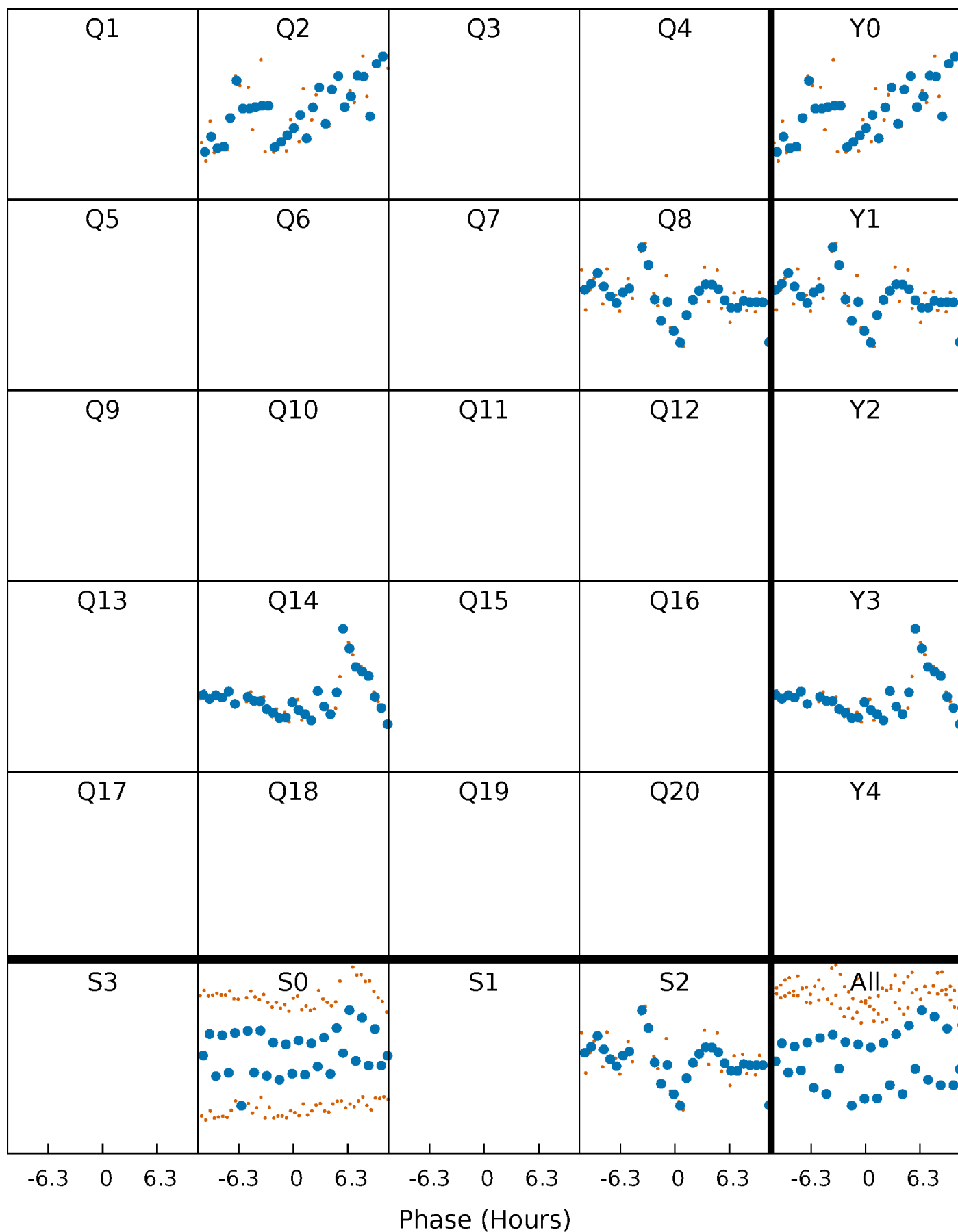


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



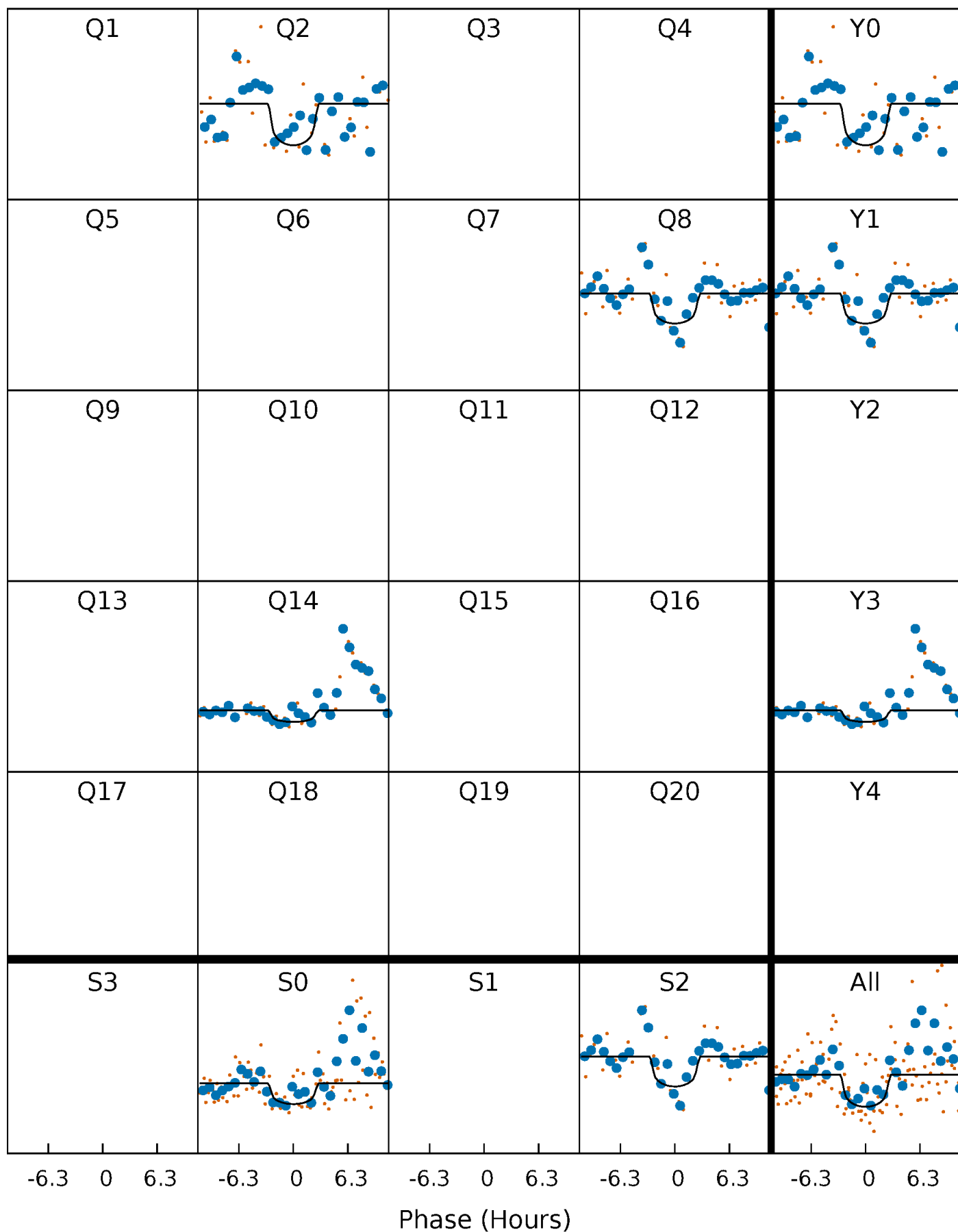
PDC Quarter-Phased Transit Curves

TCE 010583486-01 P=570.469104 Days $T_0=201.613631$ (BKJD)



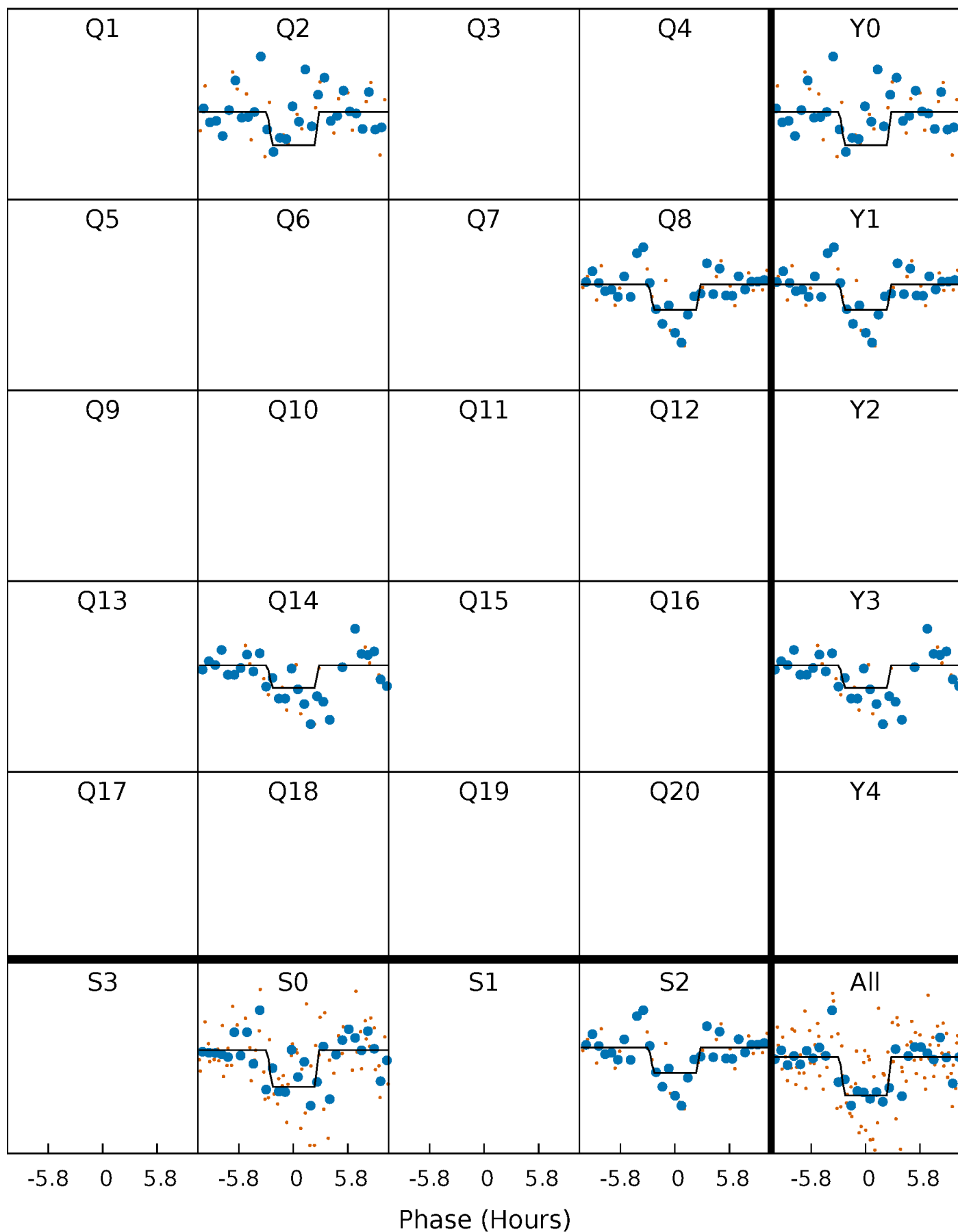
DV Quarter-Phased Transit Curves

TCE 010583486-01 P=570.469104 Days $T_0=201.613631$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

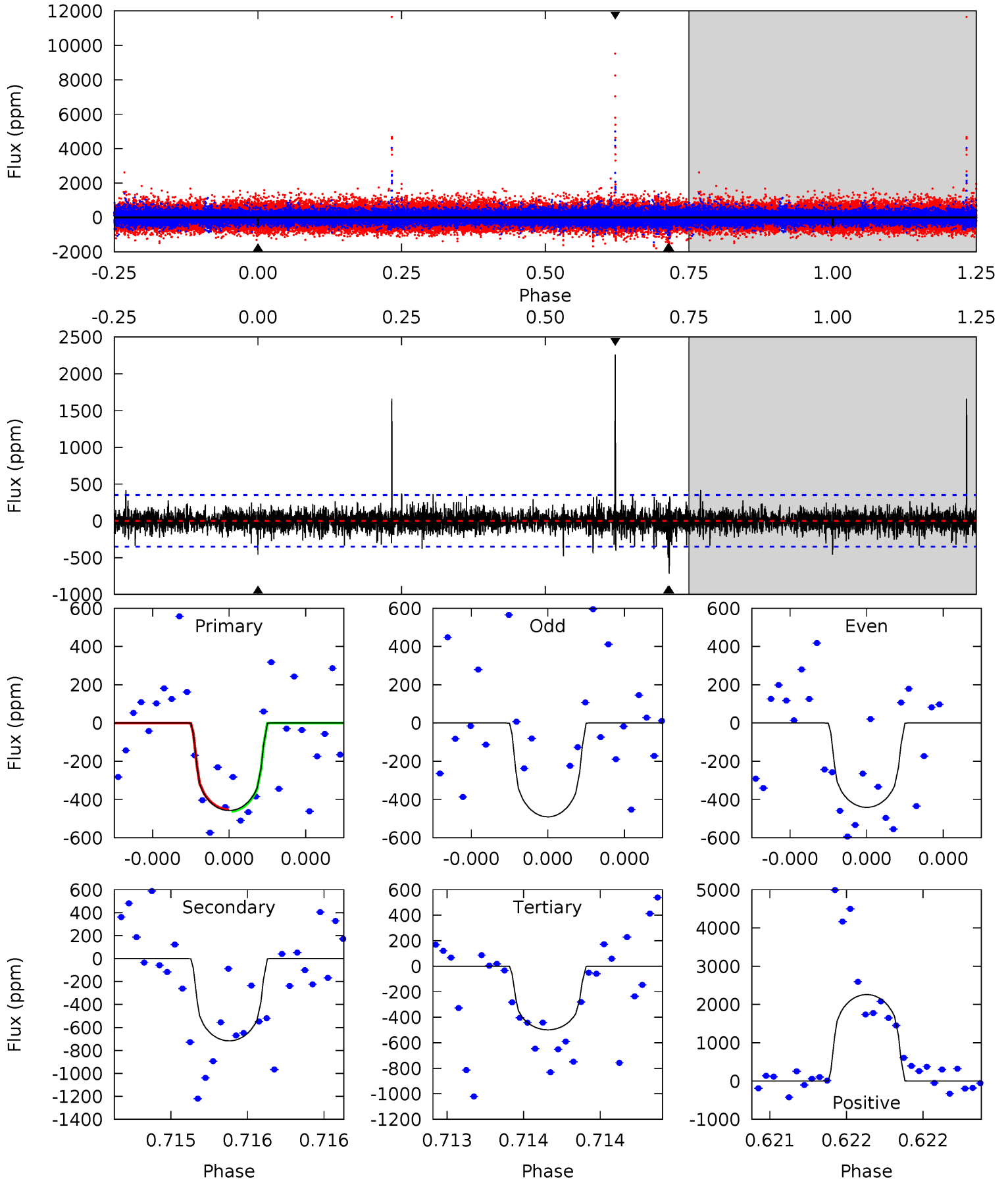
TCE 010583486-01 P=570.477750 Days $T_0=201.604328$ (BKJD)



DV Model-Shift Uniqueness Test

010583486-01, P = 570.469104 Days, E = 201.613631 Days

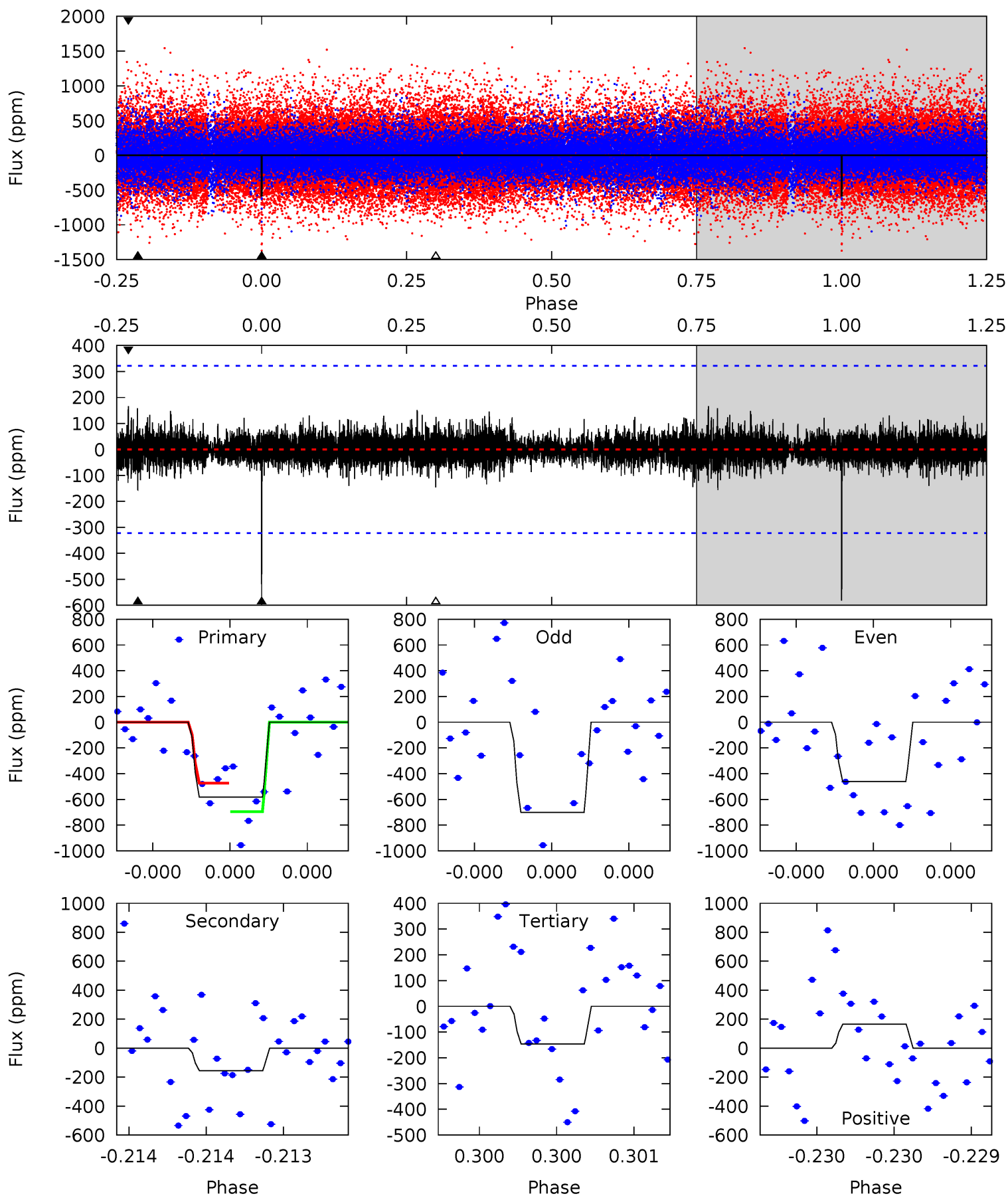
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.30	11.4	7.95	36.1	5.60	3.52	1.63	-0.65	-28.8	3.48	-24.6	0.34	1.03	0.76	0.07



Alt Model-Shift Uniqueness Test

010583486-01, P = 570.477750 Days, E = 201.604328 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	2.73	2.55	2.89	5.61	3.54	0.59	7.61	7.26	0.18	-0.16	2.03	0.77	0.22	1.94



Stellar Parameters For KIC 010583486

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4423^{+131}_{-131}	$4.665^{+0.056}_{-0.028}$	$-0.600^{+0.300}_{-0.300}$	$0.580^{+0.045}_{-0.056}$	$0.566^{+0.061}_{-0.038}$	$4.092^{+1.012}_{-0.495}$
	+3%/-3%	+1%/-1%	+50%/-50%	+8%/-10%	+11%/-7%	+25%/-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 010583486-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-717 ± 63	$2.59^{+2.35}_{-1.67}$	196^{+7}_{-7}	3769^{+1994}_{-675}	$72815^{+519372}_{-53124}$
Alt.	-156 ± 57	$2.60^{+2.50}_{-1.72}$	196^{+7}_{-7}	2984^{+1266}_{-516}	$16000^{+130487}_{-12314}$

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 $A_{obs} \gg 1.0$

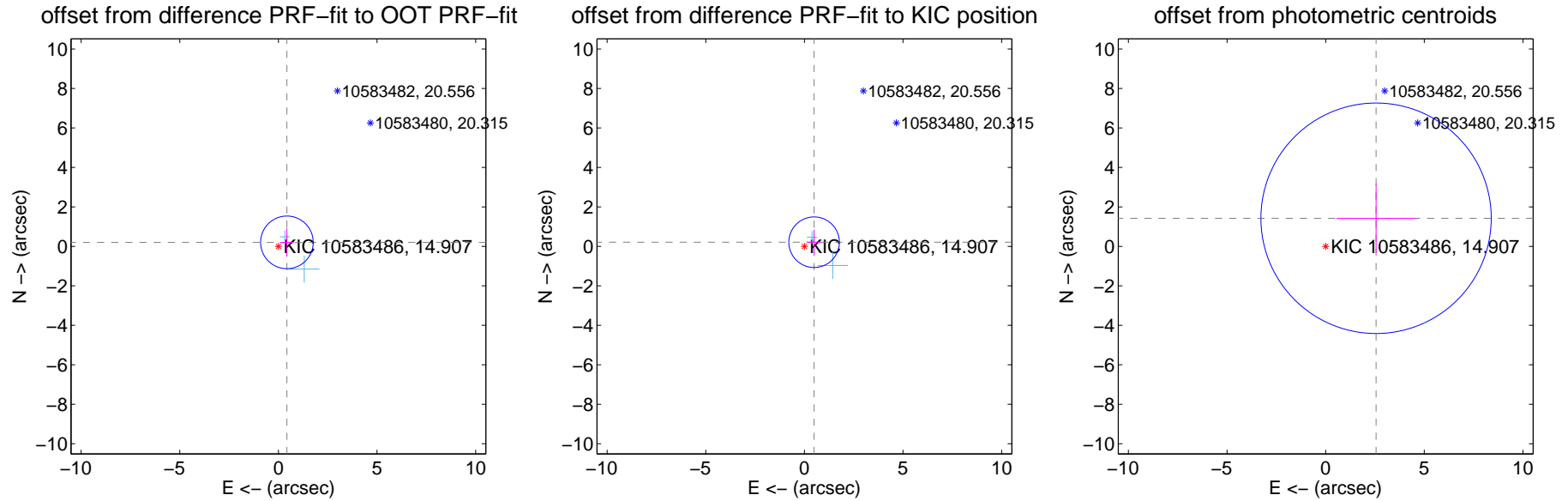
DV Centroid Data

Supplemental centroid analysis for 010583486-01. Kepler magnitude: 14.91. Transit SNR 5.83

There are 2 quarters with good PRF difference image offsets

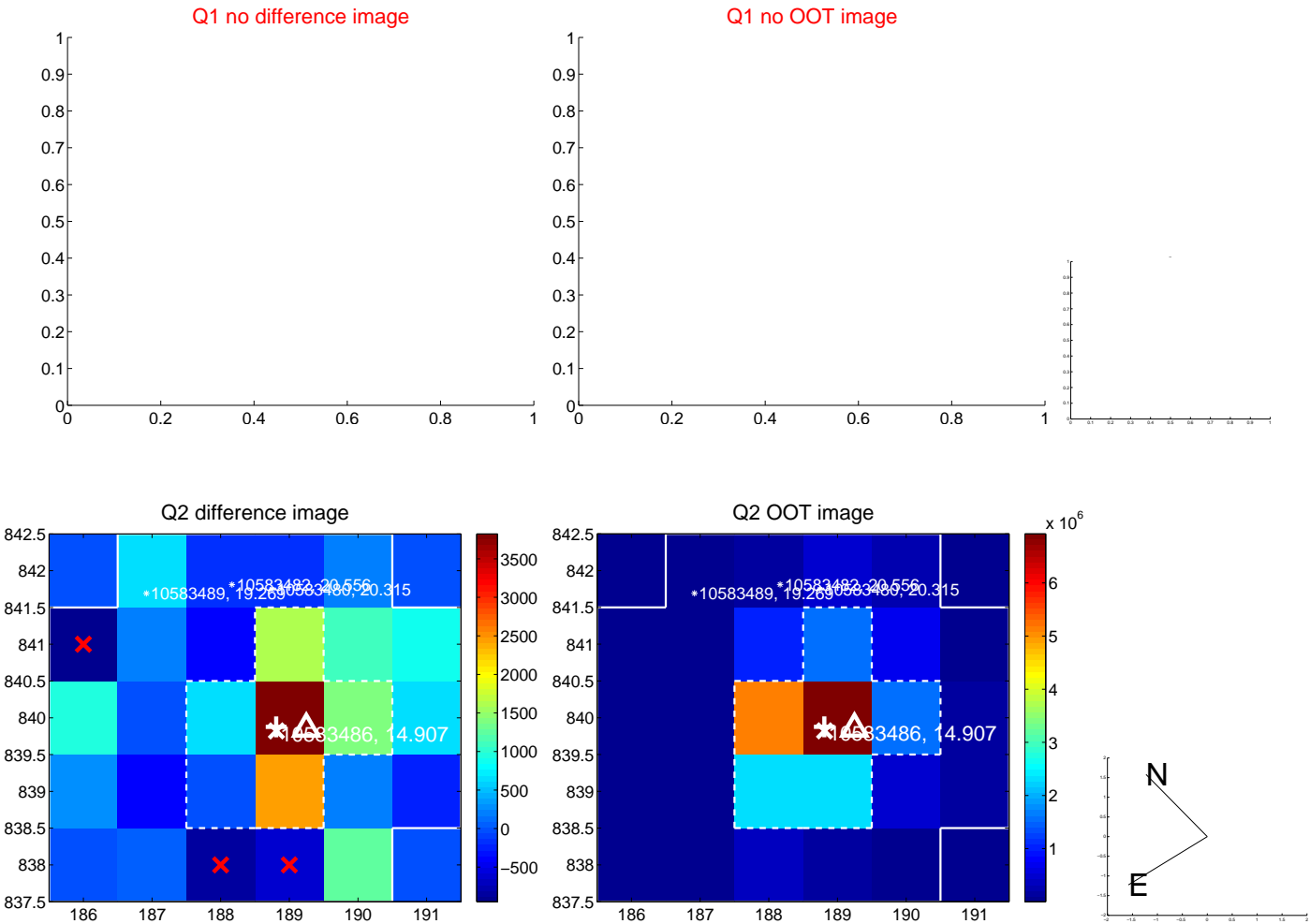
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.477 ± 0.444	1.07	-0.431 ± 0.352	0.203 ± 0.728
PRF-fit source offset from KIC position	0.535 ± 0.427	1.25	-0.492 ± 0.377	0.211 ± 0.635
photometric centroid source offset	2.92 ± 1.95	1.50	-2.55 ± 2.00	1.42 ± 1.75

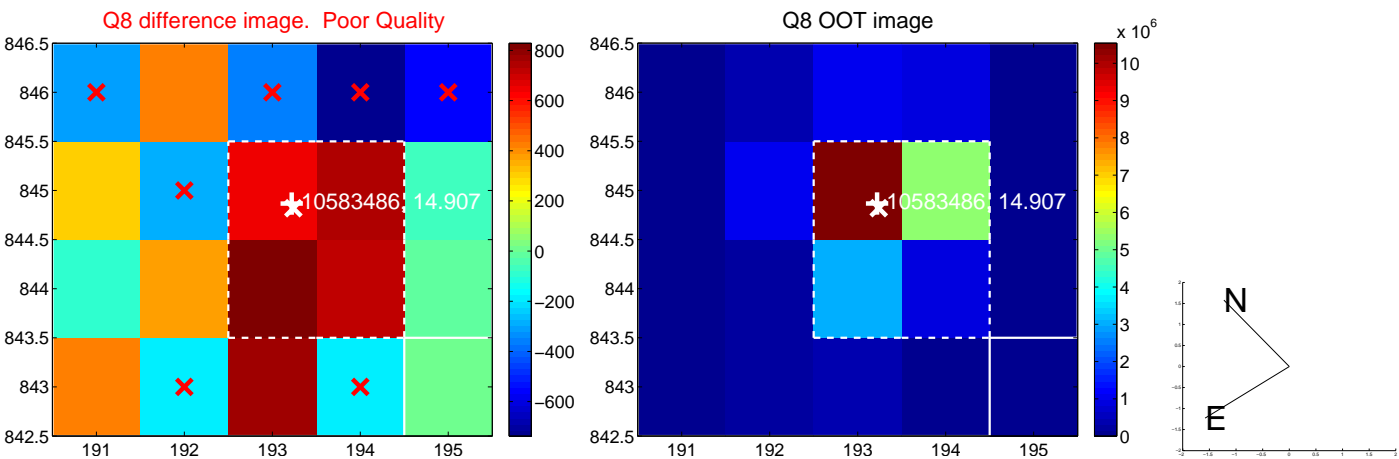
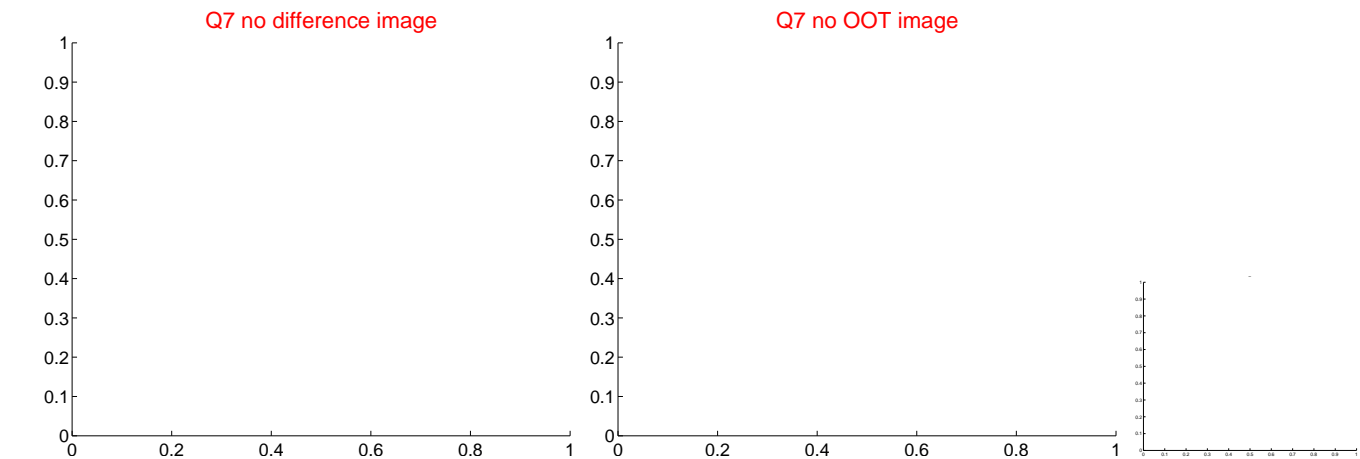
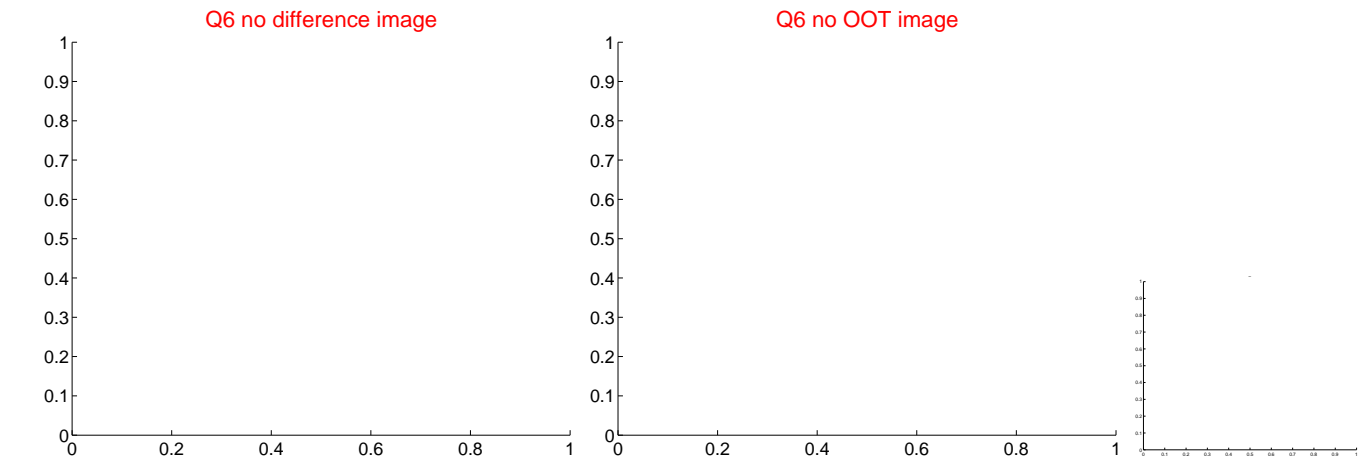
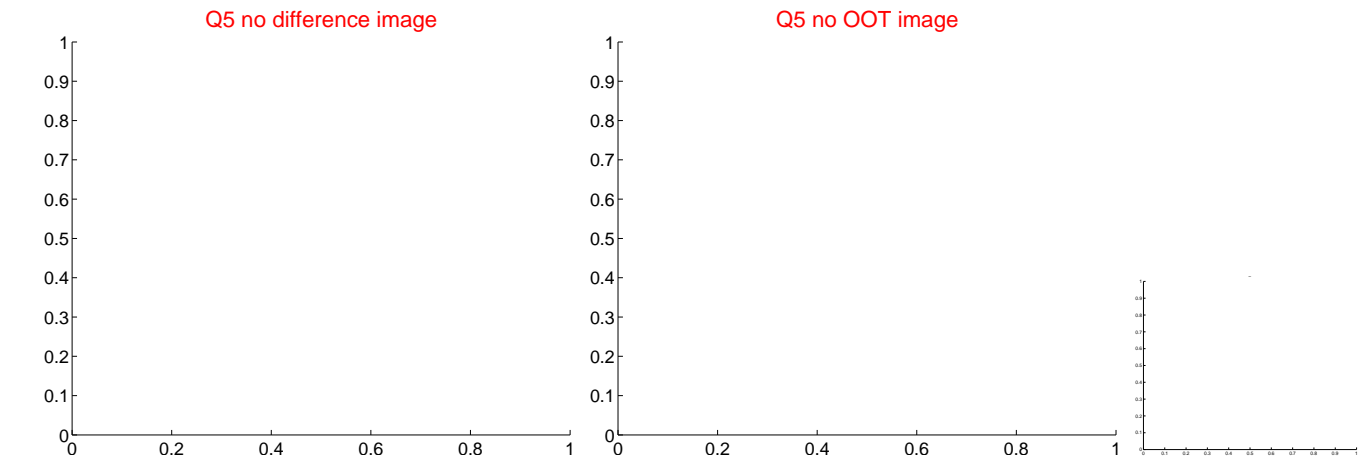


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



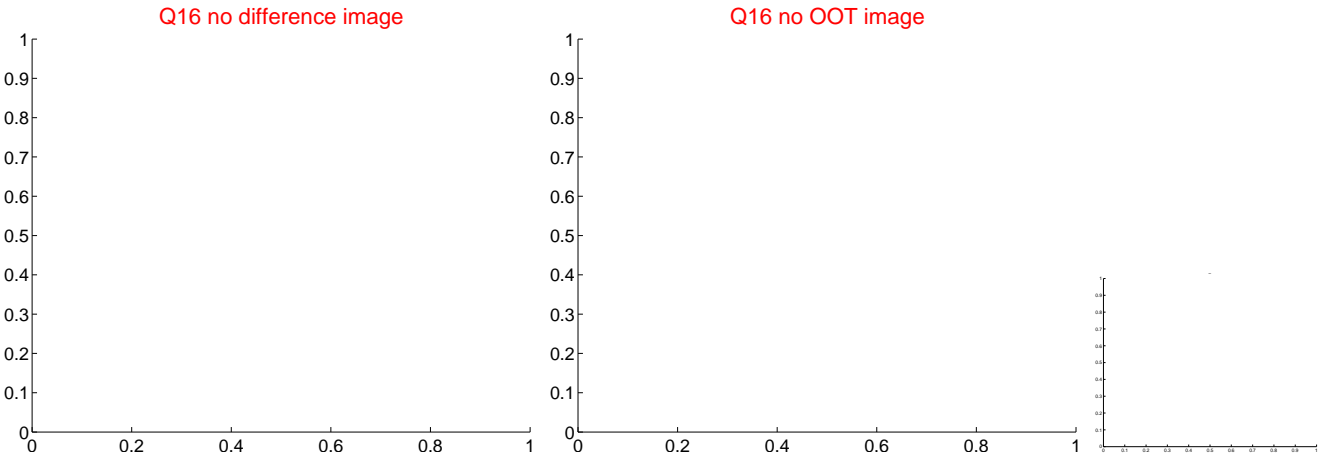
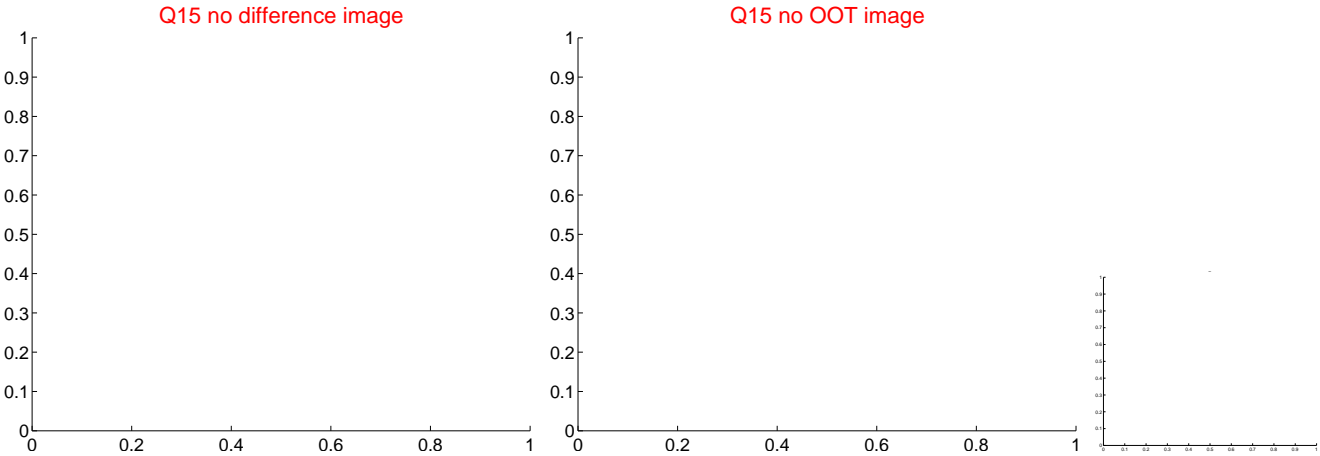
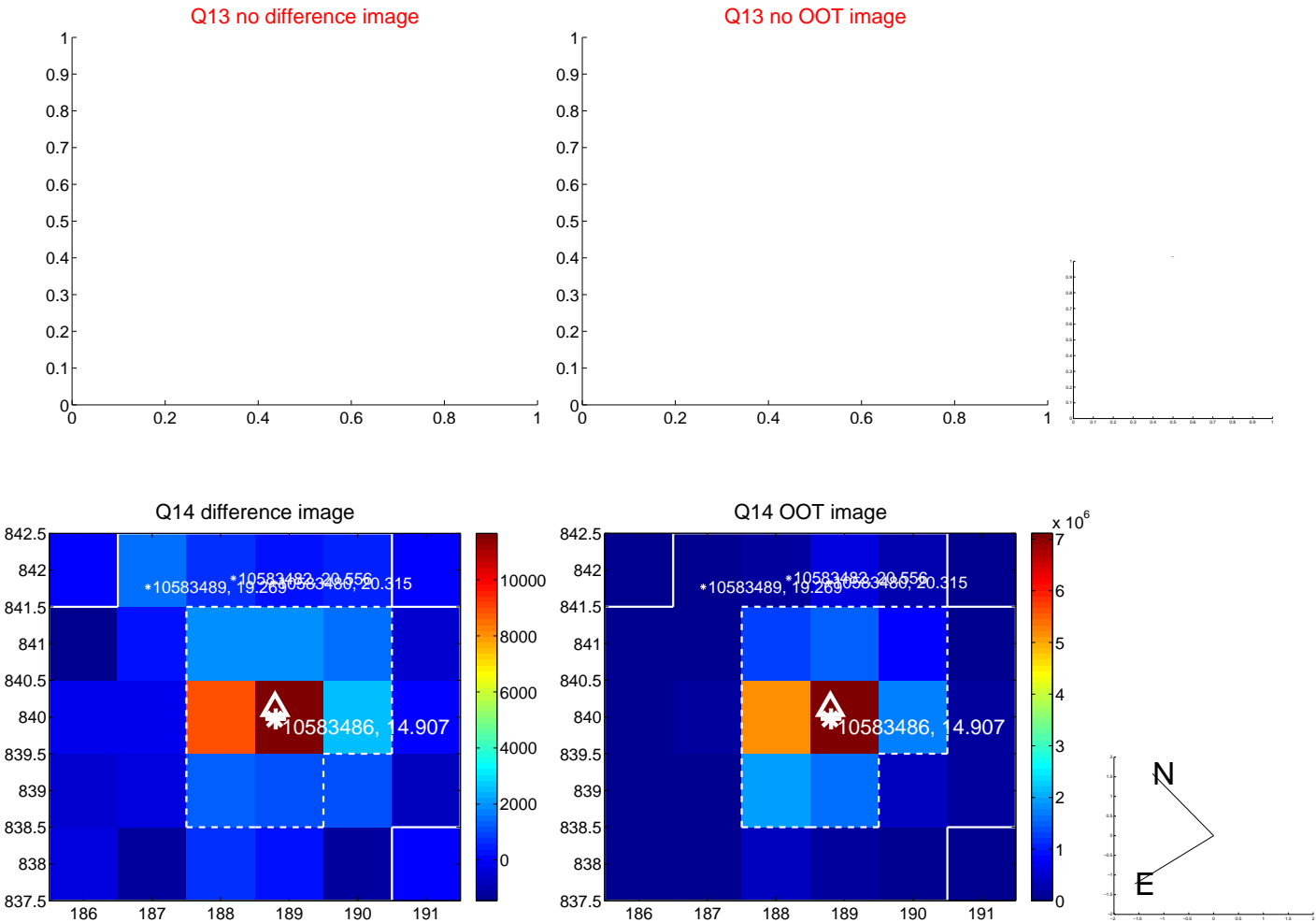
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



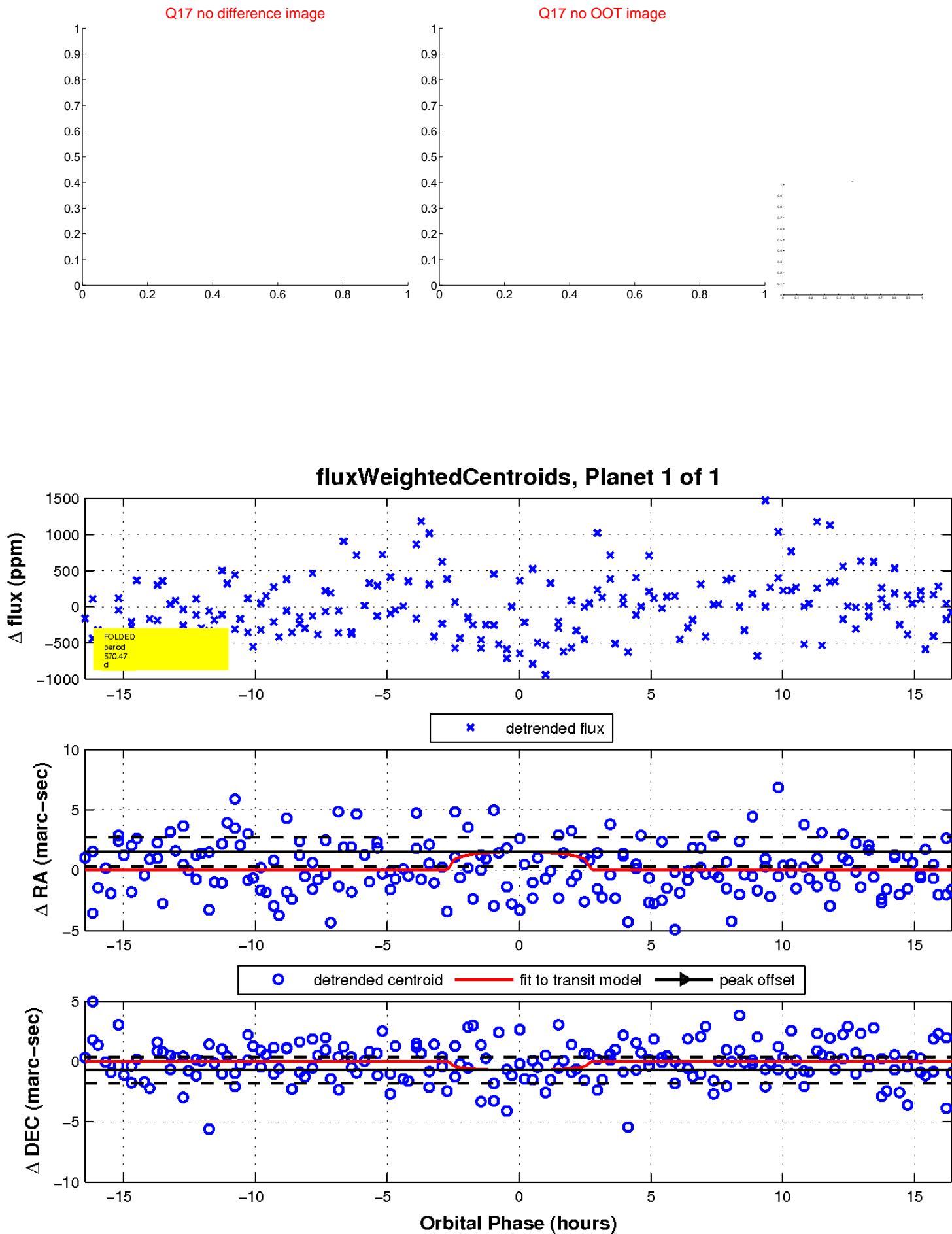
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

