

KIC 011606854

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})
011606854-01	OBS	No	370.550150	309.678144	5176.7	27.260	8.9	8.3	1.34	6620	11.49	2.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011606854-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

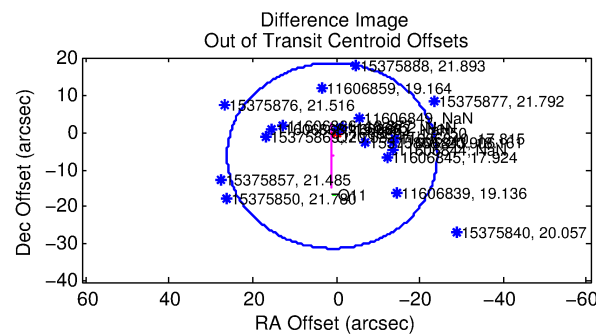
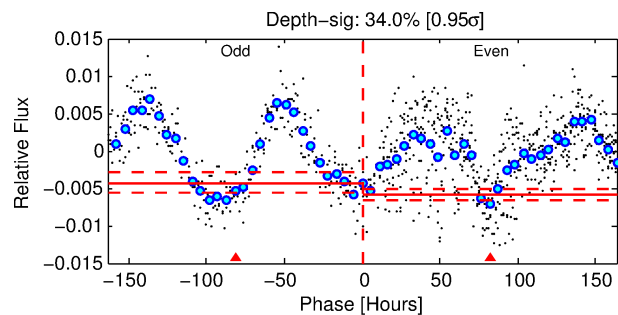
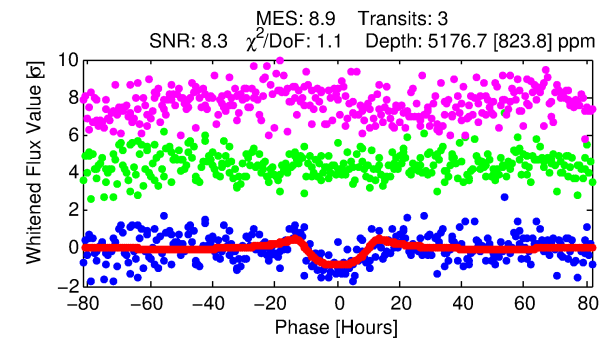
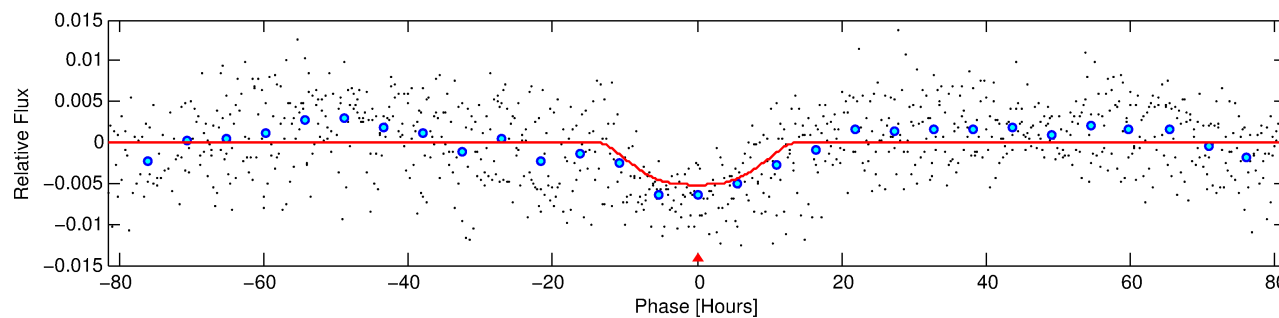
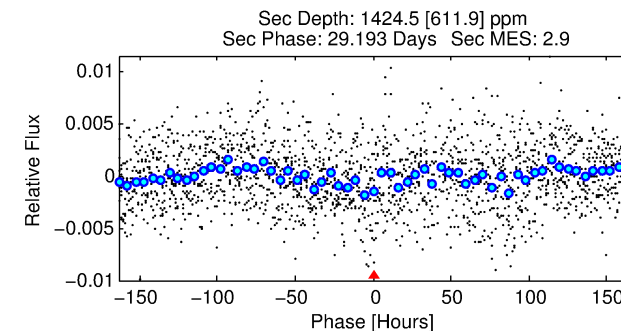
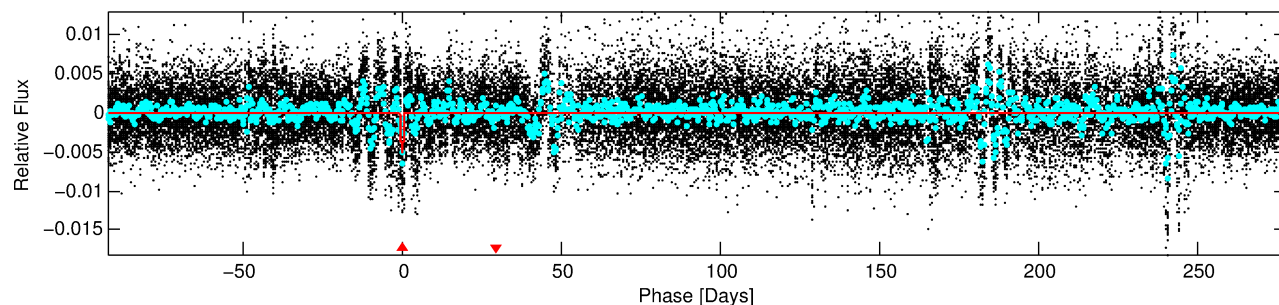
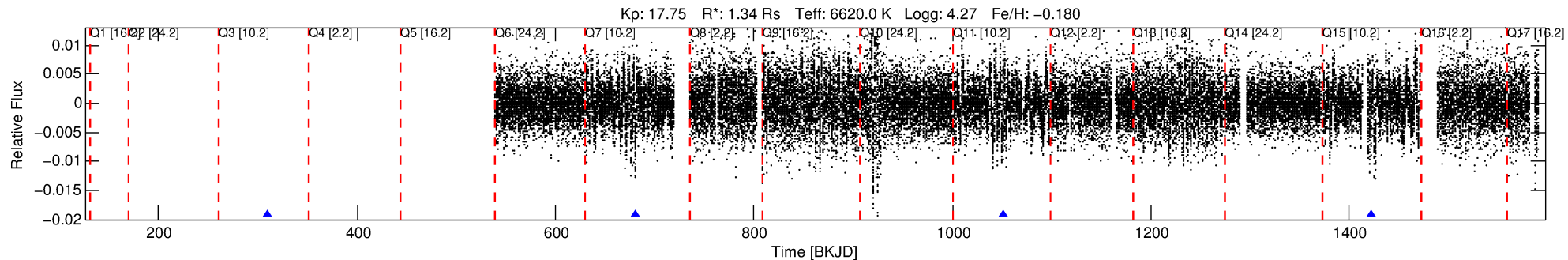
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011606854-01

No Significant Match Found

DV One-Page Summary

KIC: 11606854 Candidate: 1 of 1 Period: 370.550 d



DV Fit Results:

Period = 370.55015 [0.03558] d
Epoch = 309.6781 [0.0751] BKJD
Rp/R* = 0.0785 [0.0078]
a/R* = 59.57 [8.35]
b = 0.91 [0.03]
Seff = 2.67 [1.03]
Teq = 326 [32] K
Rp = 11.49 [3.81] Re
a = 1.0775 [0.2746] AU
Ag = 6894.02 [4081.15] [1.69σ]
Teff = 4592 [572] K [7.45σ]

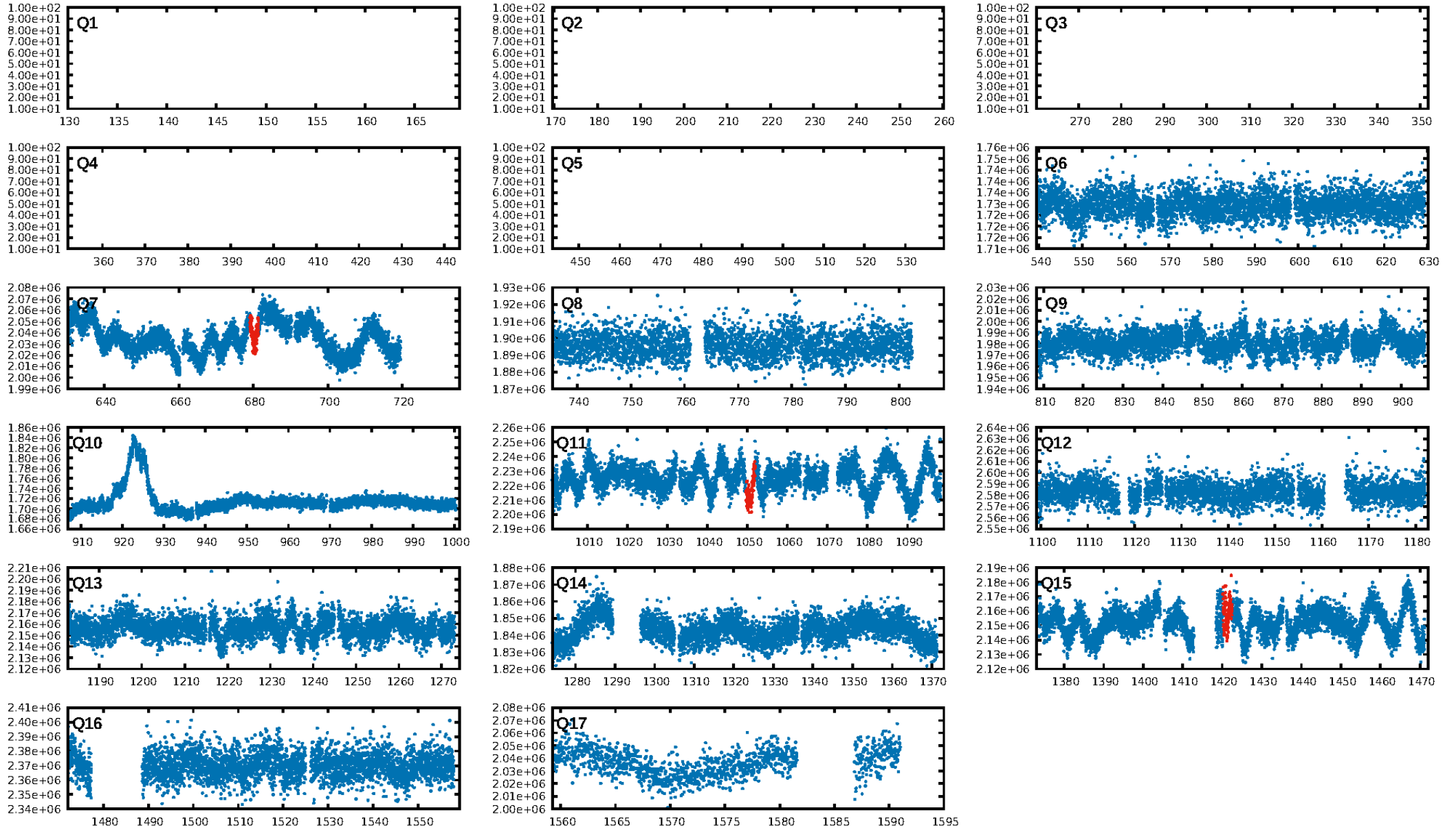
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 8.26e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.684
Centroid-sig: 0.0%
Centroid-so: 5.034 arcsec [3.20σ]
OotOffset-rm: 6.292 arcsec [0.75σ]
KicOffset-rm: 5.197 arcsec [0.62σ]
OotOffset-st: 0.2/0/0 [2]
KicOffset-st: 0.2/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

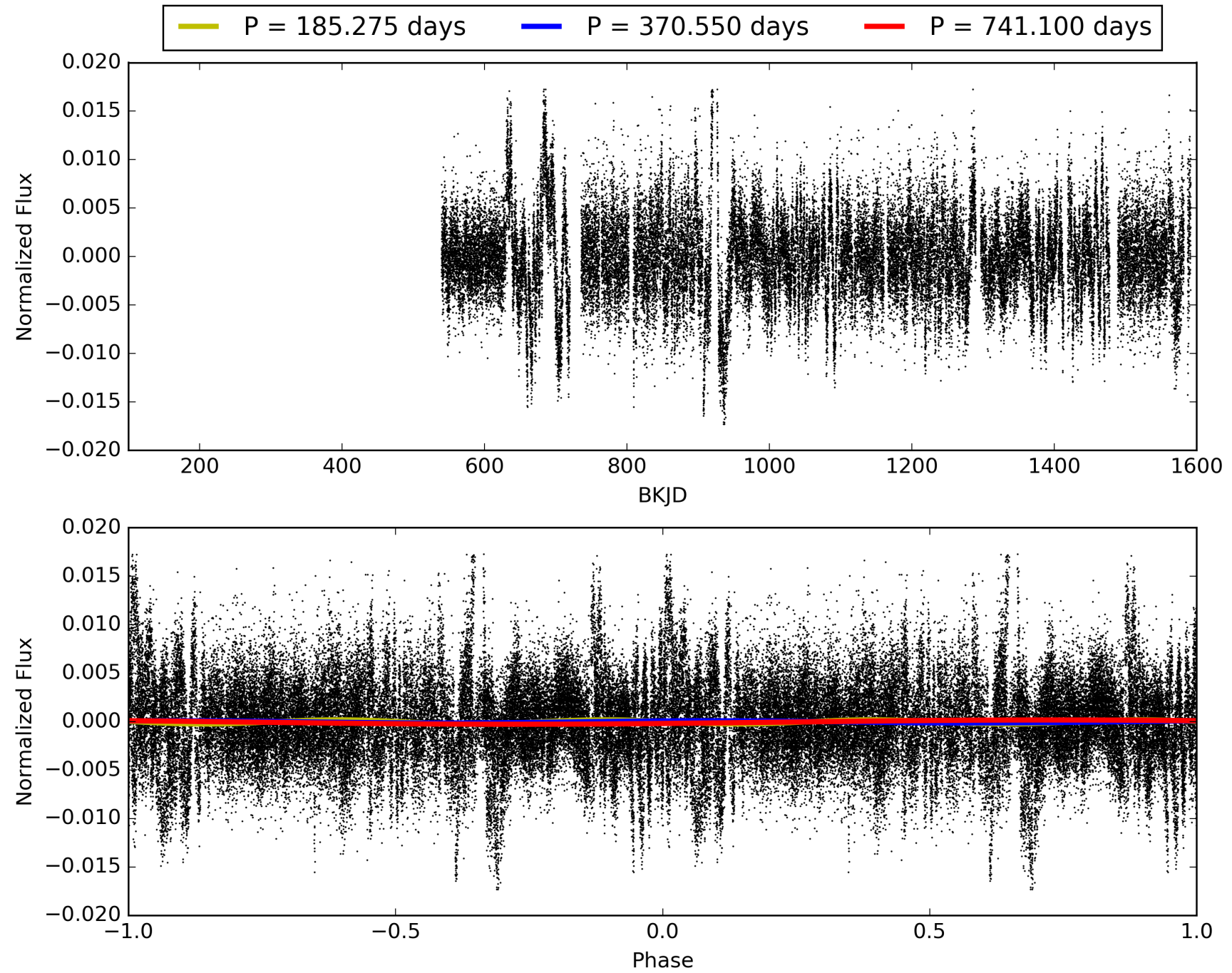
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:52:56 Z

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

TCE 011606854-01, PDC Light Curves

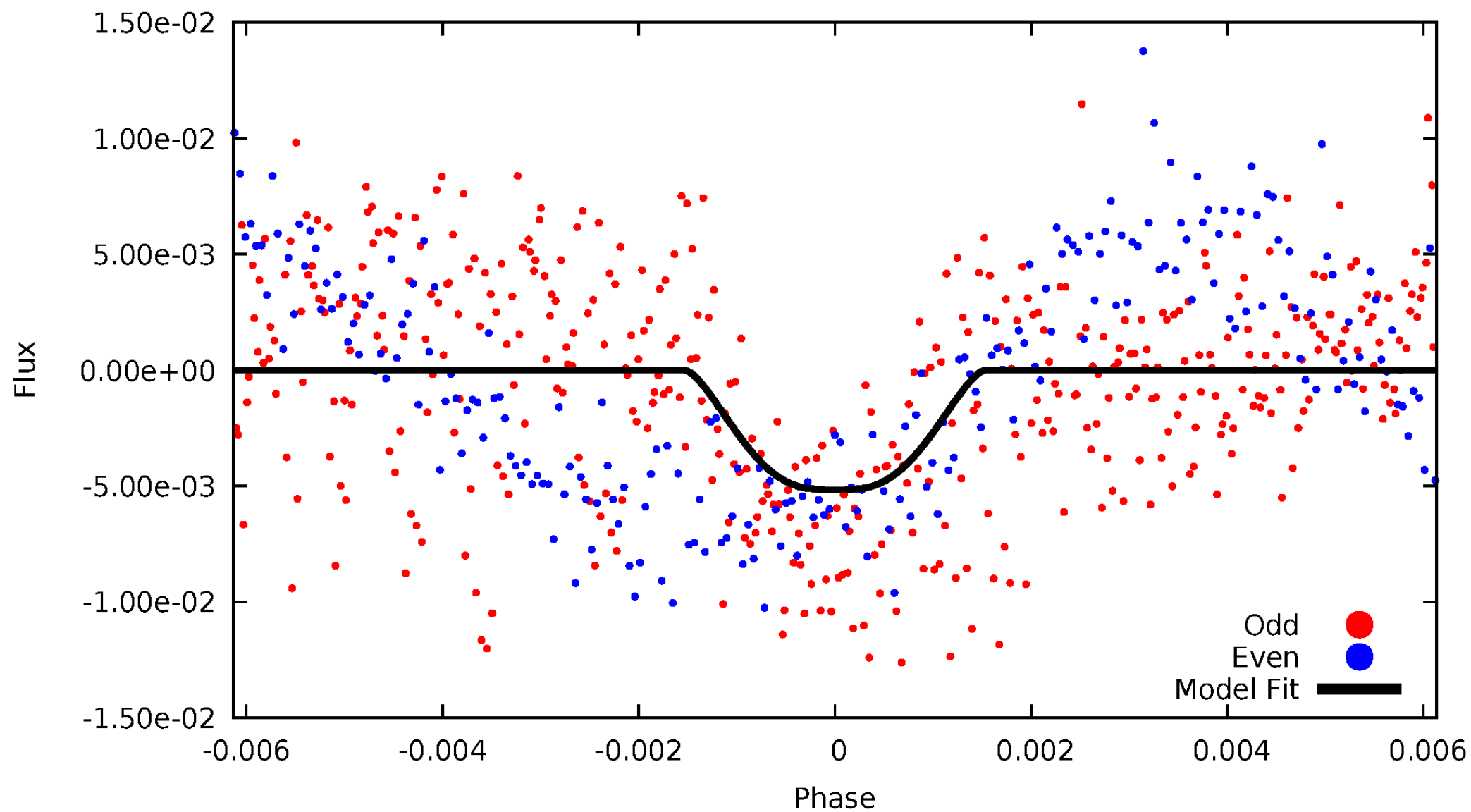


TCE 011606854-01



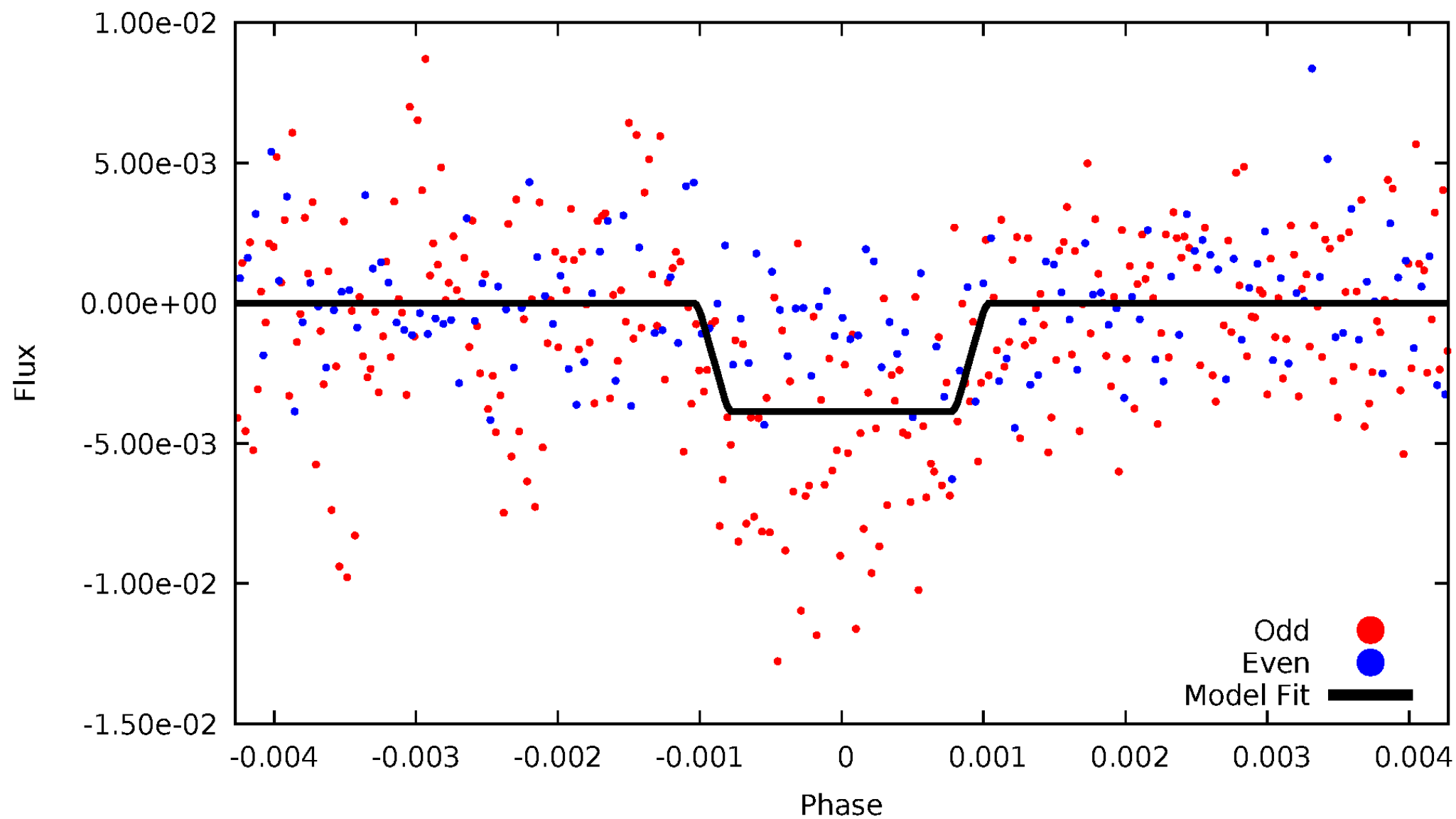
DV Odd/Even

TCE 011606854-01



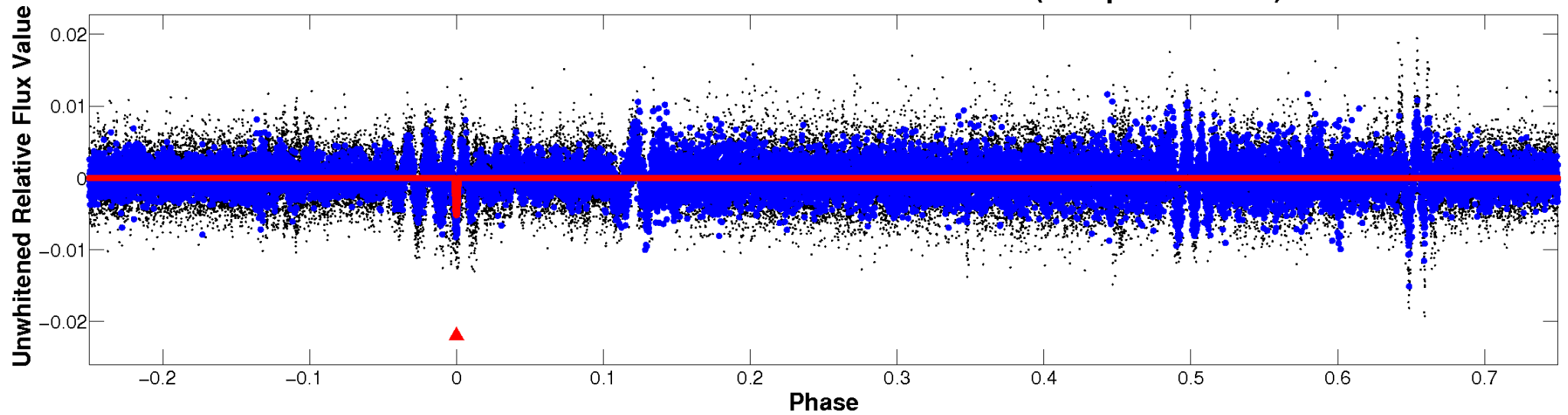
ALT Odd/Even

TCE 011606854-01

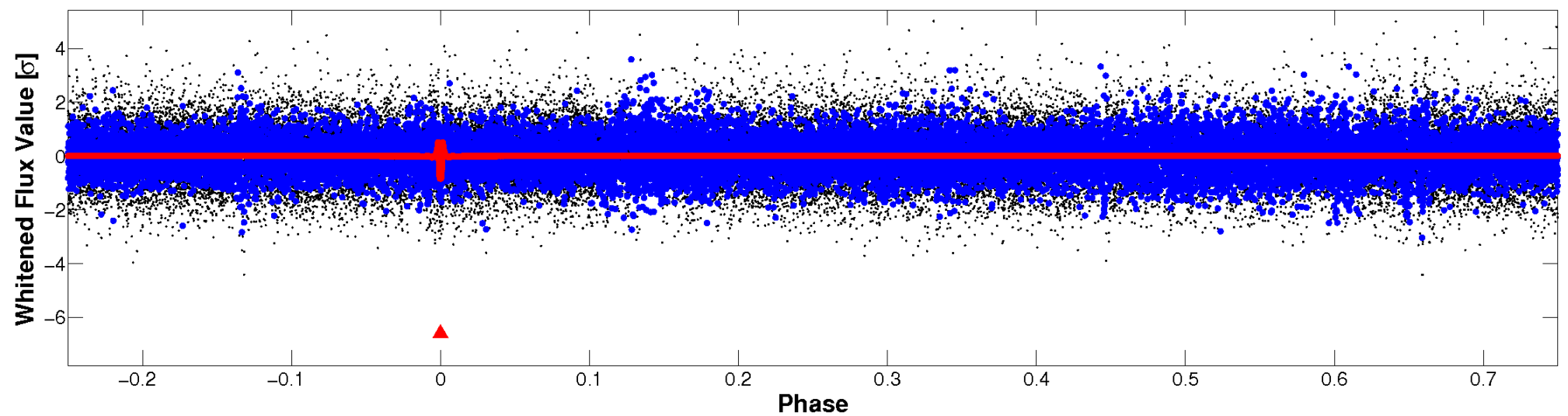


Non-Whitened Vs. Whitened Light Curve

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

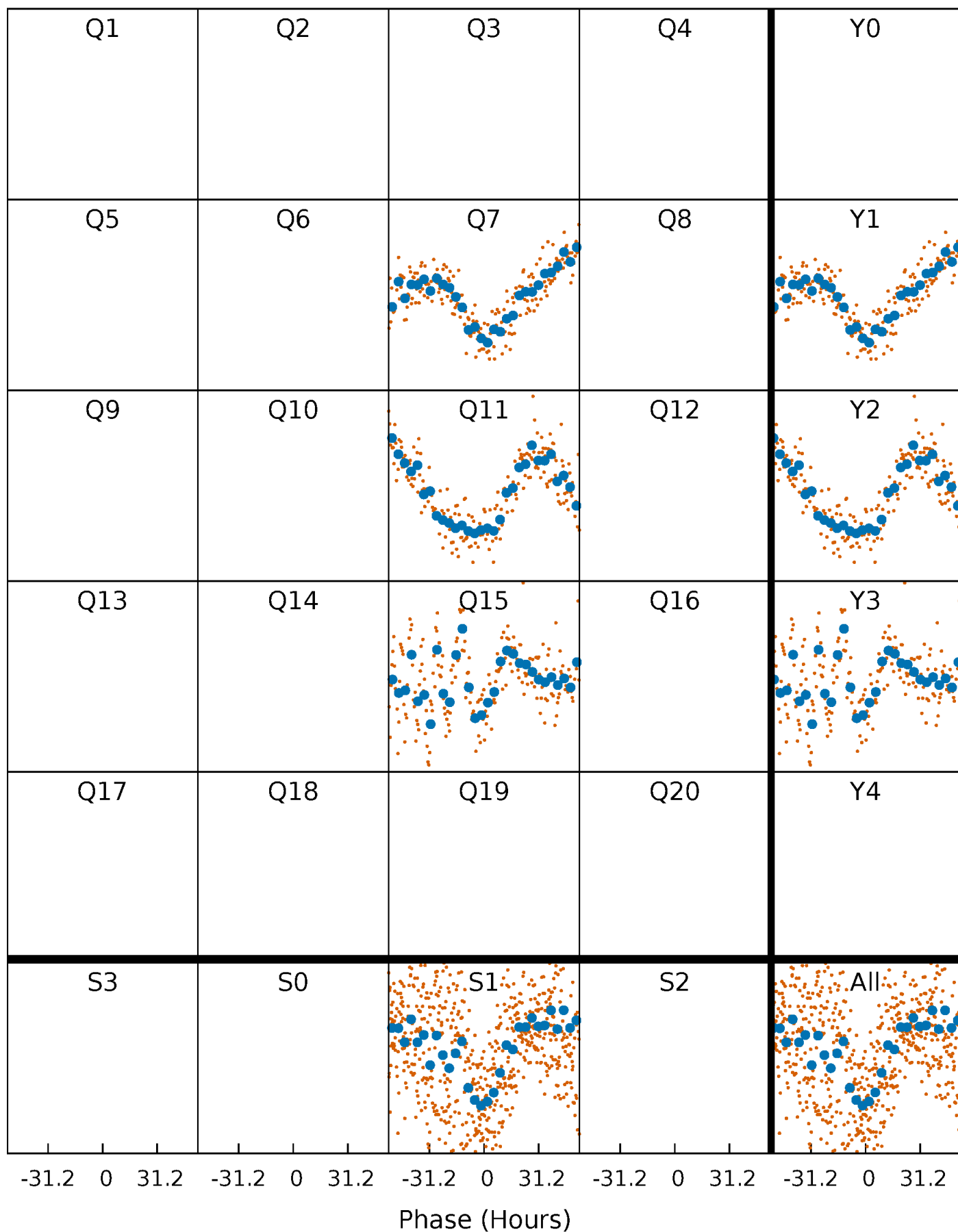


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



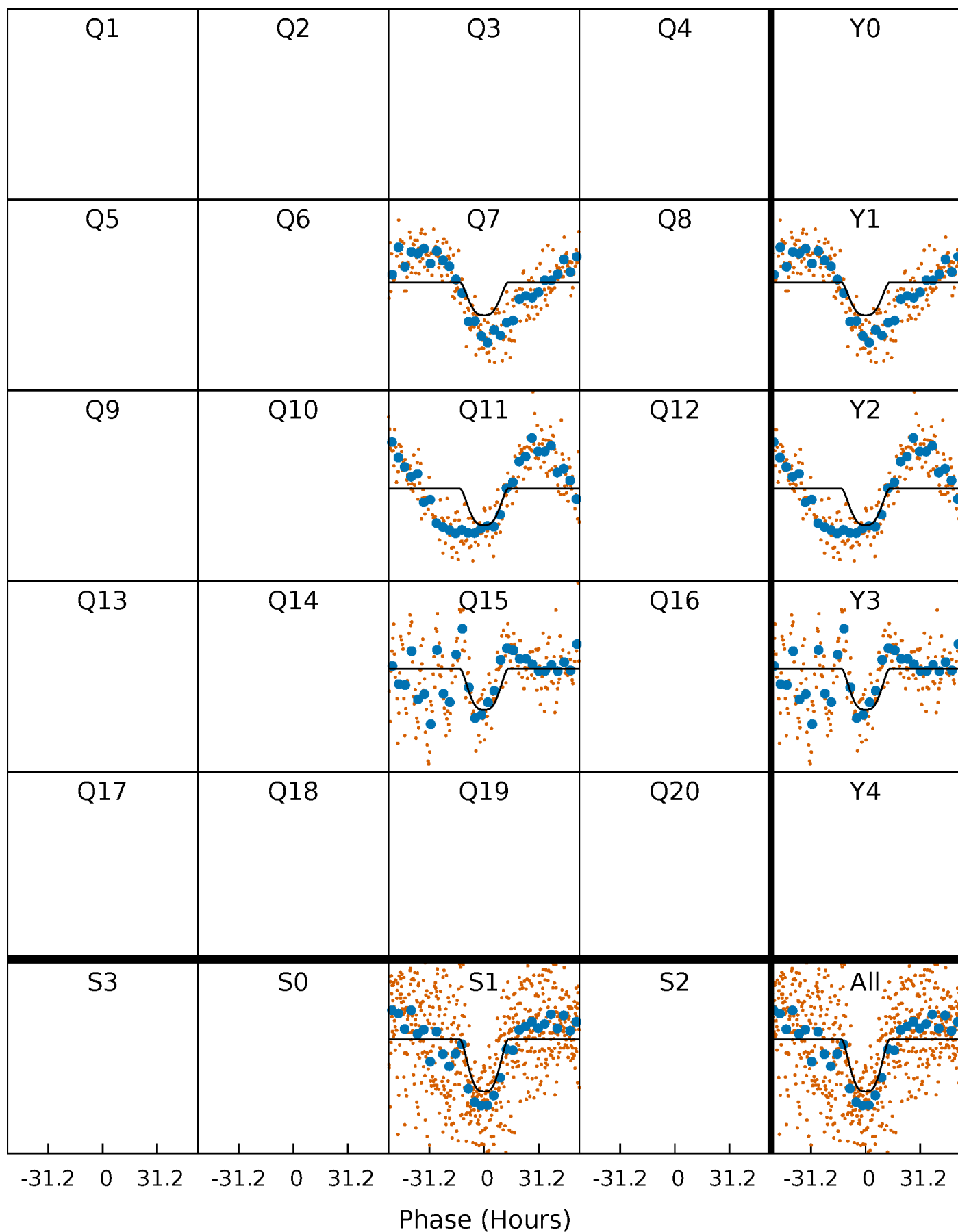
PDC Quarter-Phased Transit Curves

TCE 011606854-01 P=370.550150 Days $T_0=309.678144$ (BKJD)



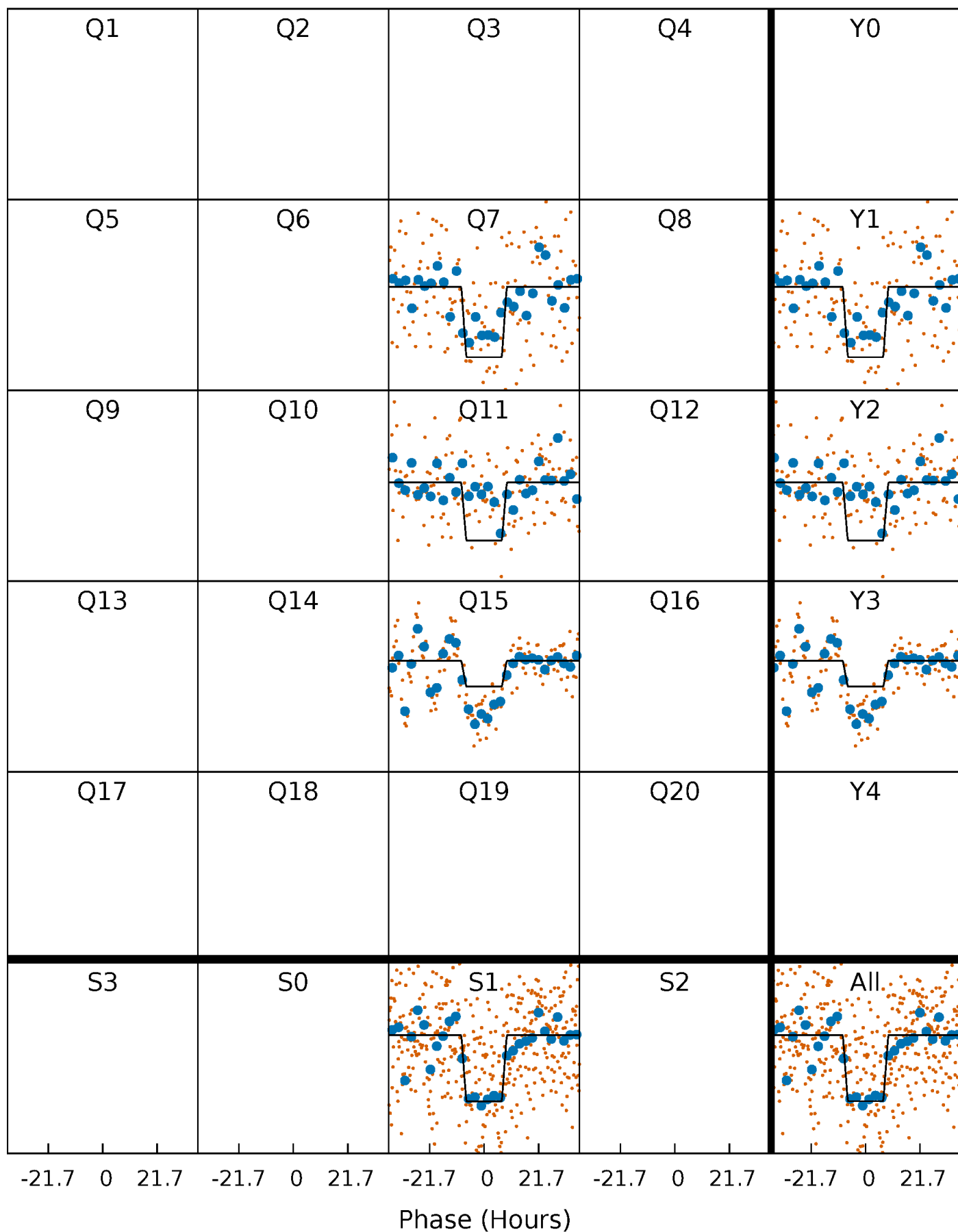
DV Quarter-Phased Transit Curves

TCE 011606854-01 P=370.550150 Days $T_0=309.678144$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

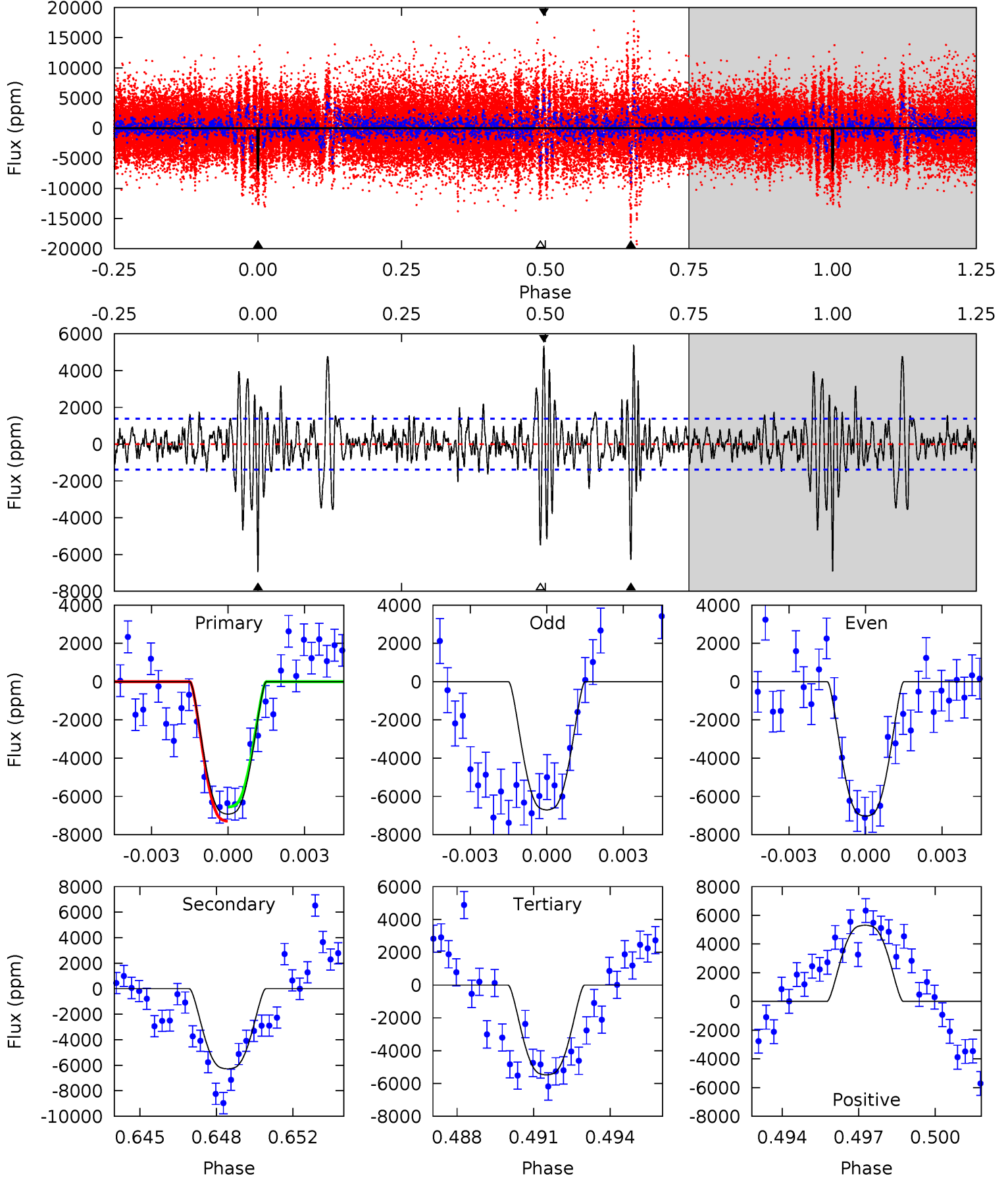
TCE 011606854-01 P=370.589855 Days $T_0=309.535479$ (BKJD)



DV Model-Shift Uniqueness Test

011606854-01, P = 370.550150 Days, E = 309.678144 Days

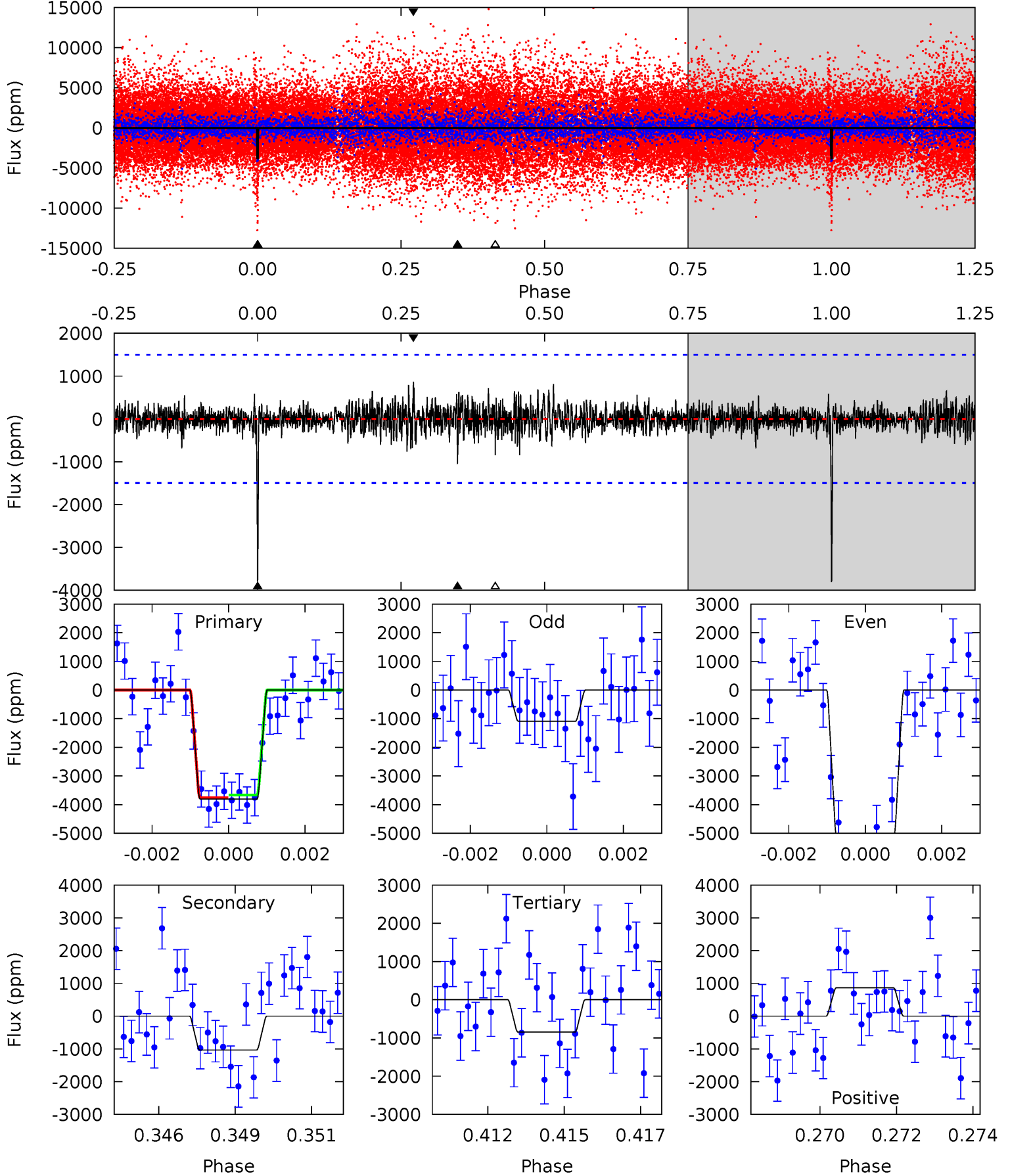
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.2	23.7	20.7	20.1	5.25	2.96	4.22	5.48	6.10	3.04	3.66	0.57	1.03	0.44	1.41



Alt Model-Shift Uniqueness Test

011606854-01, P = 370.589855 Days, E = 309.535479 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	3.67	3.01	3.07	5.32	3.08	0.73	10.5	10.5	0.66	0.60	6.77	1.42	0.19	0.16



Stellar Parameters For KIC 011606854

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6620^{+186}_{-255}	$4.267^{+0.108}_{-0.186}$	$-0.180^{+0.250}_{-0.300}$	$1.342^{+0.425}_{-0.229}$	$1.220^{+0.183}_{-0.183}$	$0.711^{+0.419}_{-0.354}$
	+3%/-4%	+3%/-4%	+139%/-167%	+32%/-17%	+15%/-15%	+59%/-50%
Source	KIC0	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 011606854-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6277 ± 264	$11.62^{+2.24}_{-1.59}$	458^{+32}_{-27}	6650^{+438}_{-408}	29184^{+9803}_{-7703}
Alt.	-1034 ± 281	$9.34^{+1.85}_{-1.53}$	459^{+37}_{-27}	4838^{+414}_{-398}	7408^{+3889}_{-2950}

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 $A_{obs} \gg 1.0$

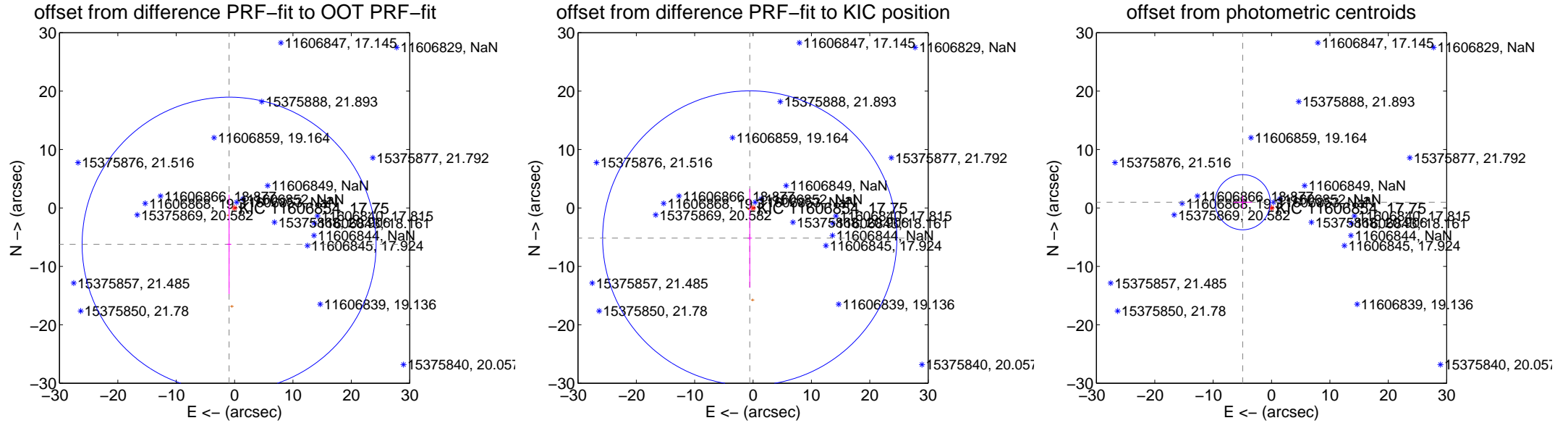
DV Centroid Data

Supplemental centroid analysis for 011606854-01. Kepler magnitude: 17.75. Transit SNR 8.32

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.292 ± 8.394	0.75	0.938 ± 0.377	-6.222 ± 8.489
PRF-fit source offset from KIC position	5.197 ± 8.402	0.62	0.564 ± 0.385	-5.166 ± 8.451
photometric centroid source offset	5.03 ± 1.57	3.20	4.94 ± 1.59	0.98 ± 1.10

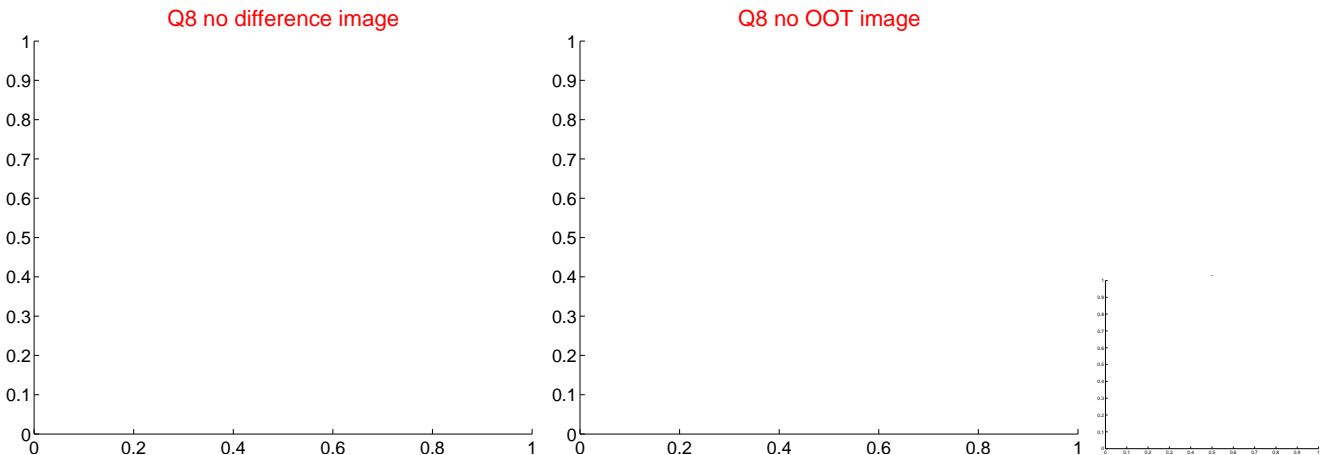
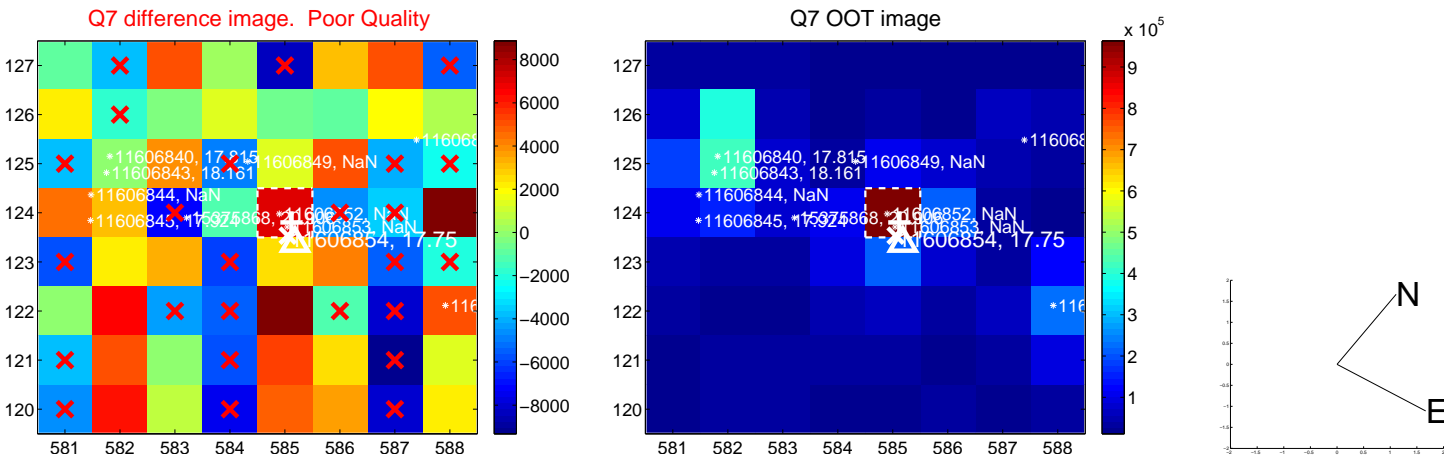
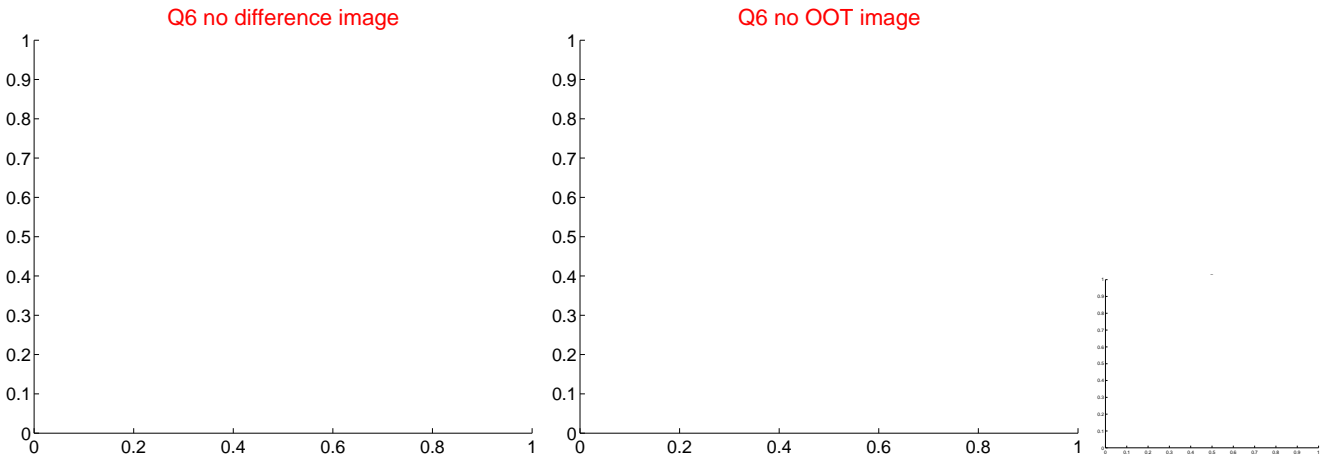
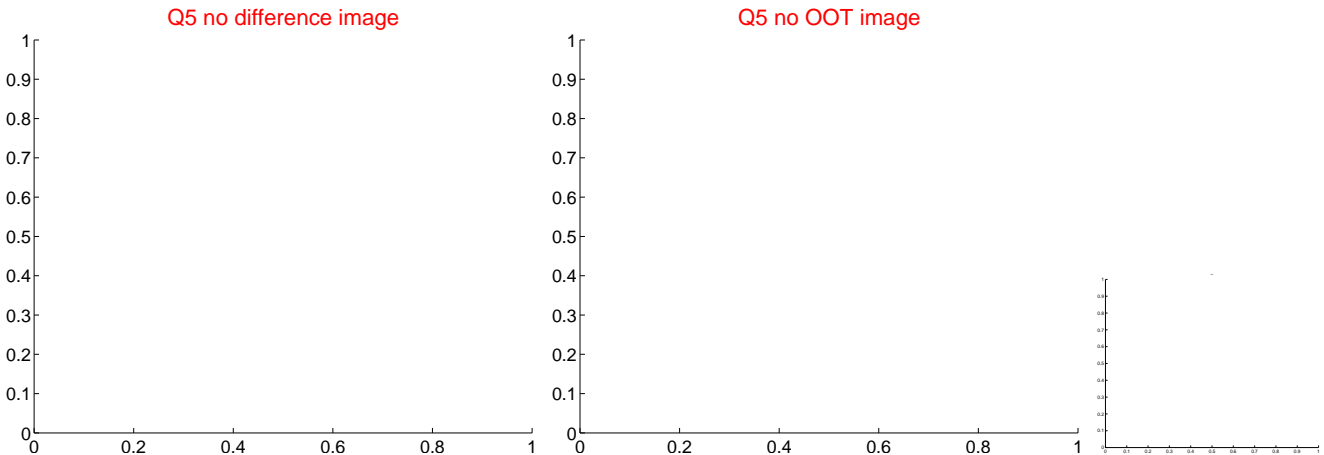


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



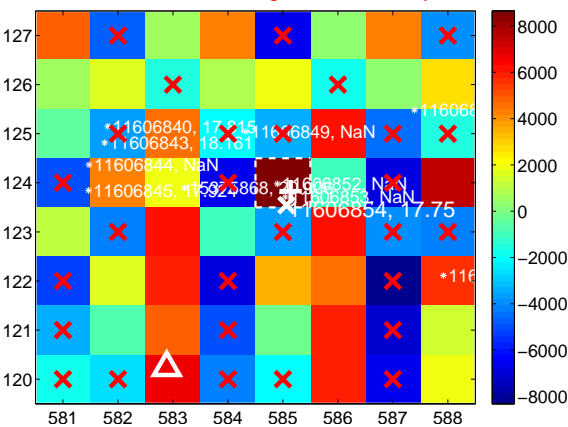
Q10 no difference image



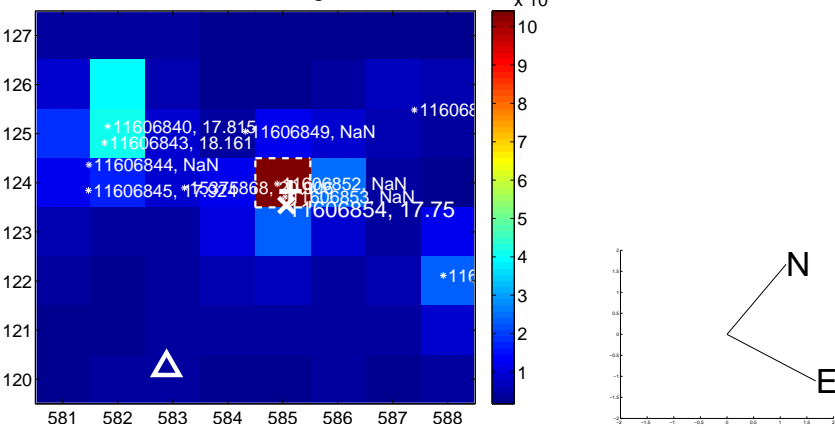
Q10 no OOT image



Q11 difference image. Poor Quality



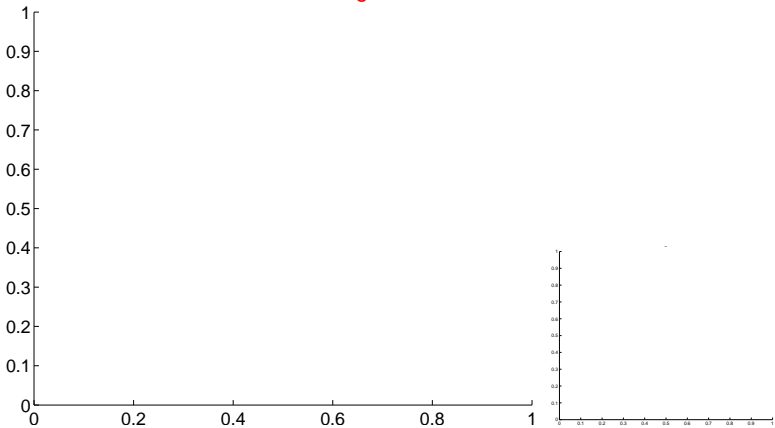
Q11 OOT image



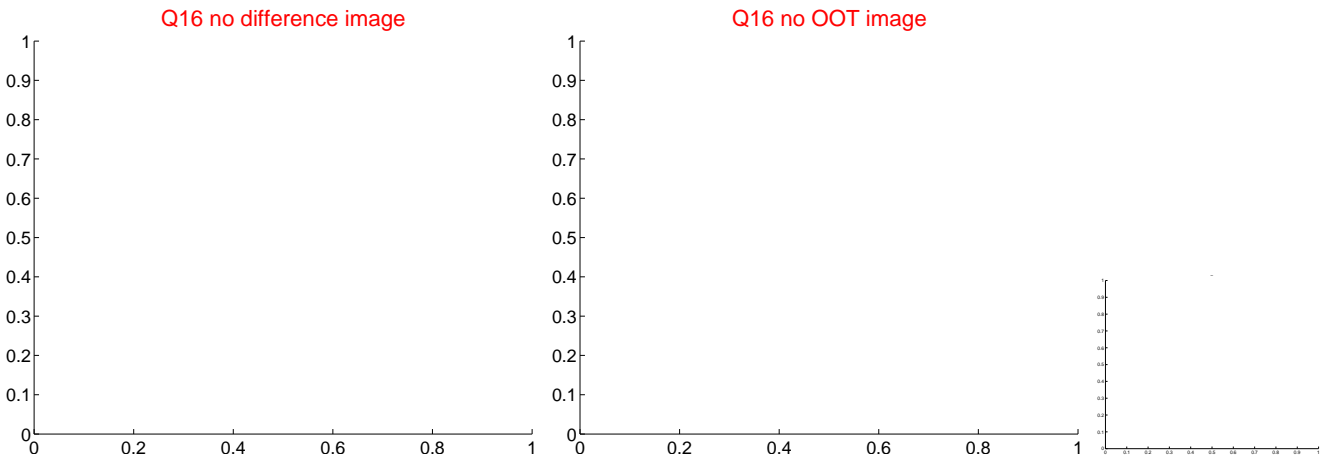
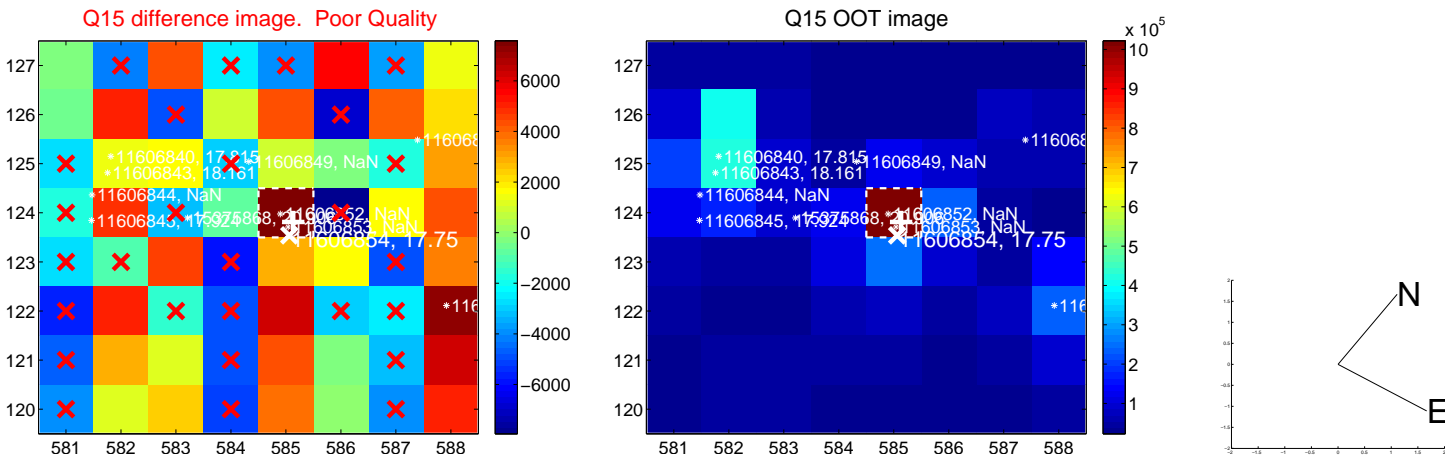
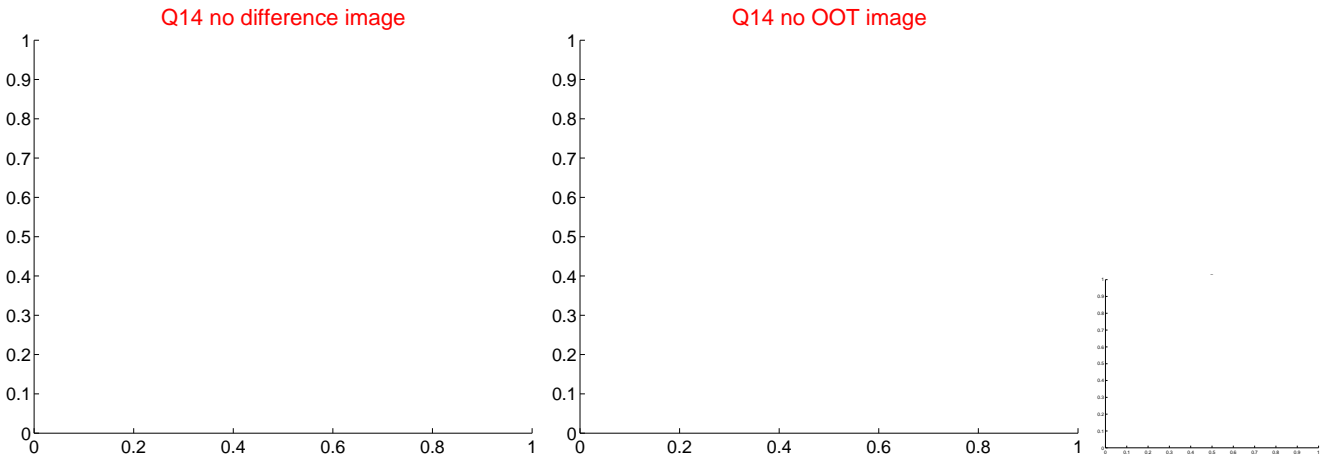
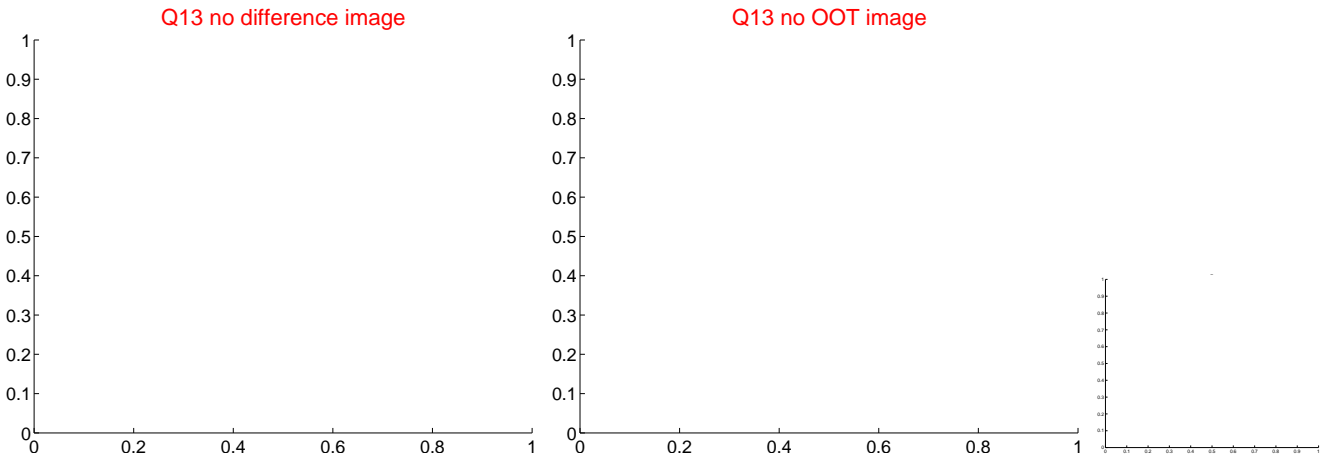
Q12 no difference image



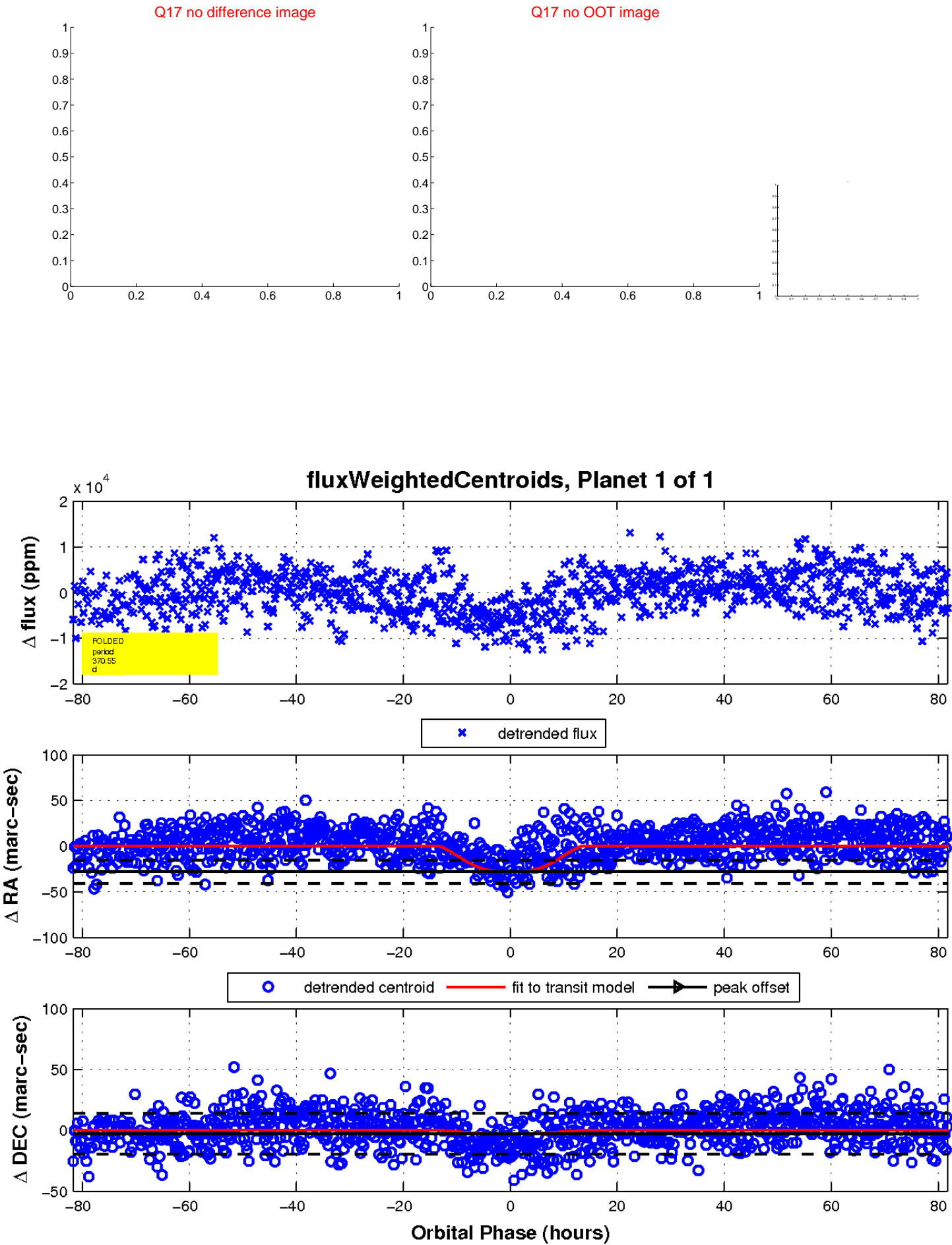
Q12 no OOT image



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.



UKIRT Image

Declination

