

KIC 010879213

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})
010879213-01	OBS	3730.01	0.668486	132.148494	854623.5	1.500	1359.4	-1.0	1.00	5780	54.56	4464.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010879213-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—CENT_NOFITS

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 010879213-01

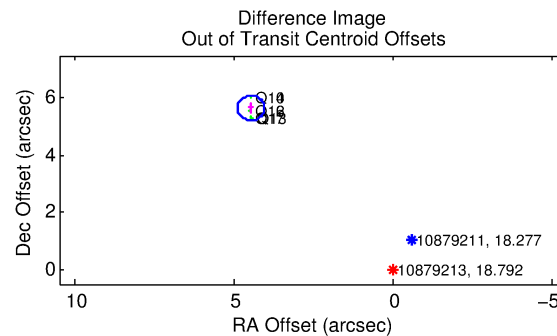
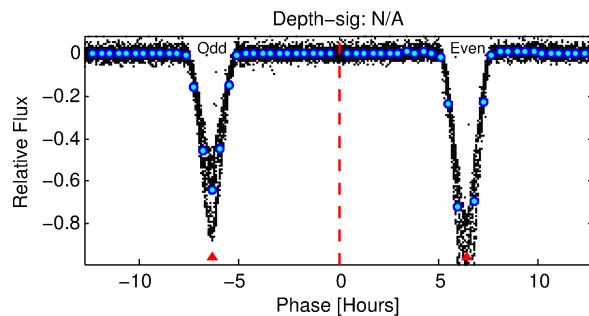
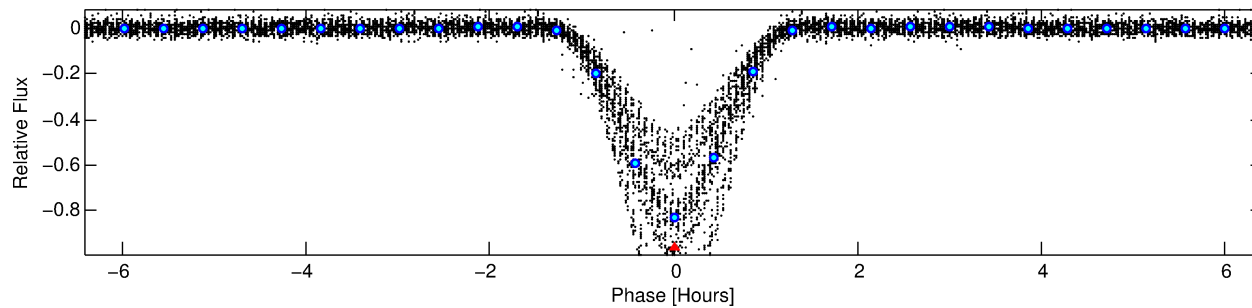
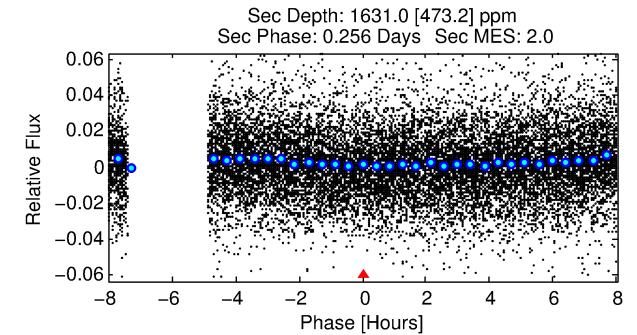
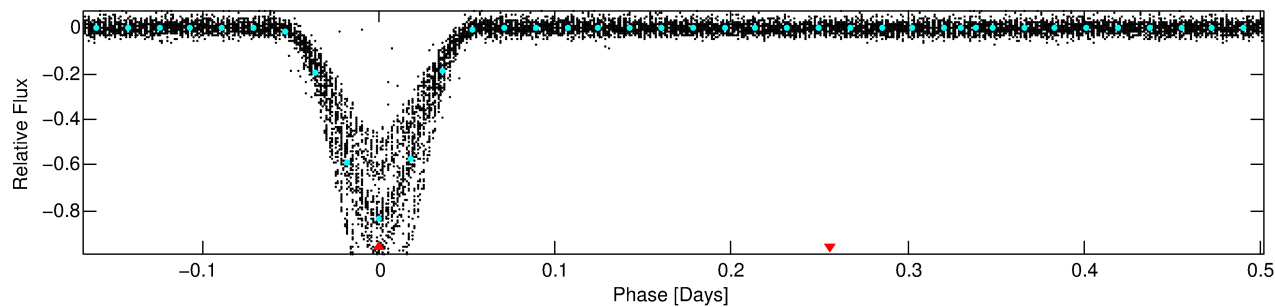
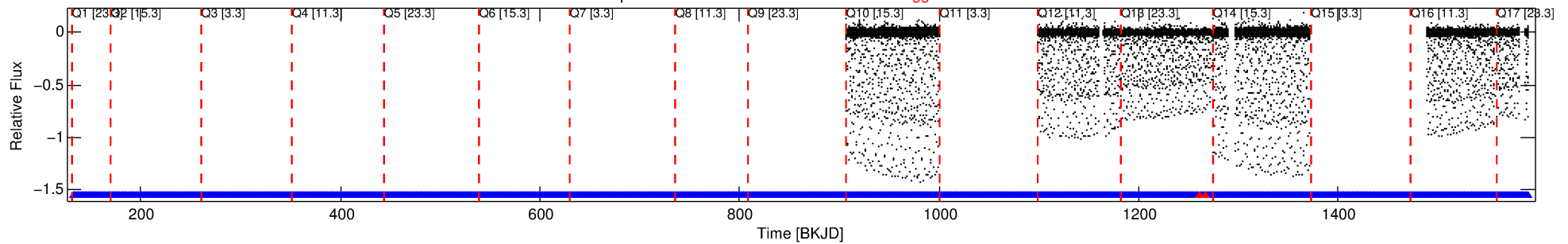
No Significant Match Found

DV One-Page Summary

KIC: 10879213 Candidate: 1 of 1 Period: 0.668 d

KOI: K03730.01 Corr: 0.818

Kp: 18.79 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



TPS TCE Results:

Period = 0.66849 d
Epoch = 132.1485 BKJD

DV fit results are unavailable

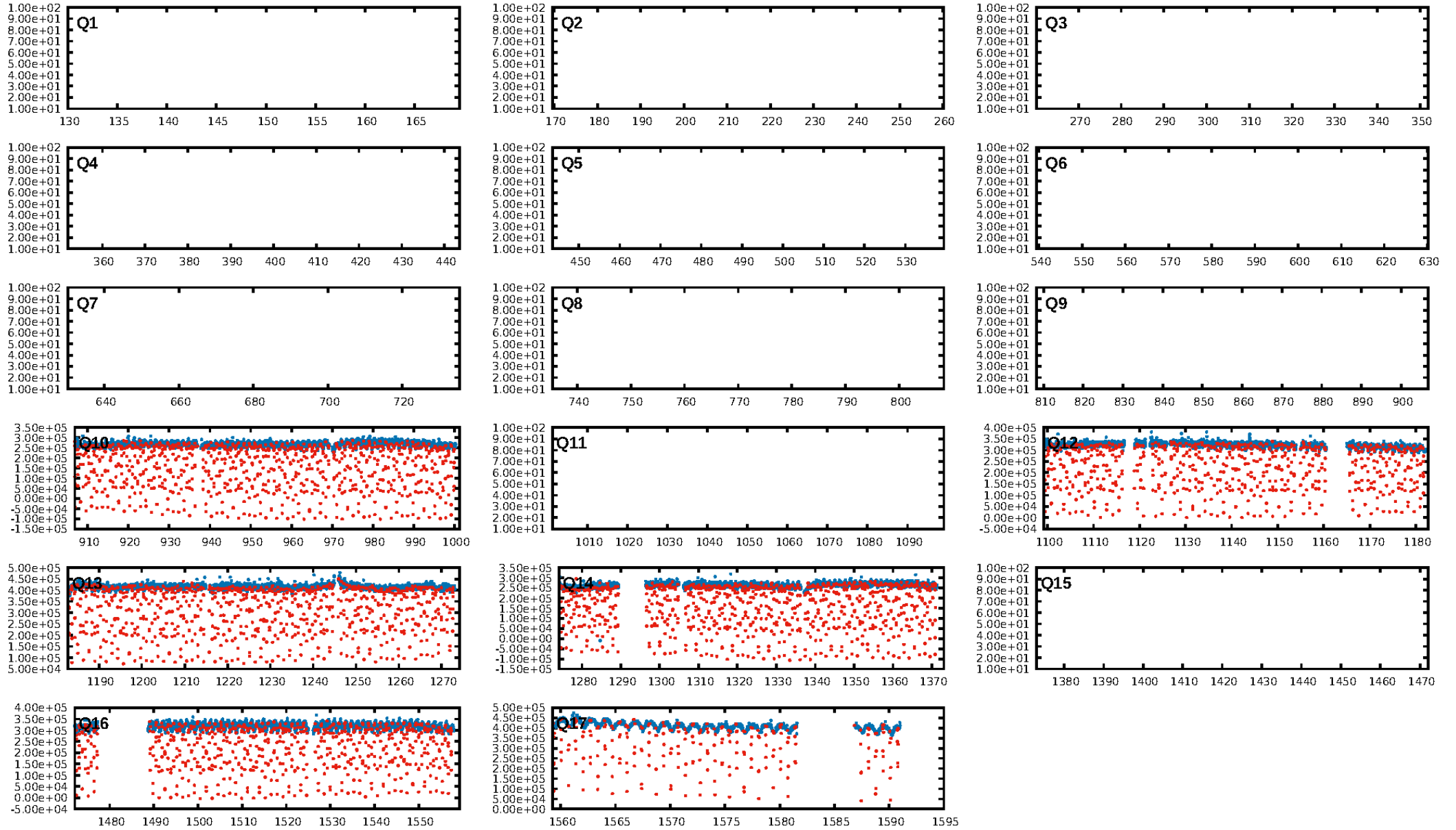
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [610/612]
GhostDiagnostic-chr: 1.478
Centroid-sig: 0.0%
Centroid-so: 3.825 arcsec [2239.03σ]
OotOffset-rm: 7.217 arcsec [51.18σ]
KicOffset-rm: 0.166 arcsec [2.16σ]
OotOffset-st: 2/0/2/2 [6]
KicOffset-st: 2/0/2/2 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [6/6]

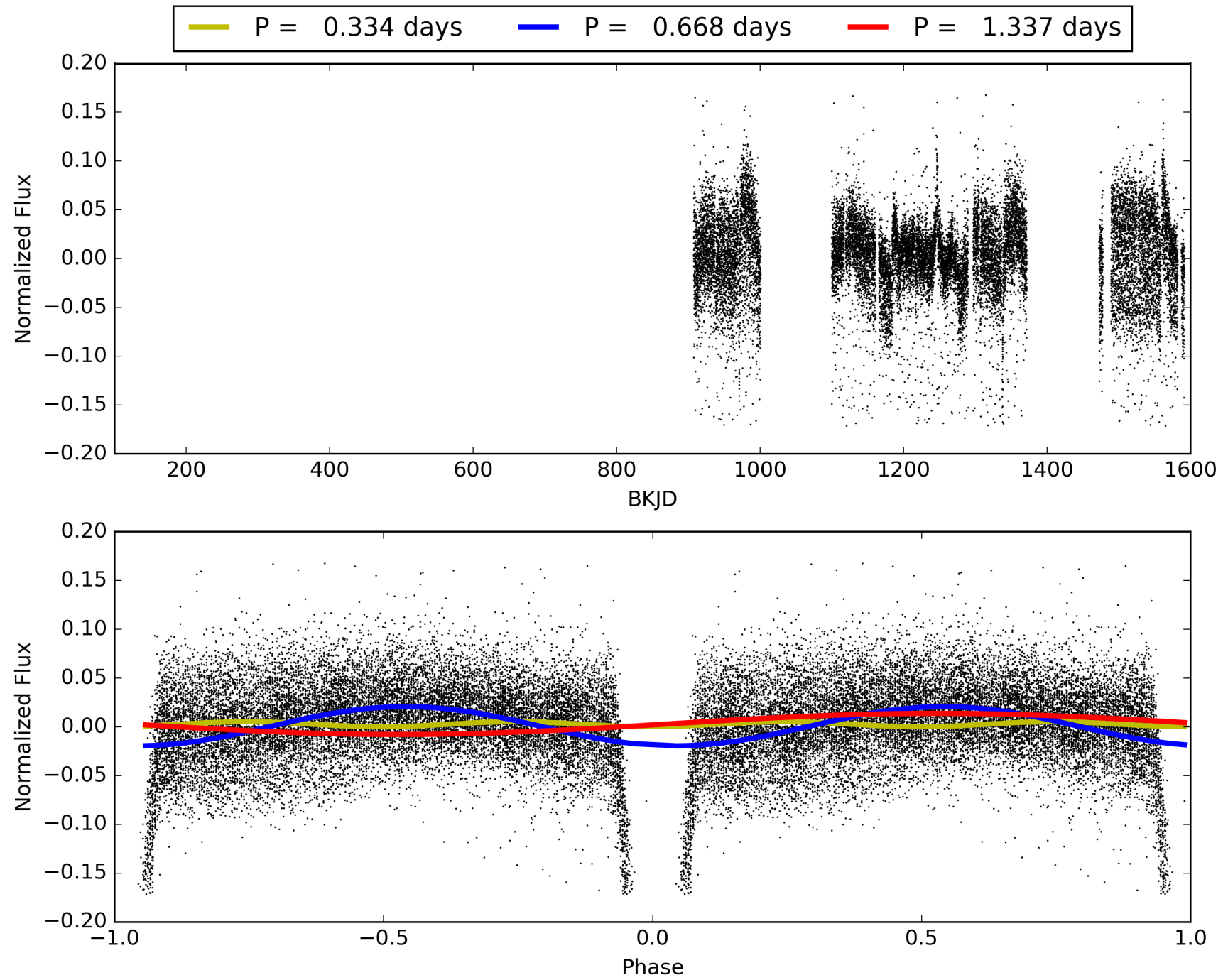
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:27:02 Z

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

TCE 010879213-01, PDC Light Curves

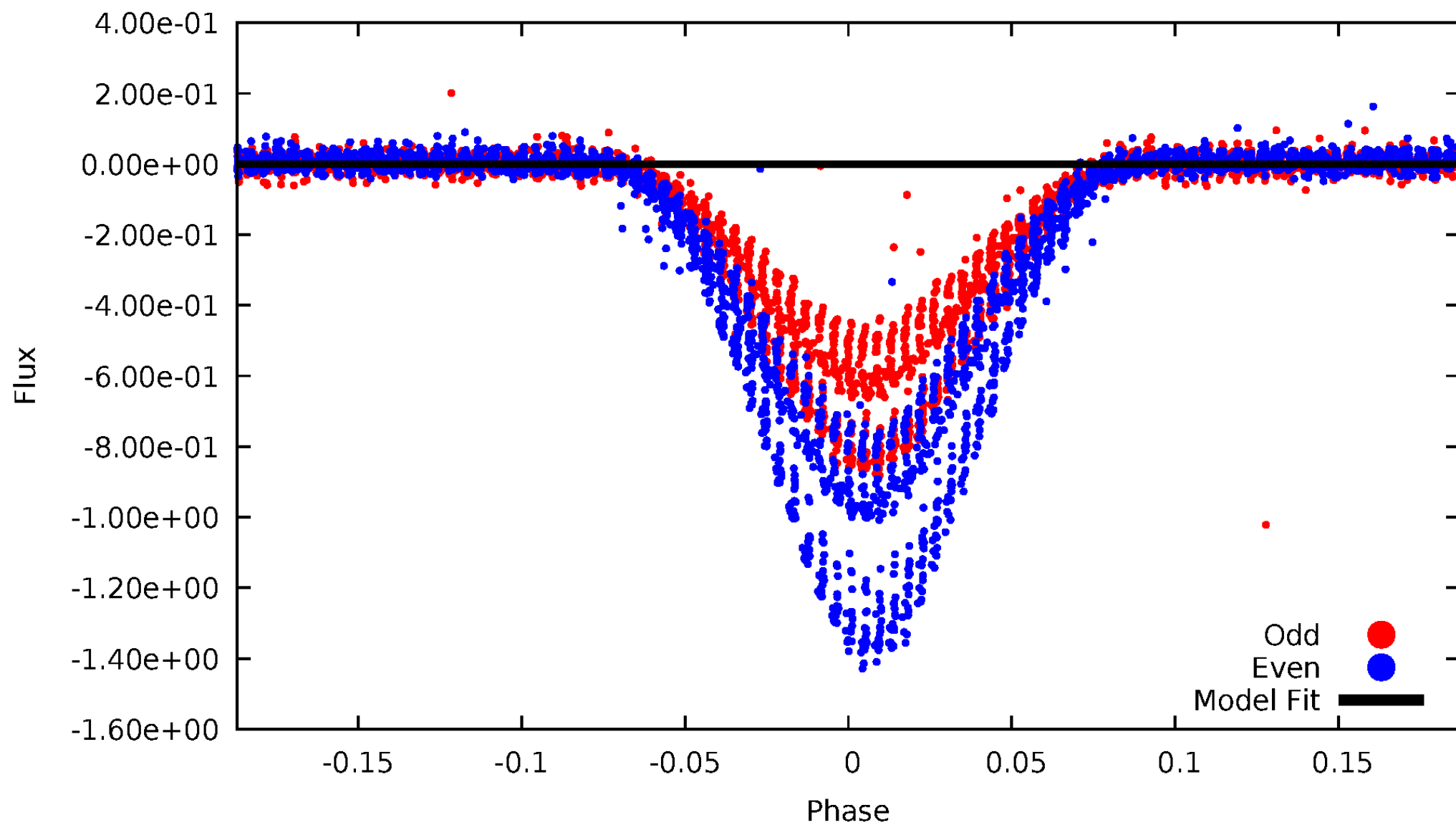


TCE 010879213-01



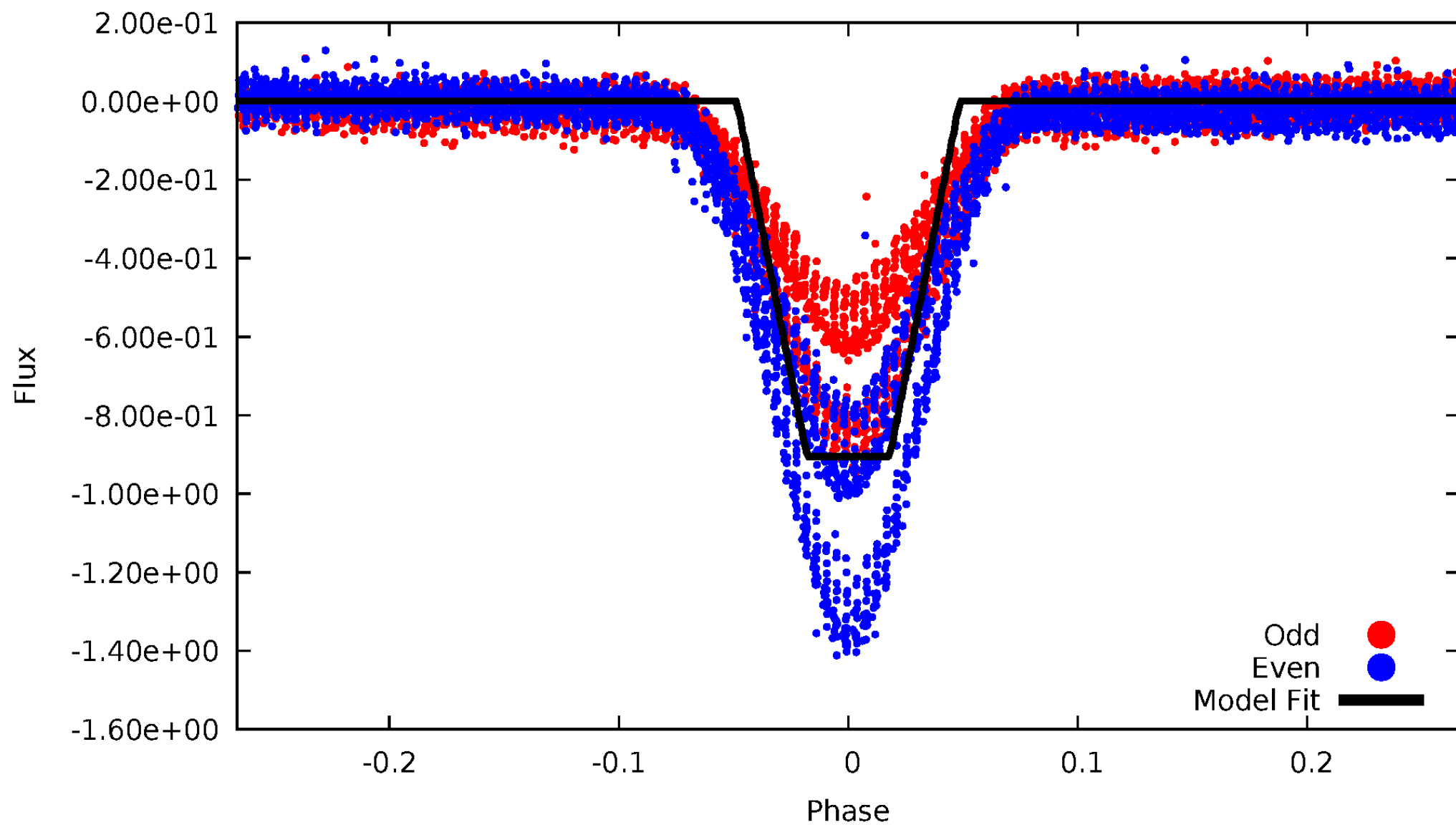
DV Odd/Even

TCE 010879213-01



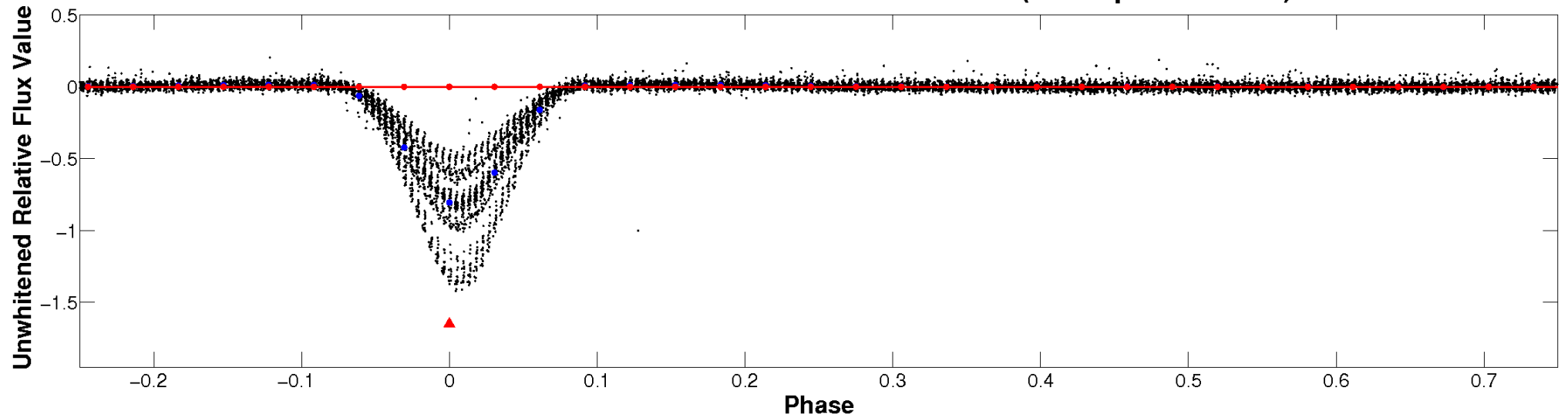
ALT Odd/Even

TCE 010879213-01



Non-Whitened Vs. Whitened Light Curve

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

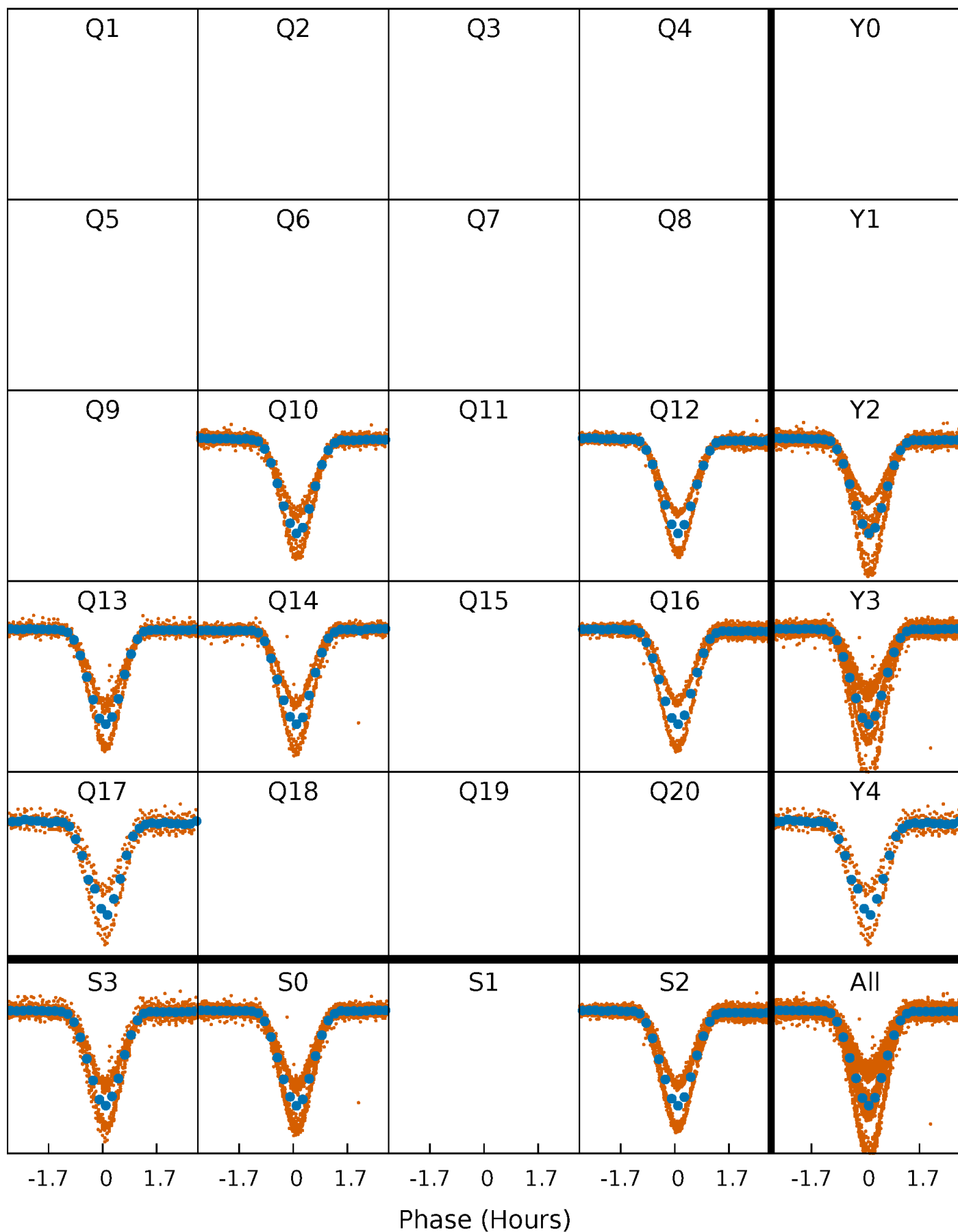


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



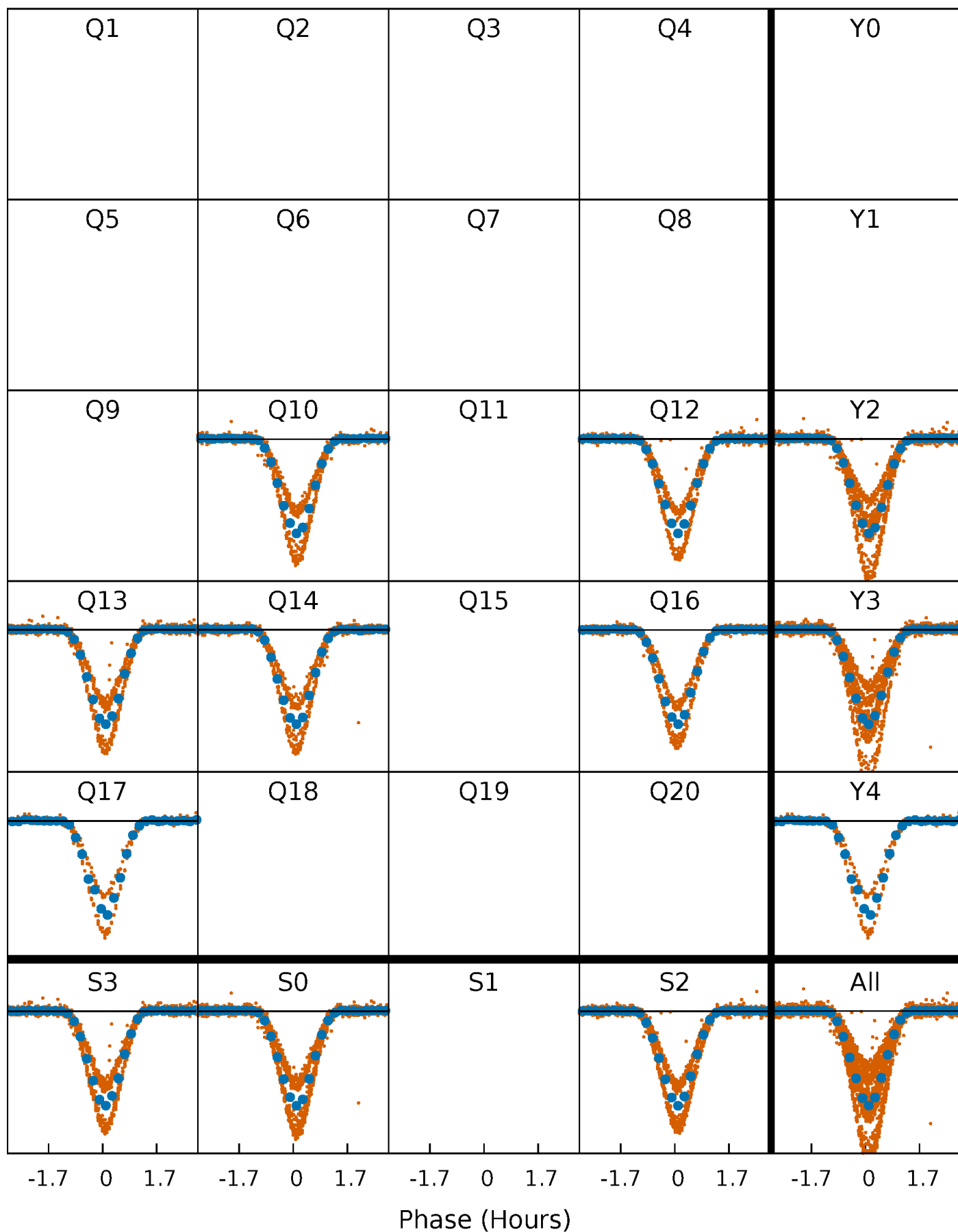
PDC Quarter-Phased Transit Curves

TCE 010879213-01 P= 0.668486 Days $T_0=132.148494$ (BKJD)



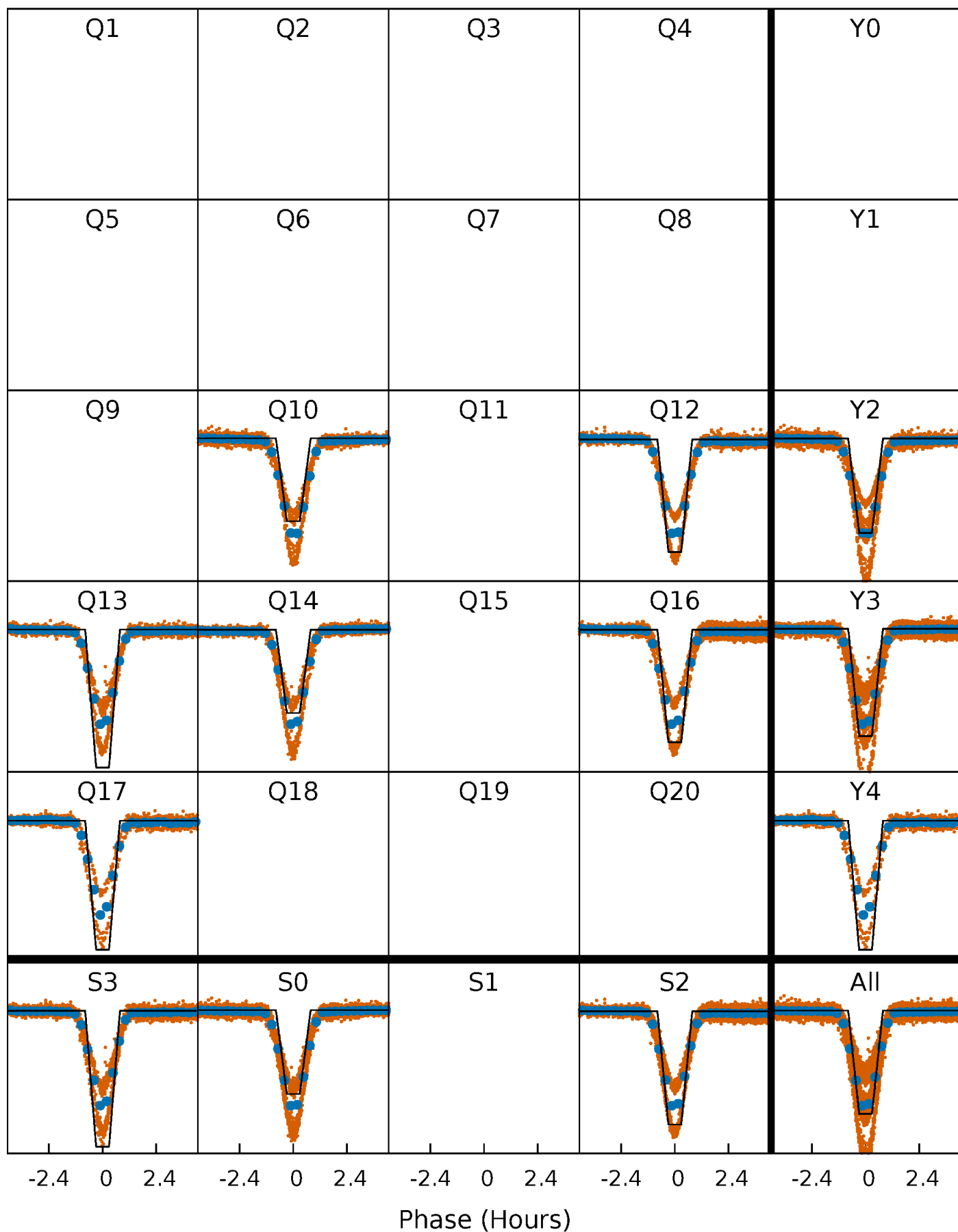
DV Quarter-Phased Transit Curves

TCE 010879213-01 P= 0.668486 Days $T_0=132.148494$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

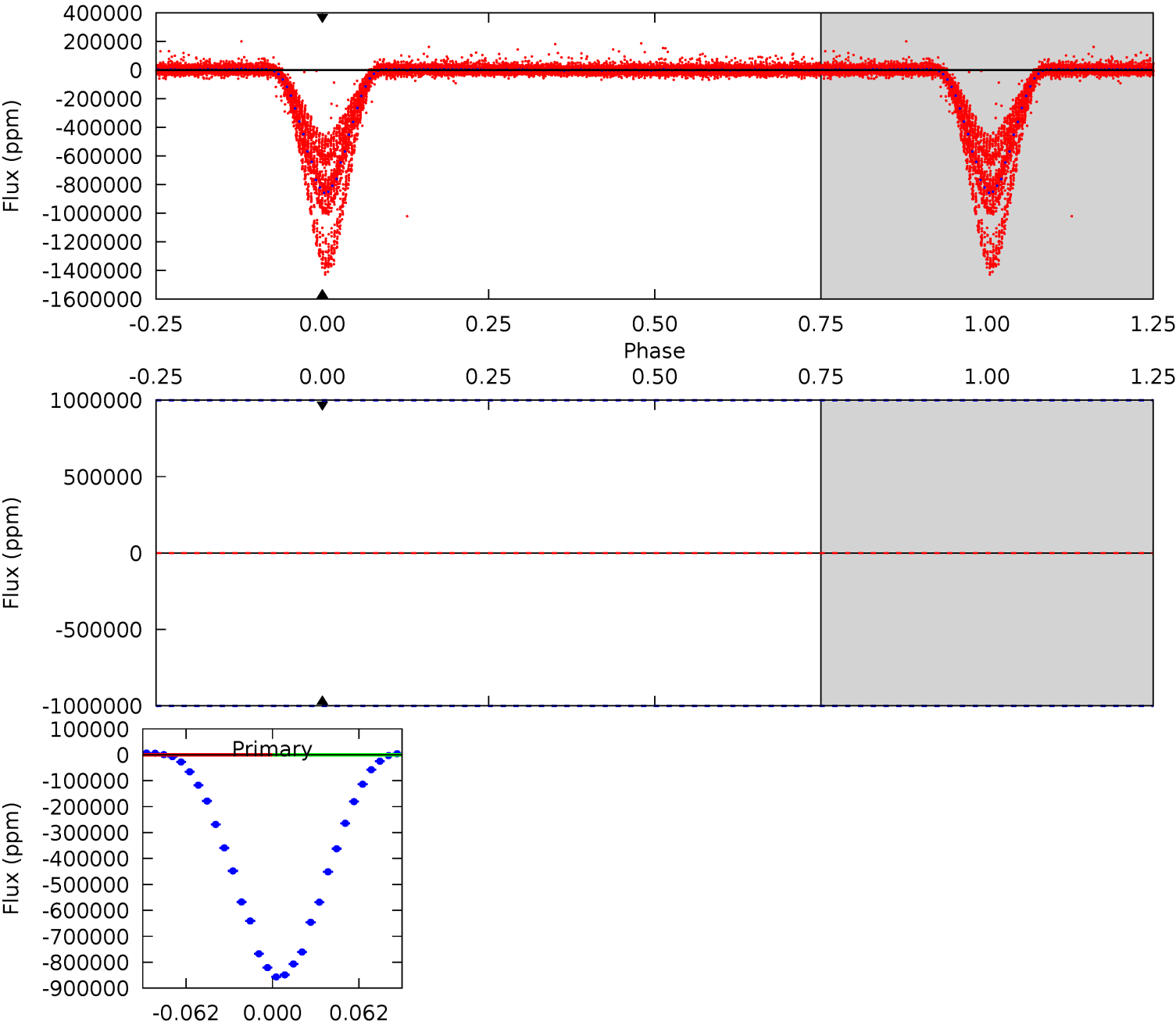
TCE 010879213-01 P= 0.668486 Days $T_0=132.152560$ (BKJD)



DV Model-Shift Uniqueness Test

010879213-01, P = 0.668486 Days, E = 132.148494 Days

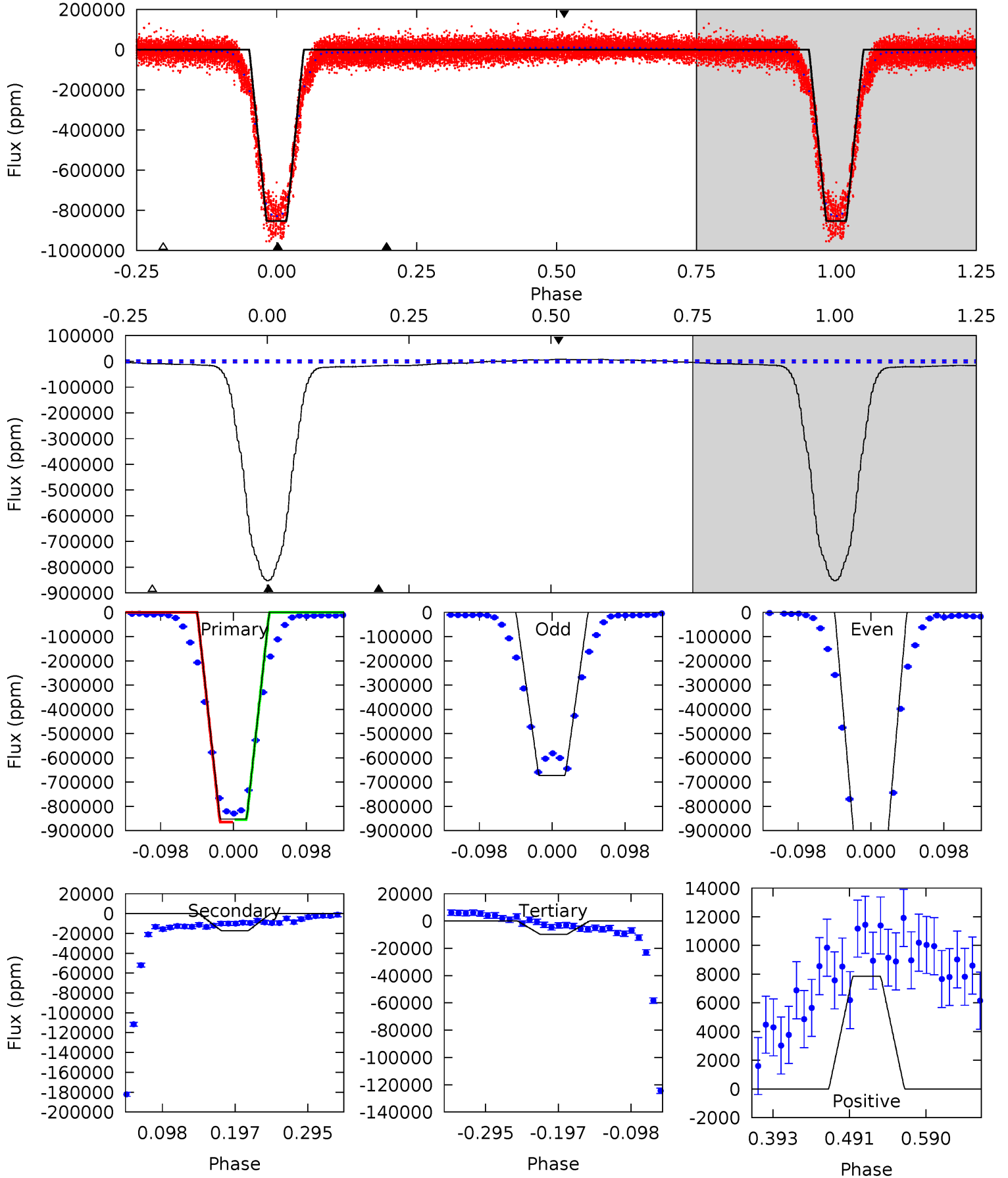
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010879213-01, P = 0.668486 Days, E = 132.152560 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
928.0	18.9	10.7	8.55	4.57	1.65	7.71	917.4	919.5	8.21	10.4	235.6	1.04	0.01	0



Stellar Parameters For KIC 010879213

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010879213-01 / KOI 3730.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$54.70^{+11.62}_{-11.84}$	2905^{+146}_{-133}	-2856^{+7587}_{-1936}	$0.065^{+4.433}_{-4.004}$
Alt.	-17363 ± 919	$104.27^{+12.77}_{-13.09}$	2922^{+136}_{-138}	-2614^{+289}_{-172}	$0.201^{+0.060}_{-0.043}$

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

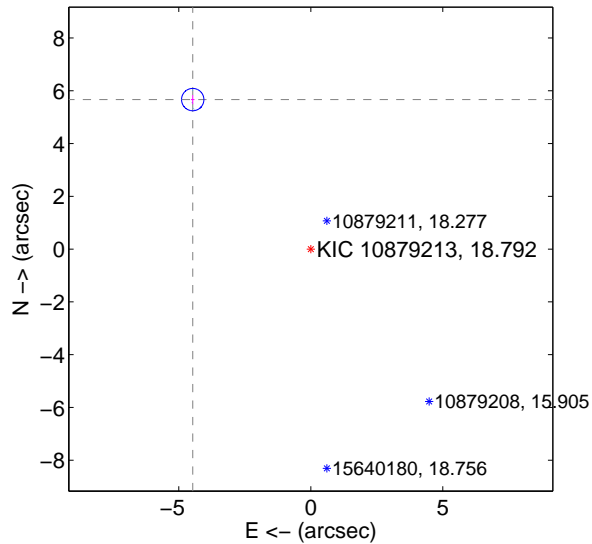
Supplemental centroid analysis for 010879213-01. Kepler magnitude: 18.79. Transit SNR -1.00

There are 6 quarters with good PRF difference image offsets

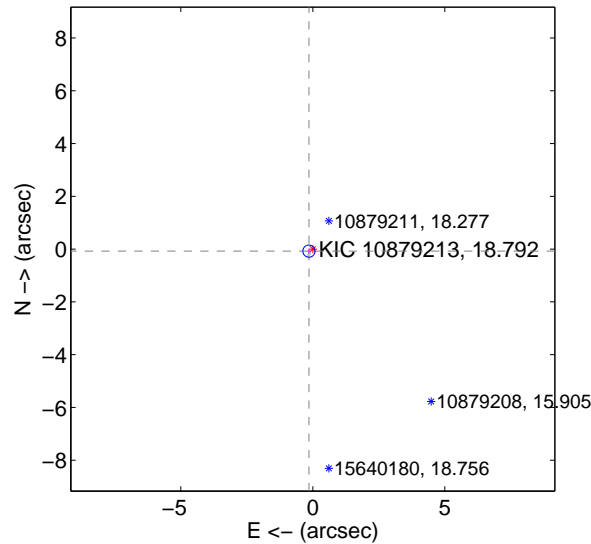
The OOT PRF centroid is offset from the target star catalog position by about 7.02 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.217 \pm 0.141	51.18	4.473 \pm 0.067	5.664 \pm 0.172
PRF-fit source offset from KIC position	0.166 \pm 0.077	2.16	0.147 \pm 0.069	-0.077 \pm 0.099
photometric centroid source offset	3.82 \pm 0.00	2239.03	-1.42 \pm 0.00	-3.55 \pm 0.00

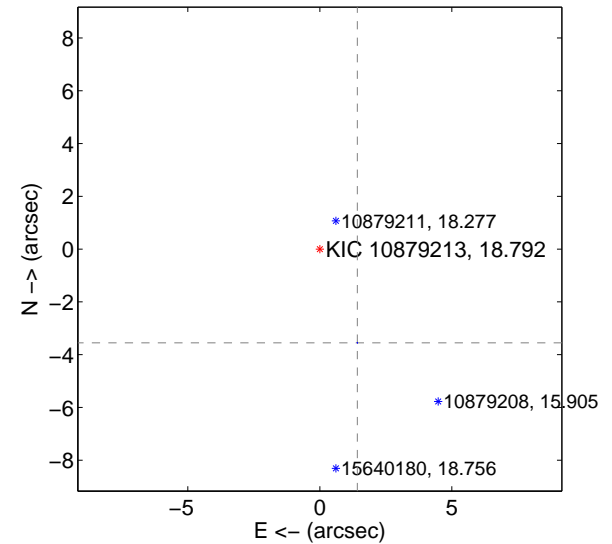
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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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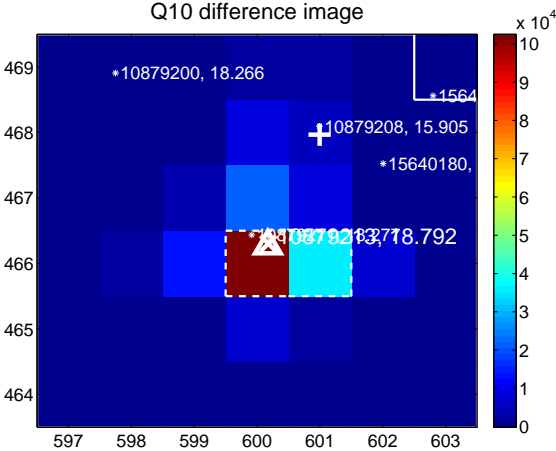
Q9 no difference image



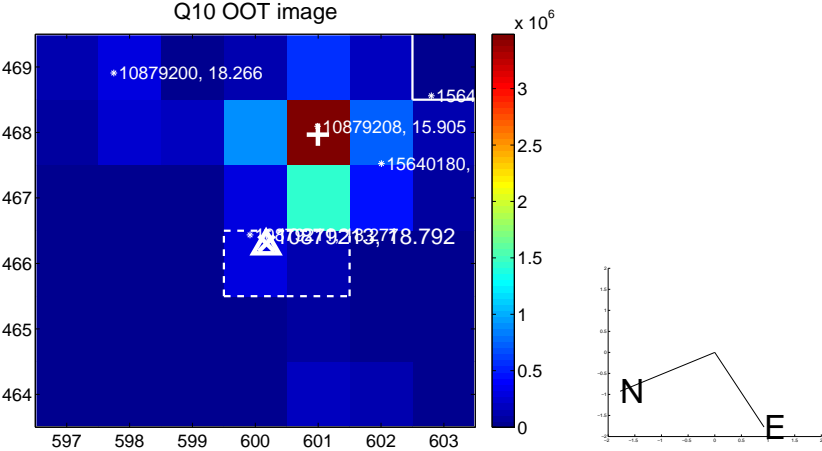
Q9 no OOT image



Q10 difference image



Q10 OOT image



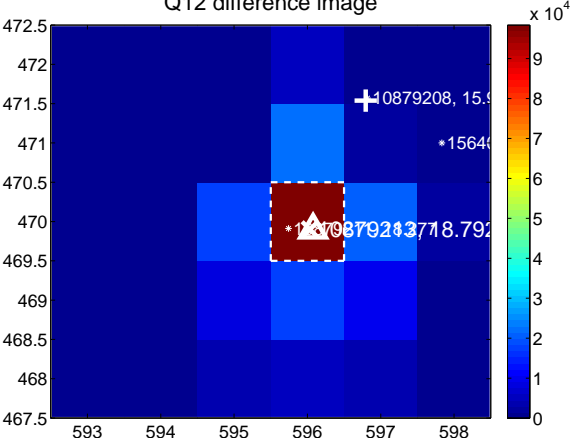
Q11 no difference image



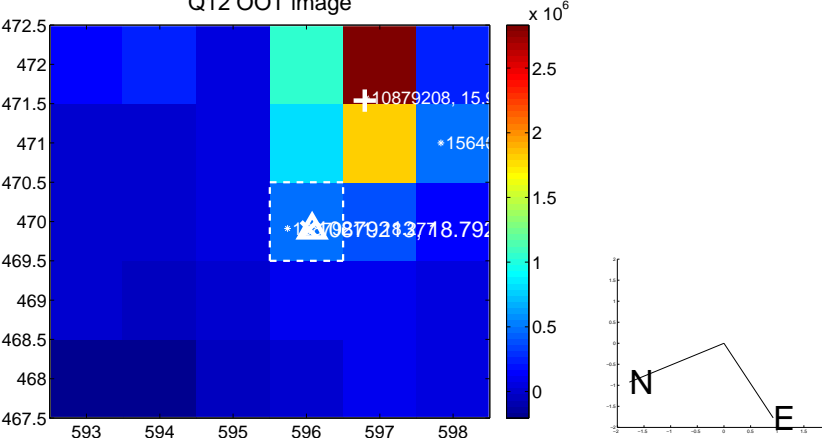
Q11 no OOT image



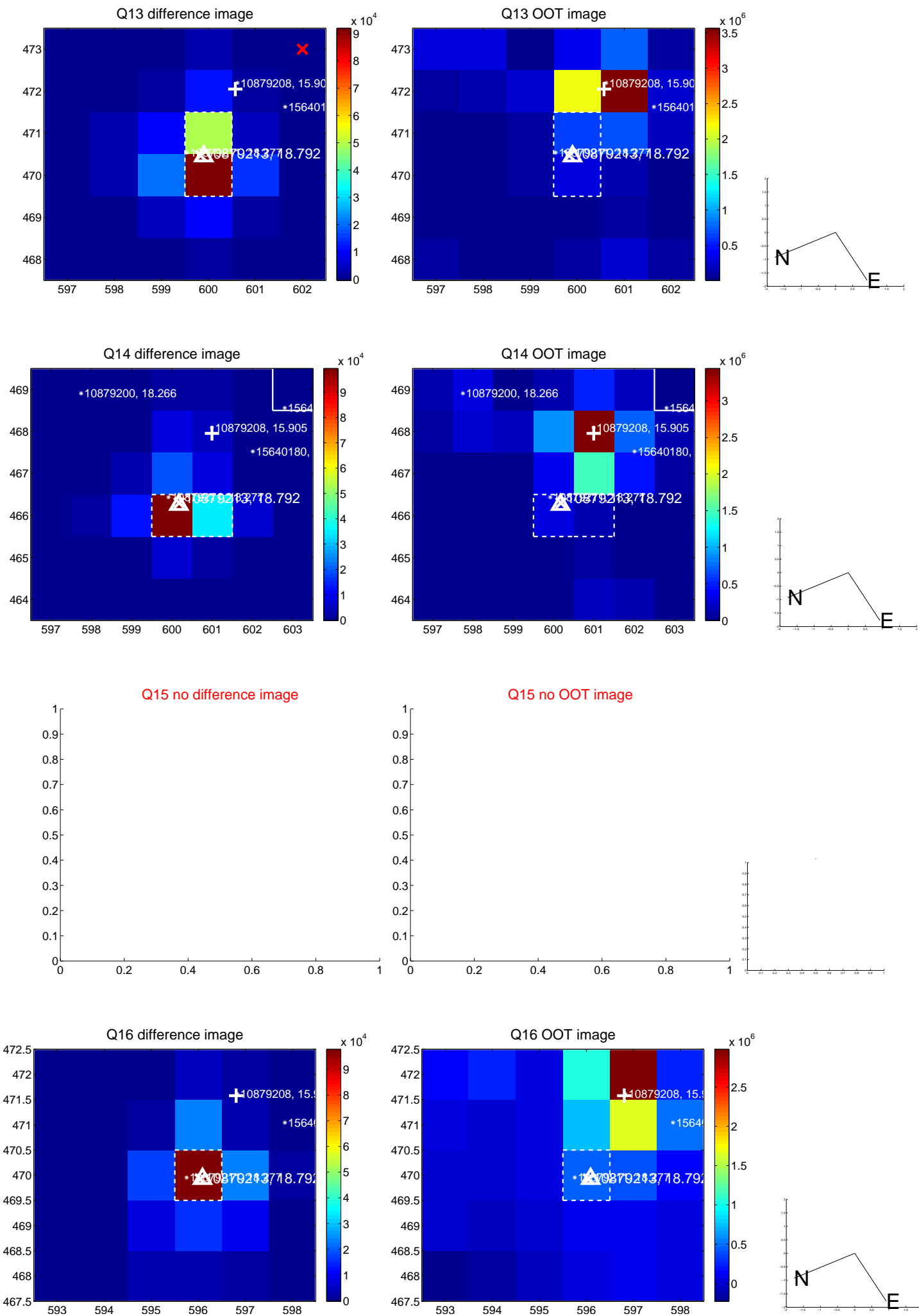
Q12 difference image



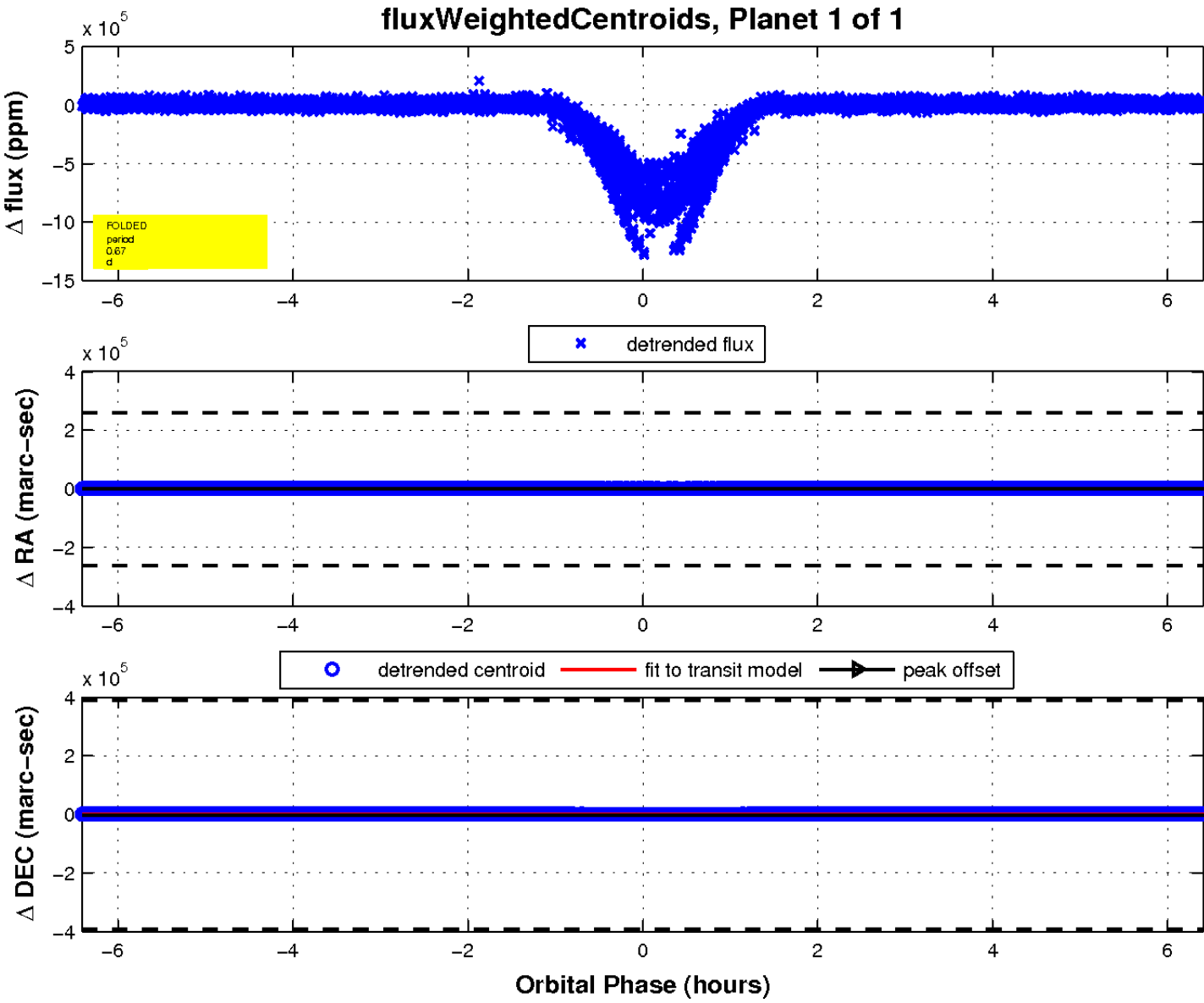
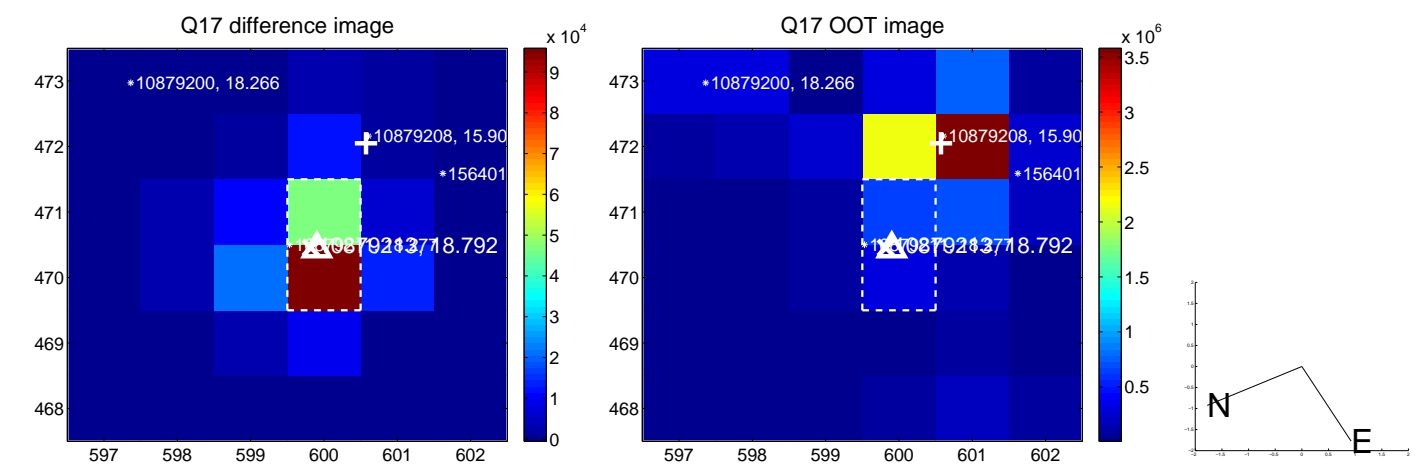
Q12 OOT image



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

