

KIC 011862833

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})
011862833-01	OBS	No	354.191732	237.320523	1828.4	12.828	10.4	6.7	0.72	4643	3.59	0.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011862833-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— 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.

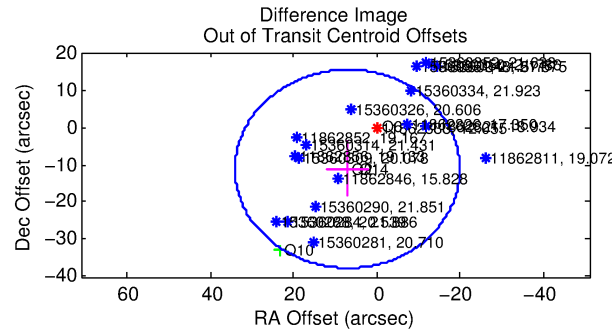
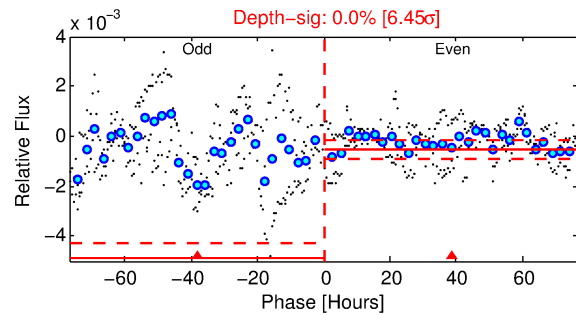
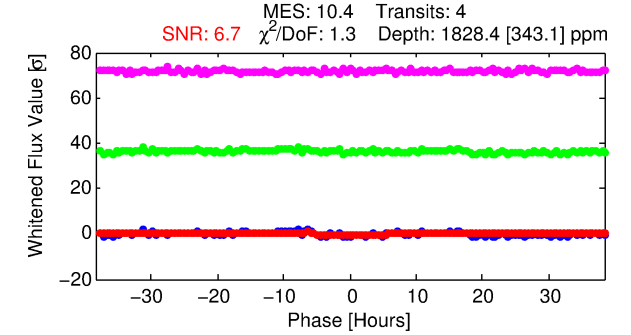
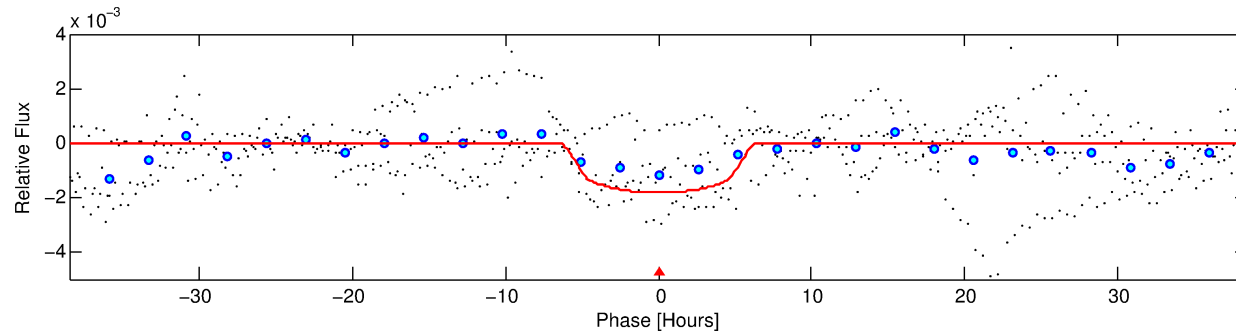
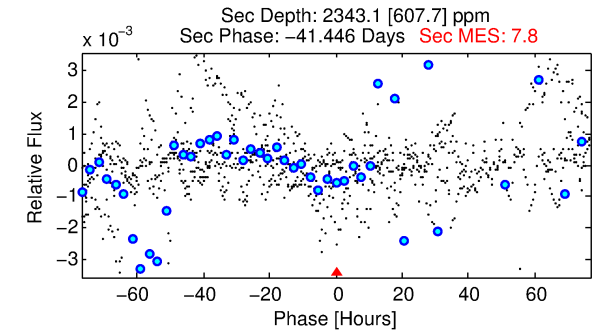
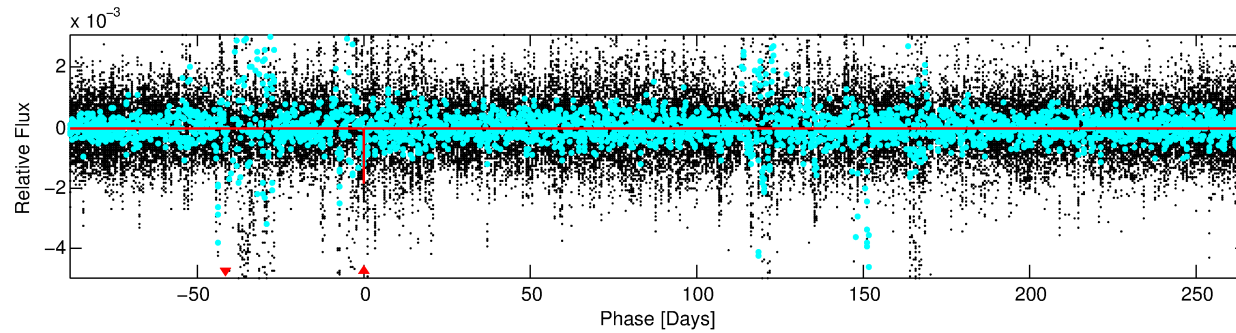
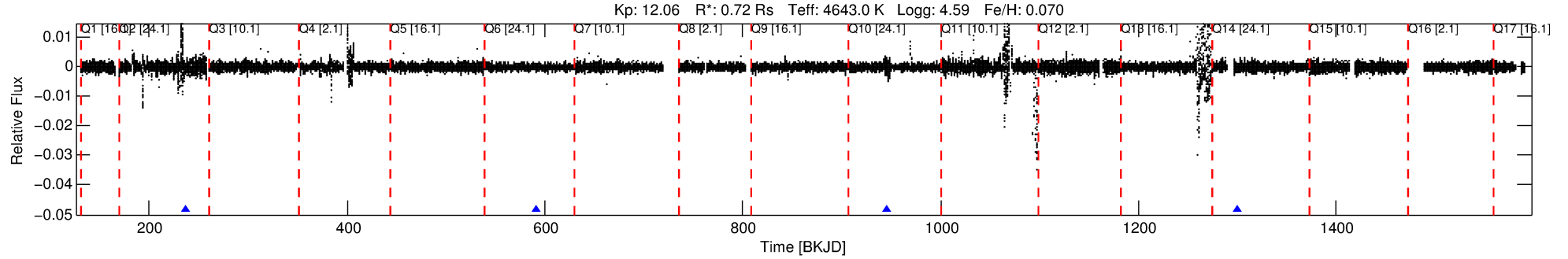
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011862833-01

No Significant Match Found

DV One-Page Summary

KIC: 11862833 Candidate: 1 of 1 Period: 354.192 d



DV Fit Results:

Period = 354.19173 [0.01059] d
Epoch = 237.3205 [0.0186] BKJD
Rp/R* = 0.0457 [0.0048]
a/R* = 129.07 [18.91]
b = 0.85 [0.05]
Seff = 0.28 [0.05]
Teff = 185 [8] K
Rp = 3.59 [0.47] Re
a = 0.8824 [0.0568] AU
Ag = 77921.85 [26851.48] [2.90σ]
Teffp = 4776 [433] K [10.60σ]

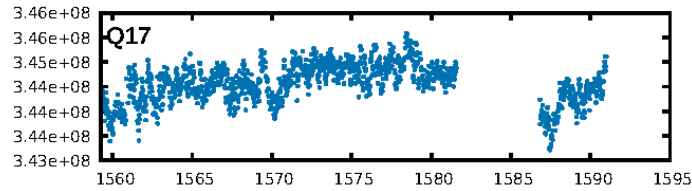
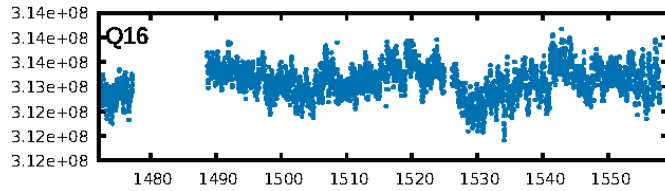
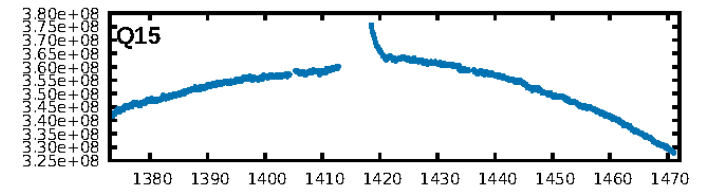
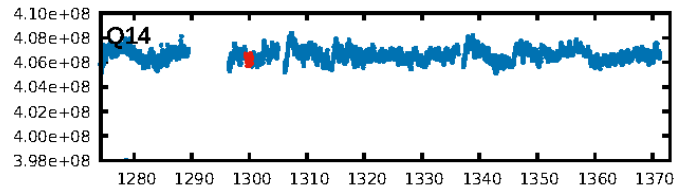
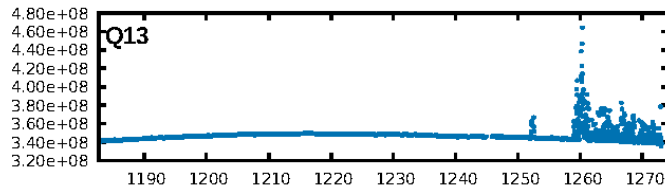
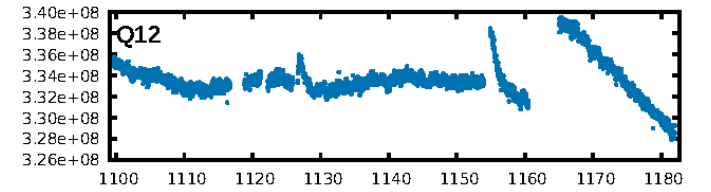
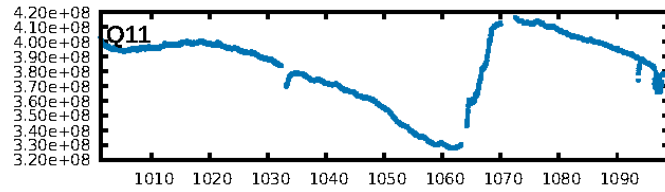
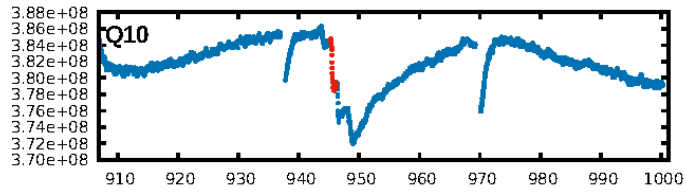
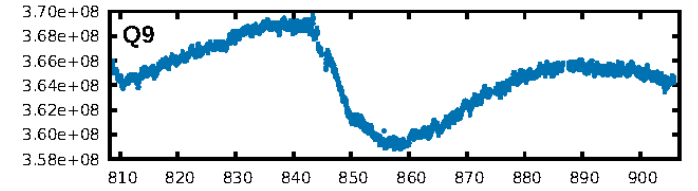
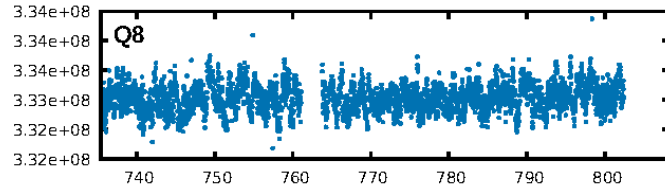
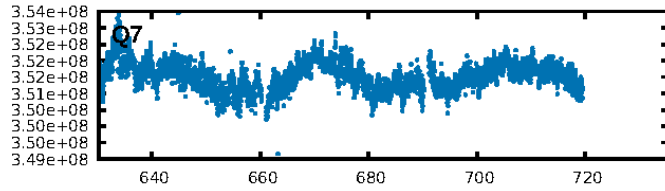
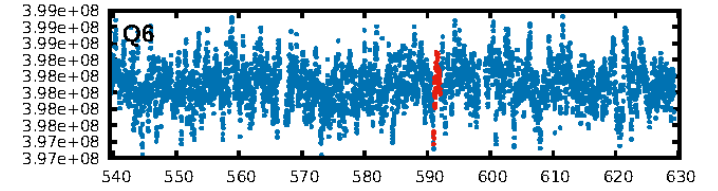
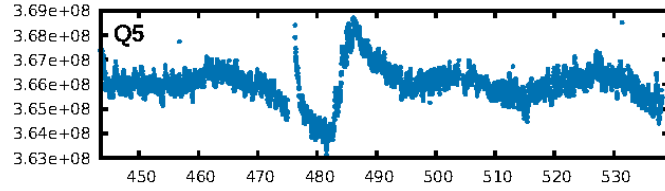
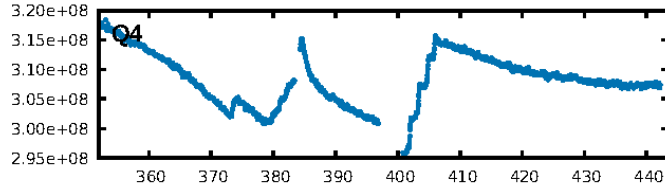
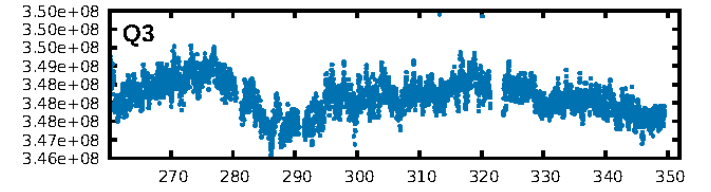
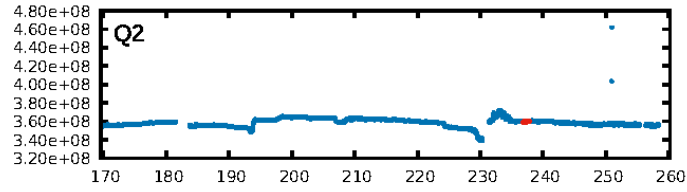
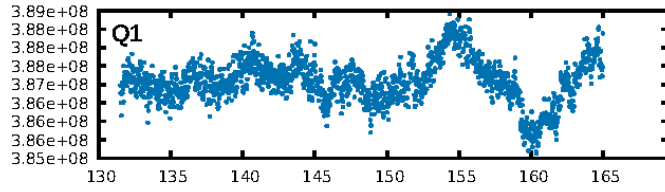
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 92.5%
Bootstrap-pfa: 6.46e-07
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 3.362
Centroid-sig: 12.2%
Centroid-so: 0.089 arcsec [0.83σ]
OotOffset-rm: 13.211 arcsec [1.47σ]
OotOffset-st: 4/0/0/0 [4]
KicOffset-rm: 11.879 arcsec [3.11σ]
KicOffset-st: 4/0/0/0 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [4/4]

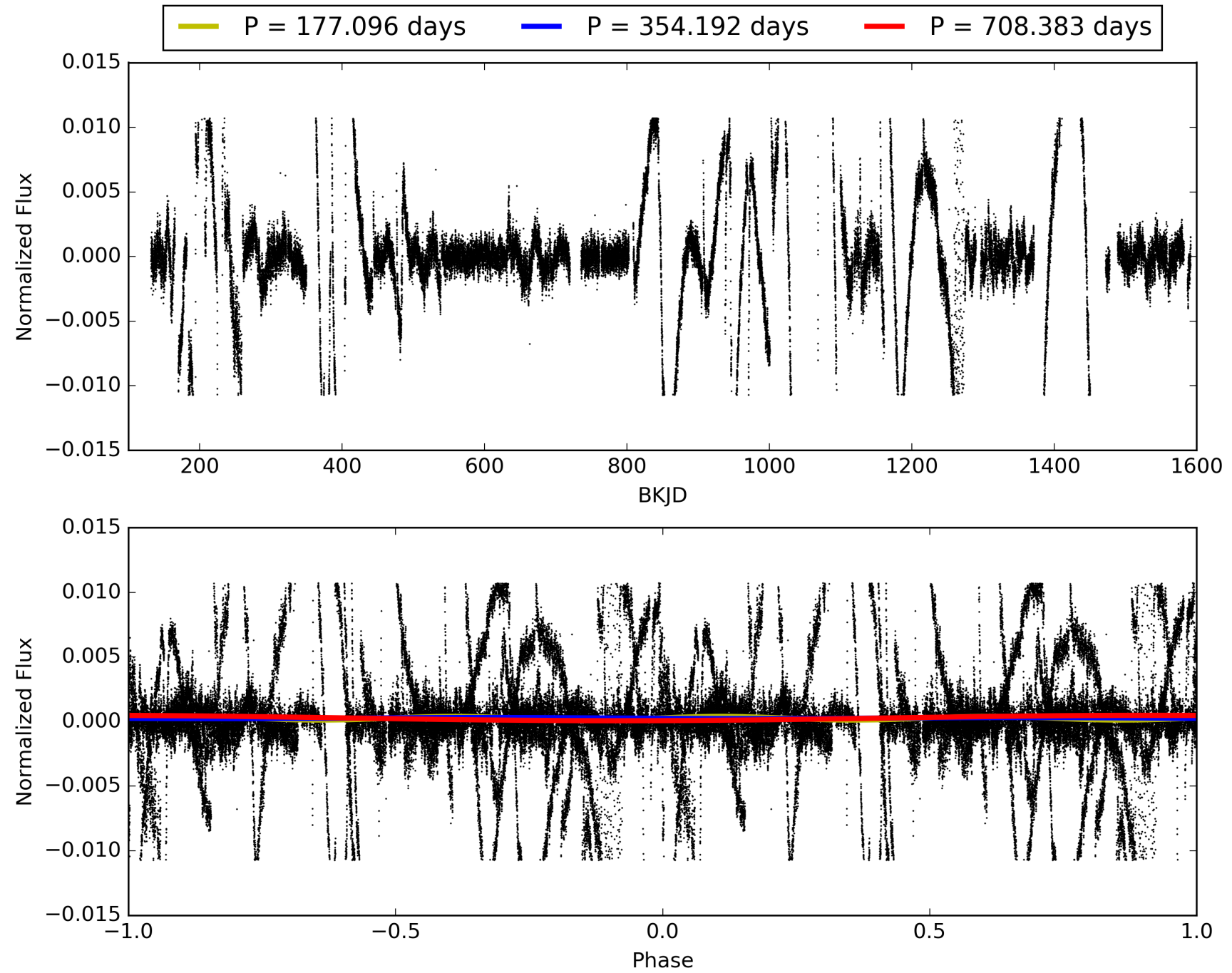
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:01:20 Z

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

TCE 011862833-01, PDC Light Curves

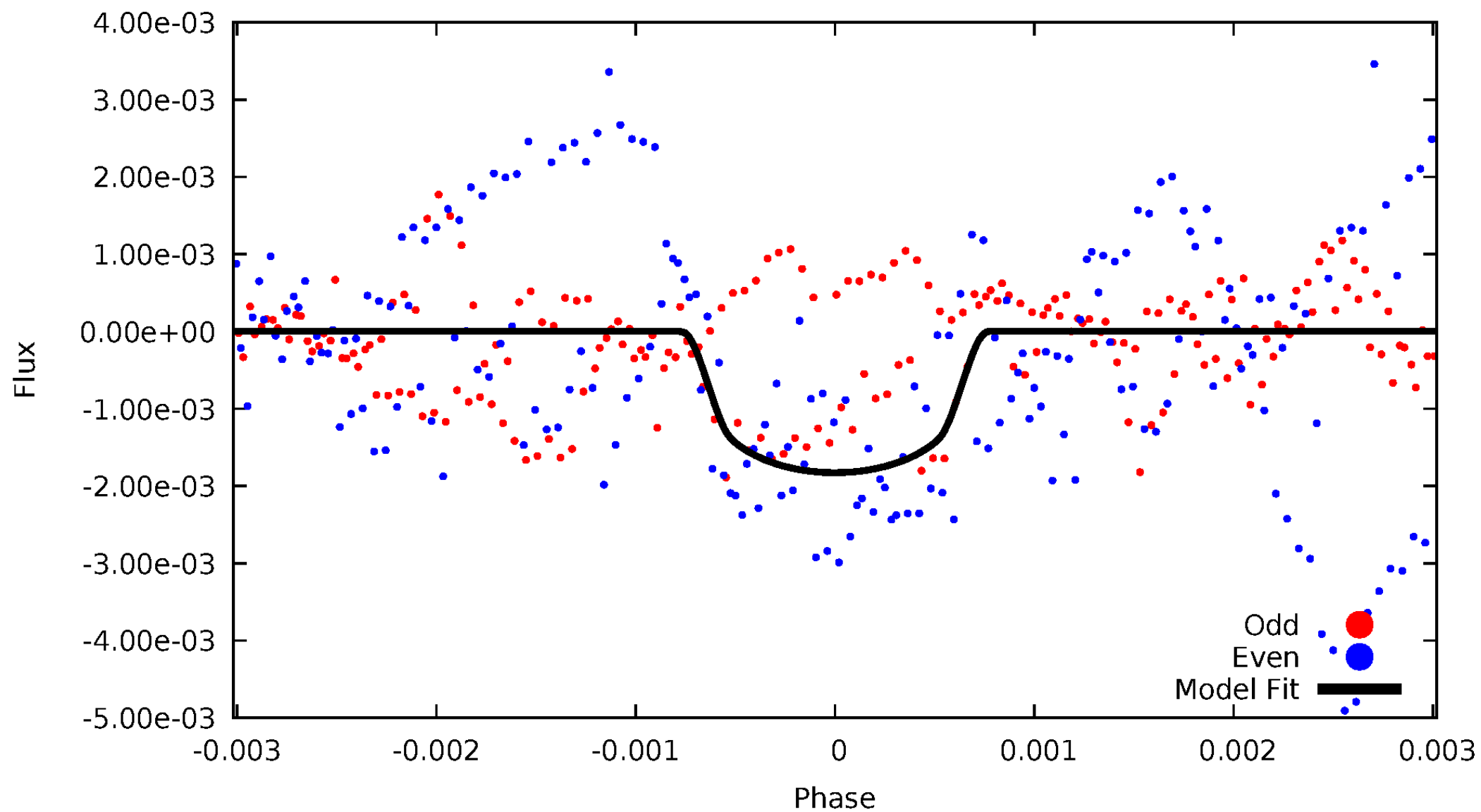


TCE 011862833-01



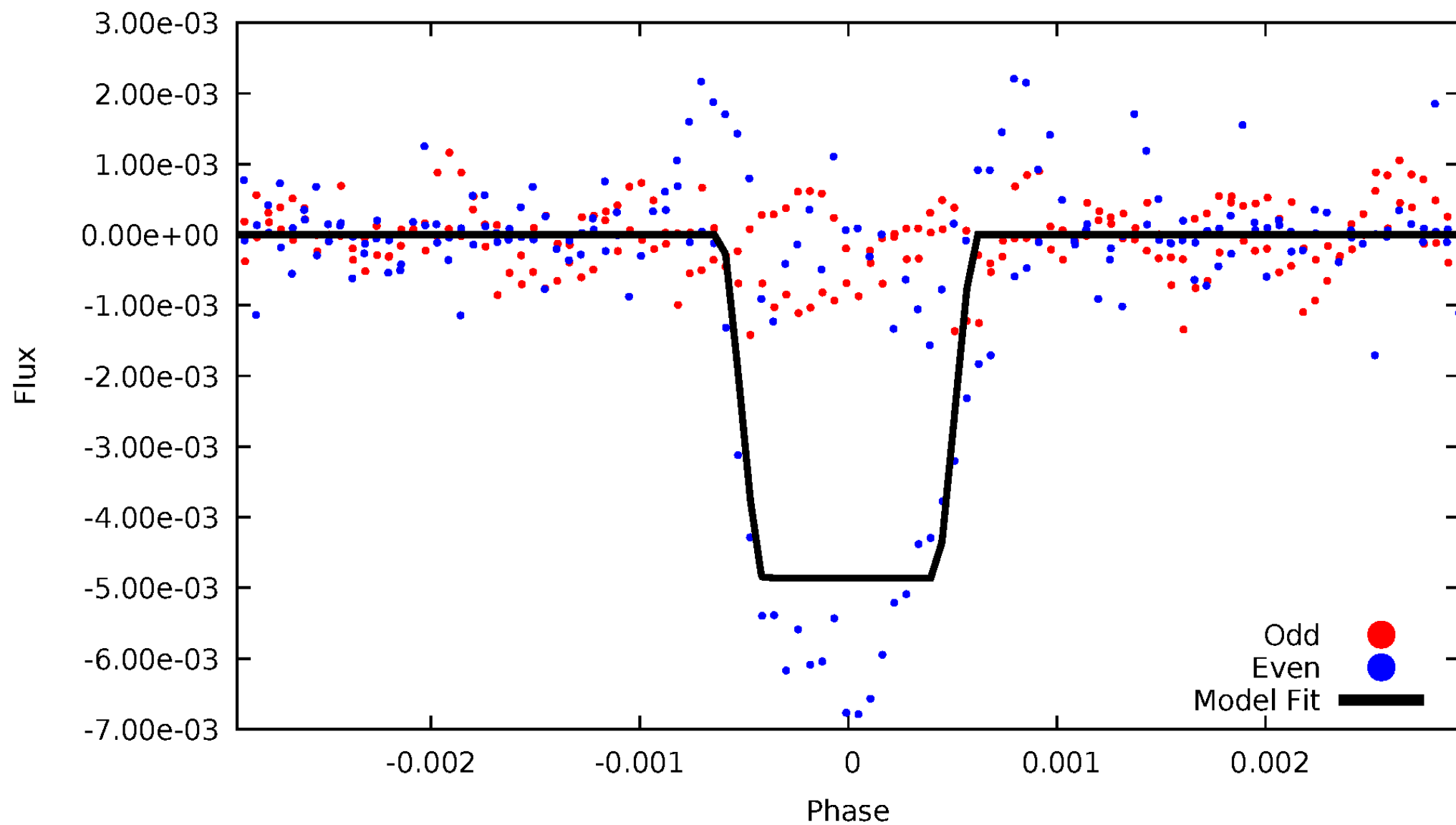
DV Odd/Even

TCE 011862833-01



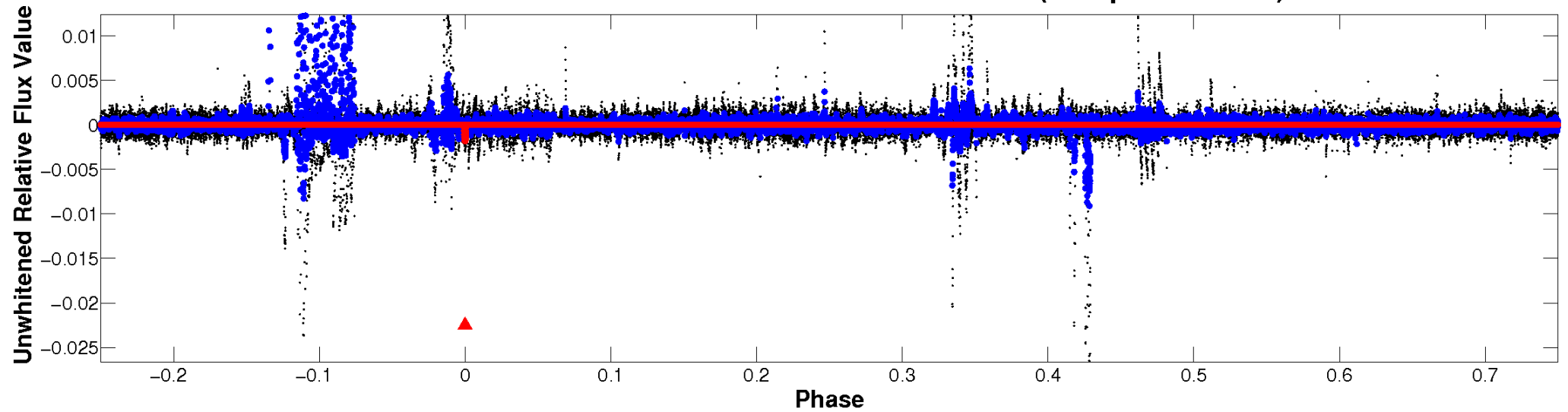
ALT Odd/Even

TCE 011862833-01

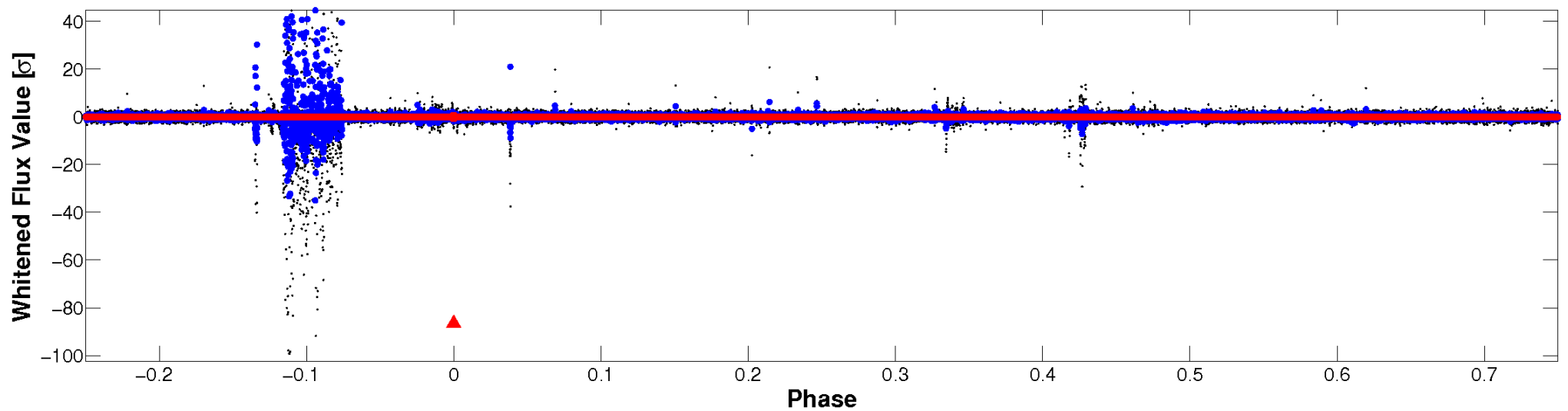


Non-Whitened Vs. Whitened Light Curve

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

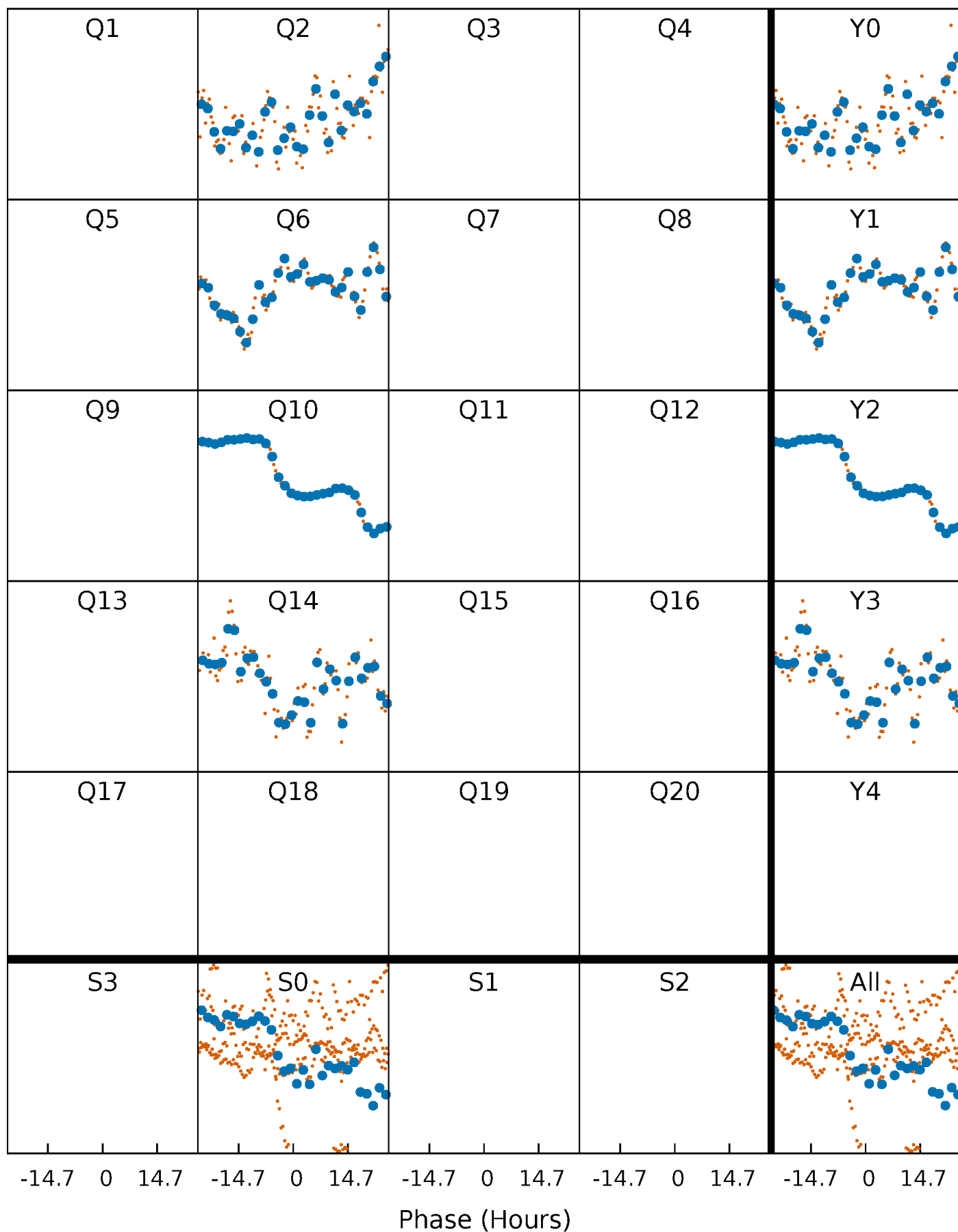


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



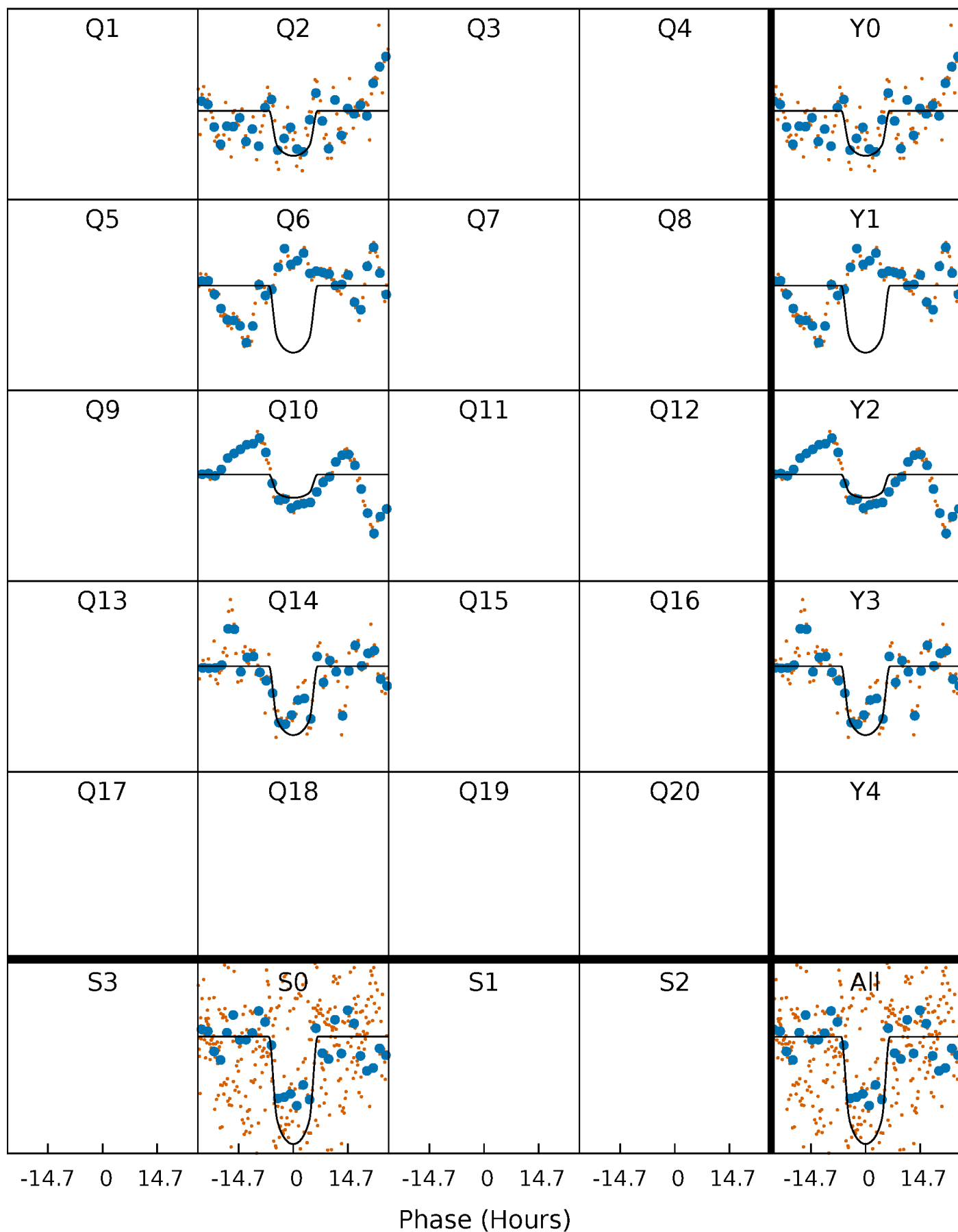
PDC Quarter-Phased Transit Curves

TCE 011862833-01 P=354.191732 Days $T_0=237.320523$ (BKJD)



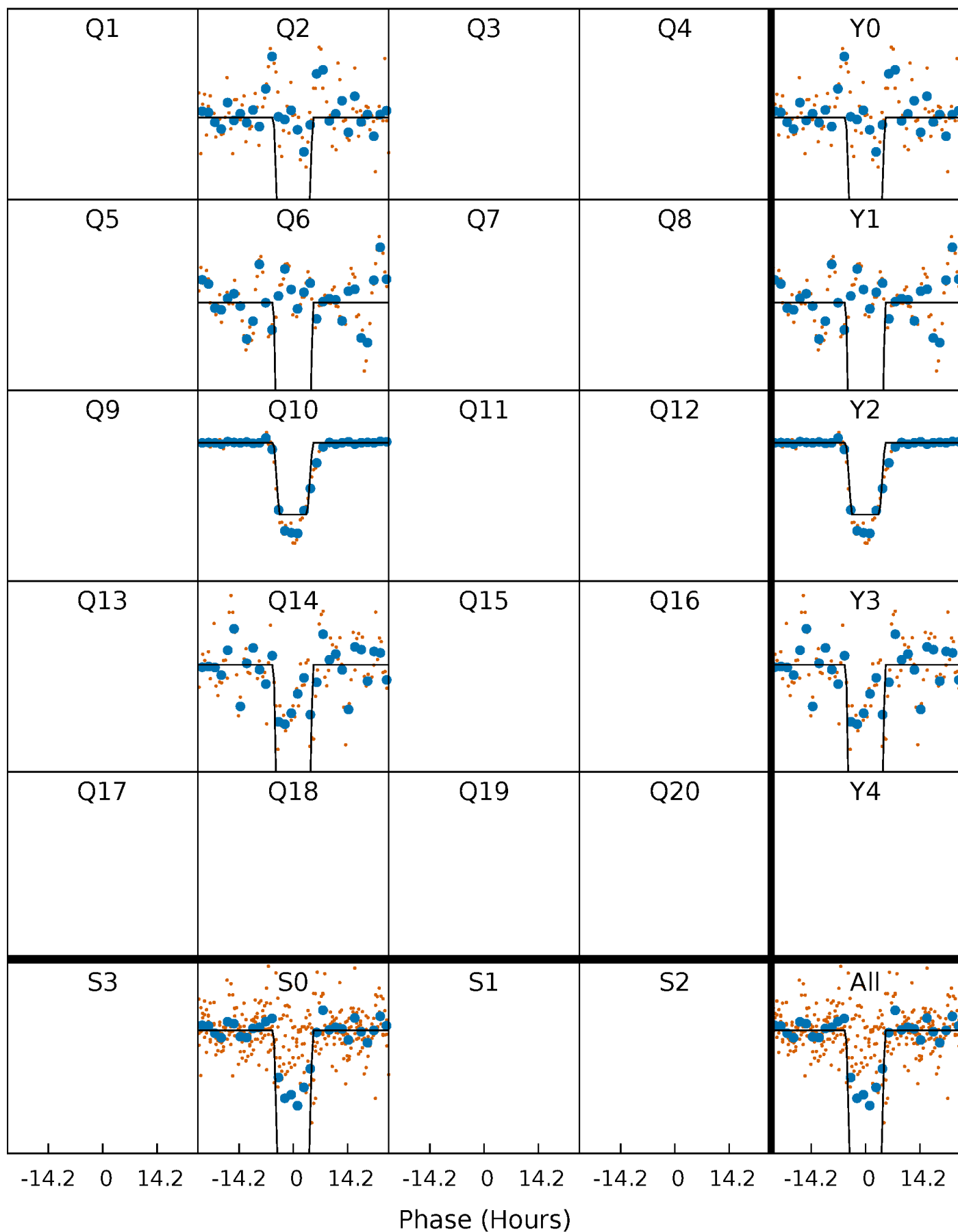
DV Quarter-Phased Transit Curves

TCE 011862833-01 P=354.191732 Days $T_0=237.320523$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

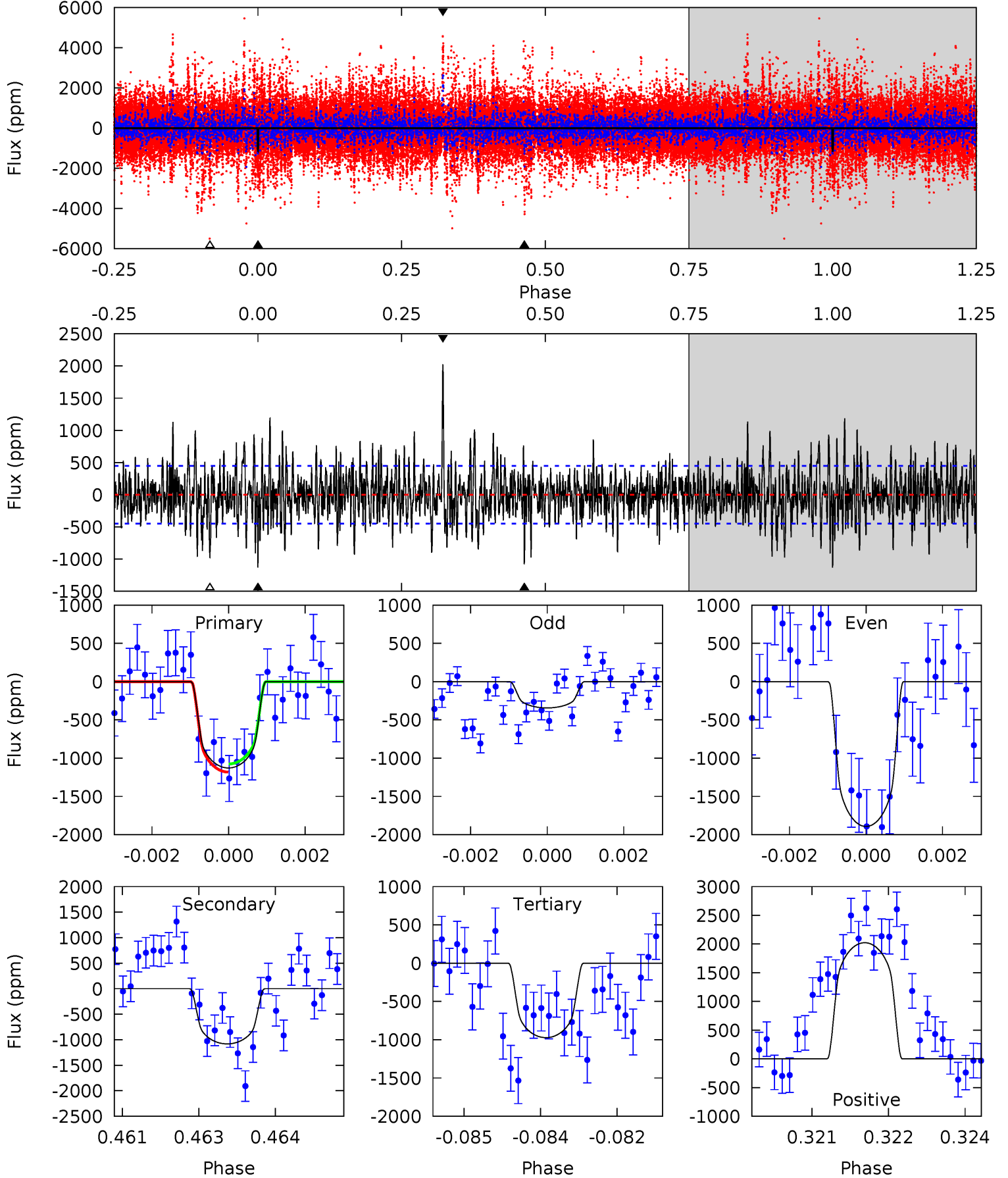
TCE 011862833-01 P=354.195329 Days $T_0=237.282758$ (BKJD)



DV Model-Shift Uniqueness Test

011862833-01, P = 354.191732 Days, E = 237.320523 Days

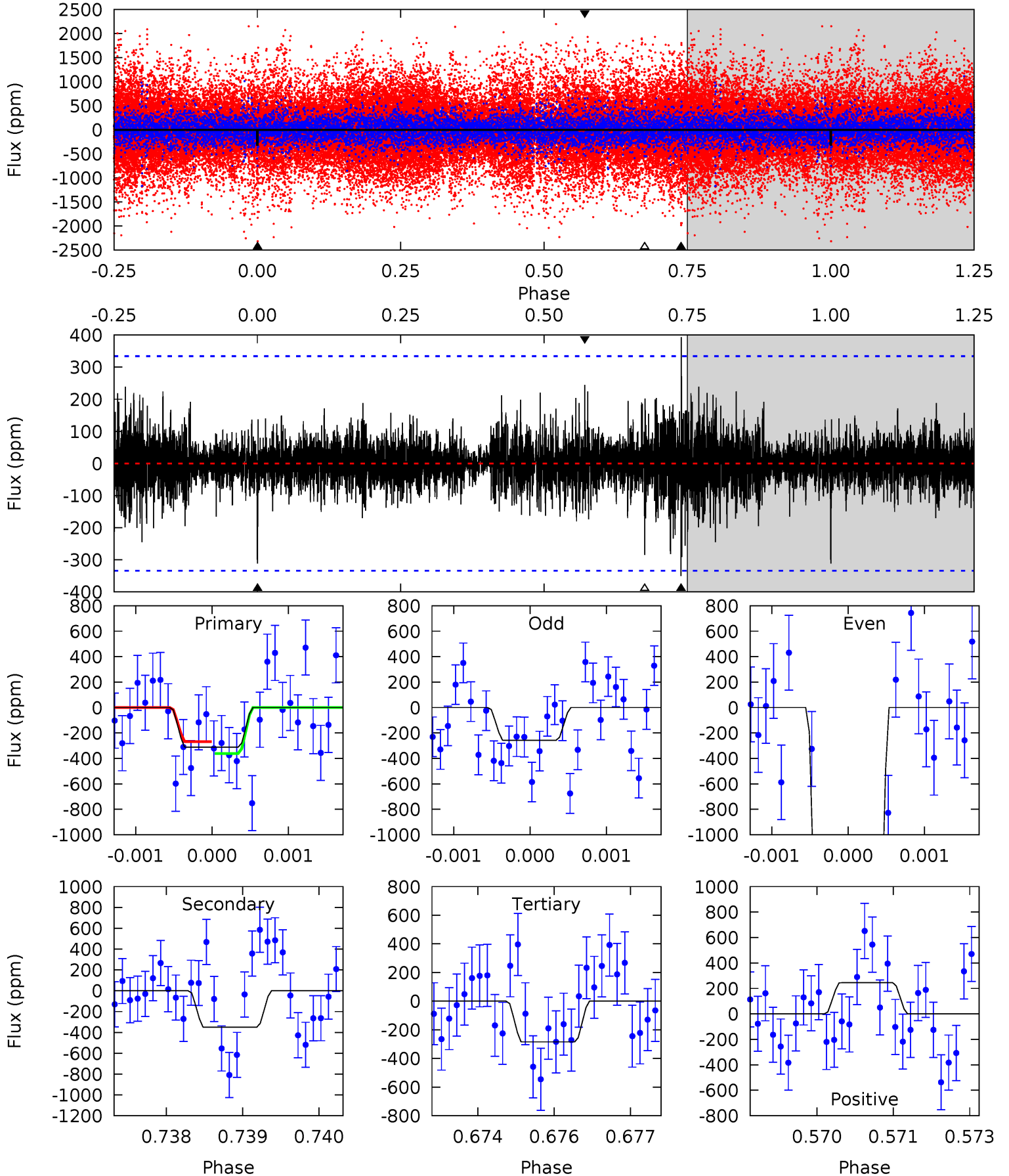
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	12.9	11.6	24.2	5.37	3.16	3.70	1.86	-10.7	1.30	-11.3	4.41	0.83	0.64	0.64



Alt Model-Shift Uniqueness Test

011862833-01, P = 354.195329 Days, E = 237.282758 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.06	5.69	4.62	3.98	5.43	3.25	0.98	0.44	1.08	1.07	1.71	26.4	3.06	0.53	0.76



Stellar Parameters For KIC 011862833

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4643^{+167}_{-167}	$4.588^{+0.046}_{-0.032}$	$0.070^{+0.250}_{-0.300}$	$0.719^{+0.046}_{-0.058}$	$0.730^{+0.064}_{-0.058}$	$2.771^{+0.585}_{-0.361}$
	+4%/-4%	+1%/-1%	+357%/-429%	+6%/-8%	+9%/-8%	+21%/-13%
Source	PHO54	PHO54	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 011862833-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1081±84	$3.62^{+0.39}_{-0.41}$	258^{+10}_{-10}	4092^{+214}_{-194}	35669^{+9964}_{-6821}
Alt.	-350±62	$5.45^{+0.45}_{-0.43}$	258^{+10}_{-10}	2999^{+126}_{-125}	5075^{+1235}_{-1088}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

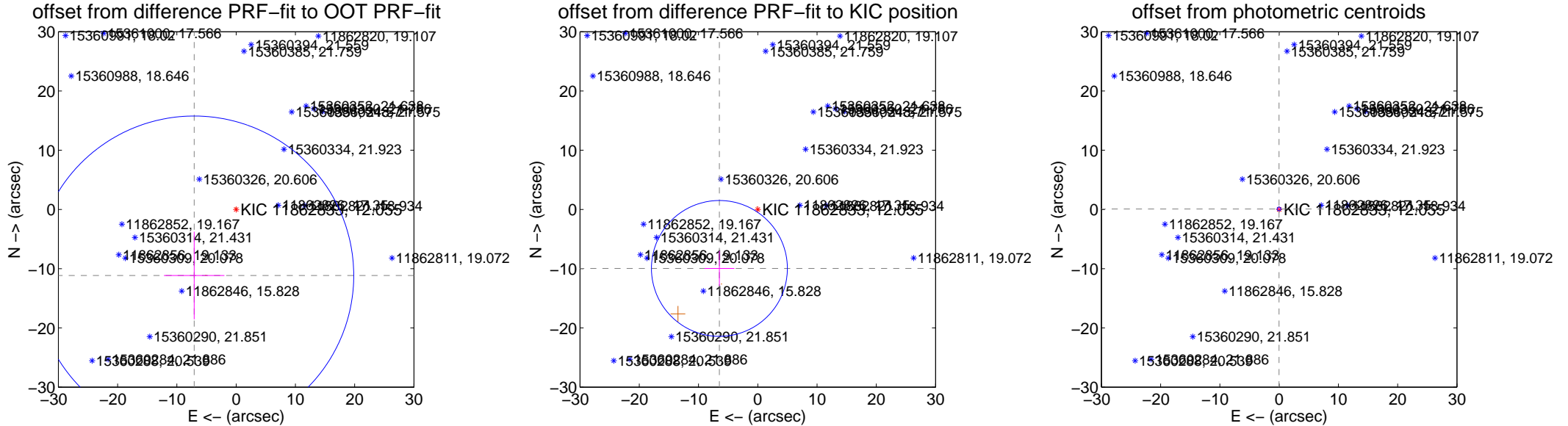
DV Centroid Data

Supplemental centroid analysis for 011862833-01. Kepler magnitude: 12.05. Transit SNR 6.65

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.79 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	13.211 ± 8.975	1.47	7.083 ± 5.109	-11.152 ± 7.400
PRF-fit source offset from KIC position	11.879 ± 3.822	3.11	6.476 ± 2.521	-9.959 ± 2.957
photometric centroid source offset	0.09 ± 0.11	0.83	0.03 ± 0.14	0.09 ± 0.10



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.

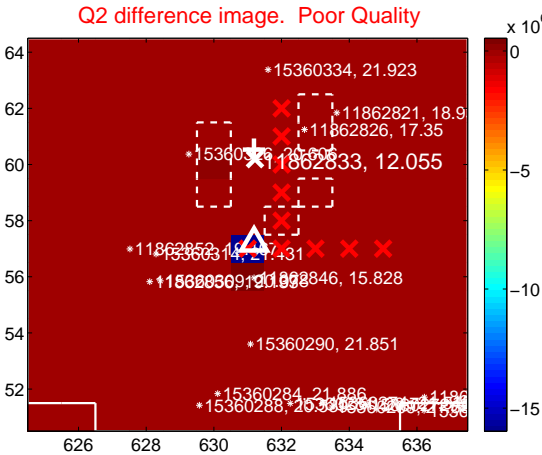
Q1 no difference image



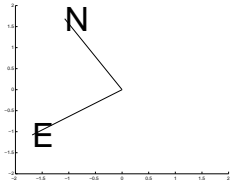
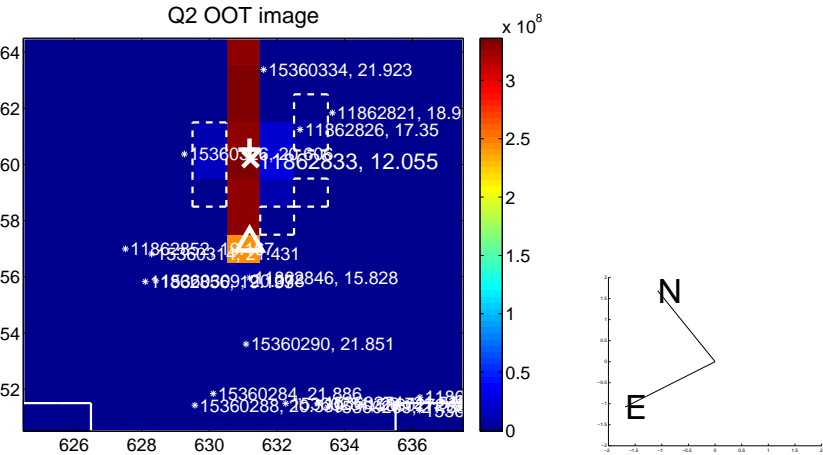
Q1 no OOT image



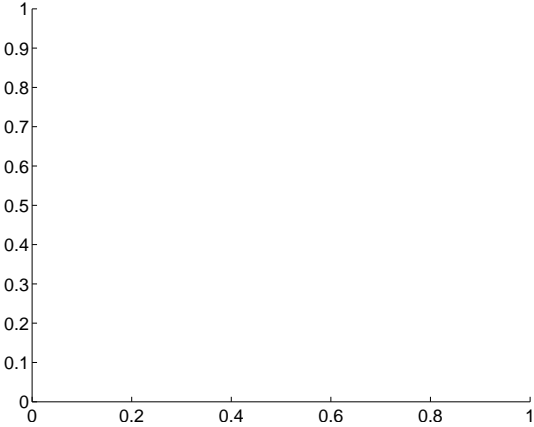
Q2 difference image. Poor Quality



Q2 OOT image



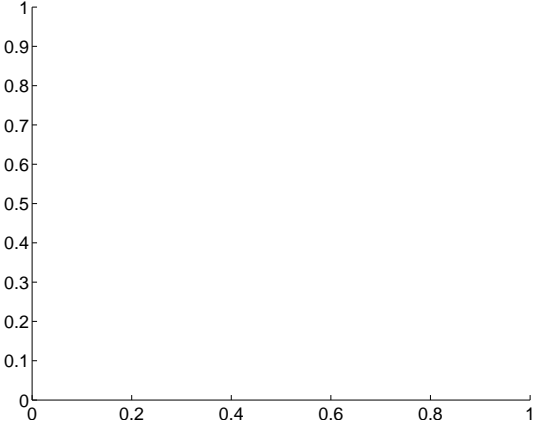
Q3 no difference image



Q3 no OOT image



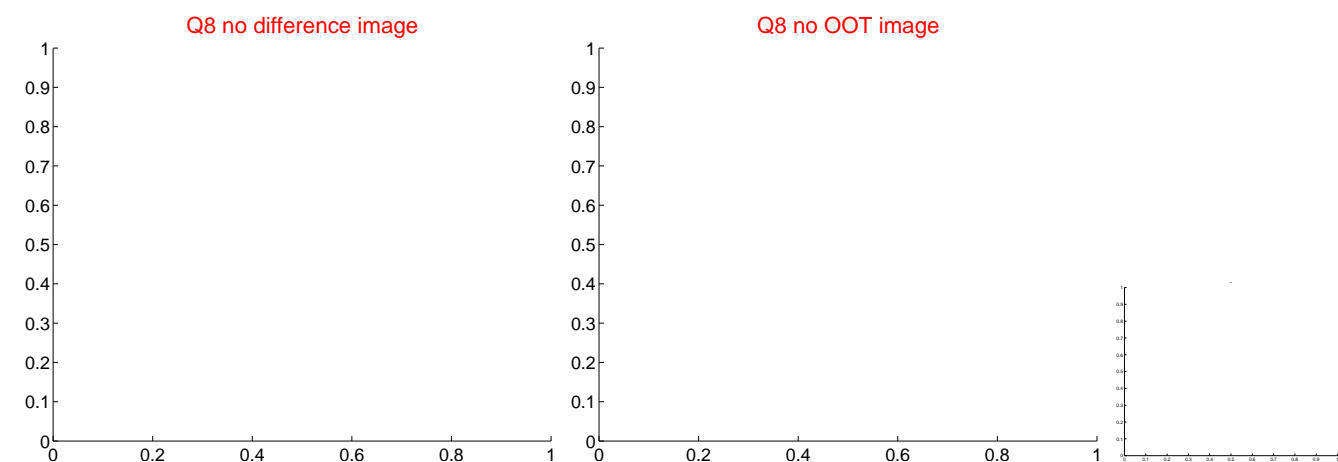
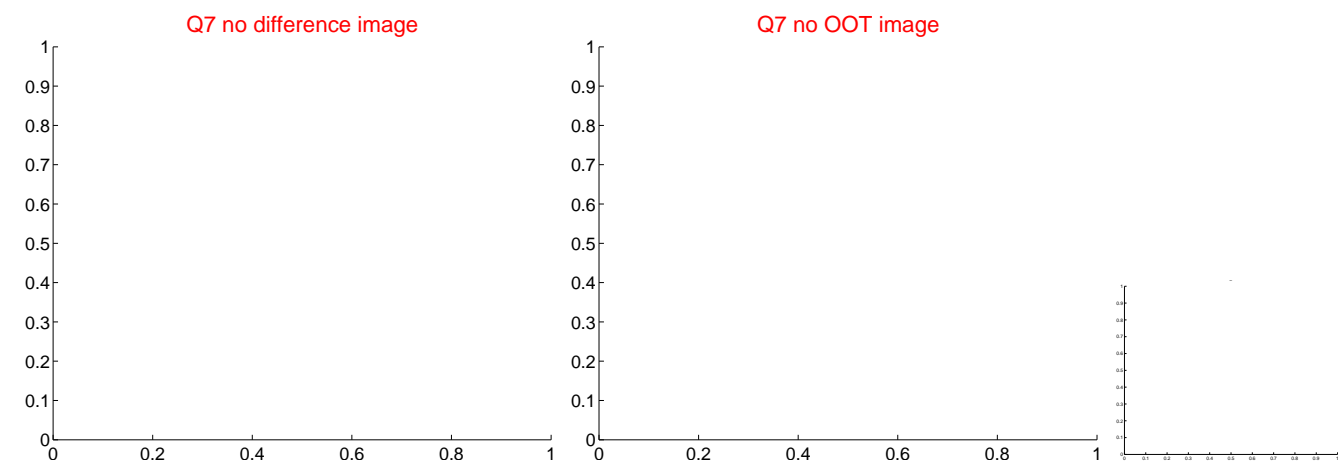
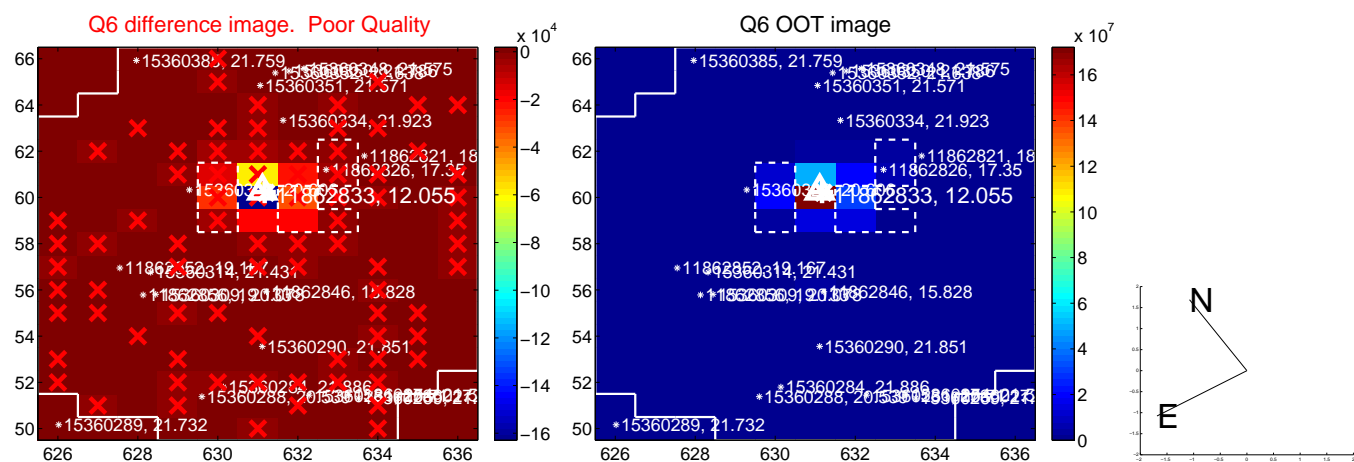
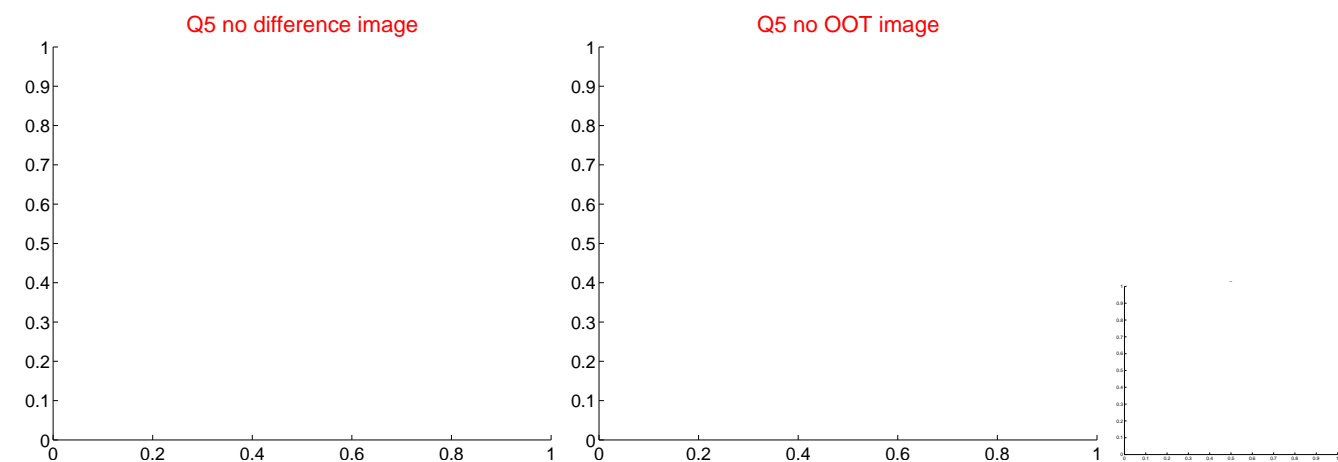
Q4 no difference image



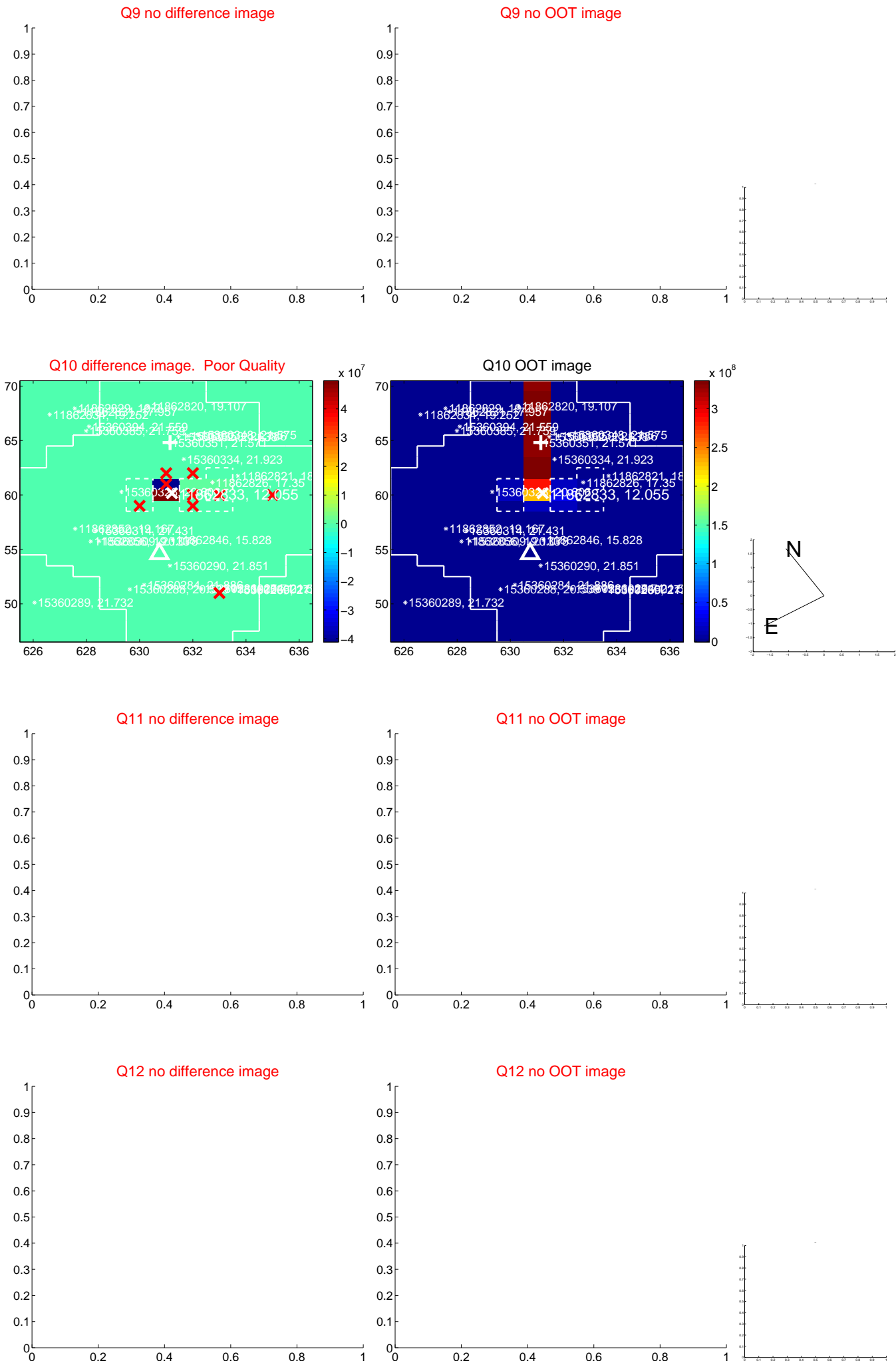
Q4 no OOT image



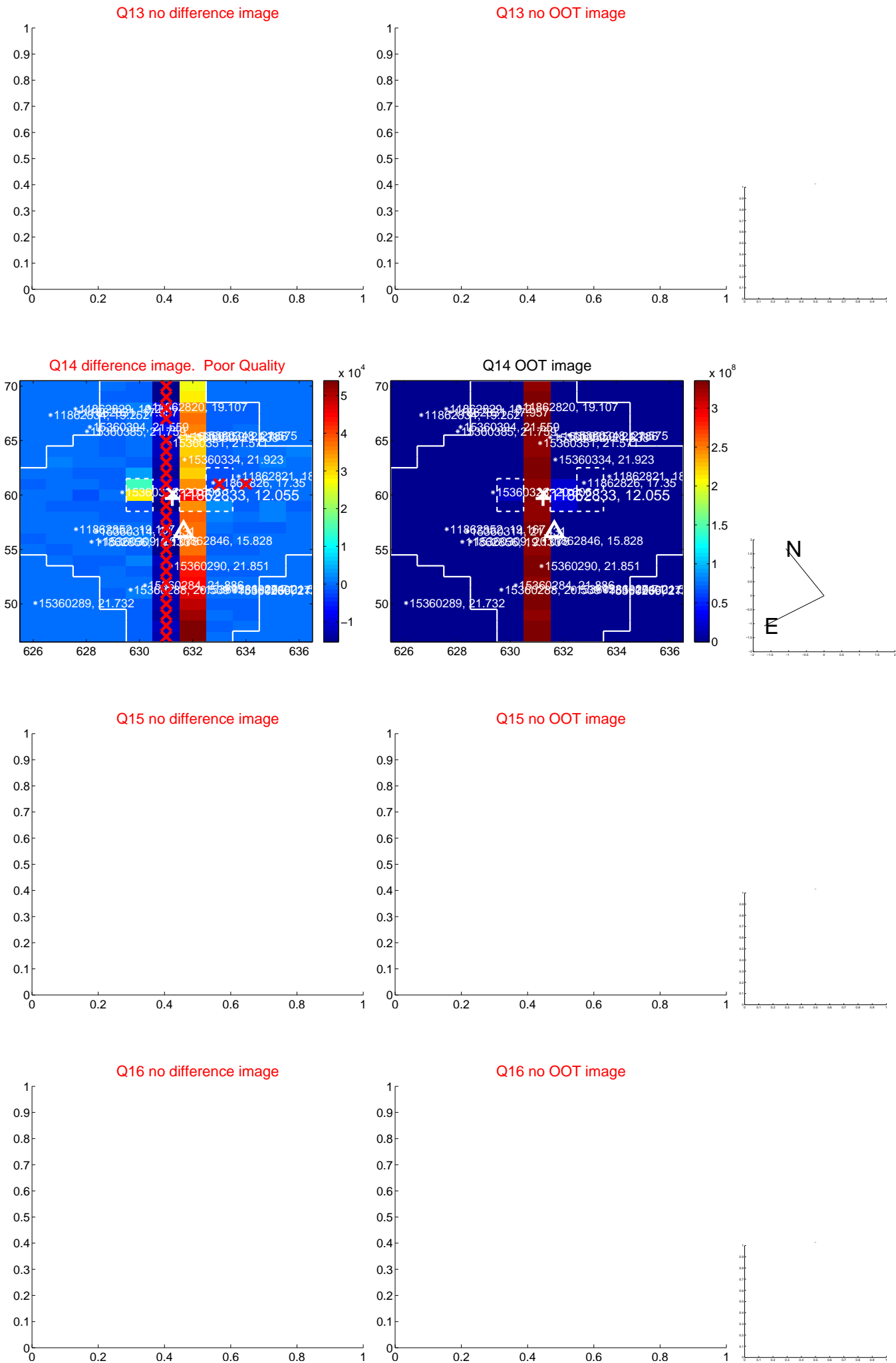
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



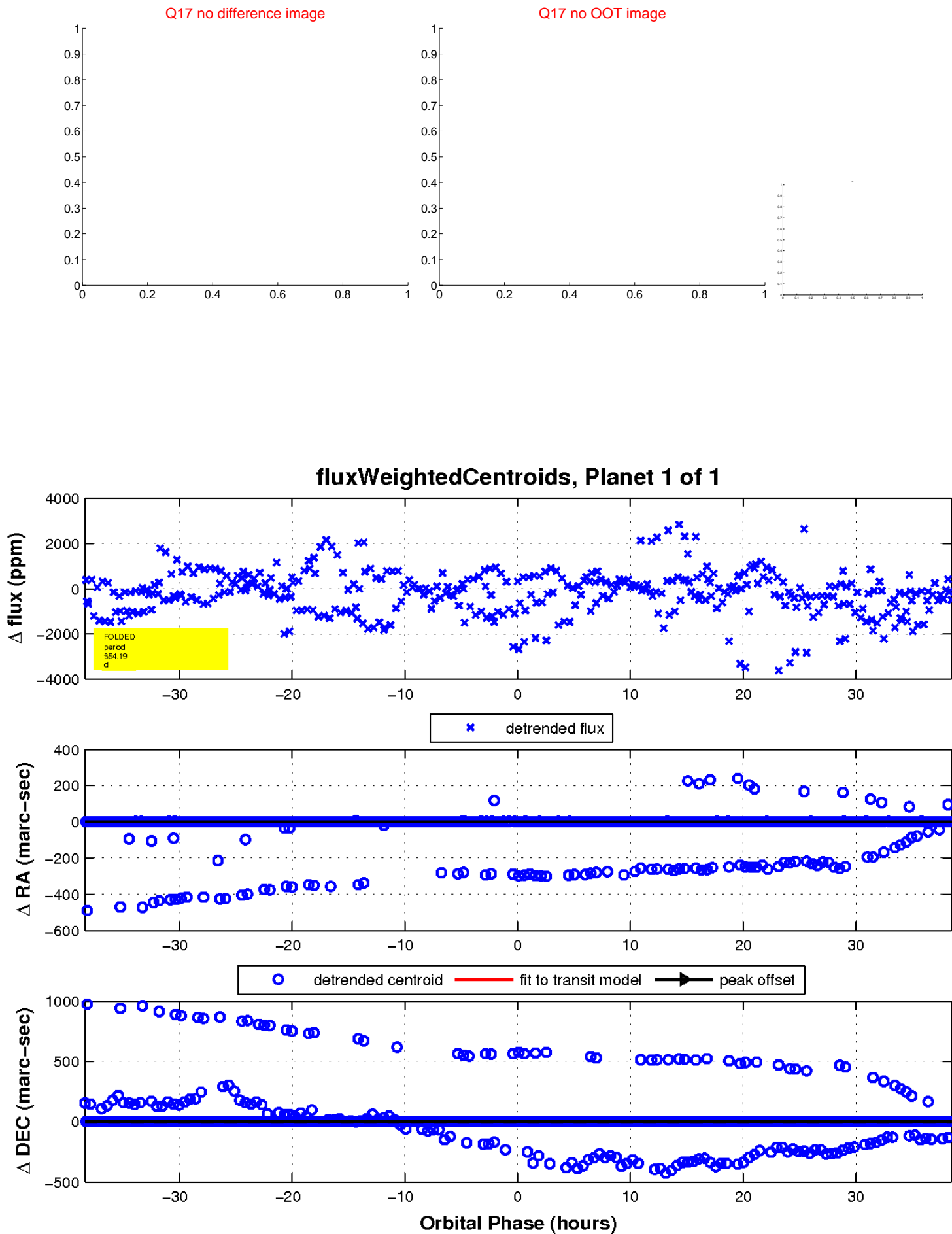
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



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



UKIRT Image

Declination

