

KIC 003863082

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})
003863082-01	OBS	No	447.111305	366.629247	418.3	9.610	9.1	7.3	1.11	6178	2.50	1.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003863082-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

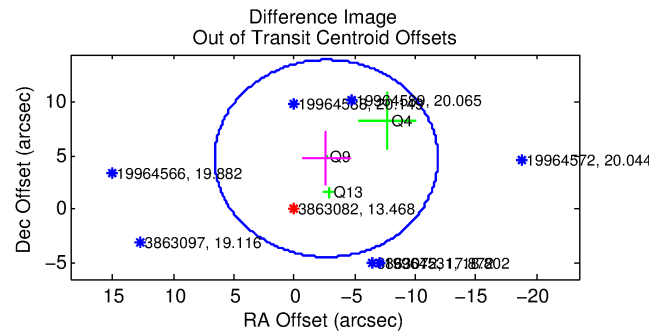
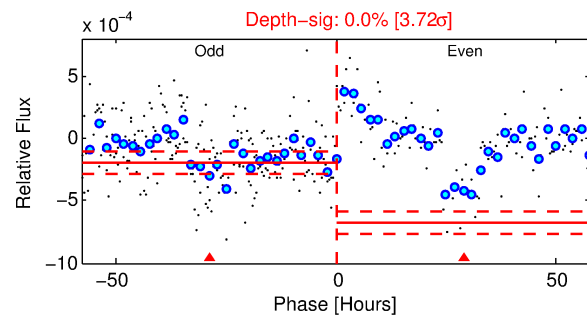
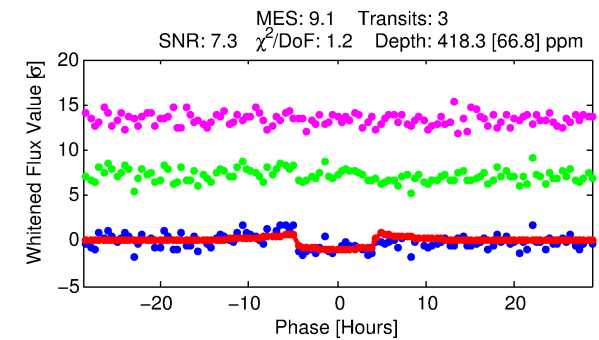
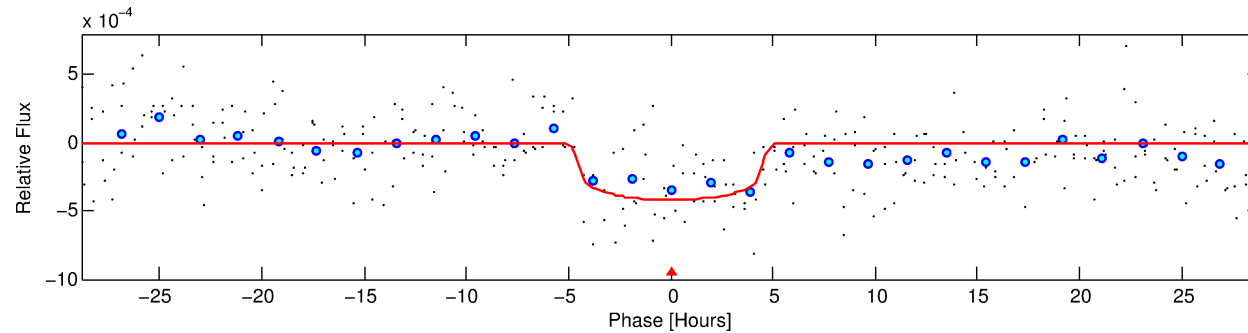
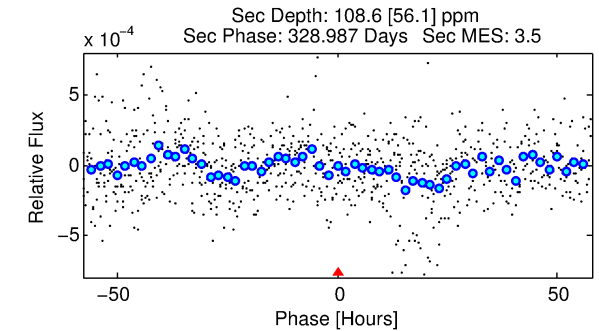
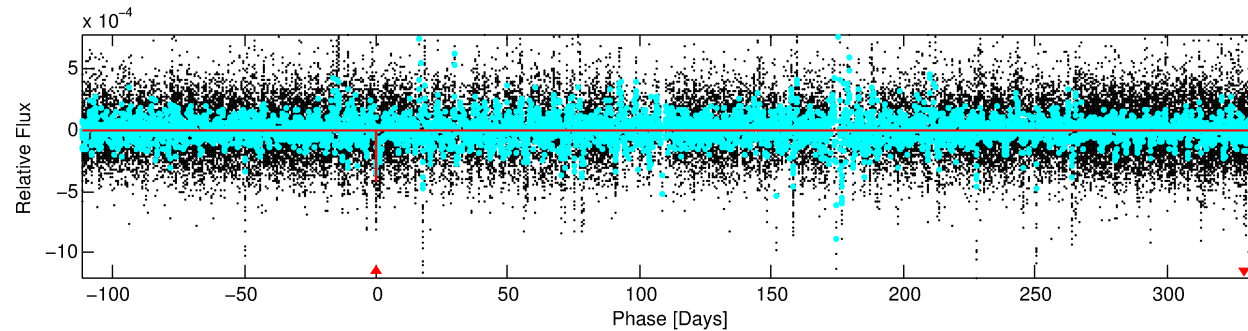
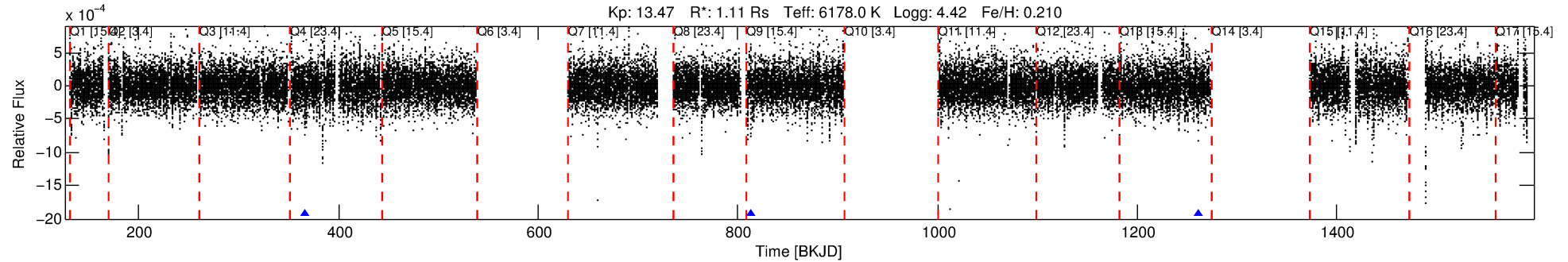
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003863082-01

No Significant Match Found

DV One-Page Summary

KIC: 3863082 Candidate: 1 of 1 Period: 447.111 d



DV Fit Results:

Period = 447.11131 [0.00959] d
Epoch = 366.6292 [0.0118] BKJD
Rp/R* = 0.0205 [0.0072]
a/R* = 235.47 [375.85]
b = 0.78 [0.83]
Seff = 1.09 [0.47]
Teq = 261 [28] K
Rp = 2.50 [1.22] Re
a = 1.2168 [0.3424] AU
Ag = 14183.59 [13563.00] [1.05σ]
Teffp = 4400 [966] K [4.28σ]

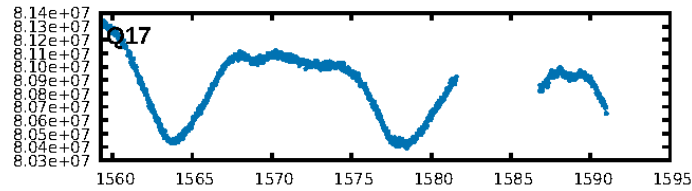
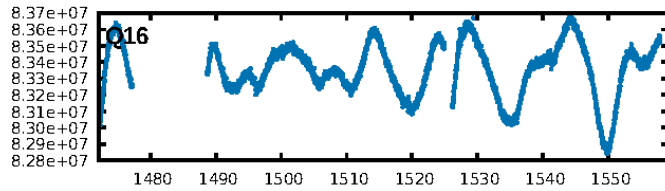
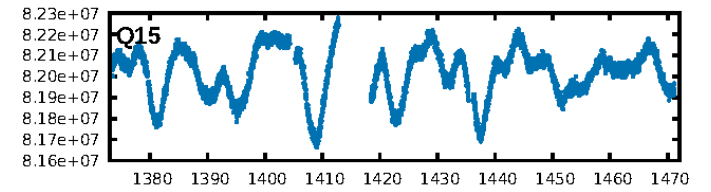
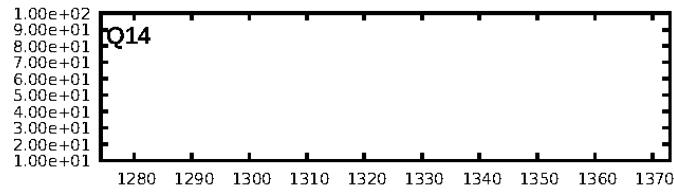
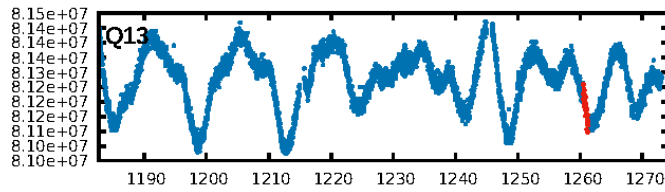
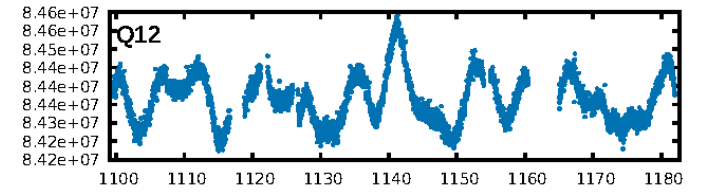
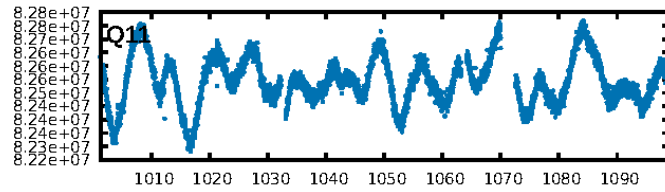
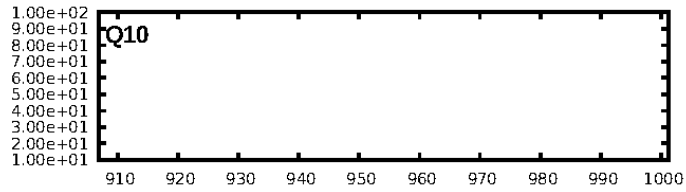
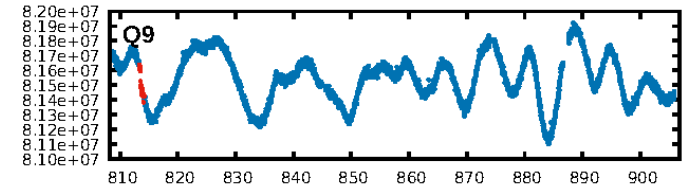
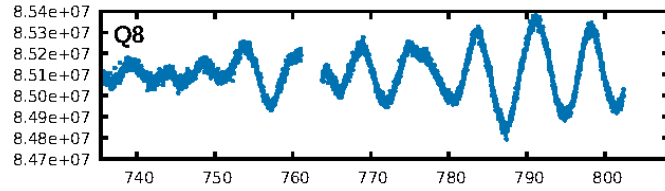
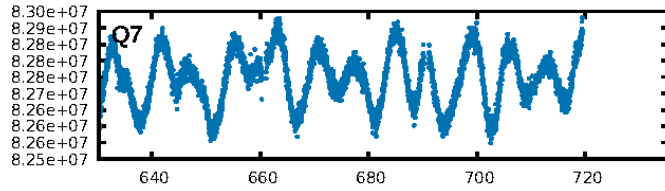
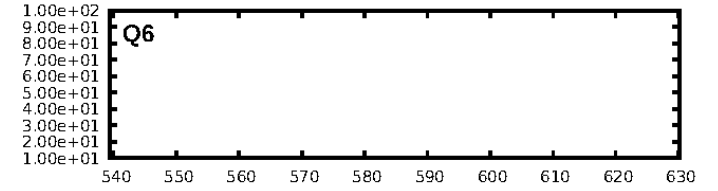
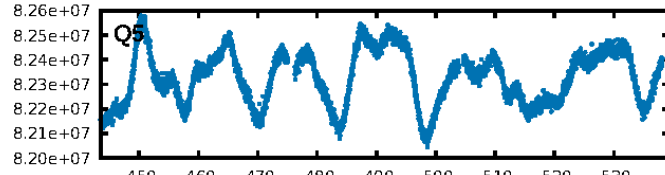
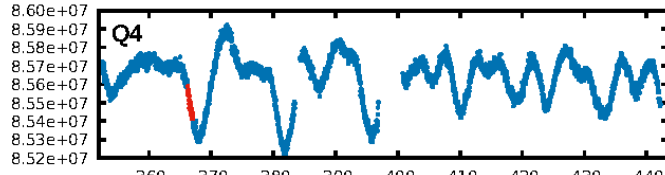
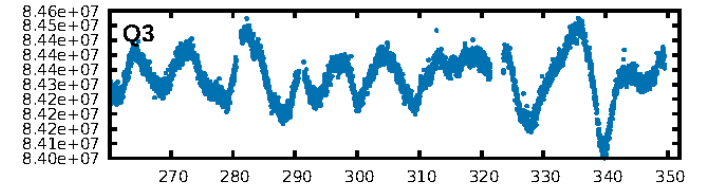
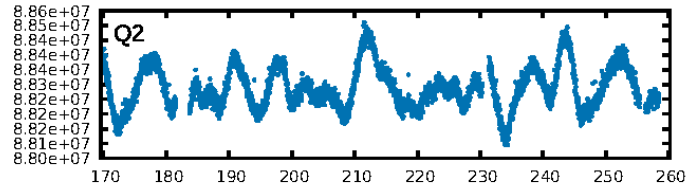
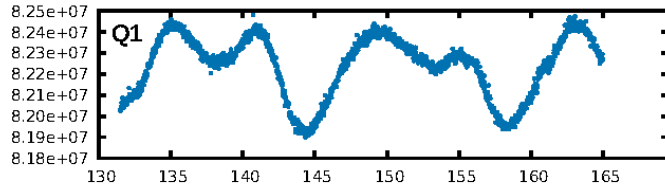
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 71.2%
Bootstrap-pfa: 8.84e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.529
Centroid-sig: 0.0%
Centroid-so: 3.859 arcsec [2.67σ]
OotOffset-rm: 5.451 arcsec [1.77σ]
KicOffset-rm: 5.399 arcsec [4.82σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

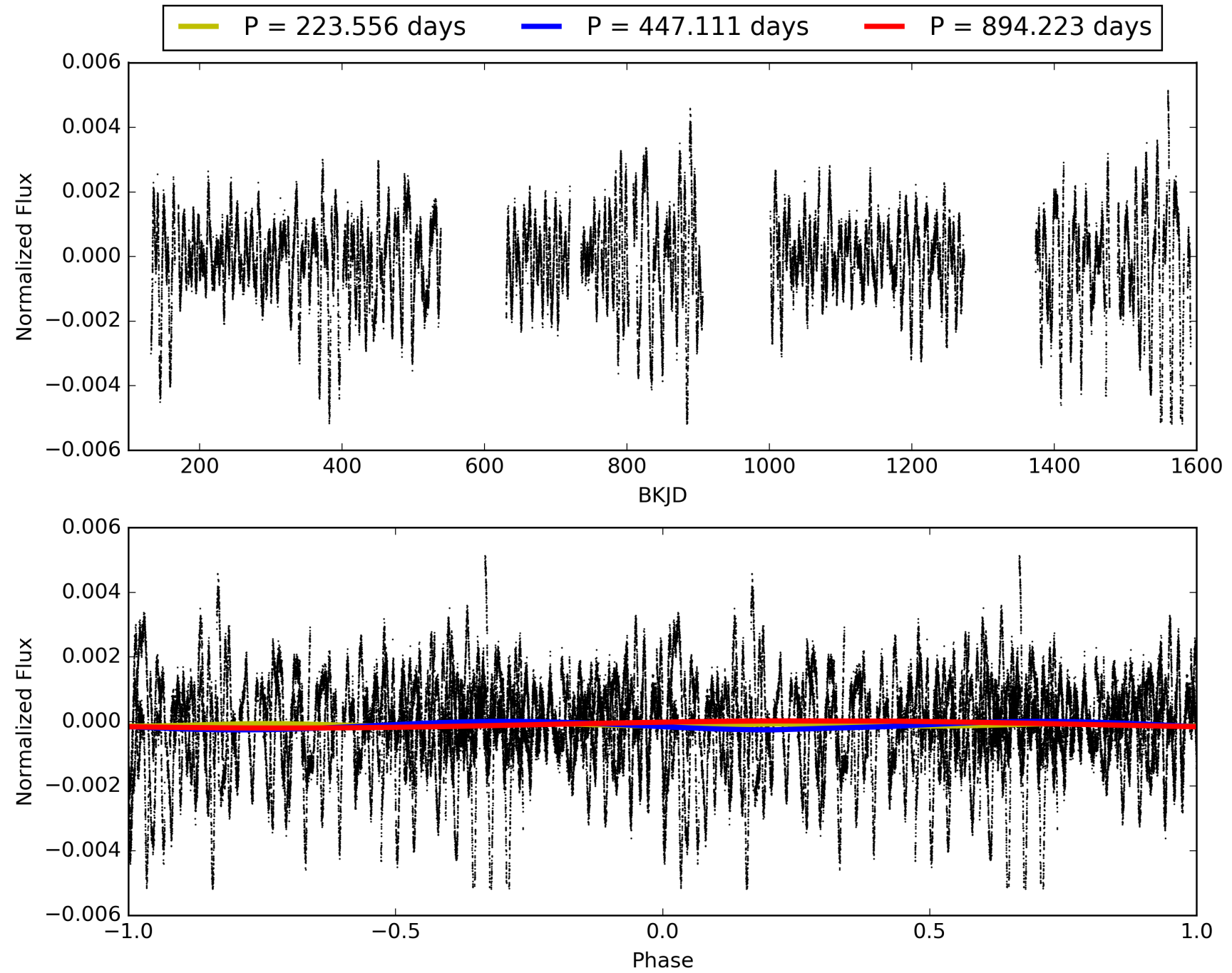
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:34:14 Z

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

TCE 003863082-01, PDC Light Curves

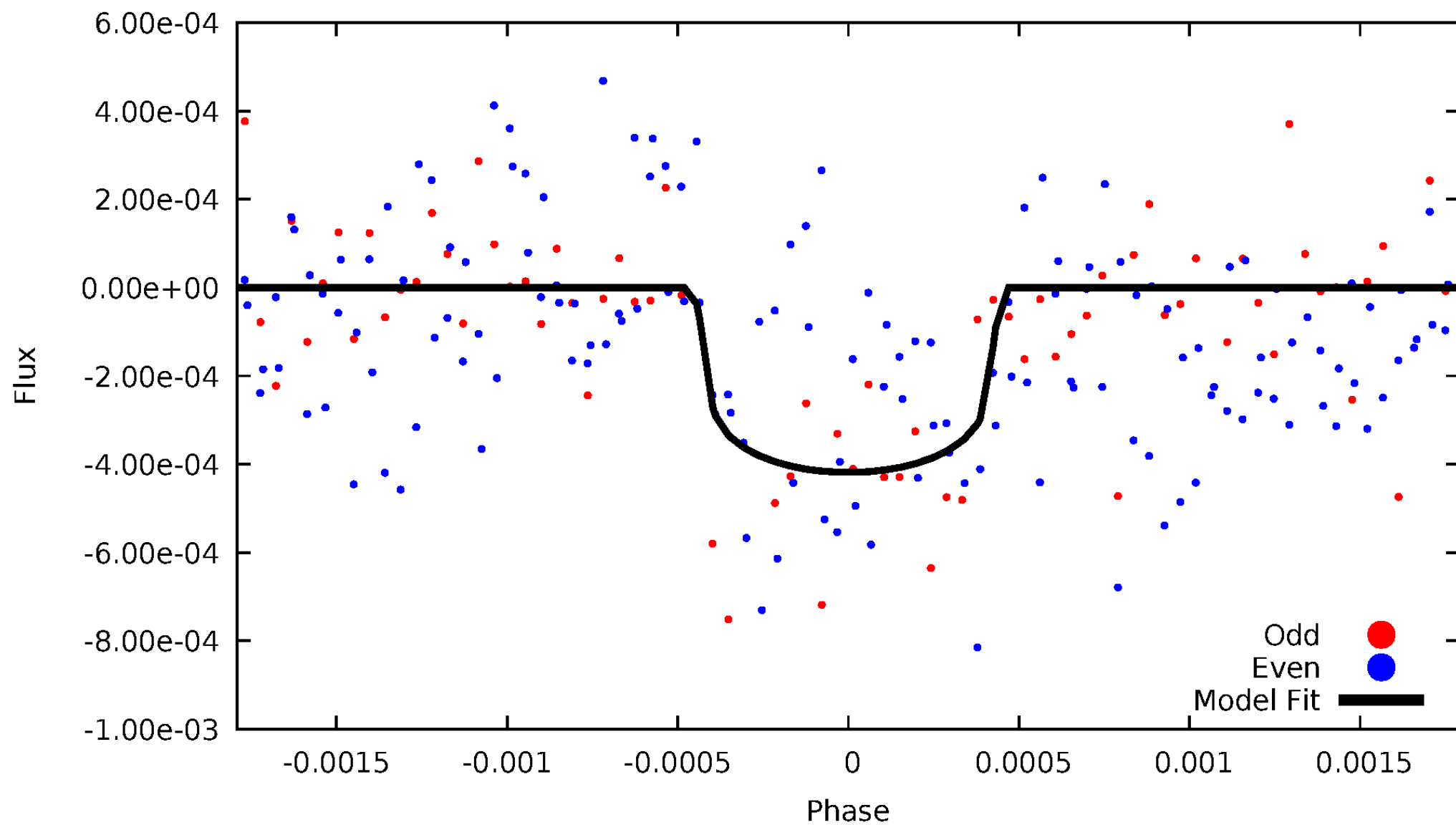


TCE 003863082-01



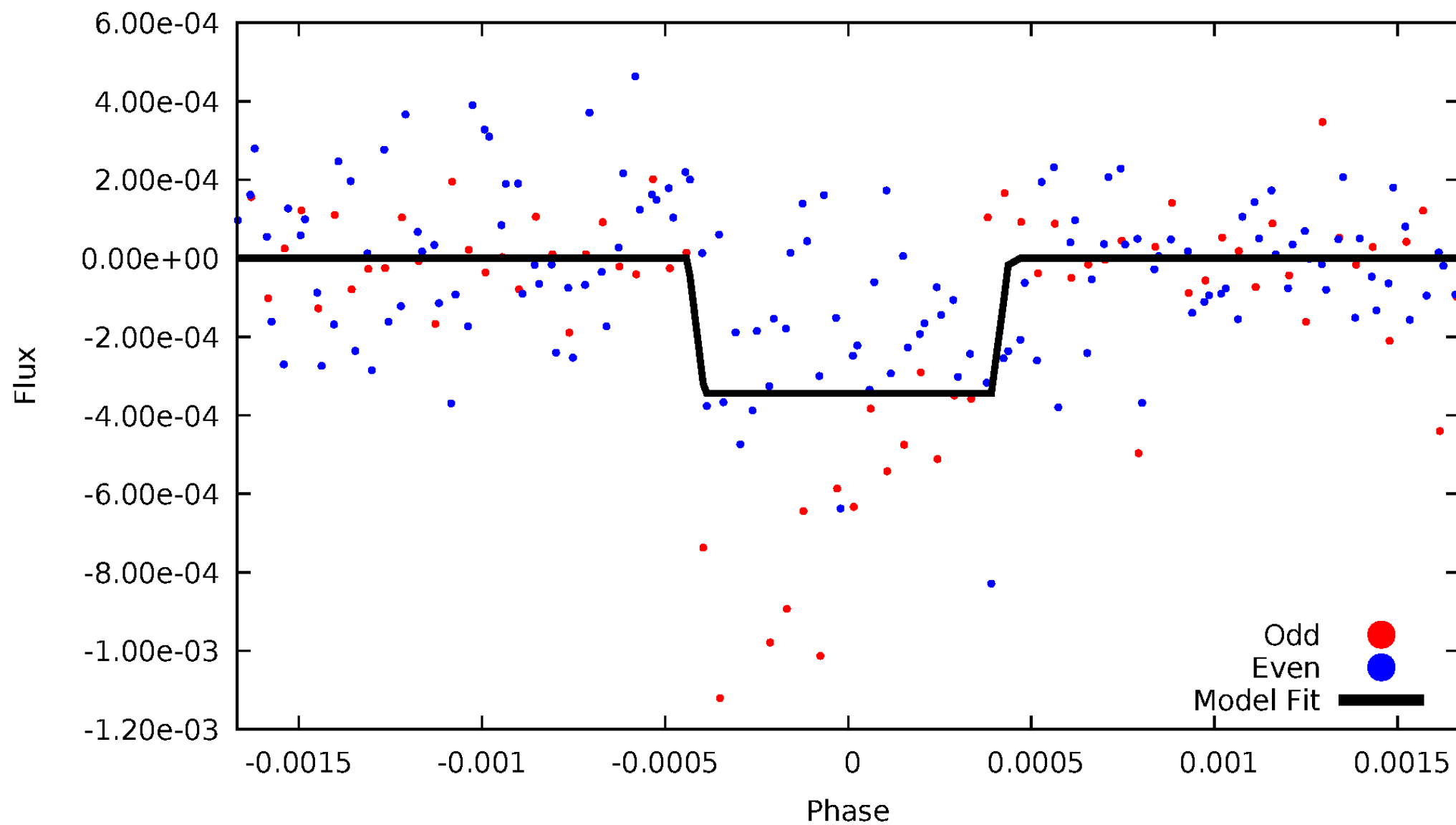
DV Odd/Even

TCE 003863082-01

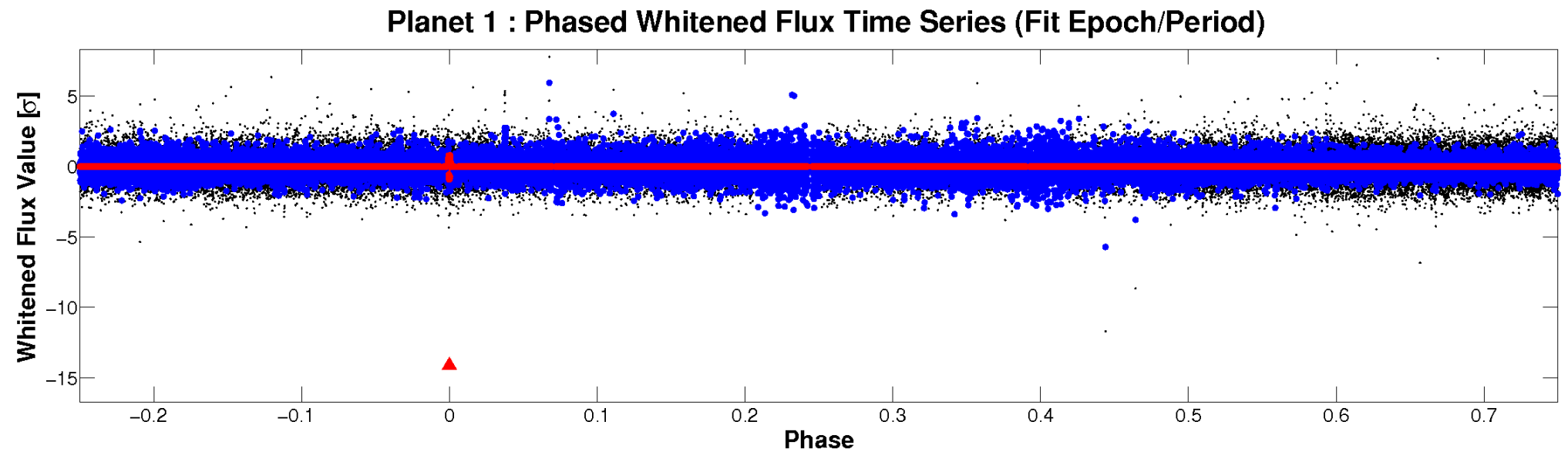
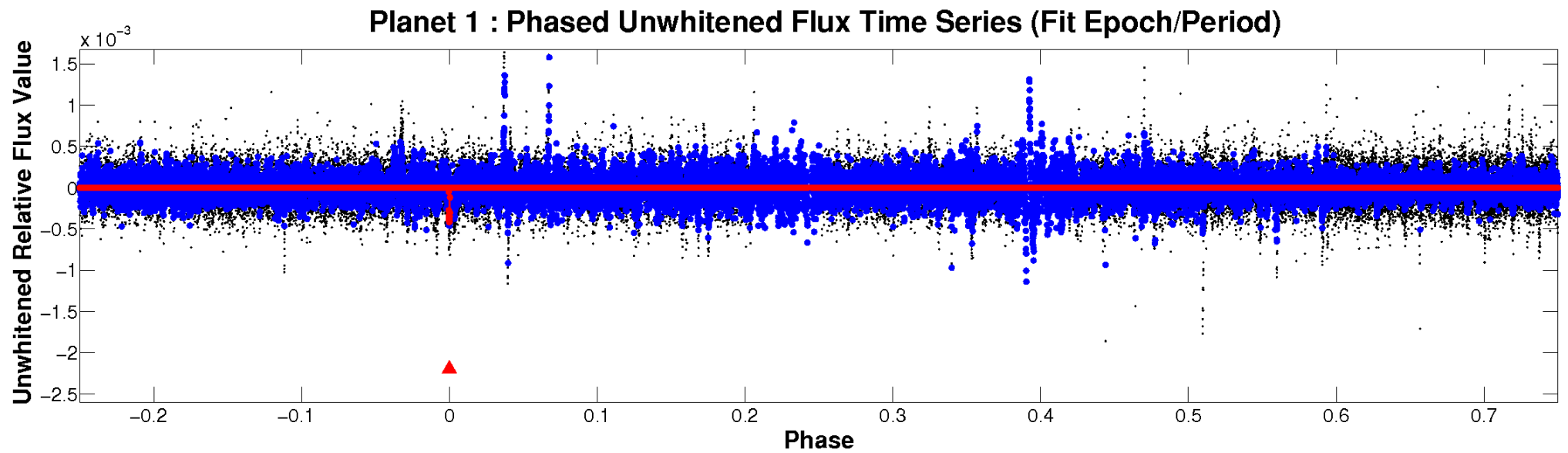


ALT Odd/Even

TCE 003863082-01

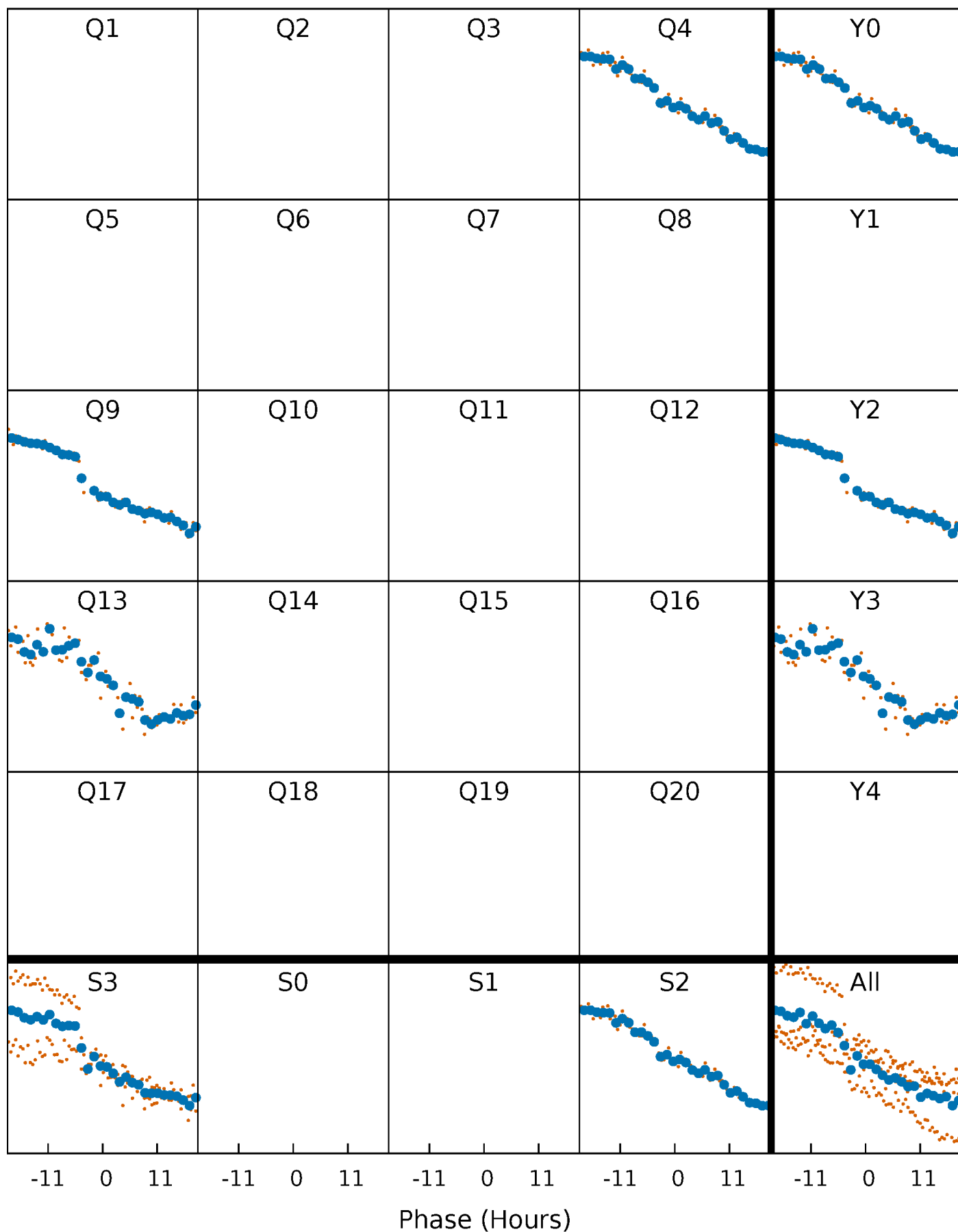


Non-Whitened Vs. Whitened Light Curve



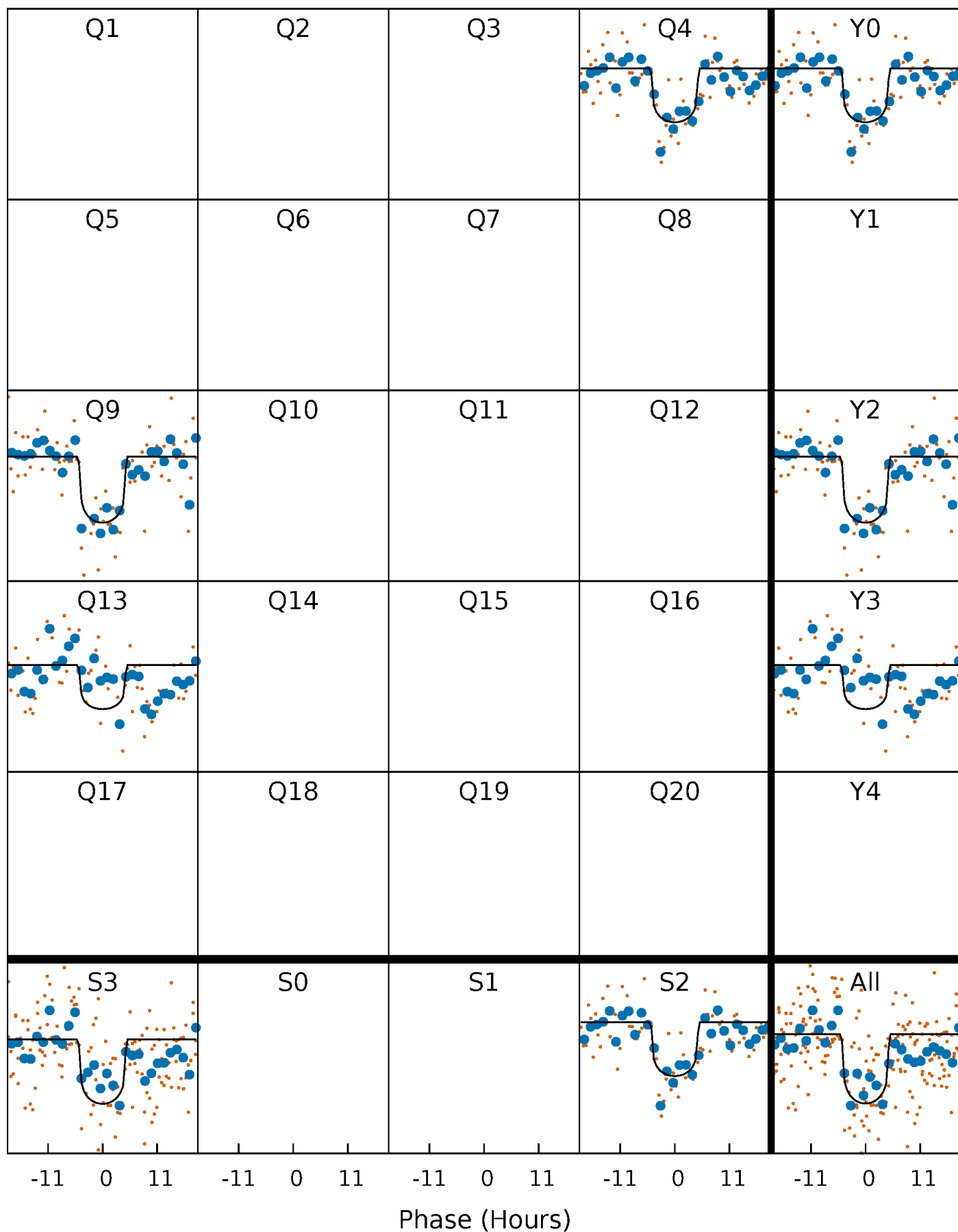
PDC Quarter-Phased Transit Curves

TCE 003863082-01 P=447.111306 Days $T_0=366.629247$ (BKJD)



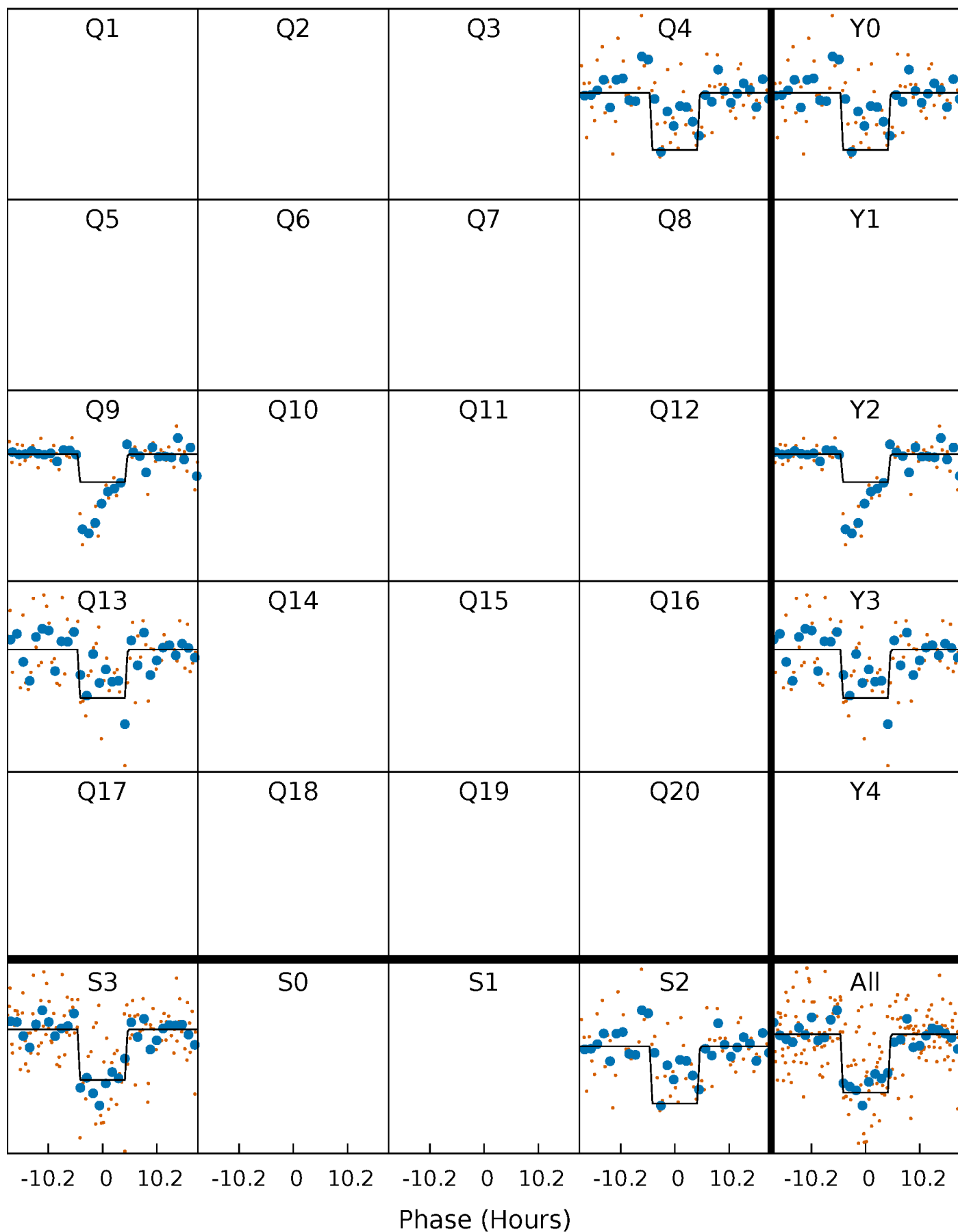
DV Quarter-Phased Transit Curves

TCE 003863082-01 P=447.111306 Days $T_0=366.629247$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

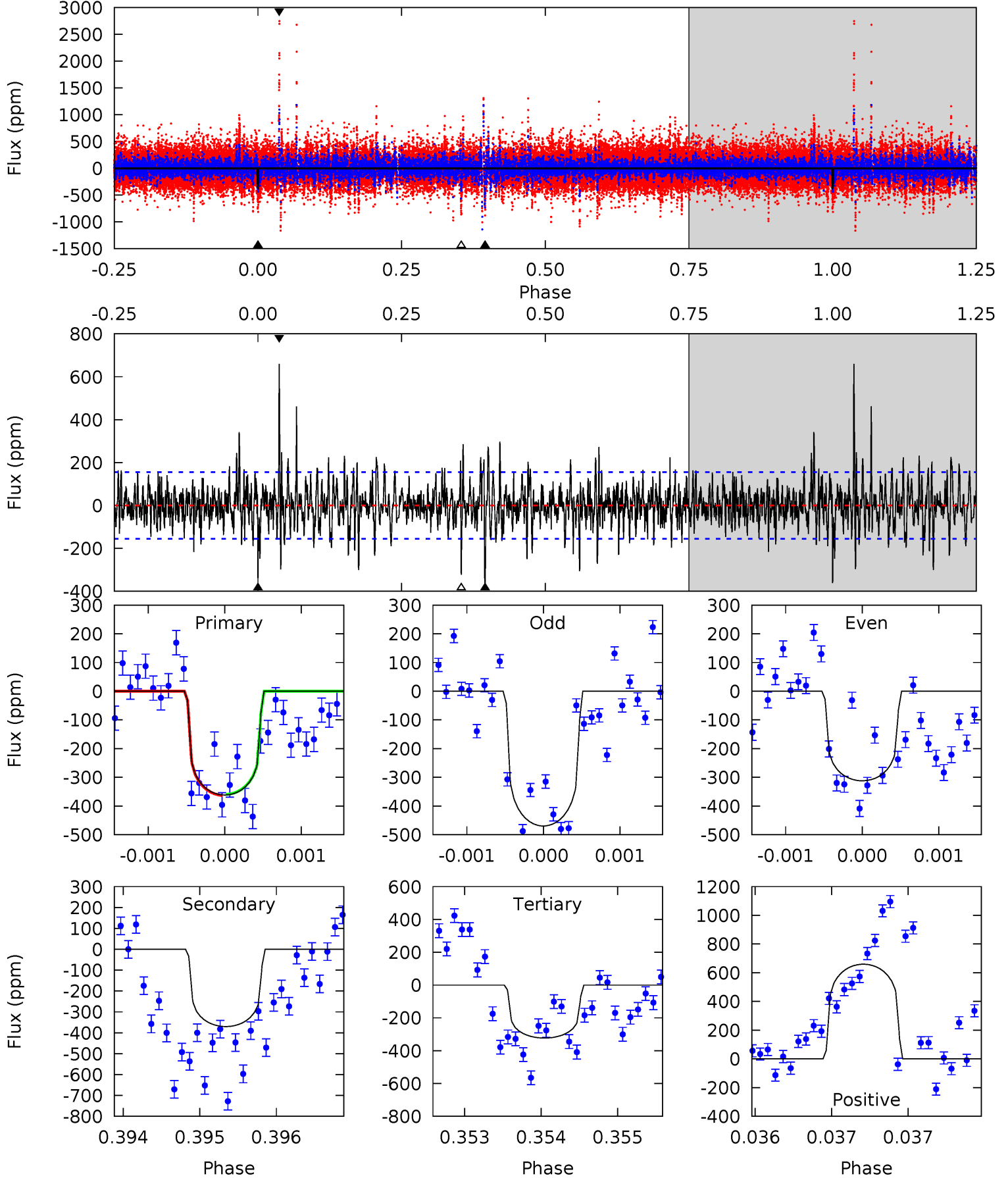
TCE 003863082-01 P=447.106726 Days $T_0=366.633108$ (BKJD)



DV Model-Shift Uniqueness Test

003863082-01, P = 447.111306 Days, E = 366.629247 Days

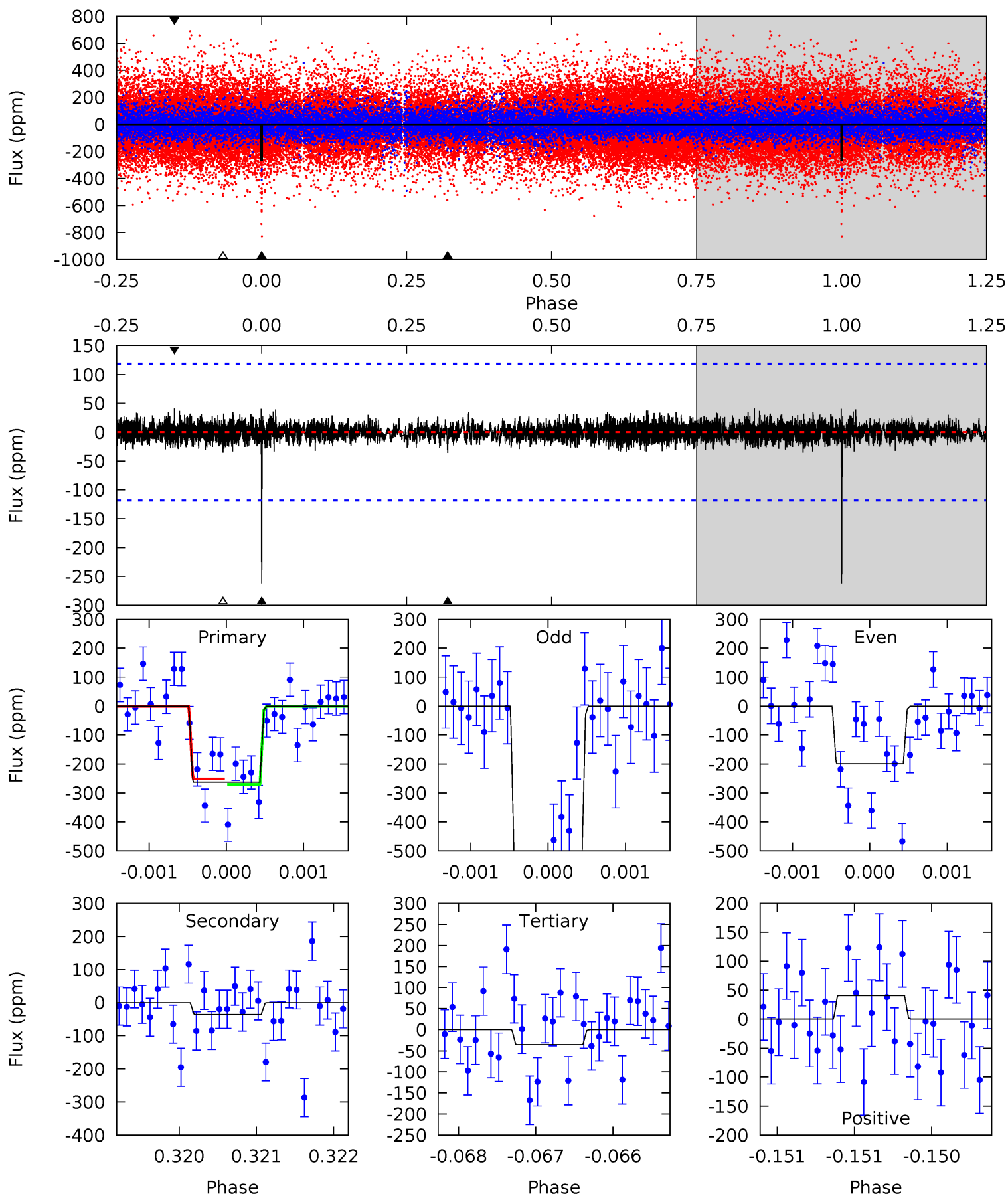
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	13.0	11.4	23.2	5.47	3.32	2.73	1.36	-10.5	1.66	-10.2	2.60	0.82	0.64	0.07



Alt Model-Shift Uniqueness Test

003863082-01, P = 447.106726 Days, E = 366.633108 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	1.65	1.63	1.87	5.47	3.32	0.44	10.5	10.2	0.02	-0.22	8.67	1.33	0.13	0.43



Stellar Parameters For KIC 003863082

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6178^{+150}_{-214}	$4.424^{+0.054}_{-0.216}$	$0.210^{+0.200}_{-0.350}$	$1.114^{+0.380}_{-0.127}$	$1.203^{+0.140}_{-0.171}$	$1.227^{+0.358}_{-0.690}$
	+2%/-3%	+1%/-5%	+95%/-167%	+34%/-11%	+12%/-14%	+29%/-56%
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 003863082-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-370 ± 28	$2.62^{+1.01}_{-0.90}$	370^{+28}_{-16}	5931^{+1489}_{-778}	42830^{+60204}_{-19943}
Alt.	-36 ± 22	$2.40^{+0.93}_{-0.92}$	371^{+29}_{-17}	3840^{+823}_{-651}	4981^{+9004}_{-3352}

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 $A_{obs} \gg 1.0$

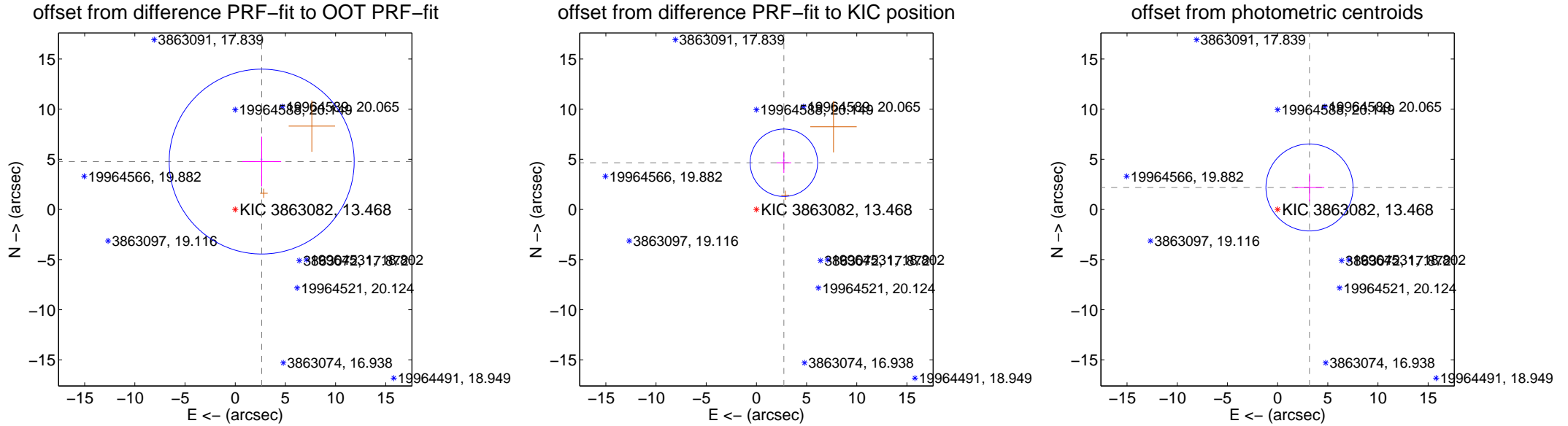
DV Centroid Data

Supplemental centroid analysis for 003863082-01. Kepler magnitude: 13.47. Transit SNR 7.27

There are 1 quarters with good PRF difference image offsets

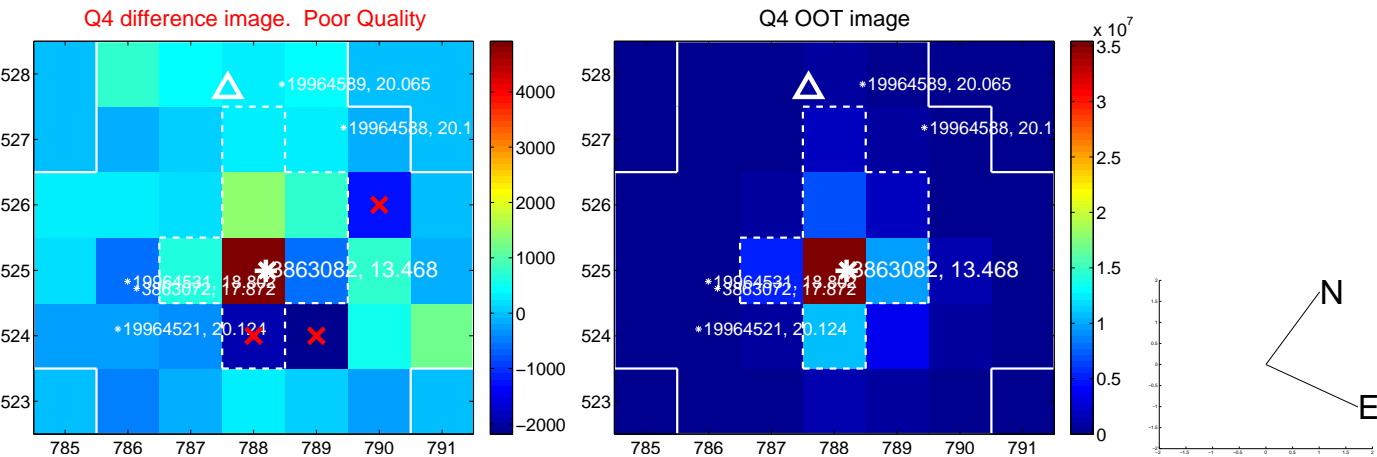
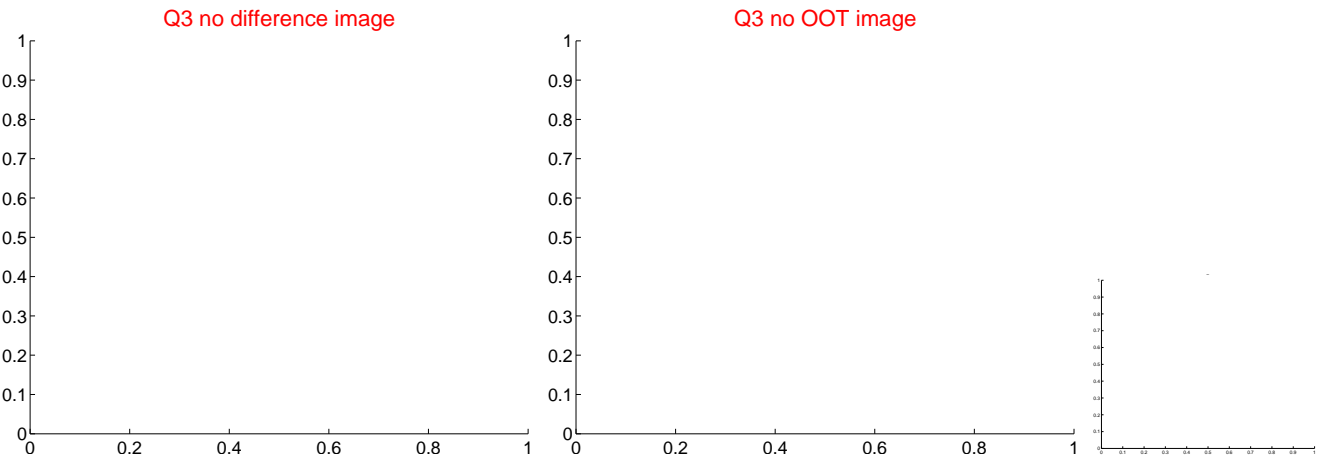
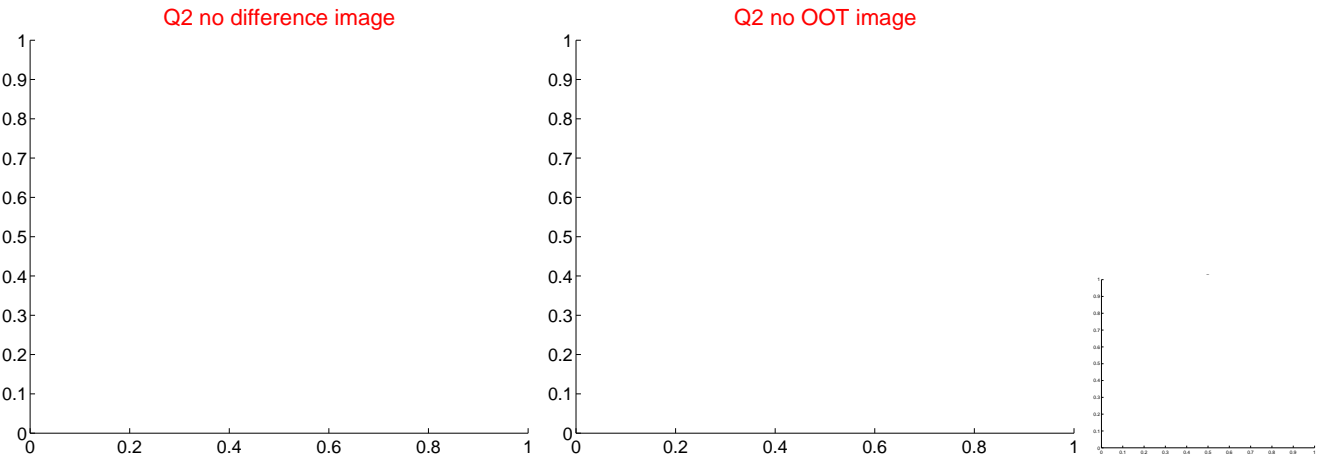
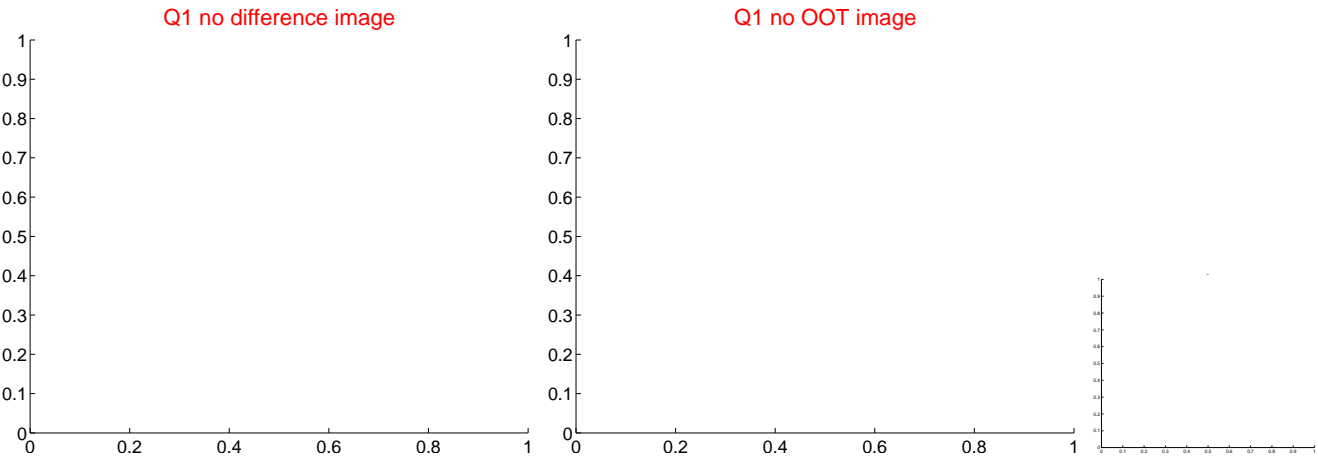
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.451 ± 3.072	1.77	-2.637 ± 1.940	4.770 ± 2.478
PRF-fit source offset from KIC position	5.399 ± 1.120	4.82	-2.738 ± 0.728	4.653 ± 1.014
photometric centroid source offset	3.86 ± 1.45	2.67	-3.18 ± 1.47	2.19 ± 1.39

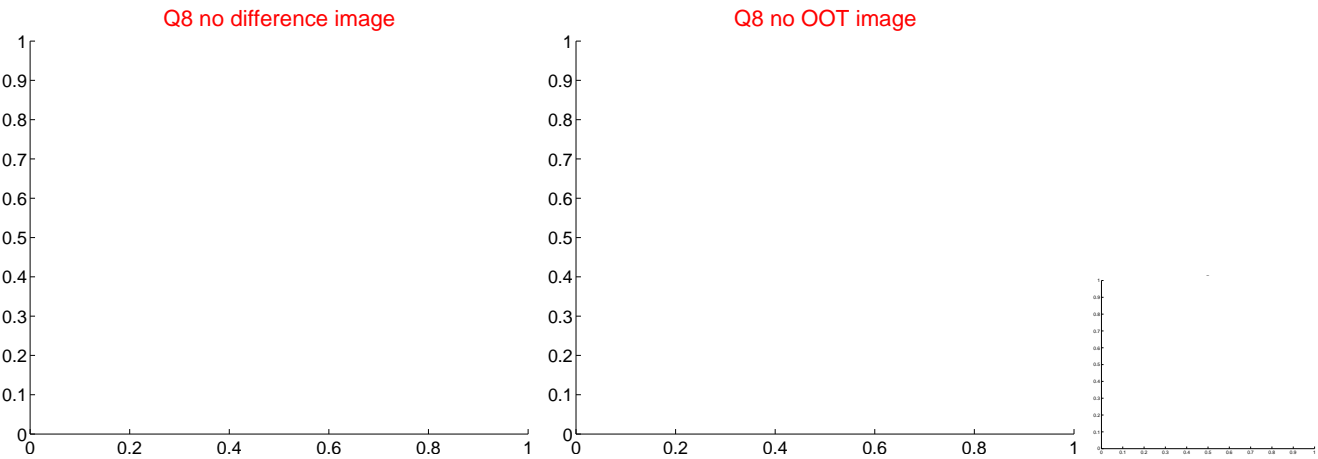
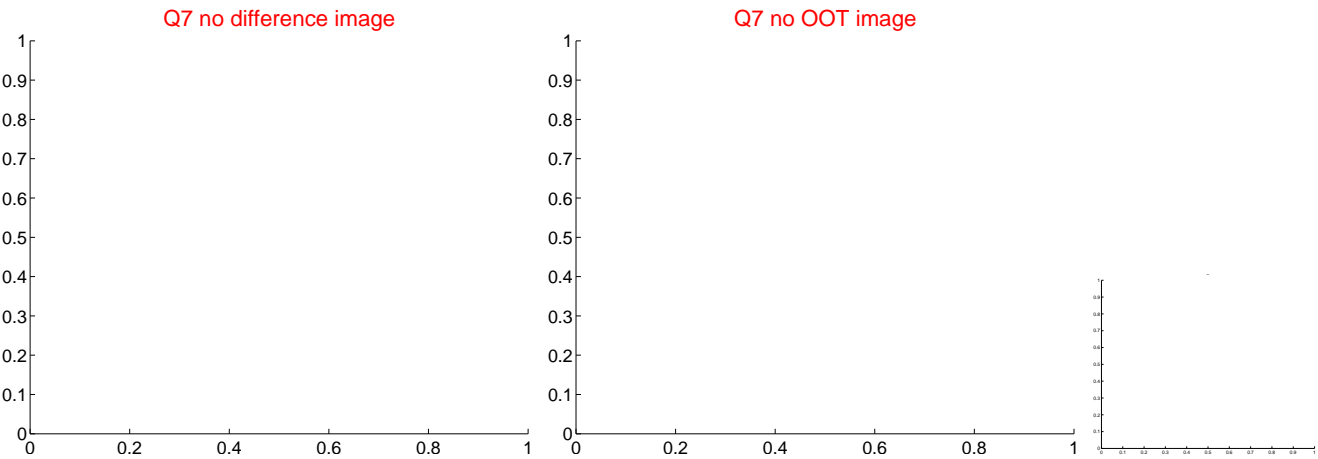
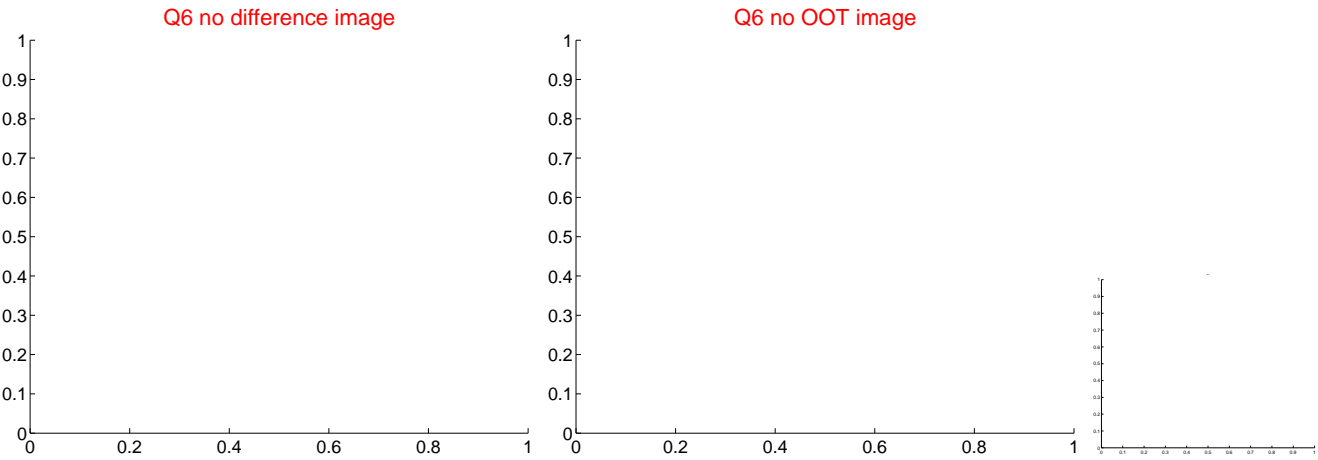
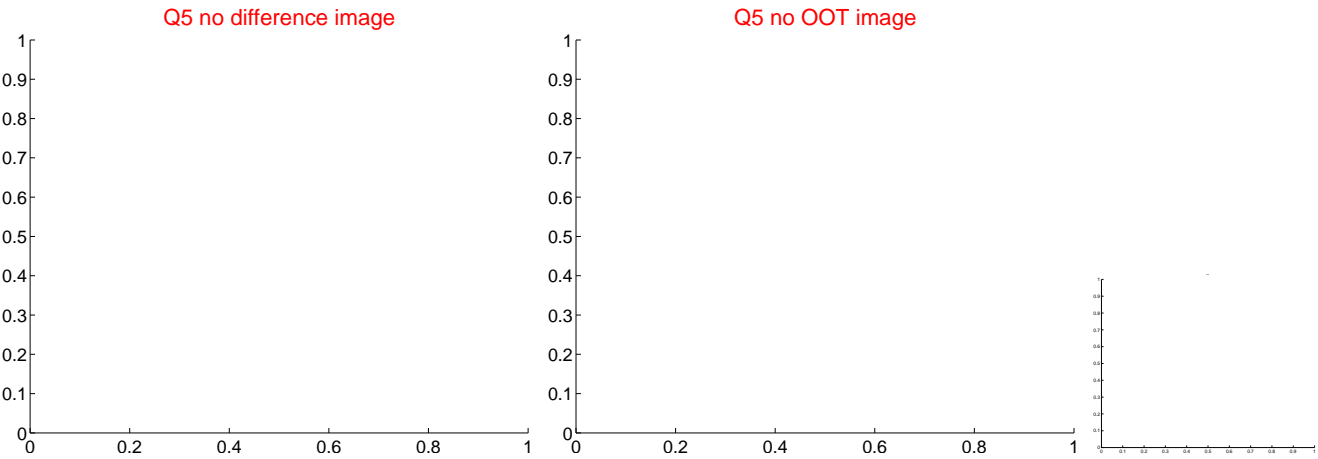


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

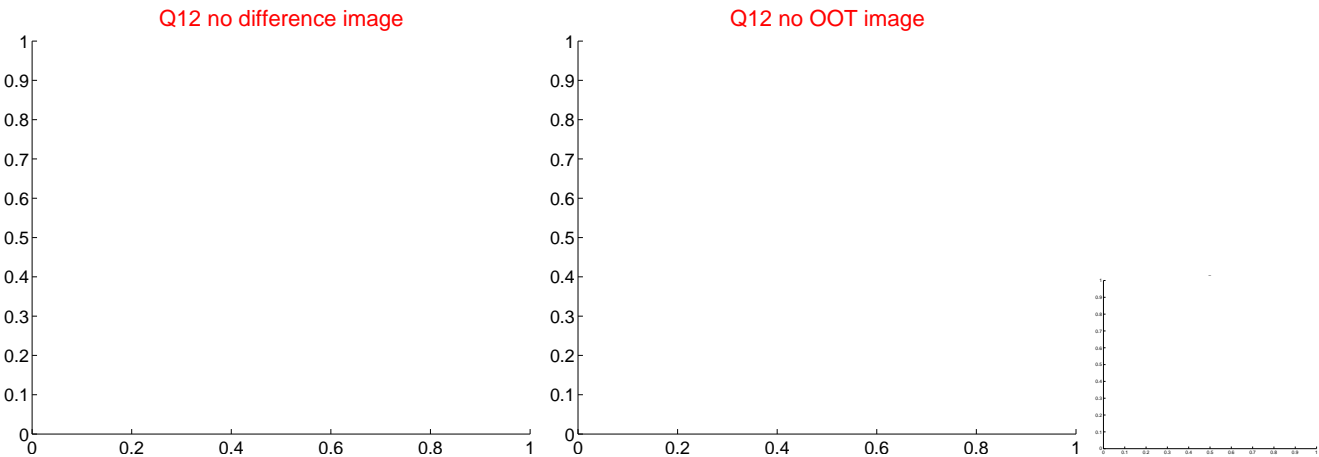
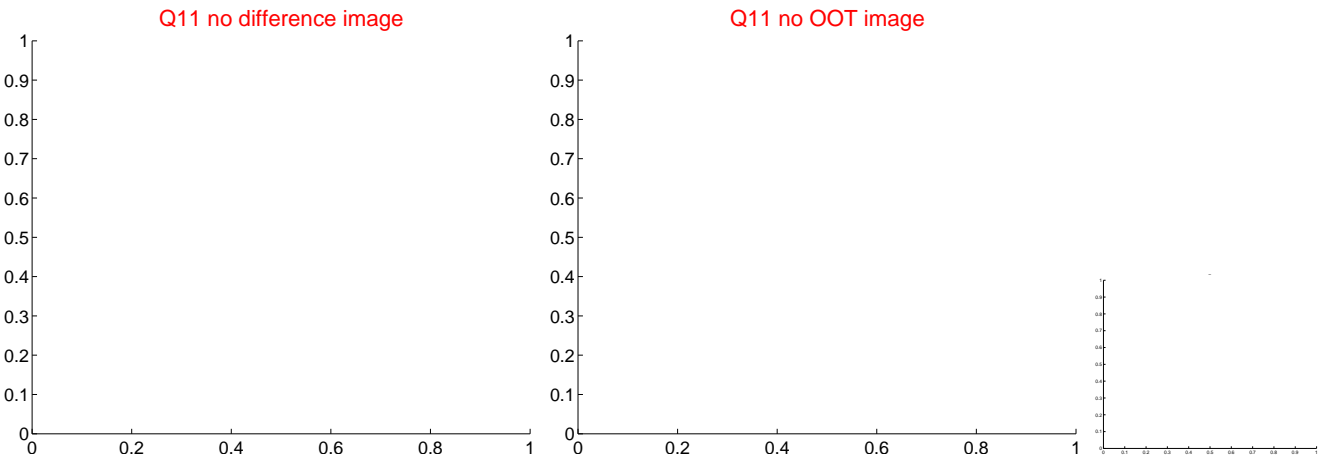
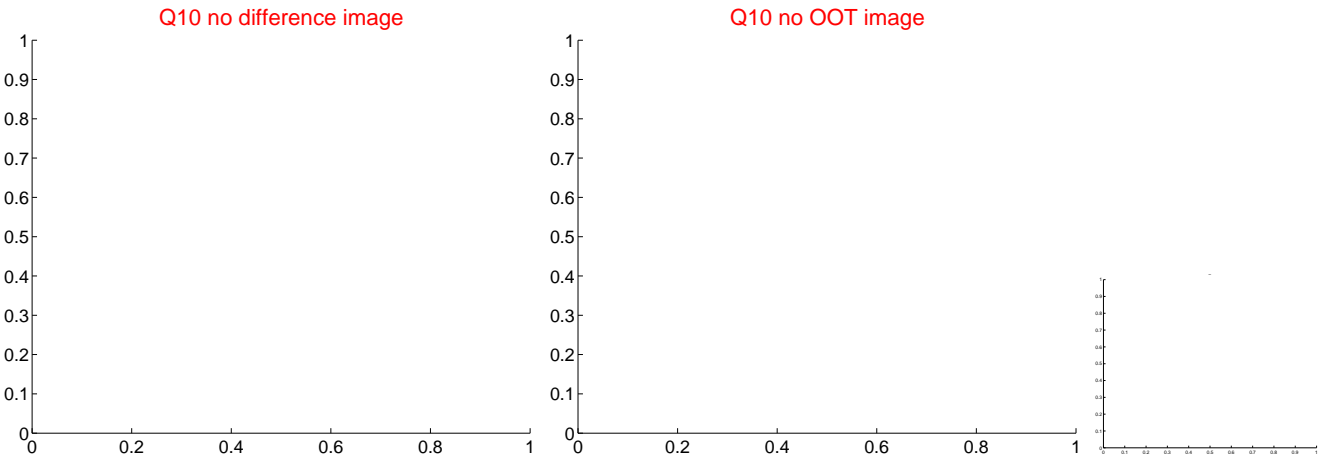
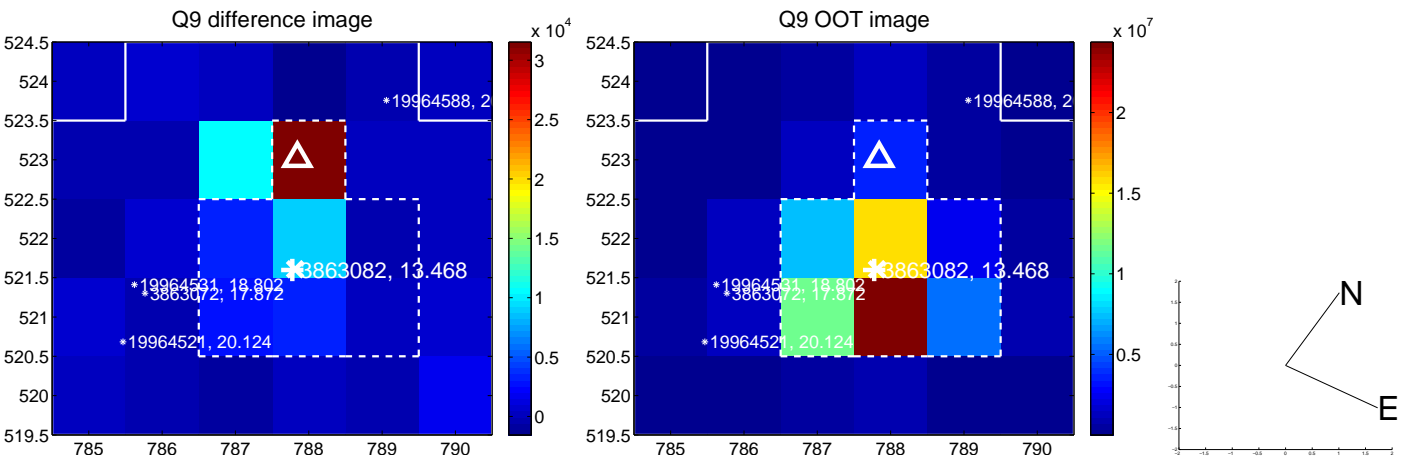
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



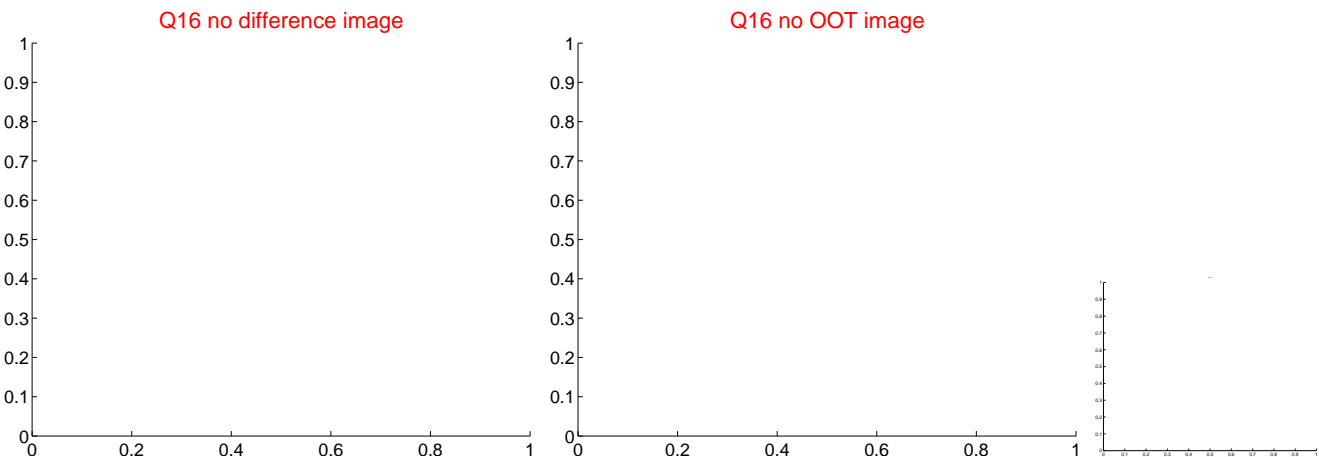
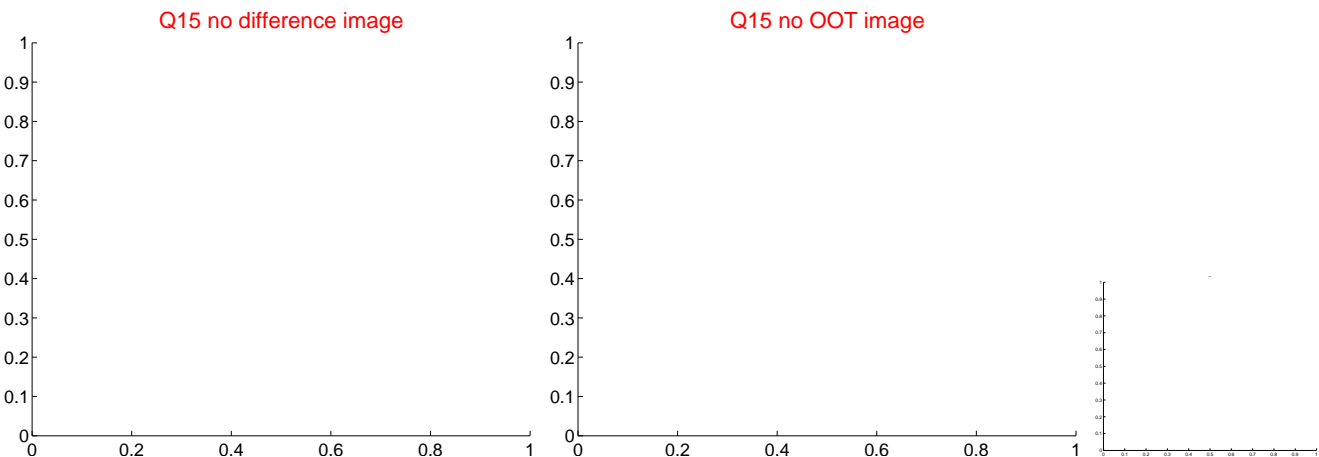
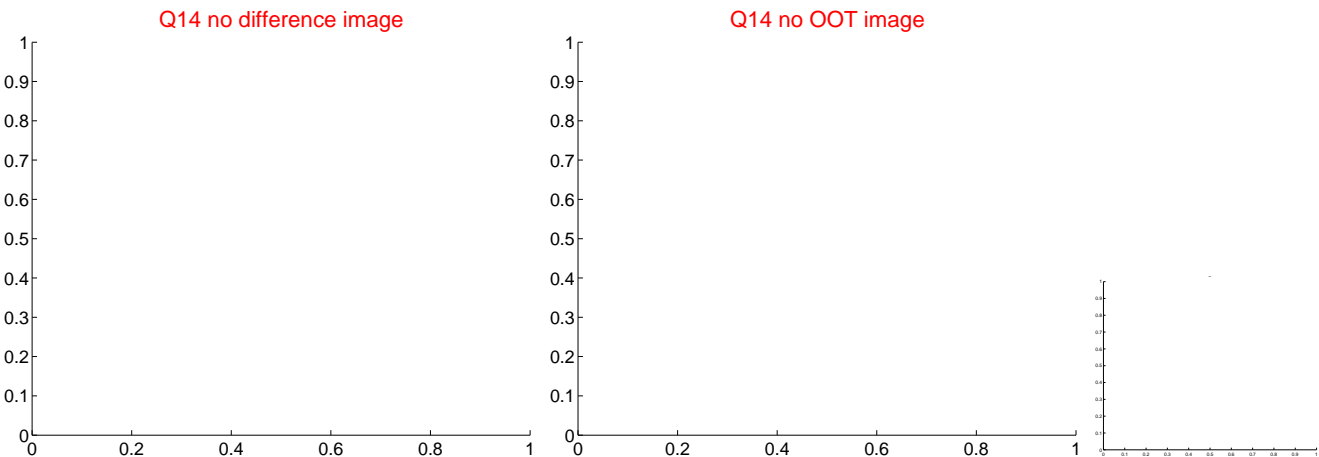
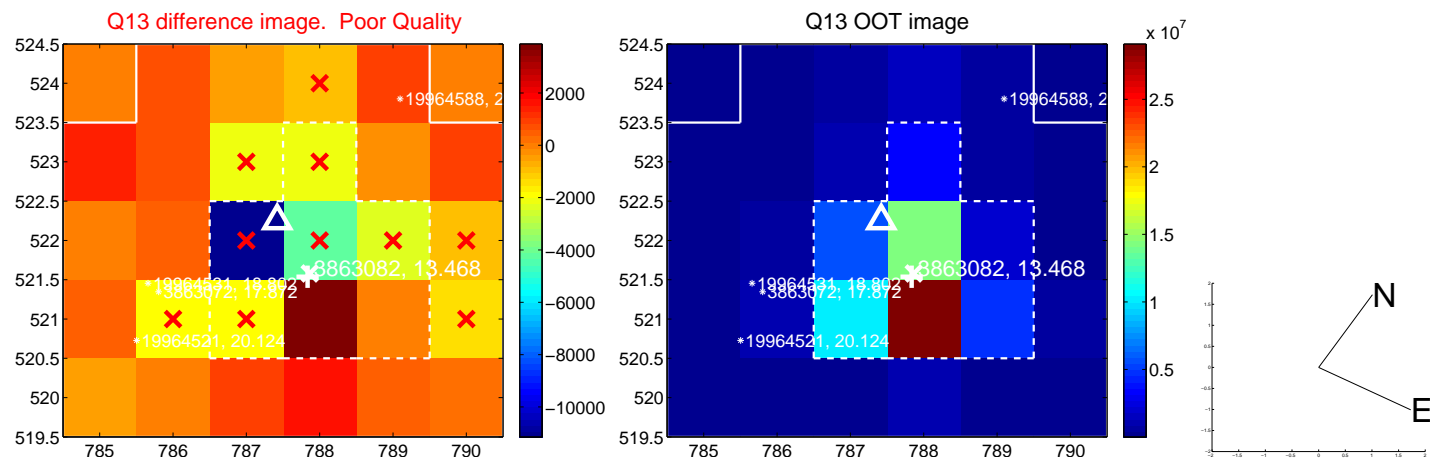
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



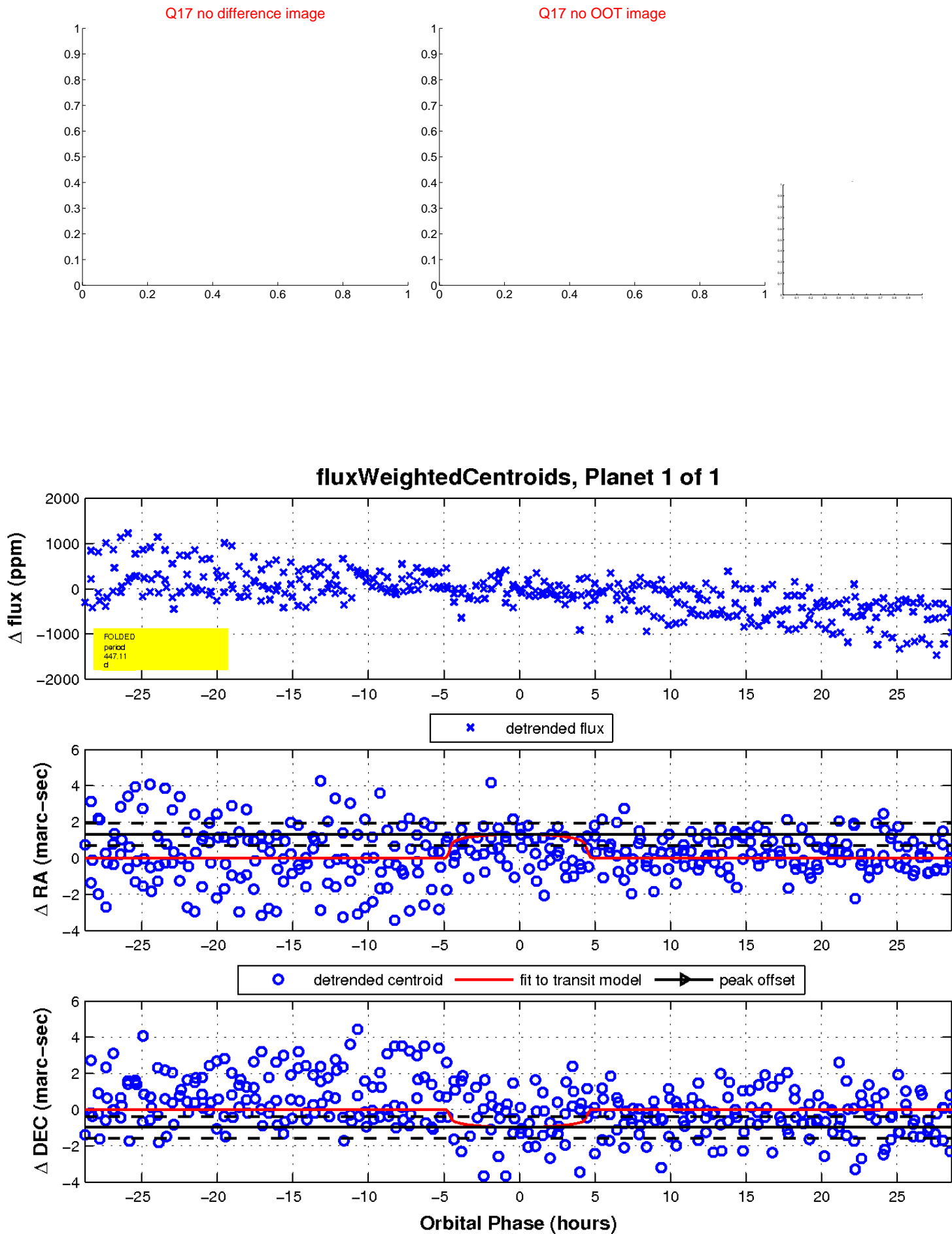
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

