

KIC 007300182

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})
007300182-01	OBS	7833.01	172.826961	302.006527	357.2	6.960	7.6	9.2	0.94	6174	1.99	3.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007300182-01	OBS	PC	0.92	0	0	0	0	NO_COMMENT

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

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

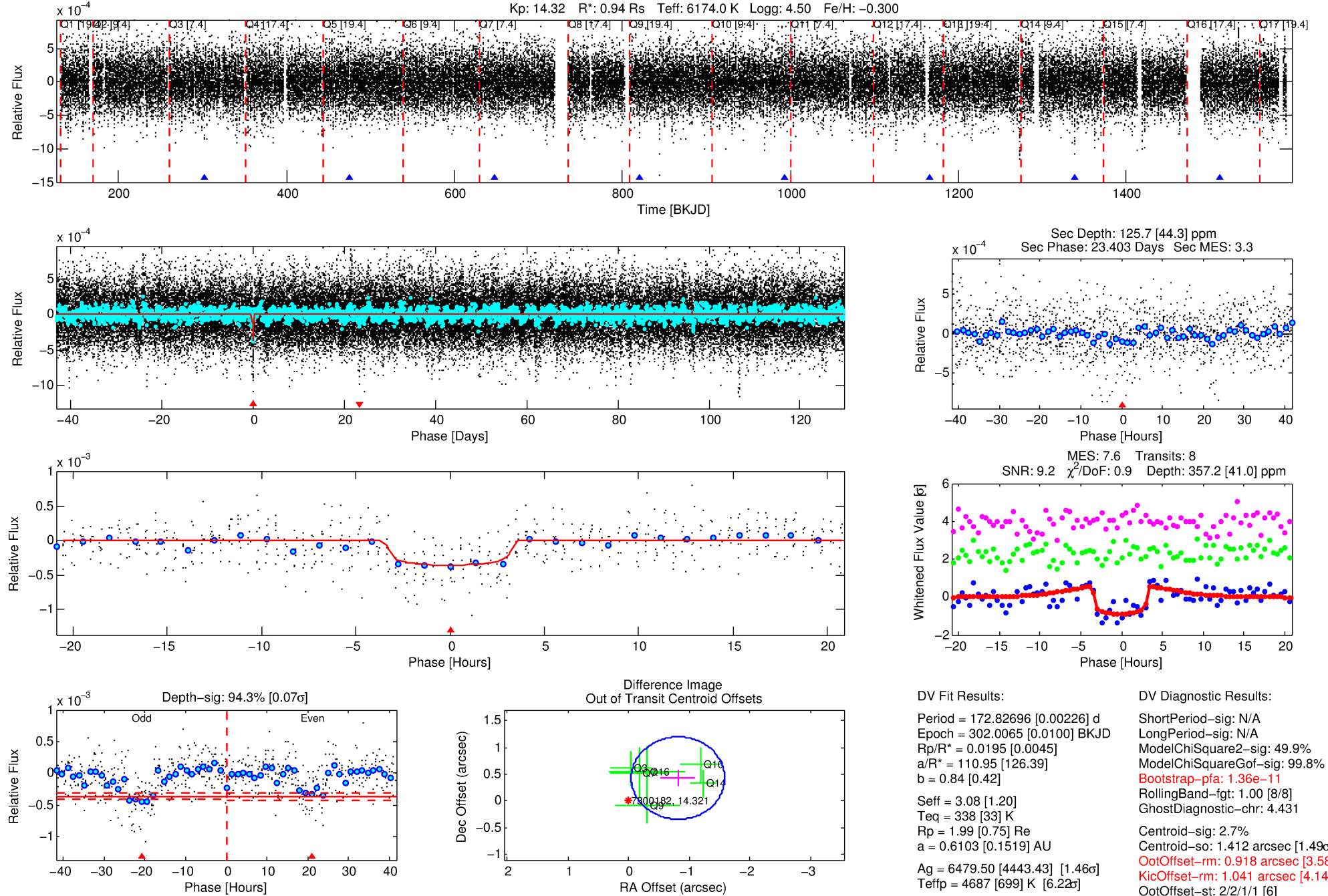
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007300182-01

No Significant Match Found

DV One-Page Summary

KIC: 7300182 Candidate: 1 of 1 Period: 172.827 d



DV Fit Results:

Period = 172.82696 [0.00226] d
Epoch = 302.0065 [0.0100] BKJD
Rp/R* = 0.0195 [0.0045]
a/R* = 110.95 [126.39]
b = 0.84 [0.42]
Seff = 3.08 [1.20]
Teff = 338 [33] K
Rp = 1.99 [0.75] Re
a = 0.6103 [0.1519] AU
Ag = 6479.50 [4443.43] [1.46σ]
Teffp = 4687 [699] K [6.22σ]

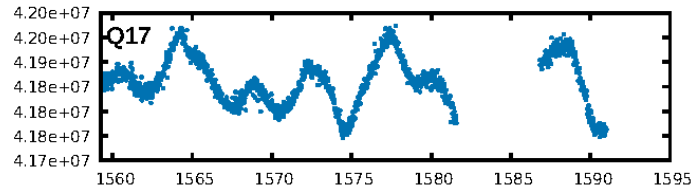
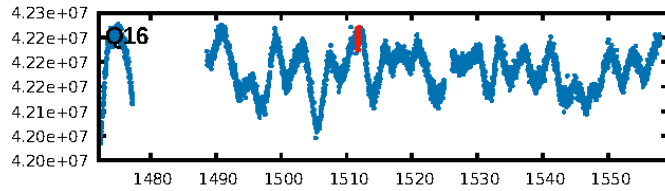
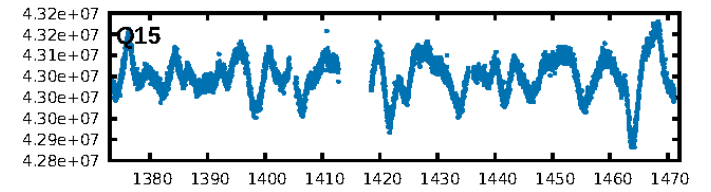
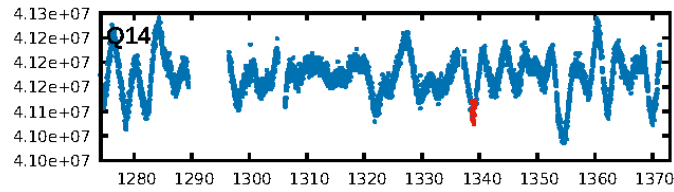
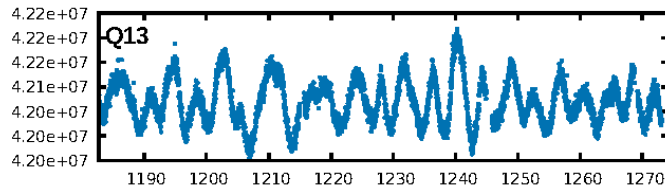
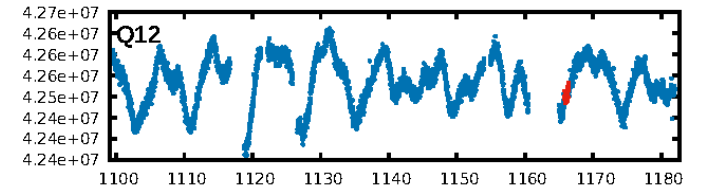
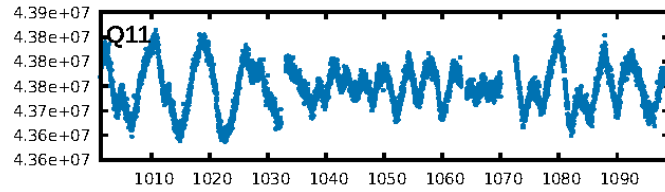
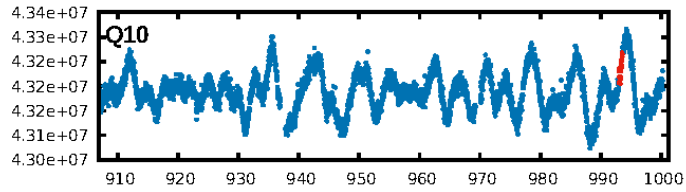
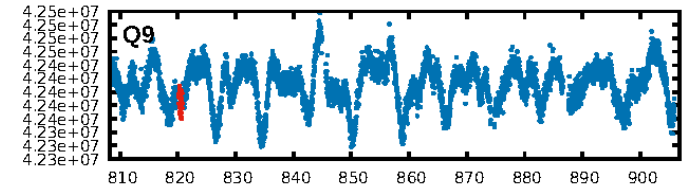
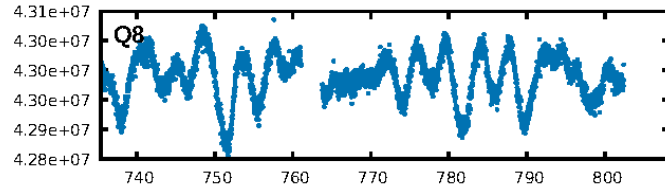
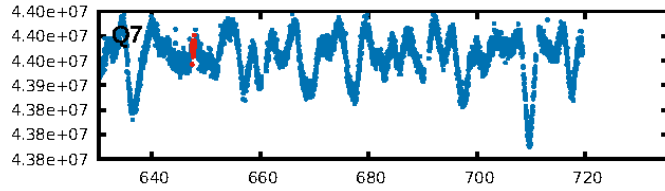
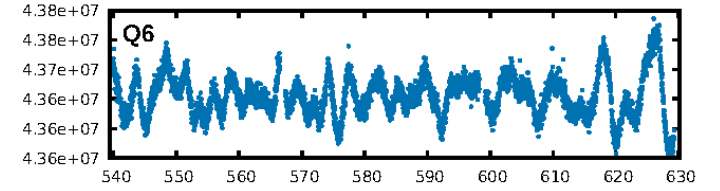
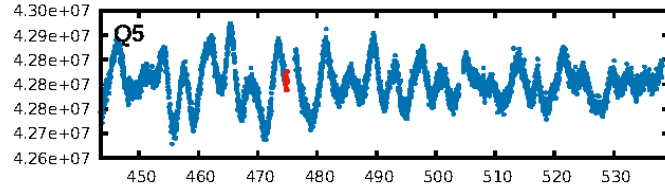
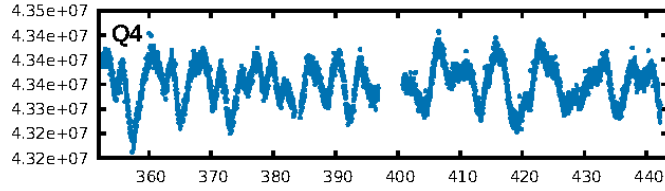
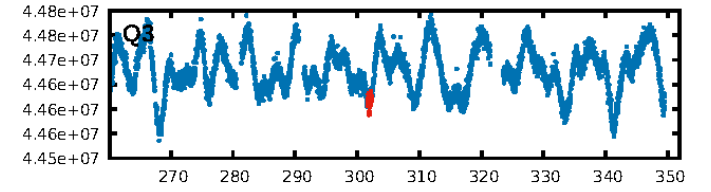
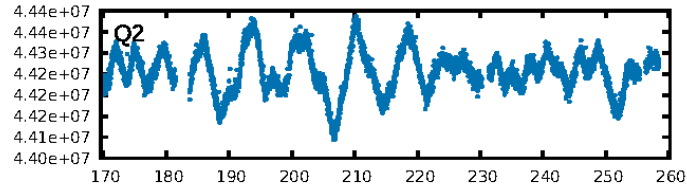
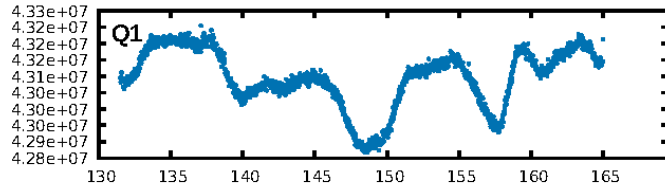
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 49.9%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 1.36e-11
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 4.431
Centroid-sig: 2.7%
Centroid-so: 1.412 arcsec [1.49σ]
OotOffset-rm: 0.918 arcsec [3.58σ]
KicOffset-rm: 1.041 arcsec [4.14σ]
OotOffset-st: 2/2/1/1 [6]
KicOffset-st: 2/2/1/1 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [6/6]

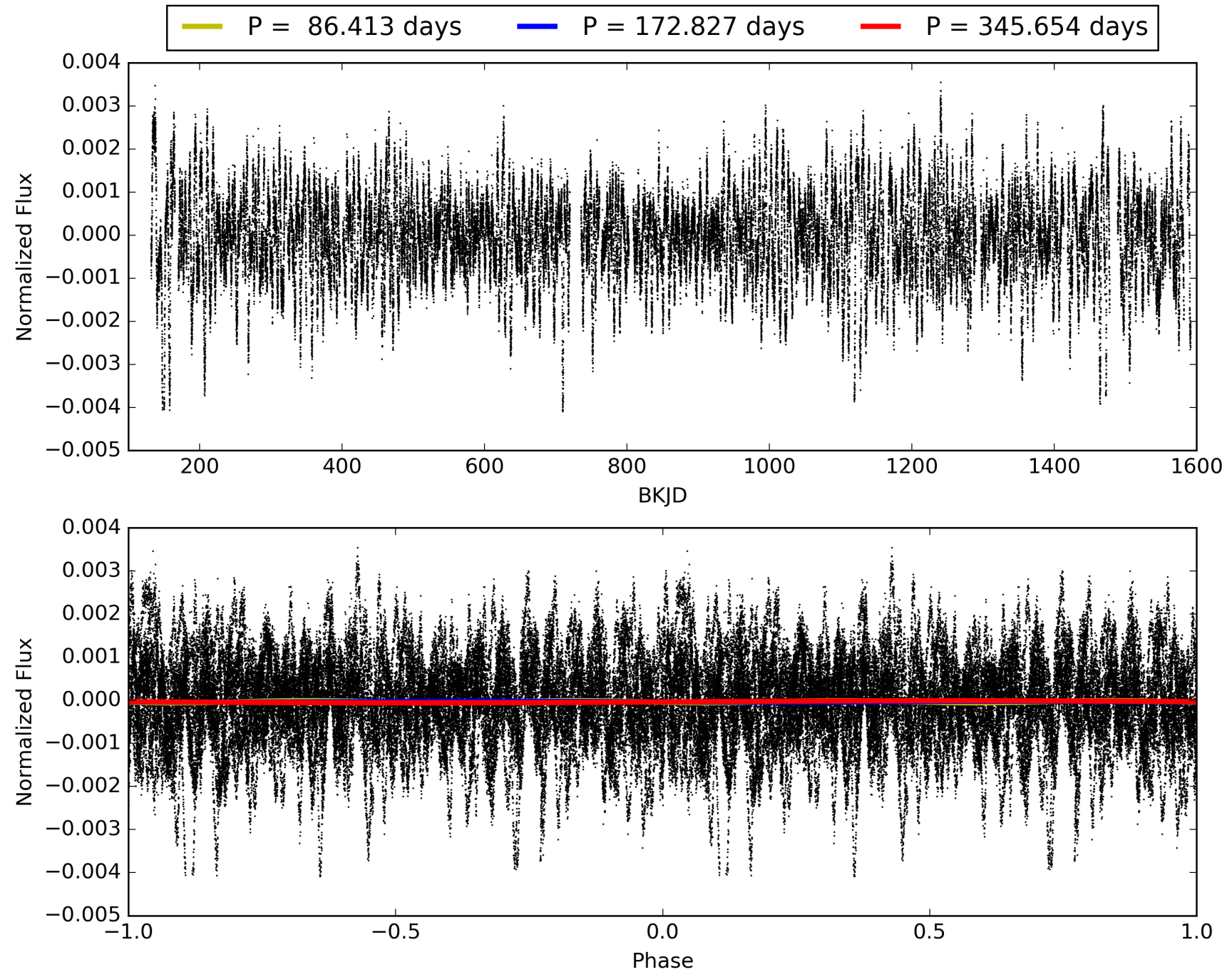
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:30:40 Z

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

TCE 007300182-01, PDC Light Curves

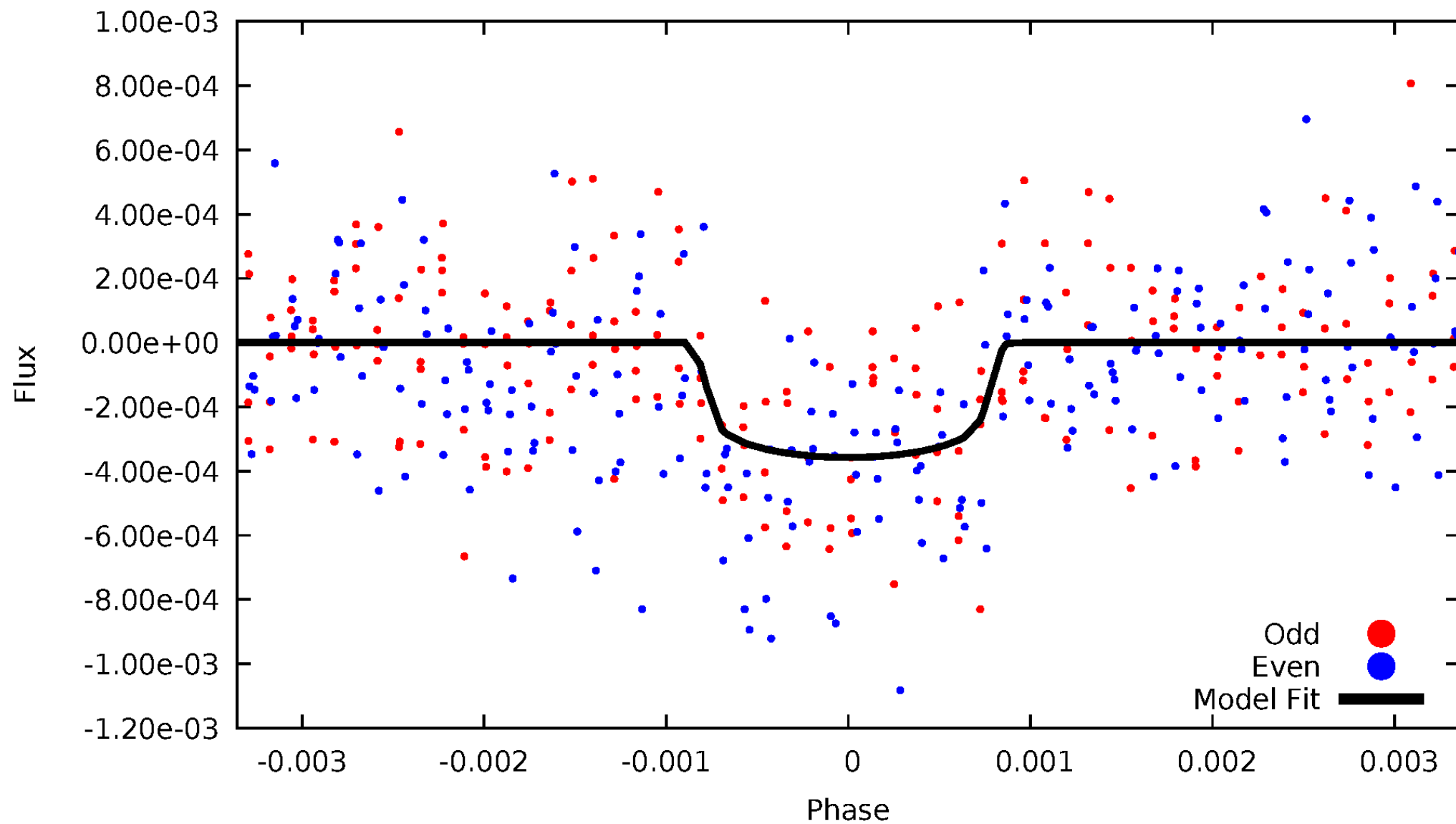


TCE 007300182-01



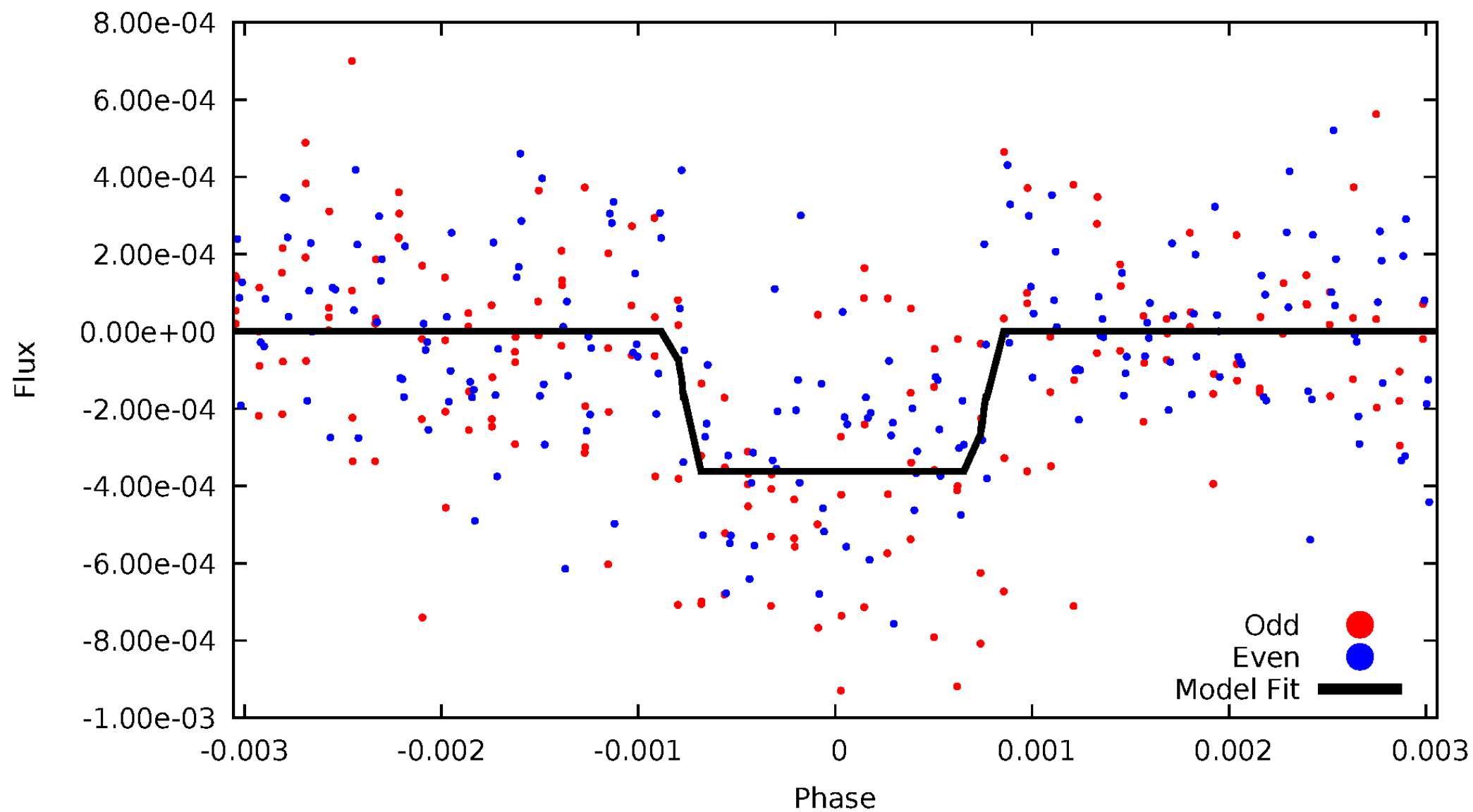
DV Odd/Even

TCE 007300182-01

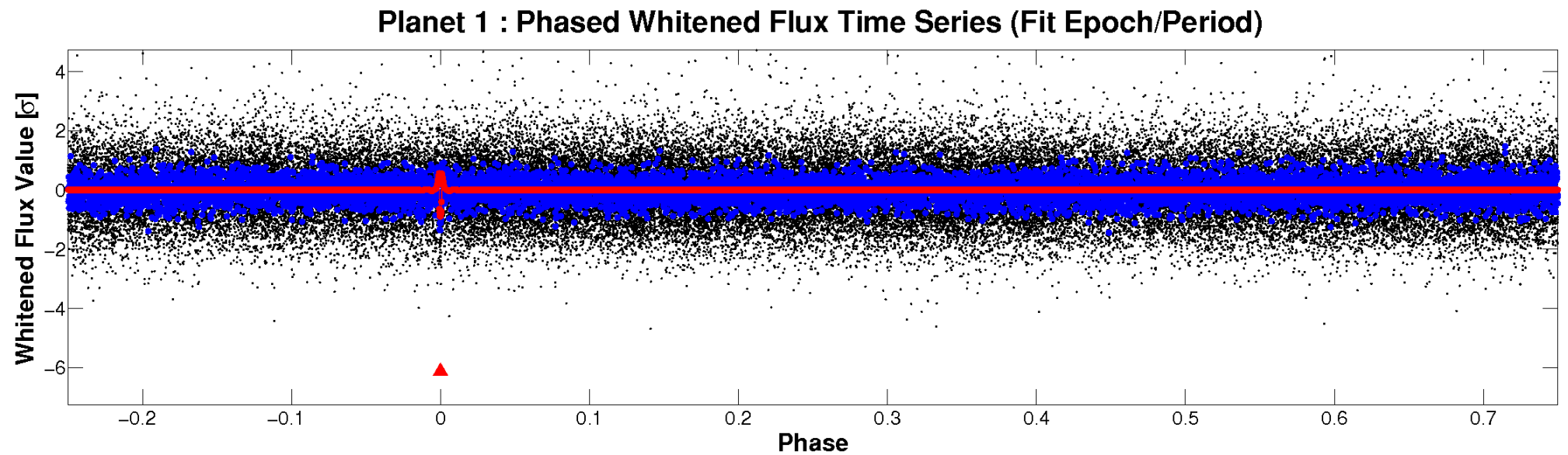
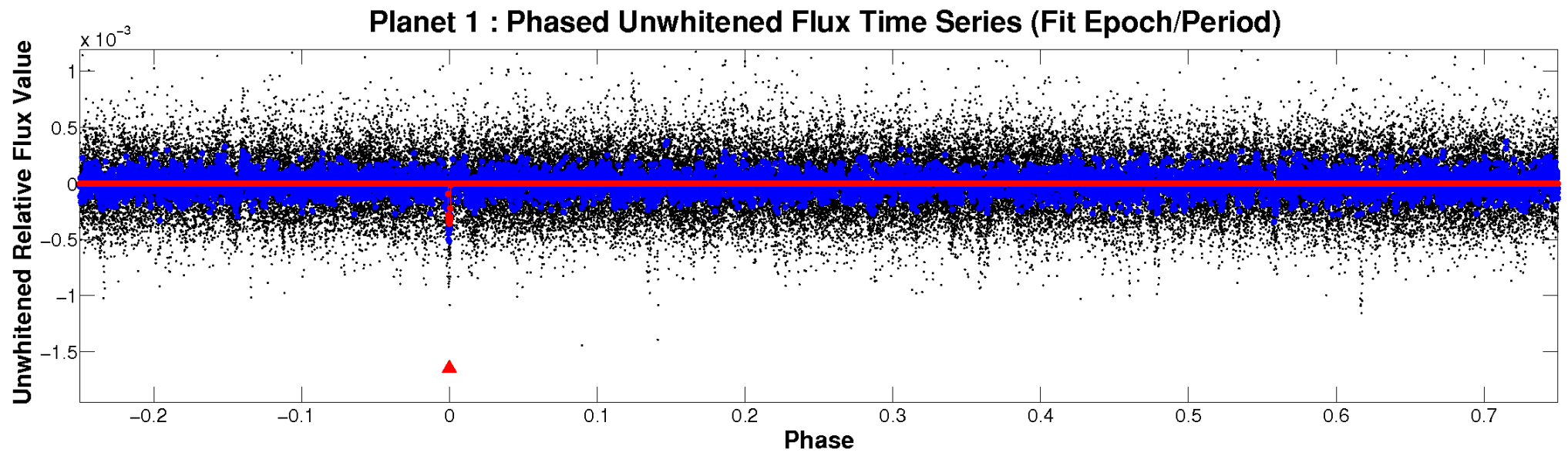


ALT Odd/Even

TCE 007300182-01

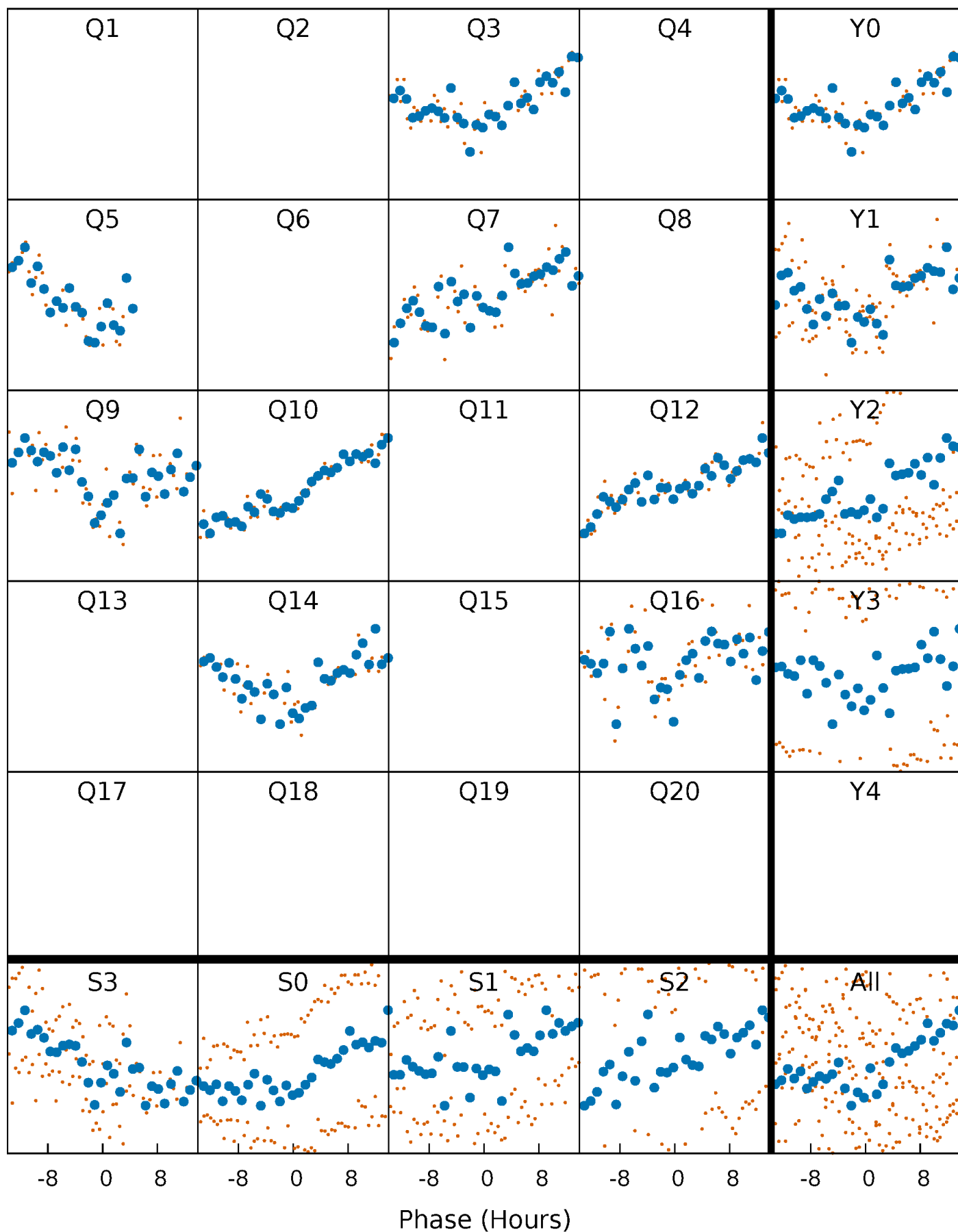


Non-Whitened Vs. Whitened Light Curve



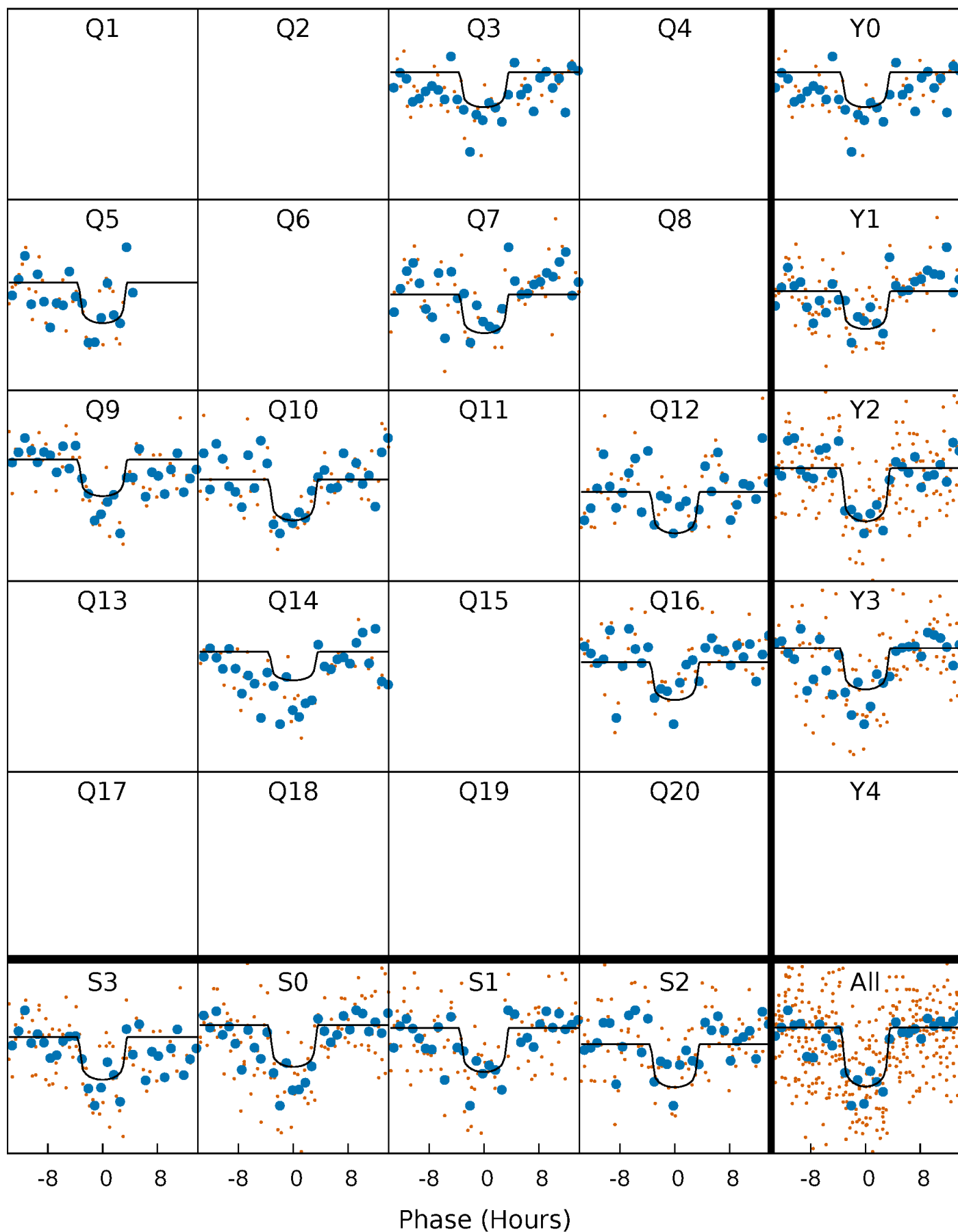
PDC Quarter-Phased Transit Curves

TCE 007300182-01 P=172.826961 Days $T_0=302.006527$ (BKJD)



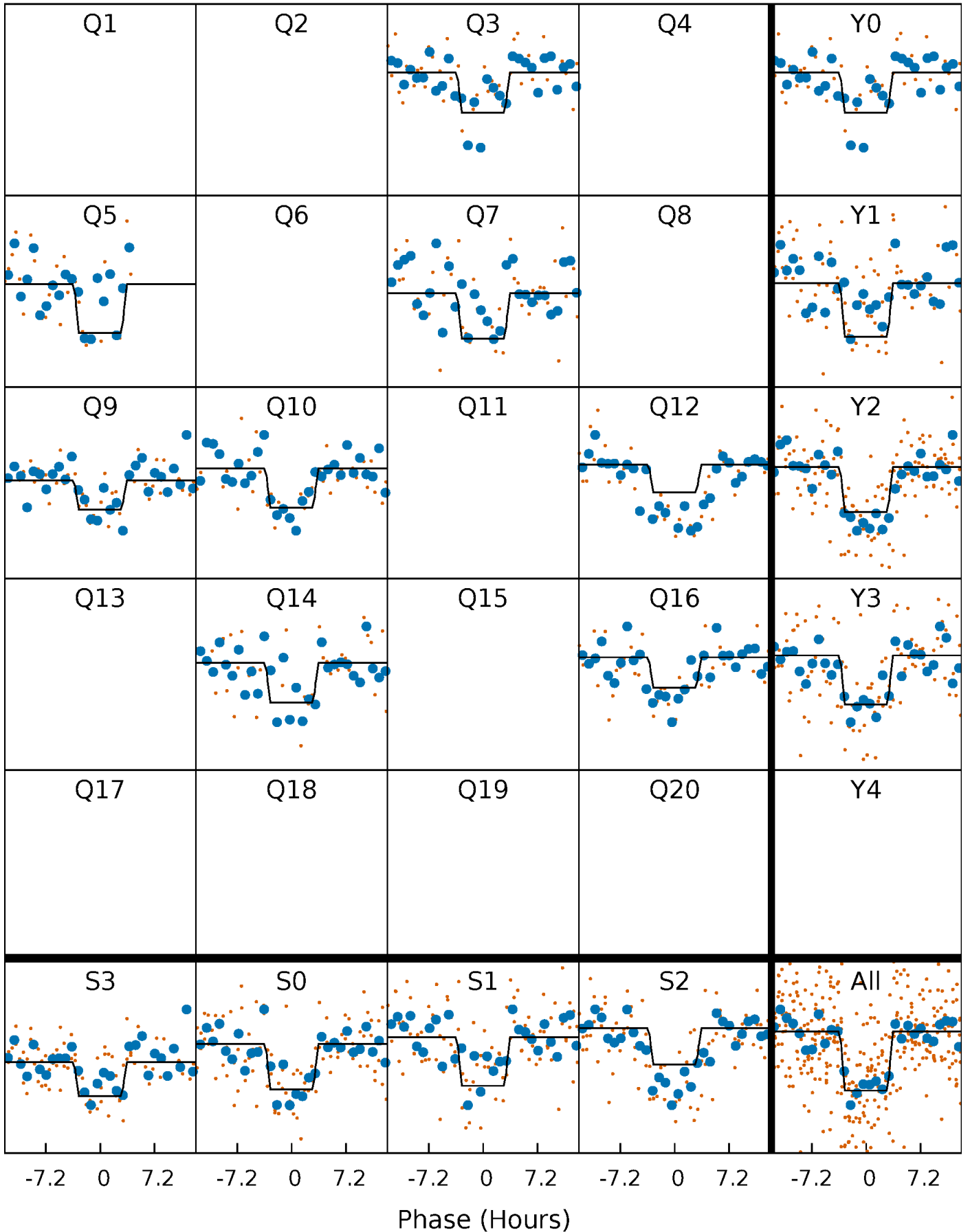
DV Quarter-Phased Transit Curves

TCE 007300182-01 P=172.826961 Days $T_0=302.006527$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

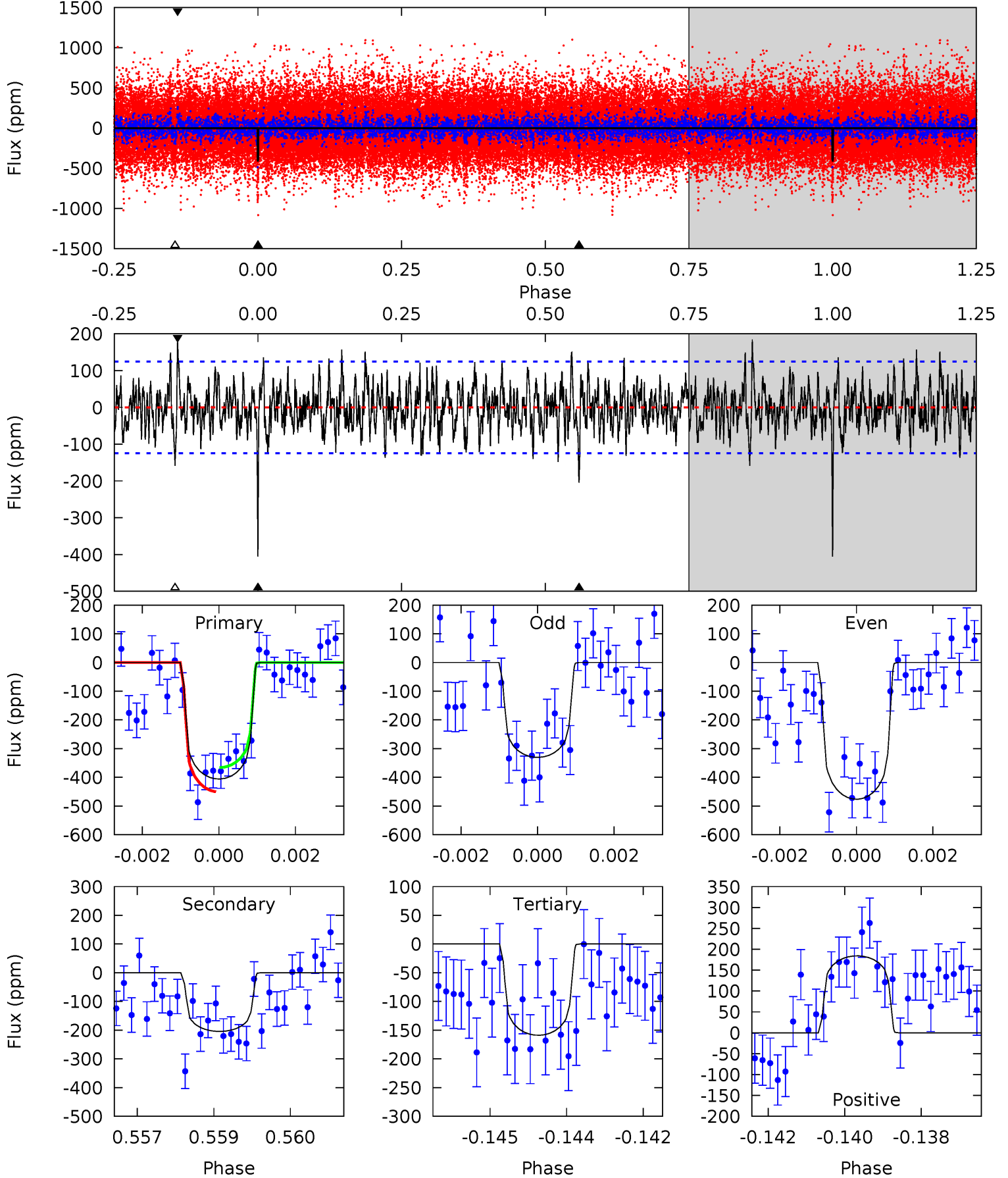
TCE 007300182-01 P=172.827051 Days $T_0=302.003834$ (BKJD)



DV Model-Shift Uniqueness Test

007300182-01, P = 172.826961 Days, E = 129.179566 Days

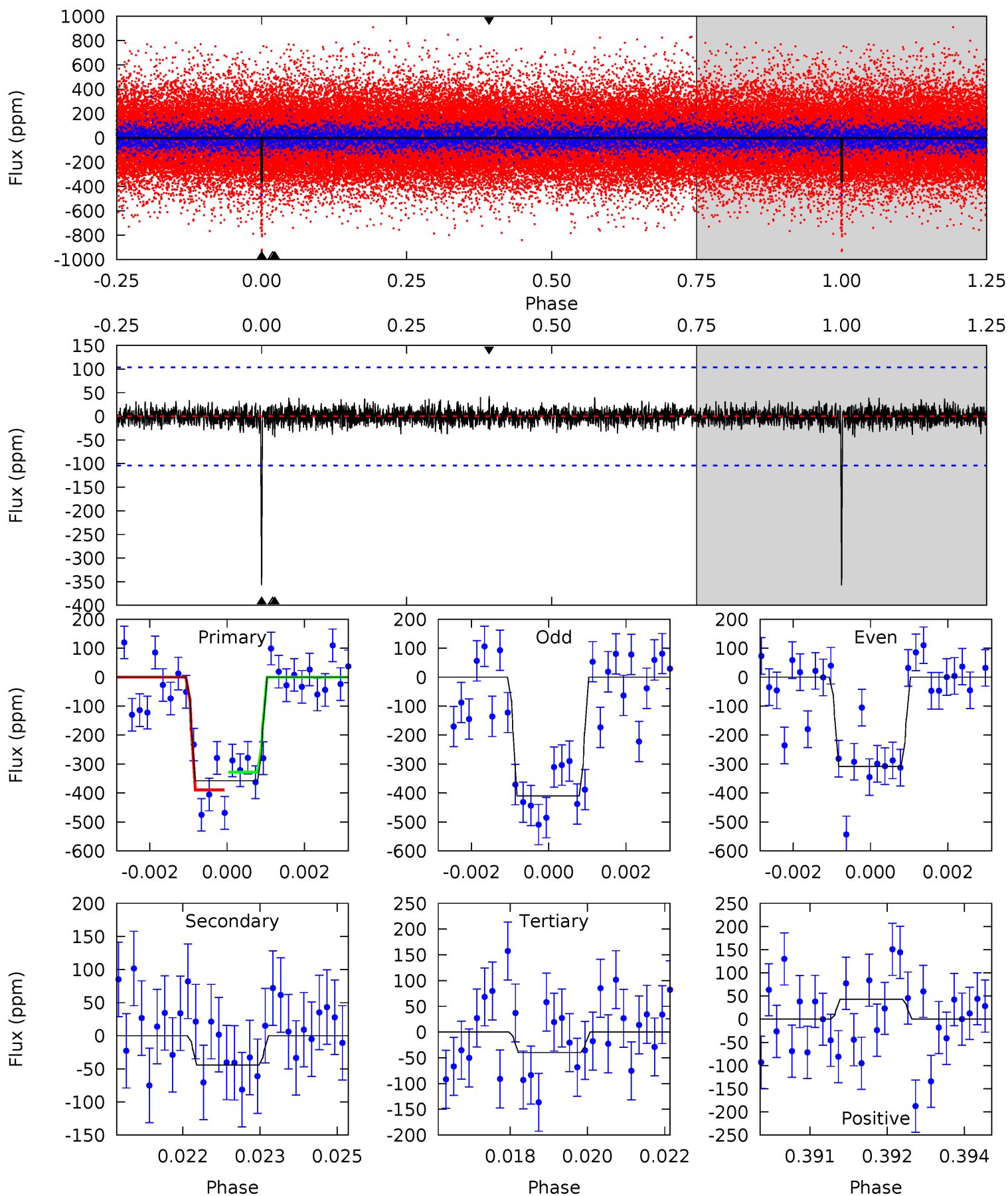
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	8.77	6.81	7.90	5.35	3.13	2.14	10.6	9.51	1.95	0.87	3.13	1.13	0.31	1.80



Alt Model-Shift Uniqueness Test

007300182-01, P = 172.827051 Days, E = 129.176783 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	2.28	2.06	2.23	5.36	3.15	0.57	16.4	16.2	0.23	0.05	2.62	1.11	0.11	1.57



Stellar Parameters For KIC 007300182

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6174^{+169}_{-206}	$4.499^{+0.050}_{-0.200}$	$-0.300^{+0.300}_{-0.350}$	$0.939^{+0.276}_{-0.092}$	$1.014^{+0.120}_{-0.134}$	$1.727^{+0.455}_{-0.876}$
	+3%/-3%	+1%/-4%	+100%/-117%	+29%/-10%	+12%/-13%	+26%/-51%
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 007300182-01 / KOI 7833.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-204 ± 23	$2.09^{+0.60}_{-0.52}$	482^{+34}_{-24}	5329^{+694}_{-506}	9407^{+7000}_{-3847}
Alt.	-44 ± 19	$2.01^{+0.55}_{-0.51}$	479^{+31}_{-22}	3954^{+476}_{-440}	2112^{+2022}_{-1085}

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 $A_{obs} \gg 1.0$

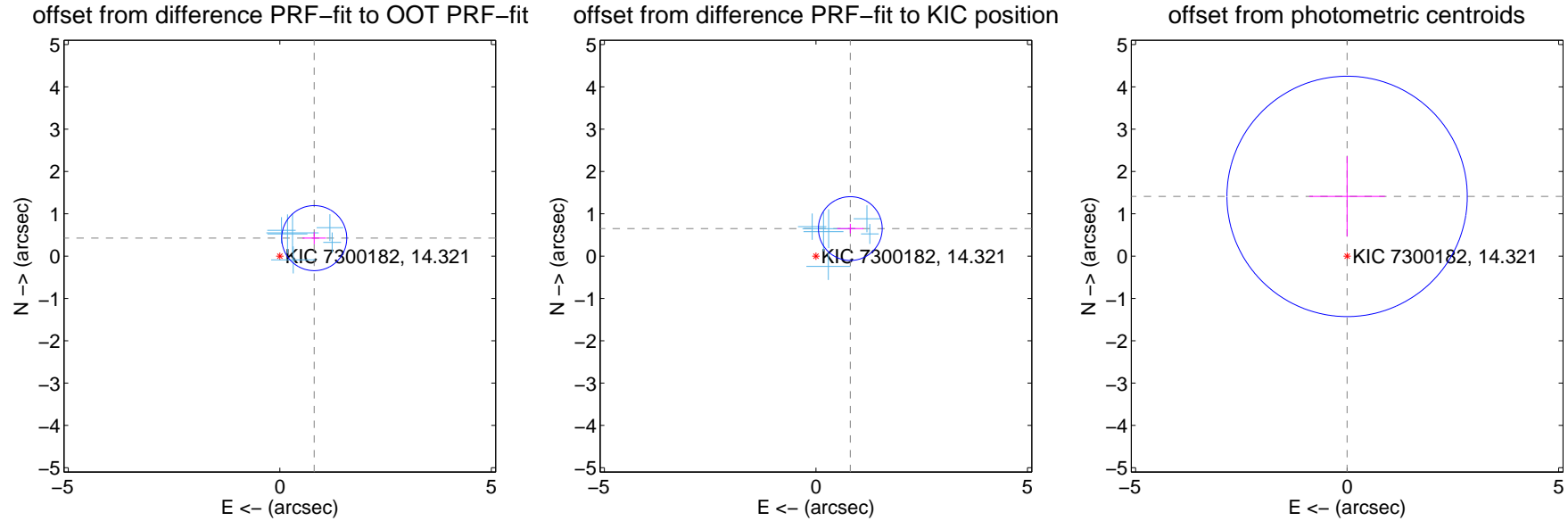
DV Centroid Data

Supplemental centroid analysis for 007300182-01. Kepler magnitude: 14.32. Transit SNR 9.23

There are 6 quarters with good PRF difference image offsets

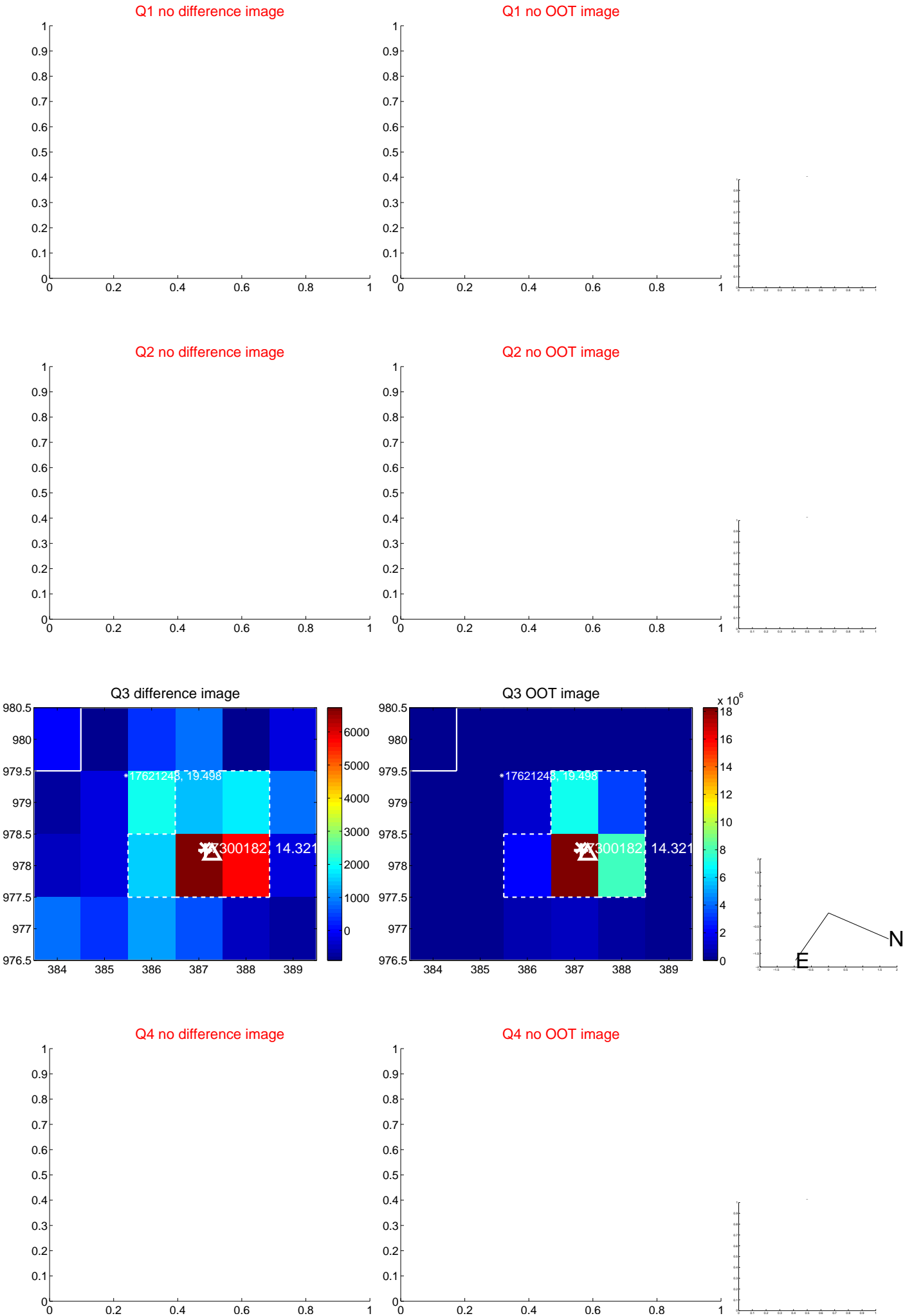
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.918 ± 0.256	3.58	-0.814 ± 0.280	0.425 ± 0.141
PRF-fit source offset from KIC position	1.041 ± 0.251	4.14	-0.813 ± 0.309	0.651 ± 0.113
photometric centroid source offset	1.41 ± 0.95	1.49	0.00 ± 0.90	1.41 ± 0.95



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.

Q5 no difference image



Q5 no OOT image



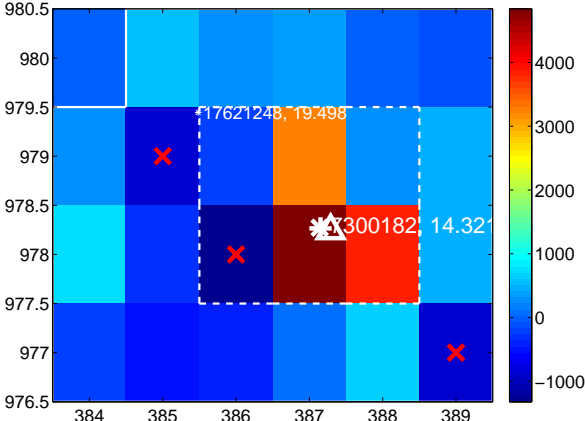
Q6 no difference image



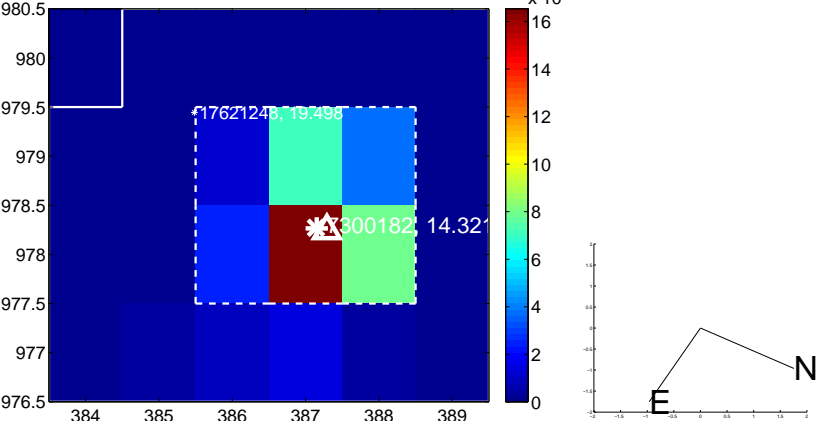
Q6 no OOT image



Q7 difference image



Q7 OOT image



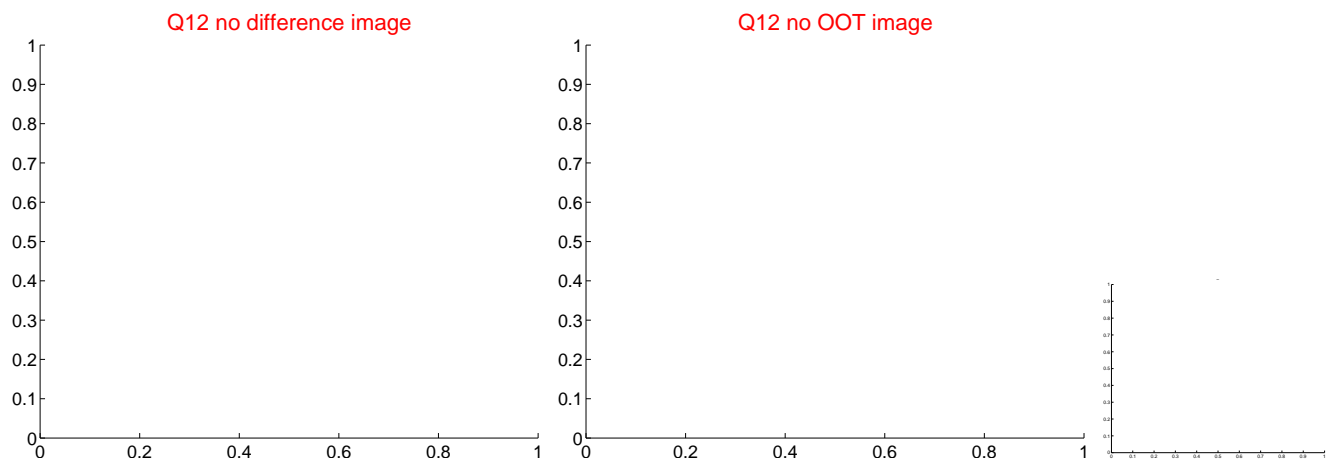
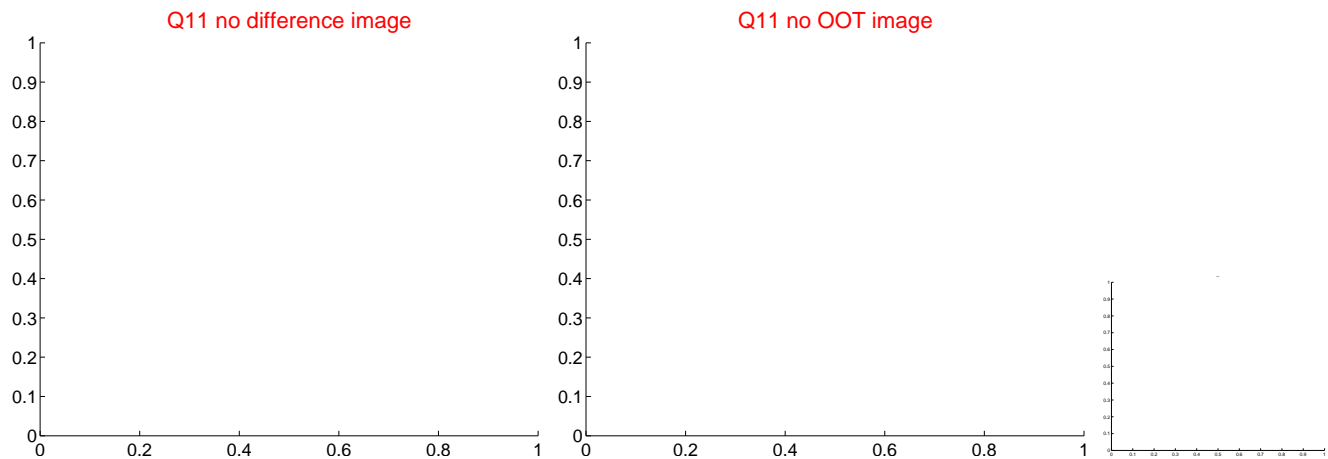
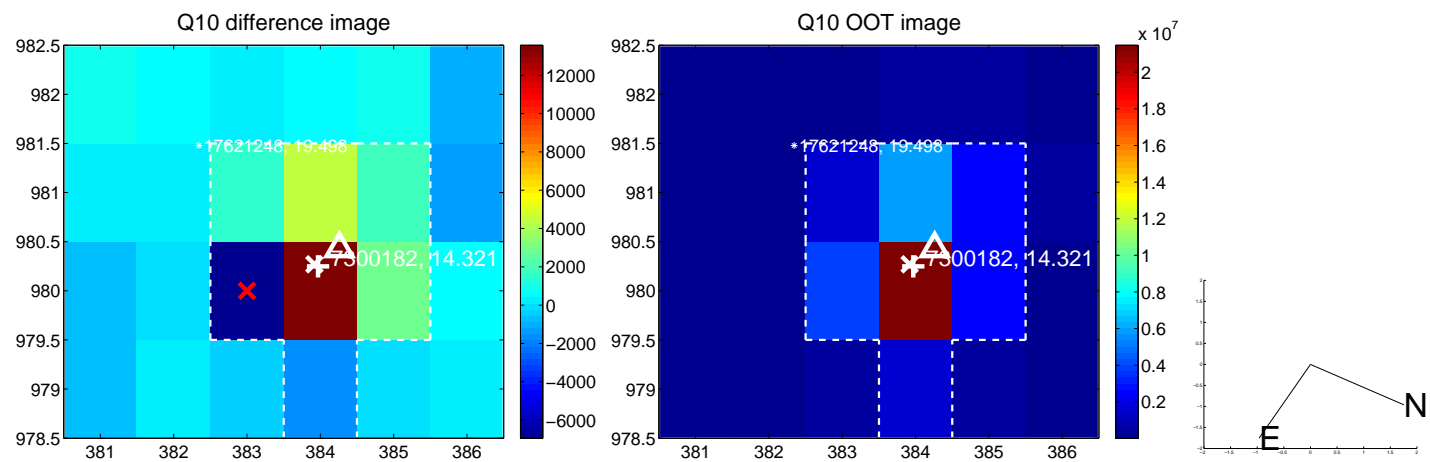
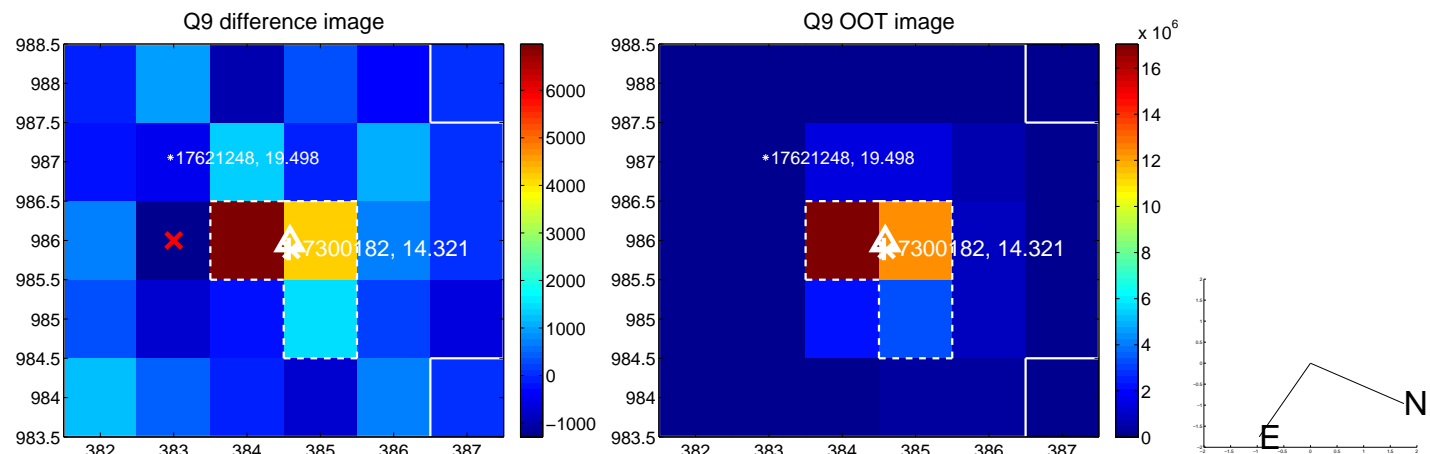
Q8 no difference image



Q8 no OOT image

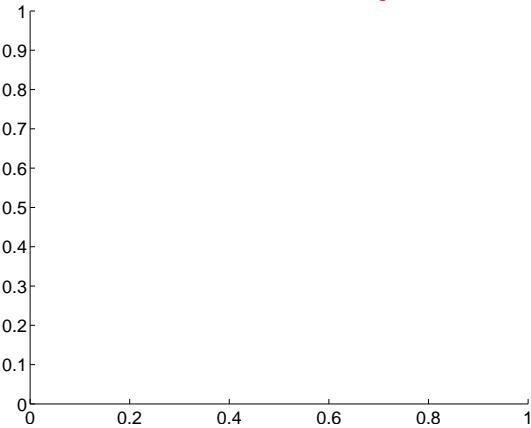


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

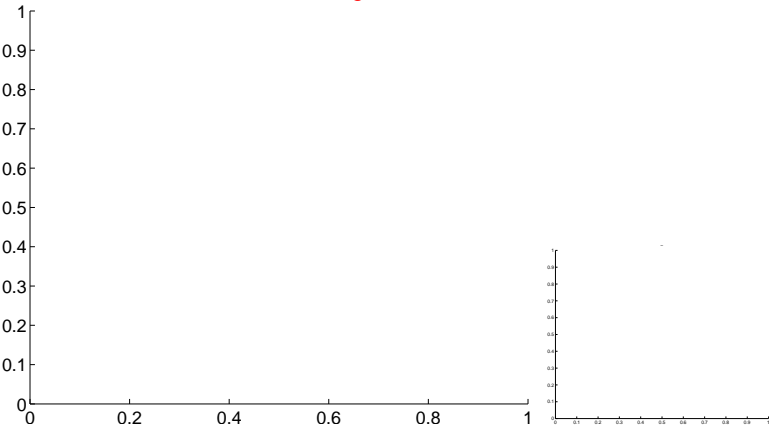


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

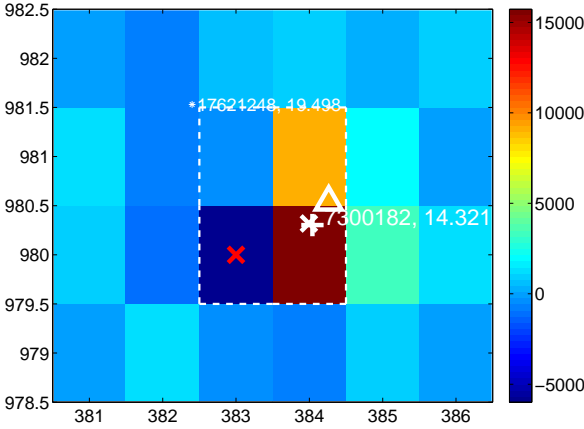
Q13 no difference image



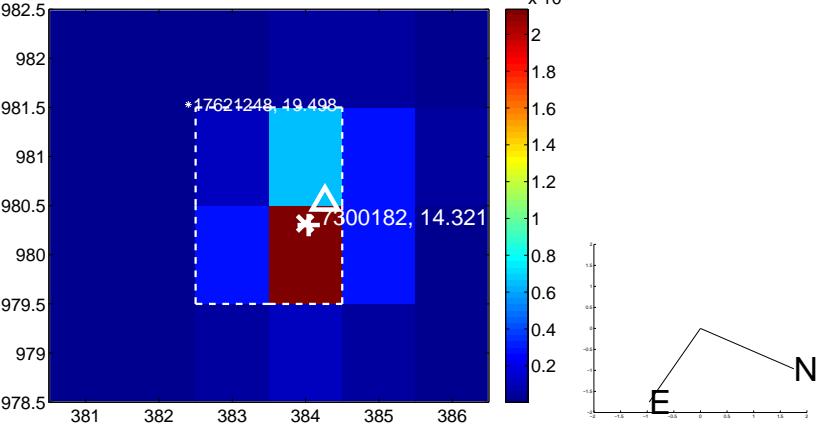
Q13 no OOT image



Q14 difference image



Q14 OOT image



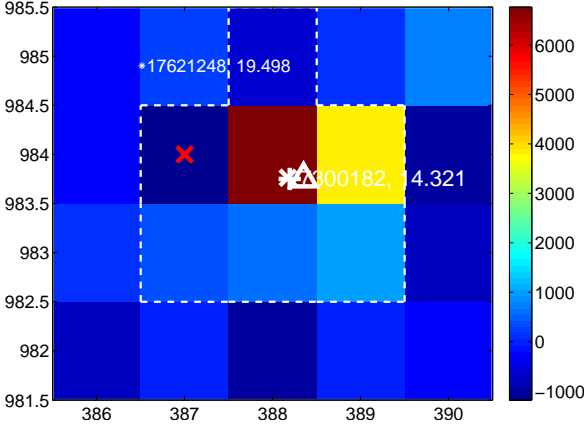
Q15 no difference image



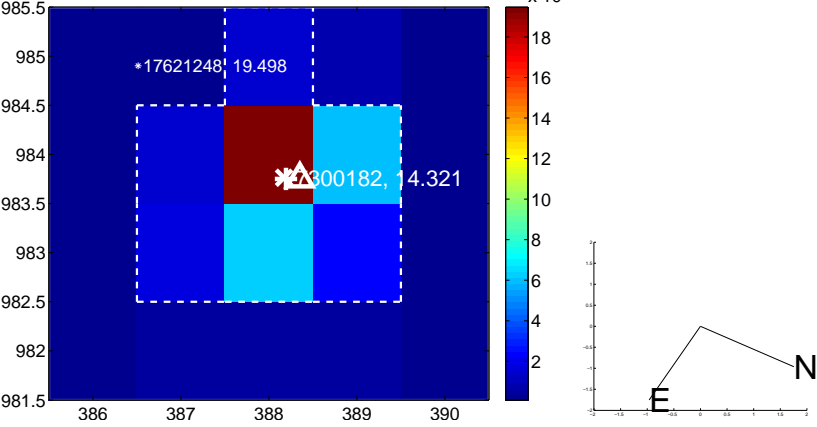
Q15 no OOT image



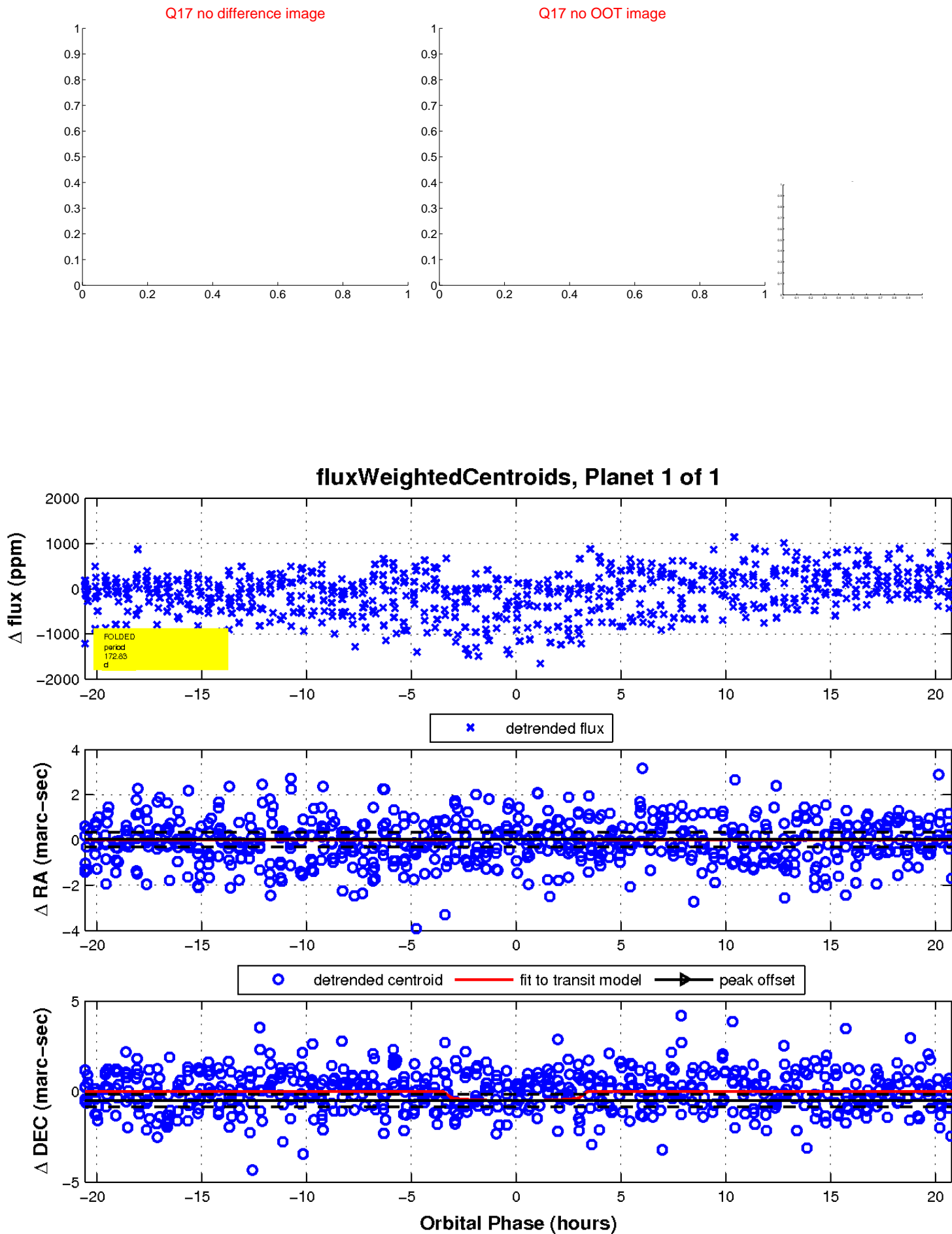
Q16 difference image



Q16 OOT image



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



UKIRT Image

Declination

