

KIC 007975062

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})
007975062-01	OBS	No	233.227864	248.200628	374.0	3.382	8.6	5.4	0.93	5579	1.98	1.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007975062-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_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.

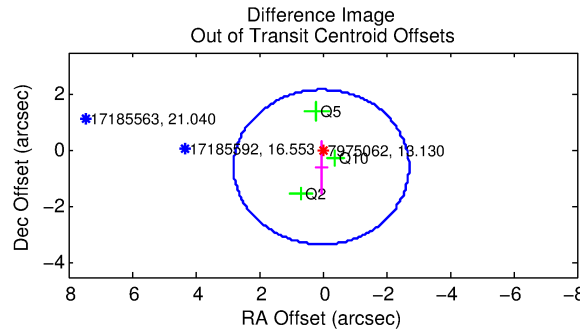
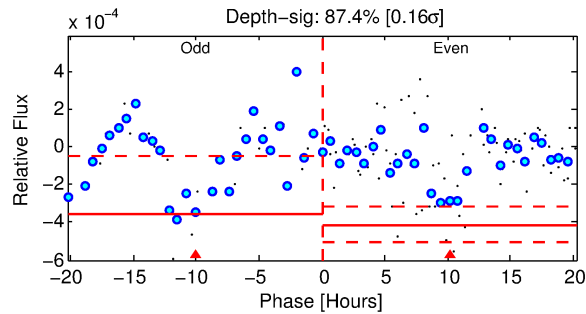
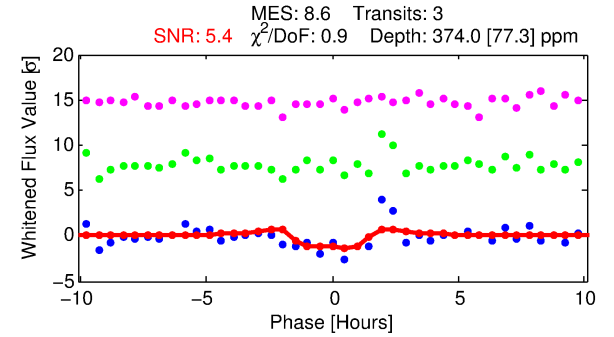
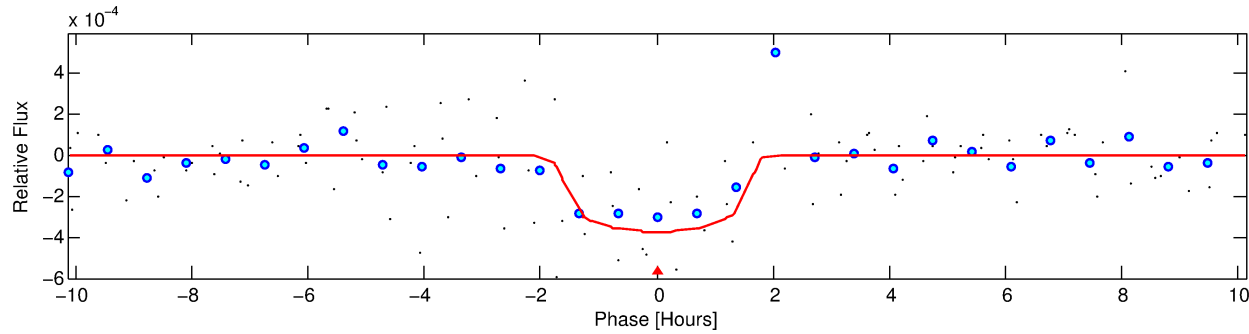
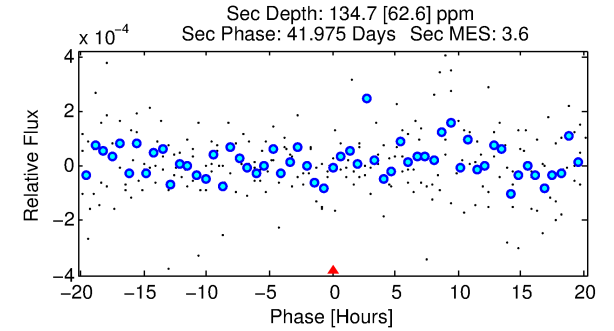
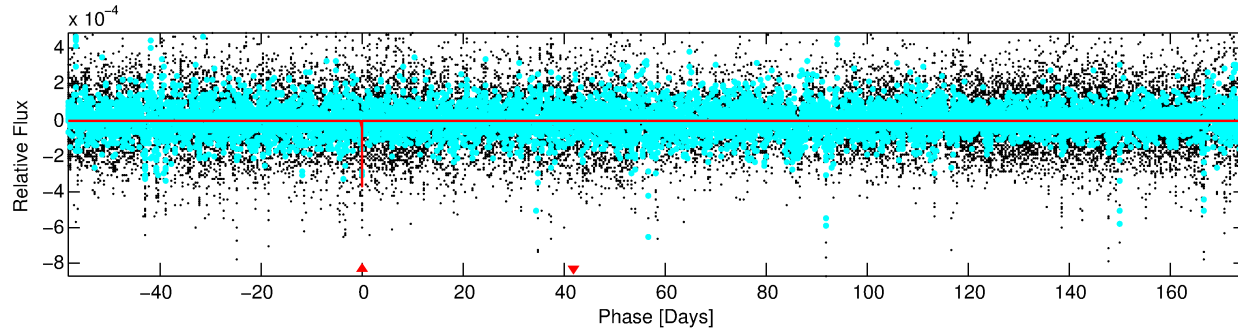
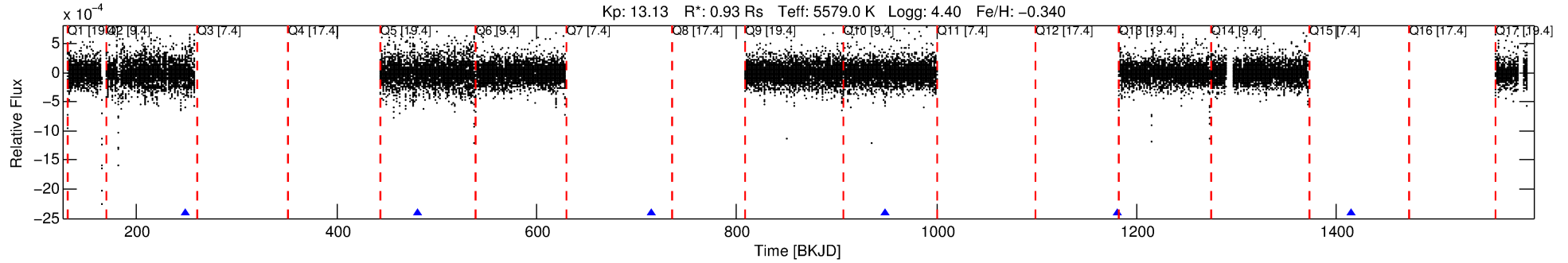
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007975062-01

No Significant Match Found

DV One-Page Summary

KIC: 7975062 Candidate: 1 of 1 Period: 233.228 d



DV Fit Results:

Period = 233.22786 [0.00441] d
Epoch = 248.2006 [0.0098] BKJD
Rp/R* = 0.0196 [0.0318]
a/R* = 339.88 [2449.28]
b = 0.79 [3.50]
Seff = 1.59 [0.75]
Teq = 286 [34] K
Rp = 1.98 [3.29] Re
a = 0.6834 [0.2107] AU
Ag = 8836.68 [29290.06] [0.30σ]
Teffp = 4293 [3524] K [1.14σ]

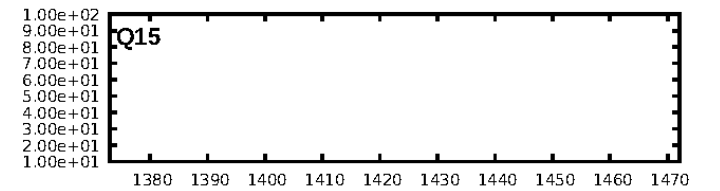
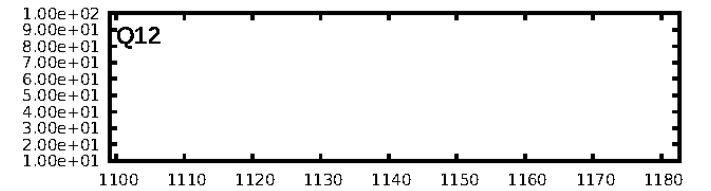
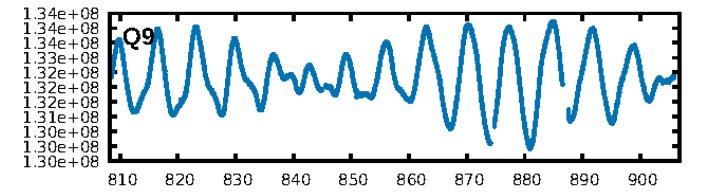
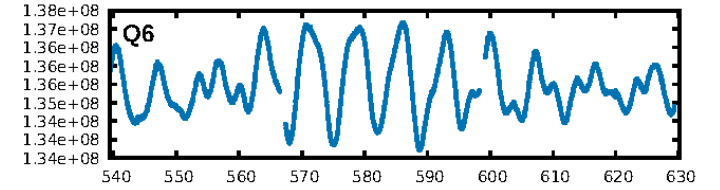
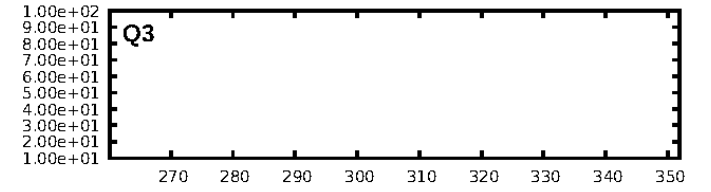
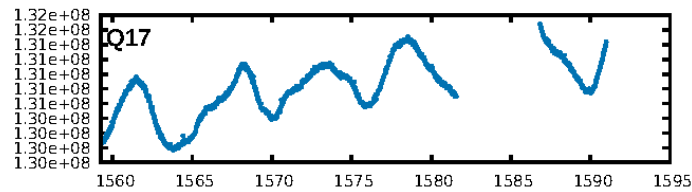
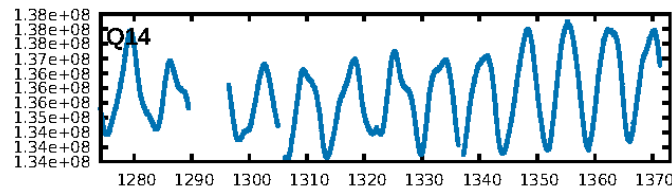
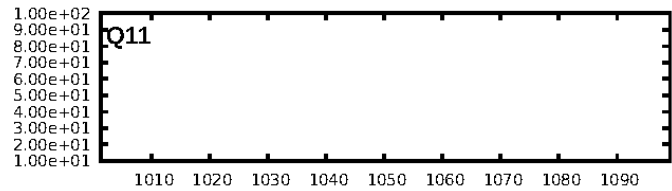
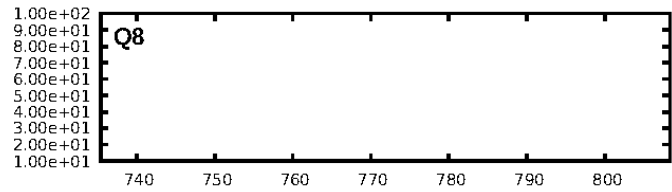
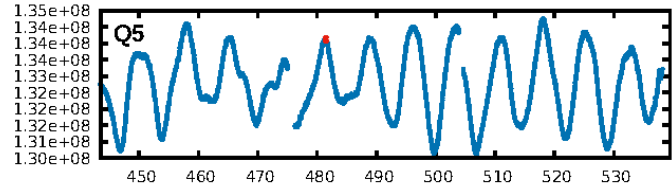
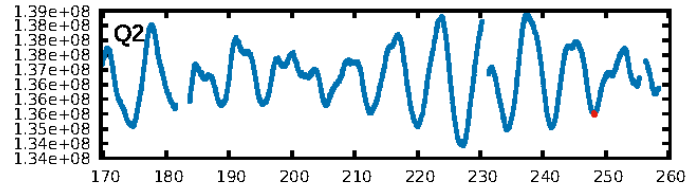
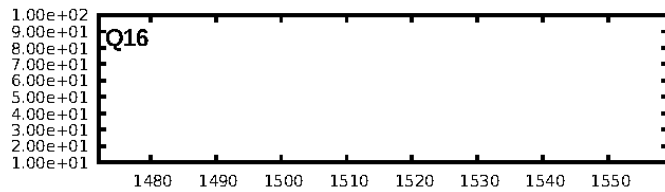
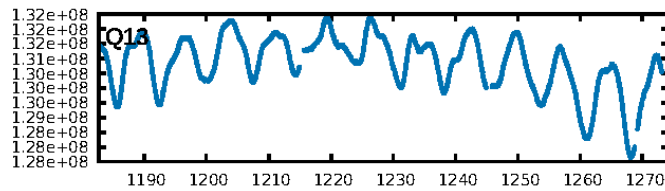
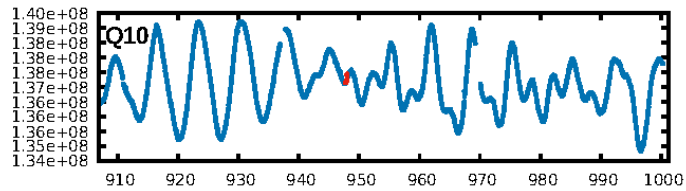
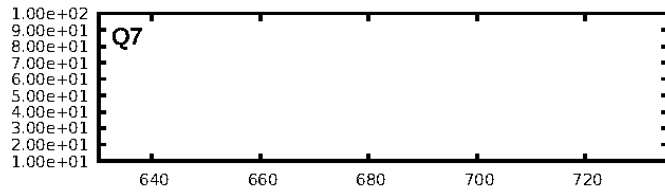
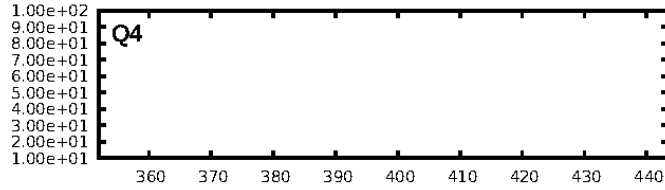
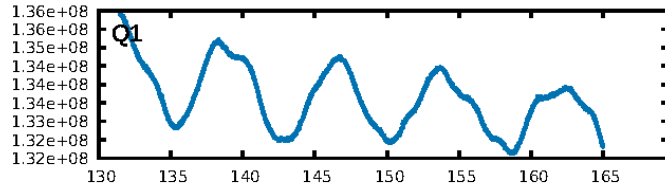
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 35.2%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 5.53e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.038
Centroid-sig: 31.8%
Centroid-so: 0.756 arcsec [0.70σ]
OotOffset-rm: 0.586 arcsec [0.64σ]
OotOffset-st: 2/0/0/1 [3]
KicOffset-rm: 0.584 arcsec [0.58σ]
KicOffset-st: 2/0/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

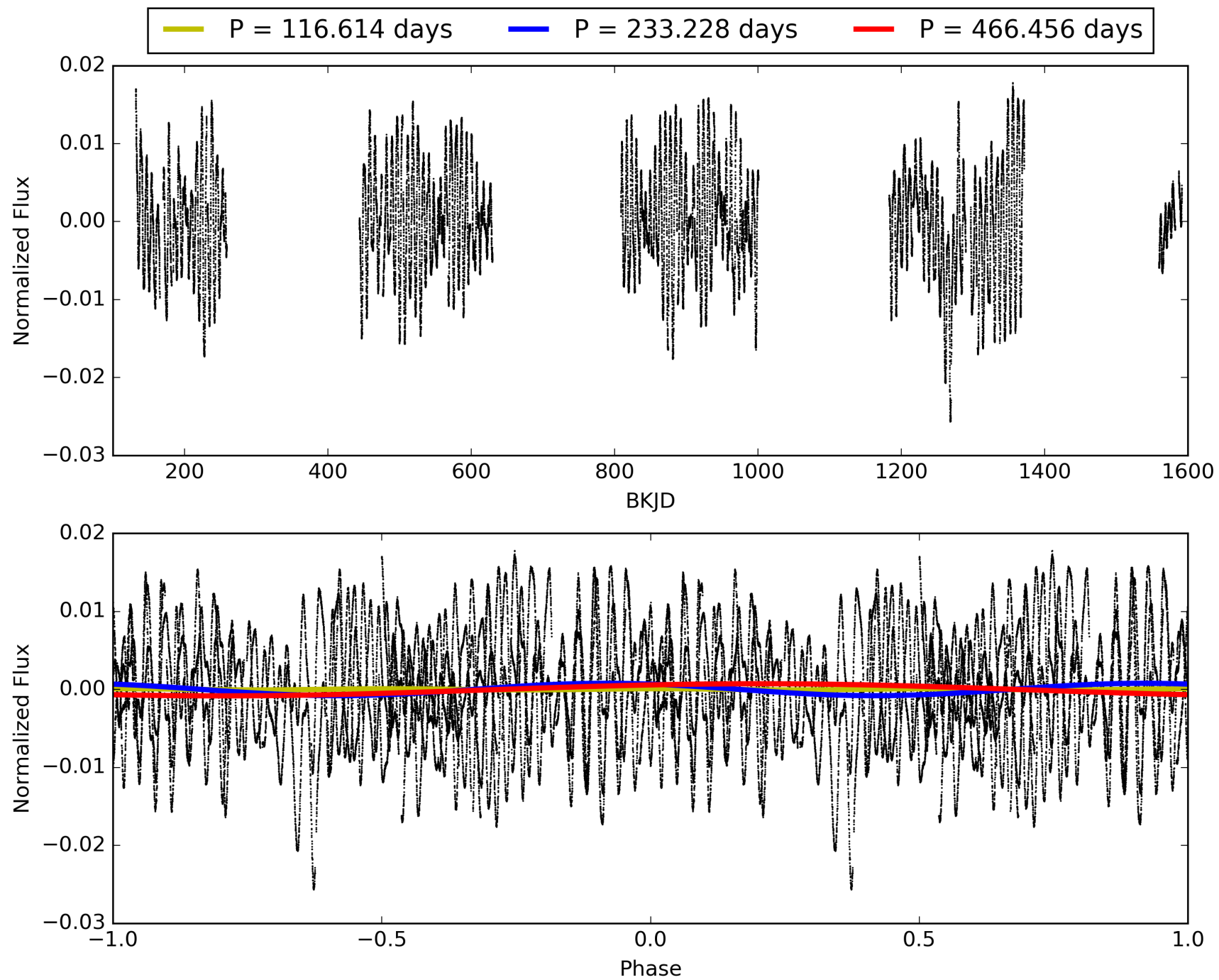
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:47:18 Z

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

TCE 007975062-01, PDC Light Curves

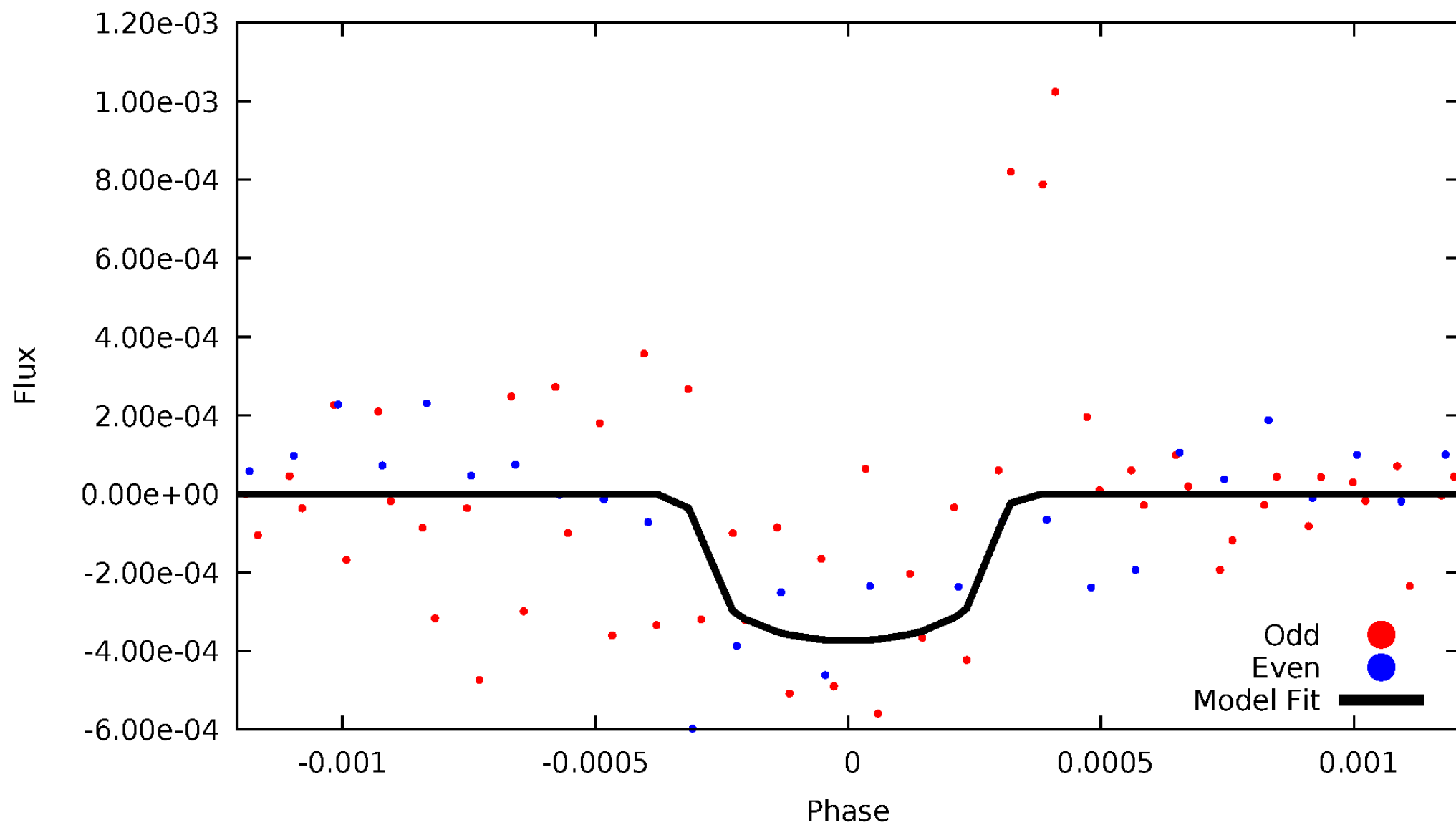


TCE 007975062-01



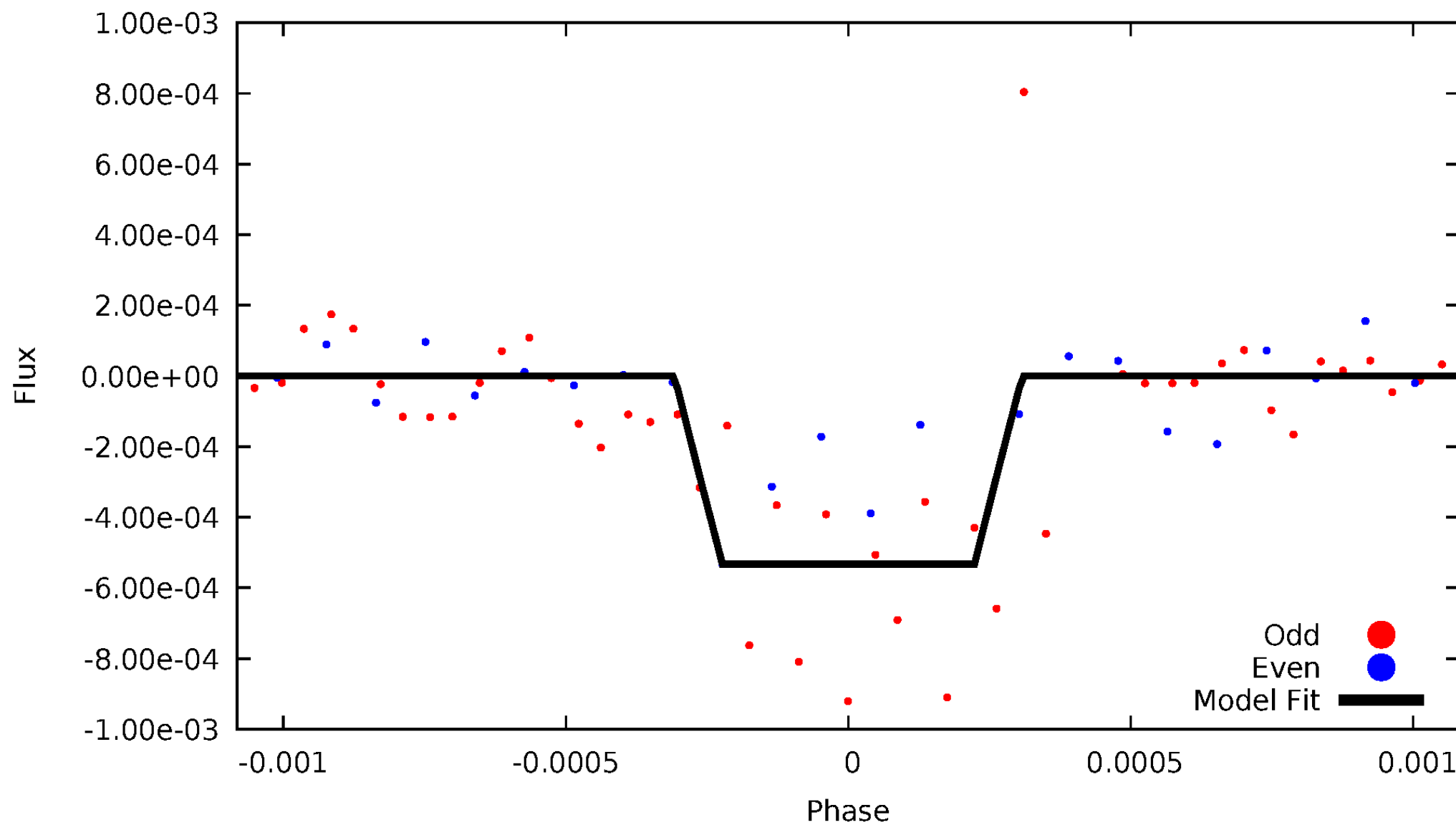
DV Odd/Even

TCE 007975062-01

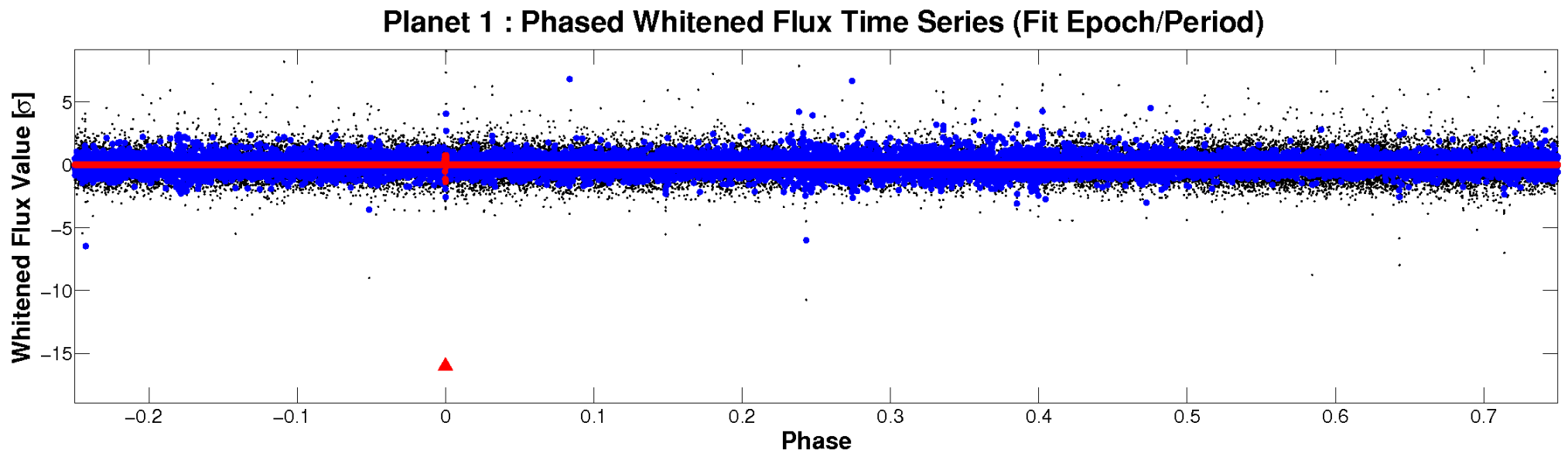
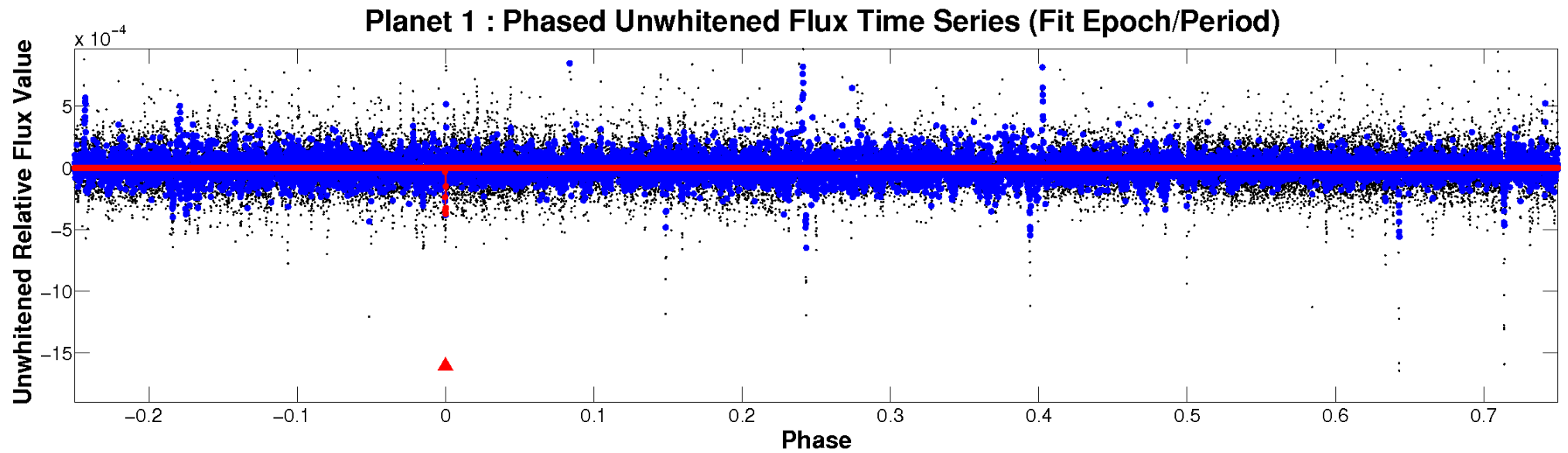


ALT Odd/Even

TCE 007975062-01

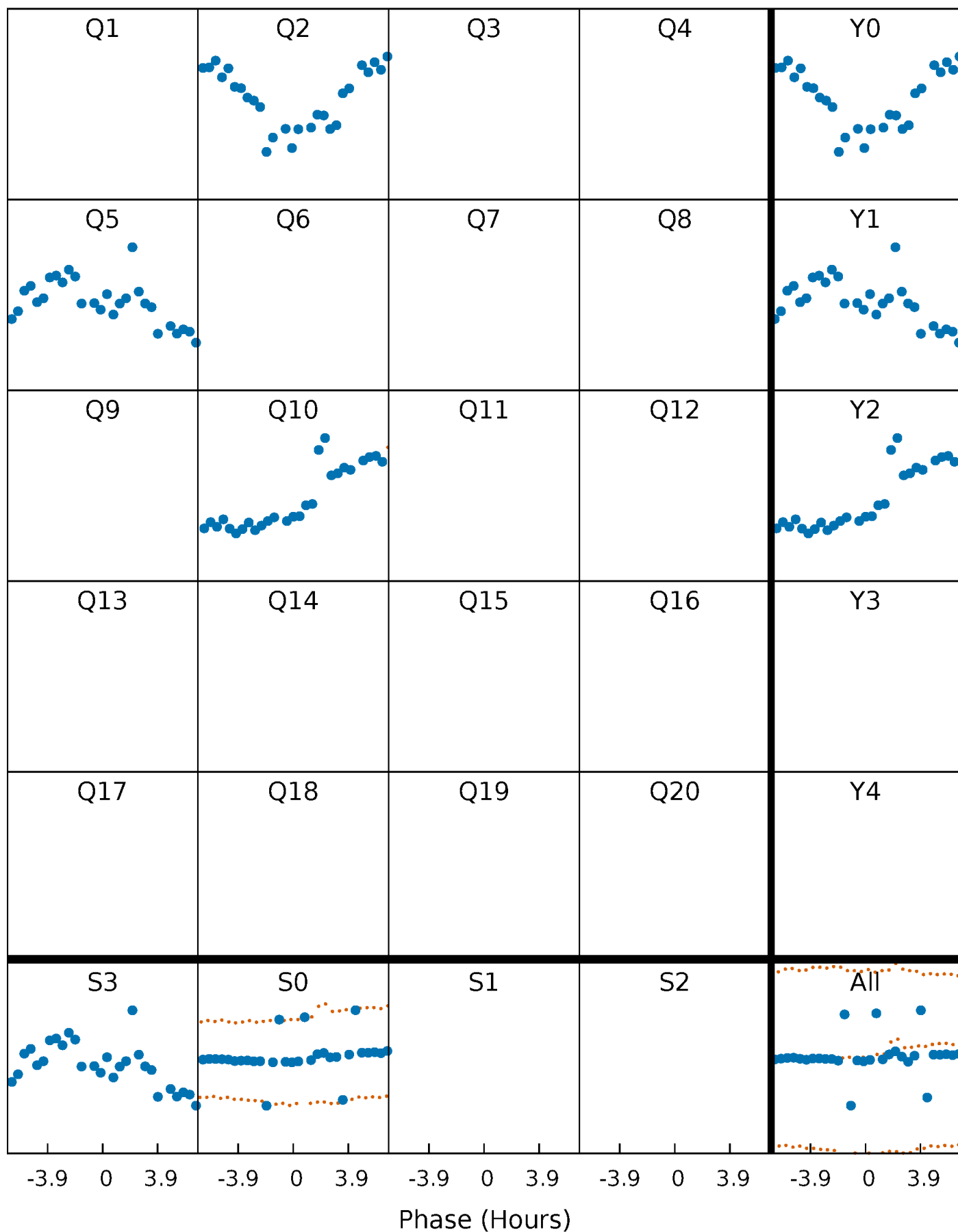


Non-Whitened Vs. Whitened Light Curve



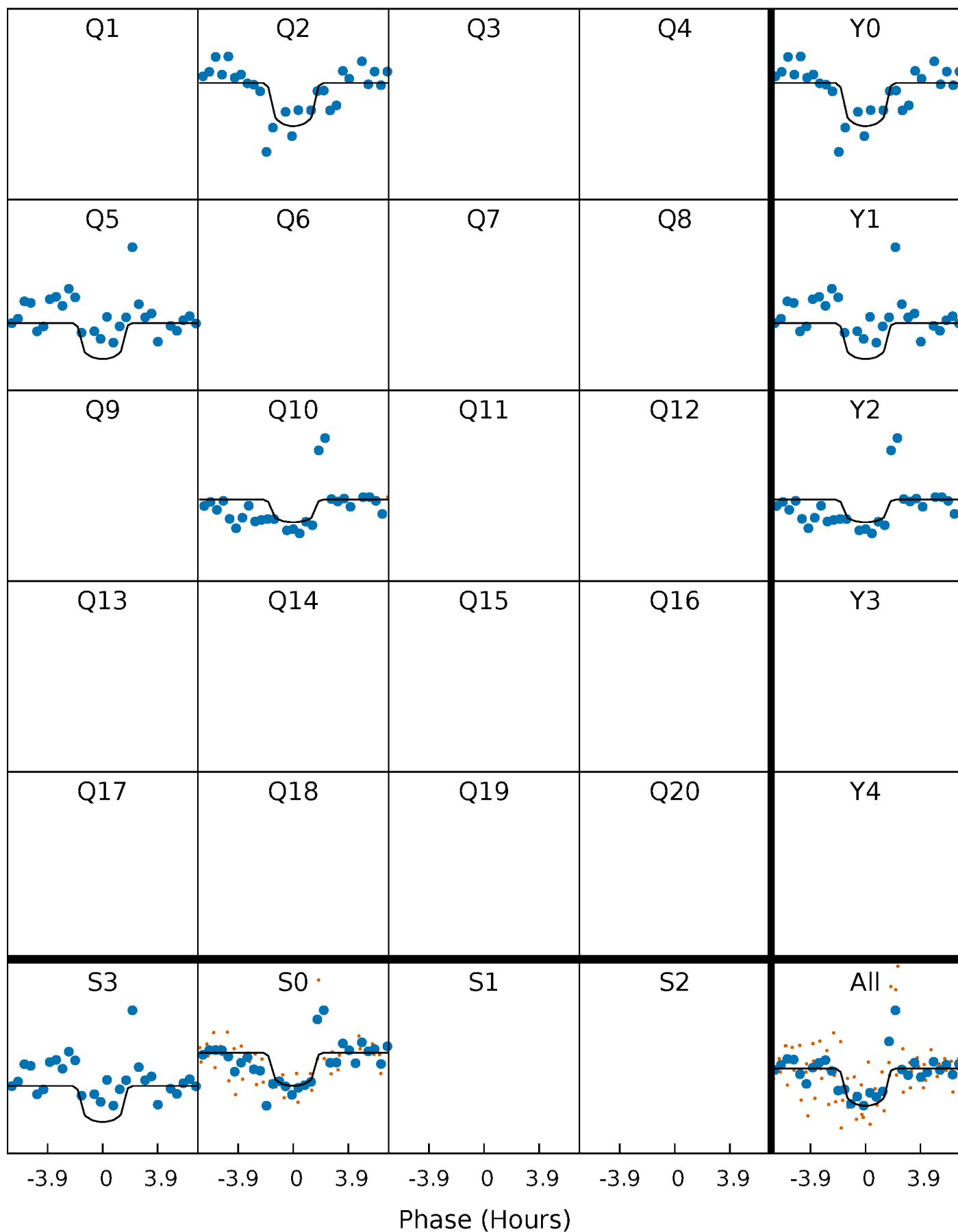
PDC Quarter-Phased Transit Curves

TCE 007975062-01 P=233.227864 Days $T_0=248.200628$ (BKJD)



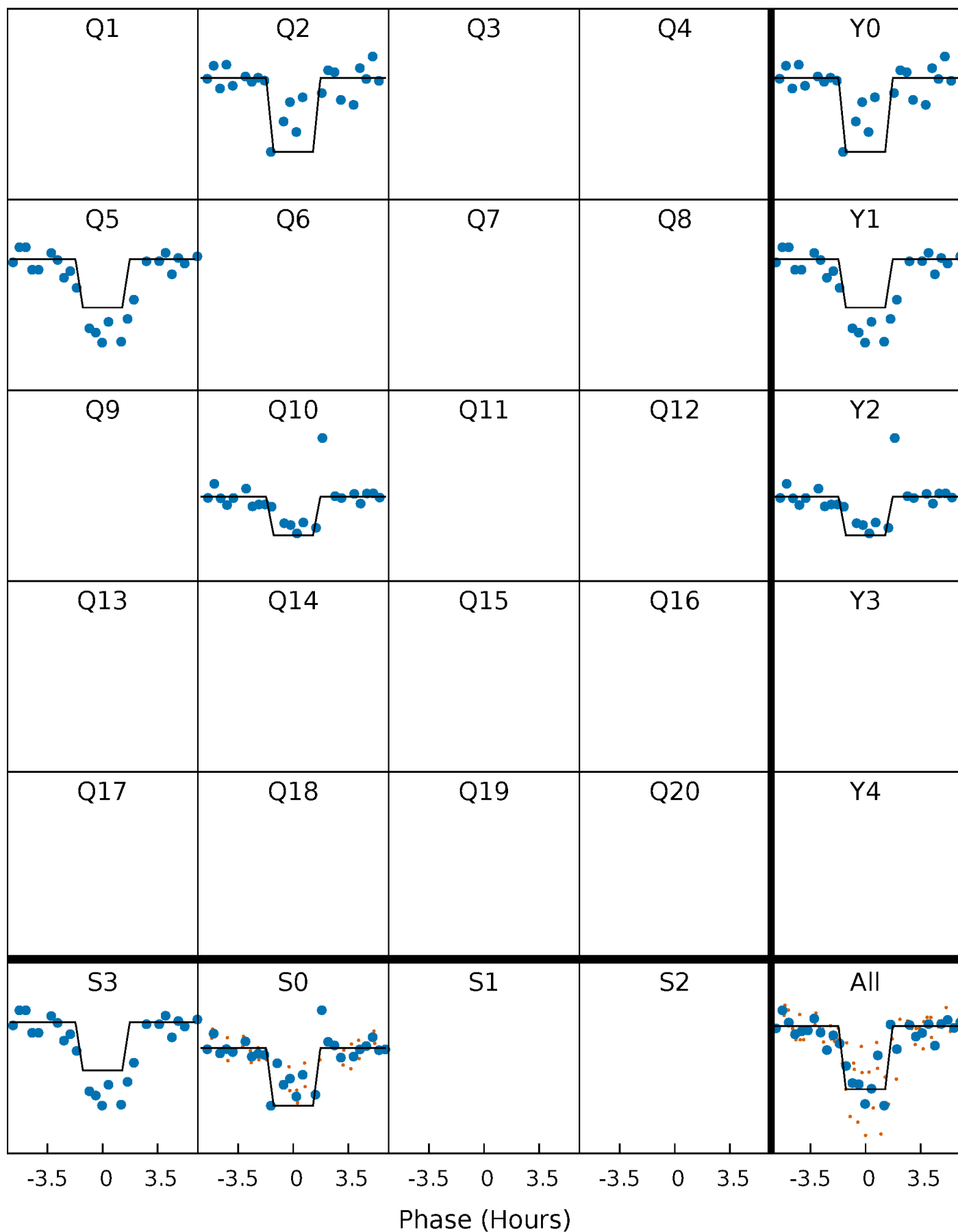
DV Quarter-Phased Transit Curves

TCE 007975062-01 P=233.227864 Days $T_0=248.200628$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

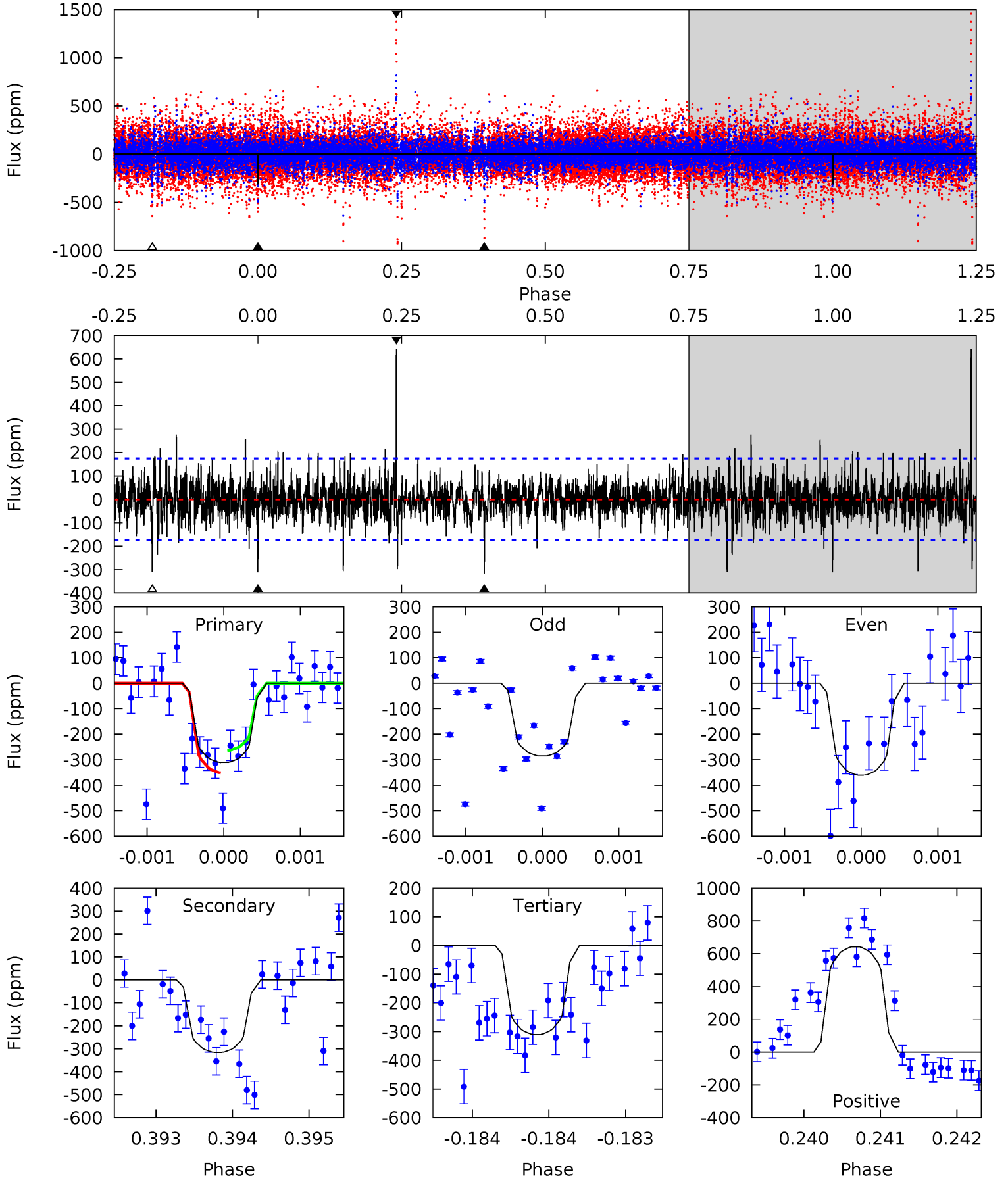
TCE 007975062-01 P=233.235298 Days $T_0=248.180784$ (BKJD)



DV Model-Shift Uniqueness Test

007975062-01, $P = 233.227864$ Days, $E = 14.972764$ Days

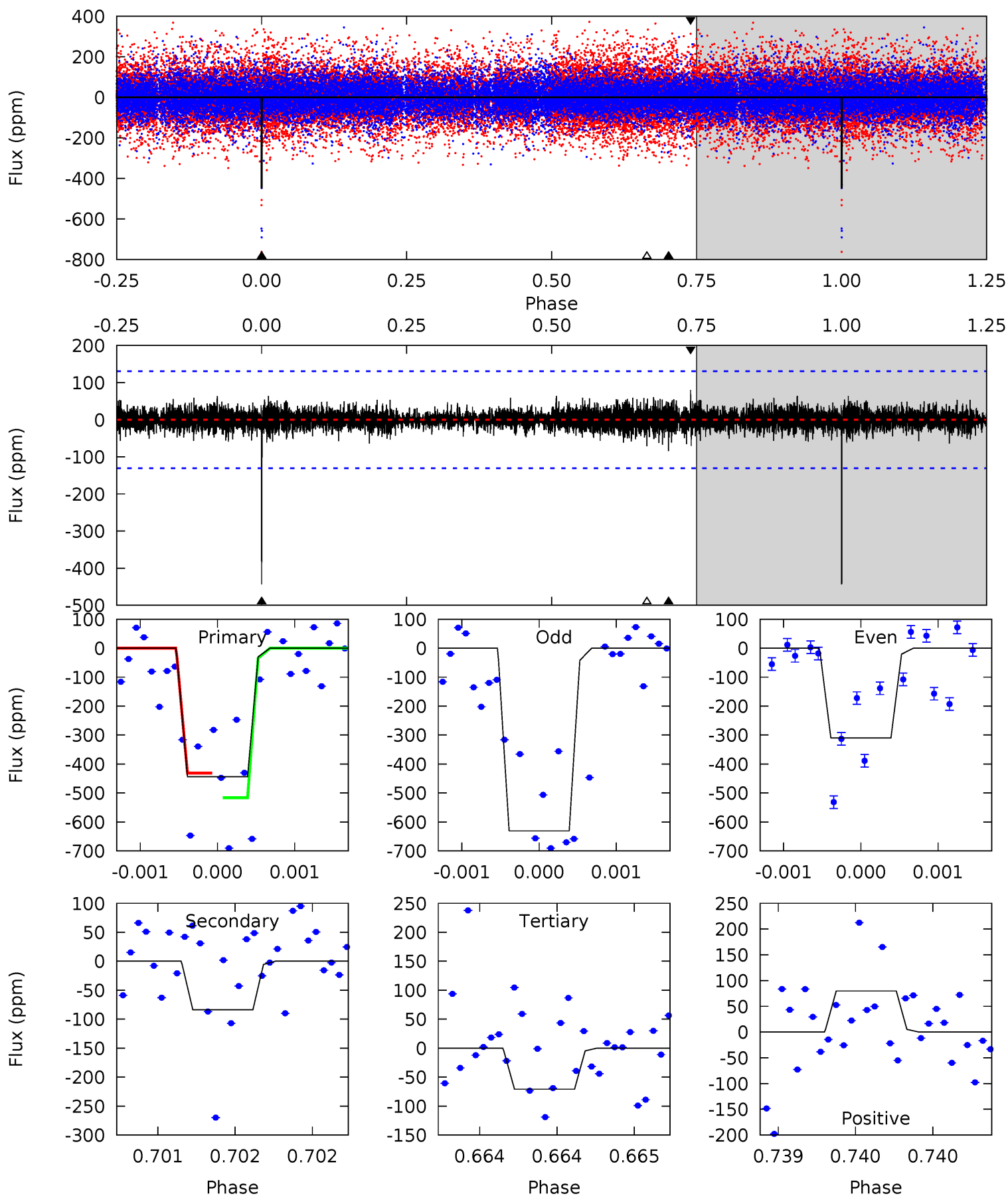
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.84	9.99	9.82	20.3	5.51	3.39	1.82	0.02	-10.5	0.18	-10.3	1.08	0.86	0.67	1.38



Alt Model-Shift Uniqueness Test

007975062-01, P = 233.235298 Days, E = 14.945486 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.9	3.56	3.01	3.39	5.55	3.44	0.70	15.8	15.5	0.56	0.18	7.07	1.37	0.15	0



Stellar Parameters For KIC 007975062

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5579^{+150}_{-150}	$4.399^{+0.172}_{-0.258}$	$-0.340^{+0.350}_{-0.250}$	$0.925^{+0.328}_{-0.151}$	$0.782^{+0.126}_{-0.054}$	$1.393^{+1.132}_{-0.818}$
	+3%/-3%	+4%/-6%	+103%/-74%	+35%/-16%	+16%/-7%	+81%/-59%
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 007975062-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-316 ± 32	$3.30^{+3.12}_{-2.28}$	404^{+39}_{-27}	4425^{+3088}_{-899}	7631^{+74174}_{-5521}
Alt.	-84 ± 24	$3.33^{+2.65}_{-2.08}$	403^{+38}_{-28}	3468^{+1427}_{-574}	1975^{+10443}_{-1411}

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 $A_{\text{obs}} \gg 1.0$

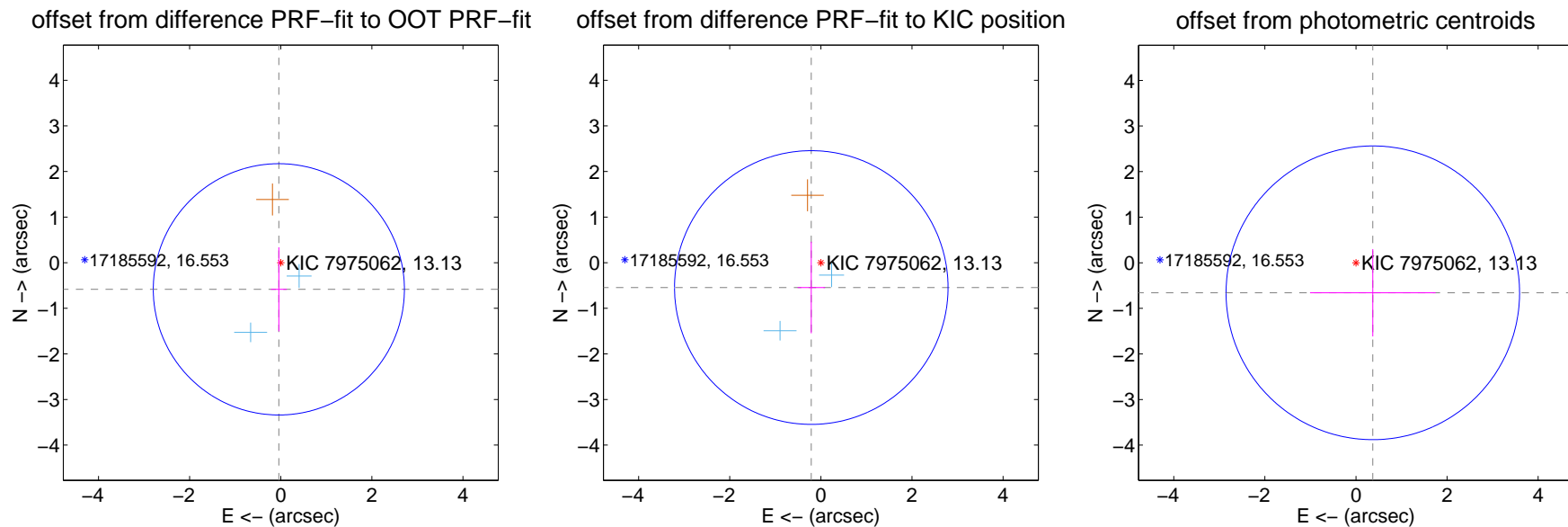
DV Centroid Data

Supplemental centroid analysis for 007975062-01. Kepler magnitude: 13.13. Transit SNR 5.36

There are 2 quarters with good PRF difference image offsets

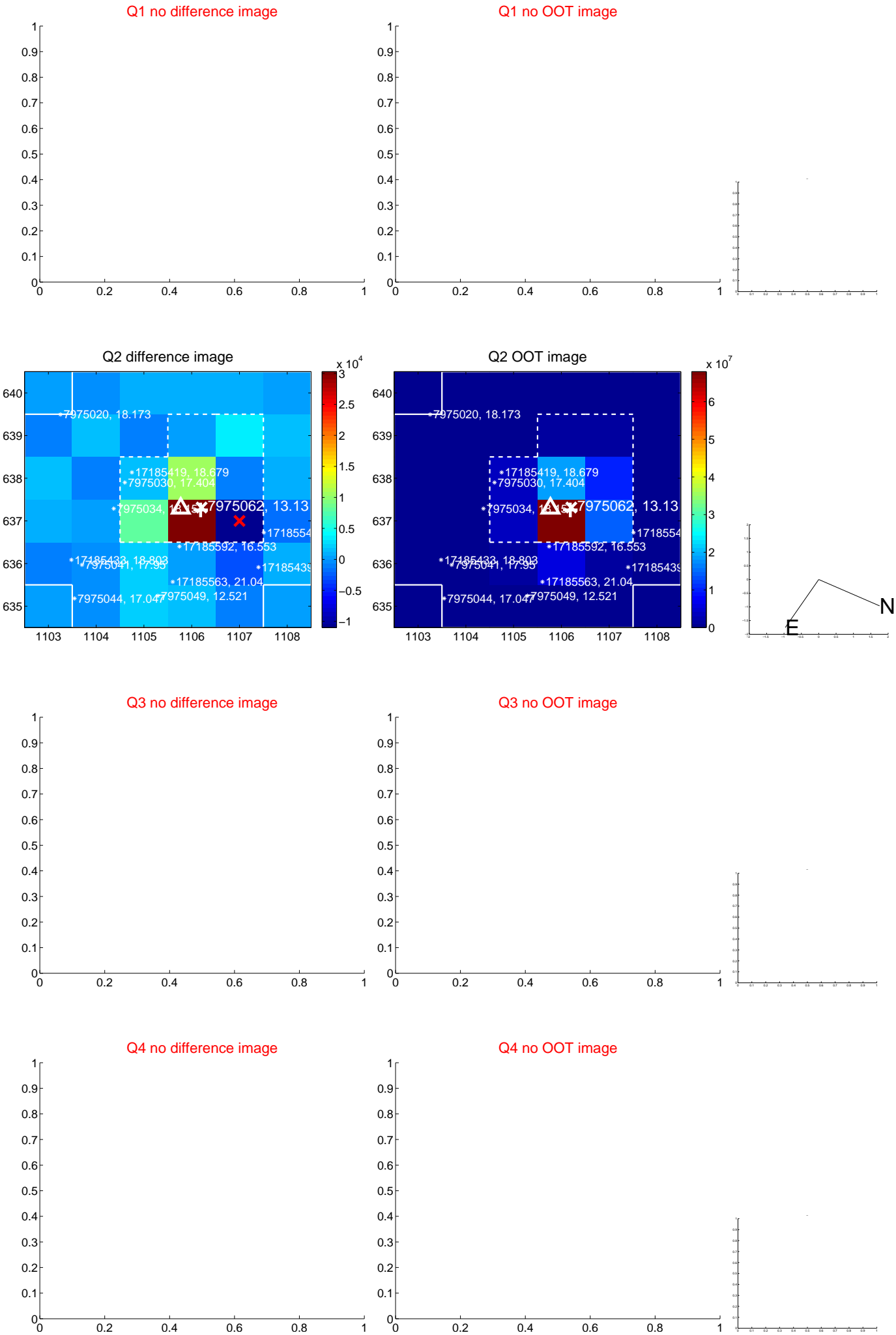
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.586 ± 0.919	0.64	0.042 ± 0.173	-0.585 ± 0.921
PRF-fit source offset from KIC position	0.584 ± 1.000	0.58	0.210 ± 0.301	-0.545 ± 1.004
photometric centroid source offset	0.76 ± 1.07	0.70	-0.37 ± 1.38	-0.66 ± 0.96

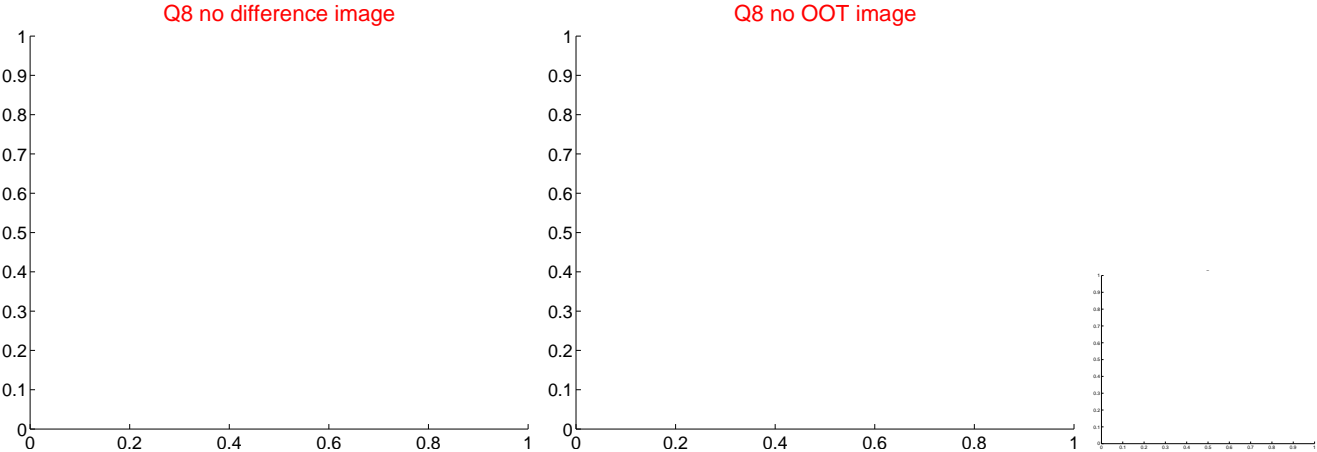
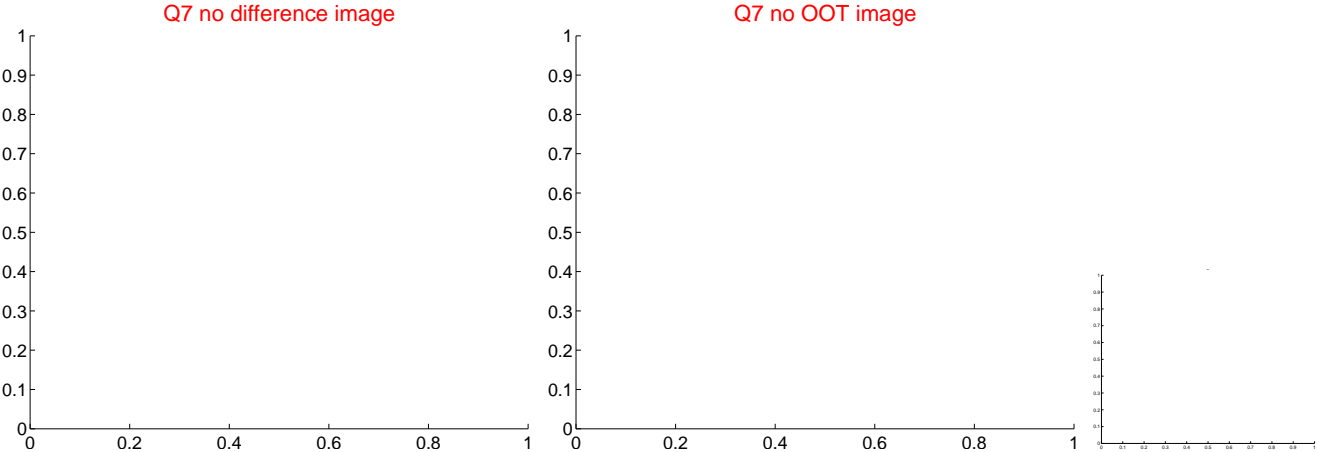
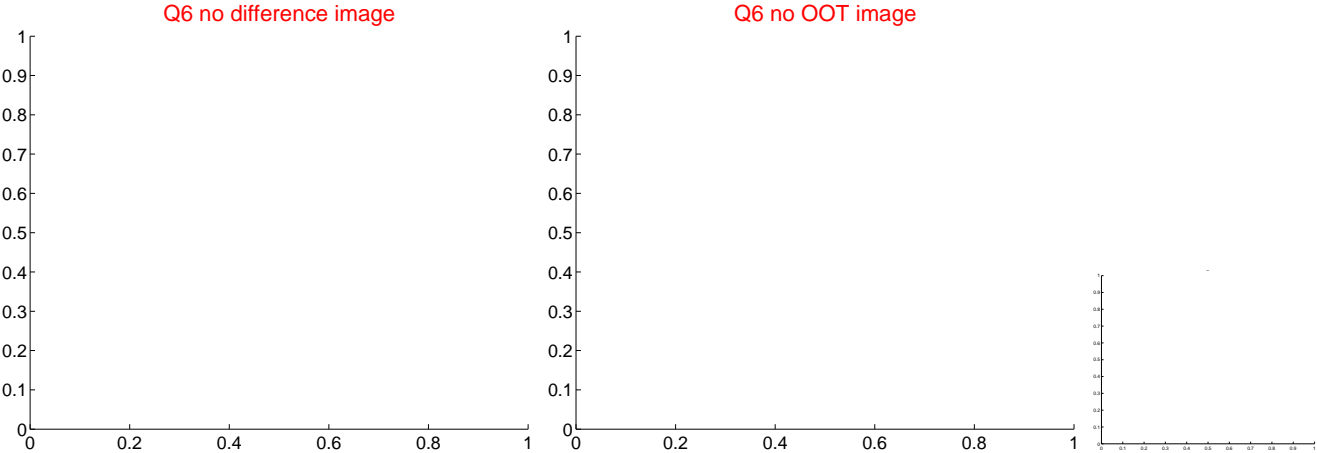
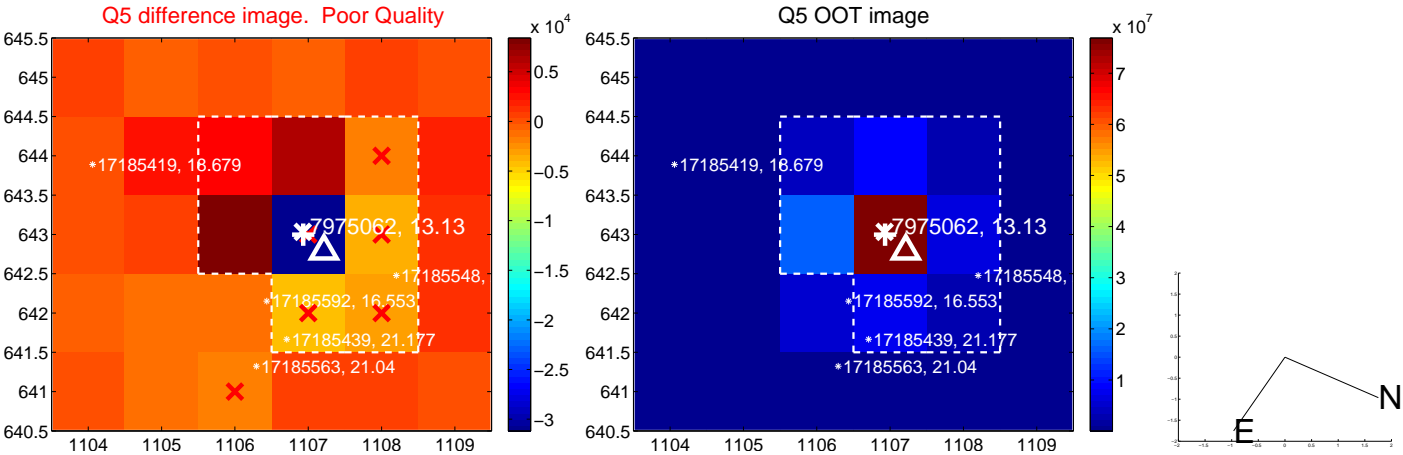


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

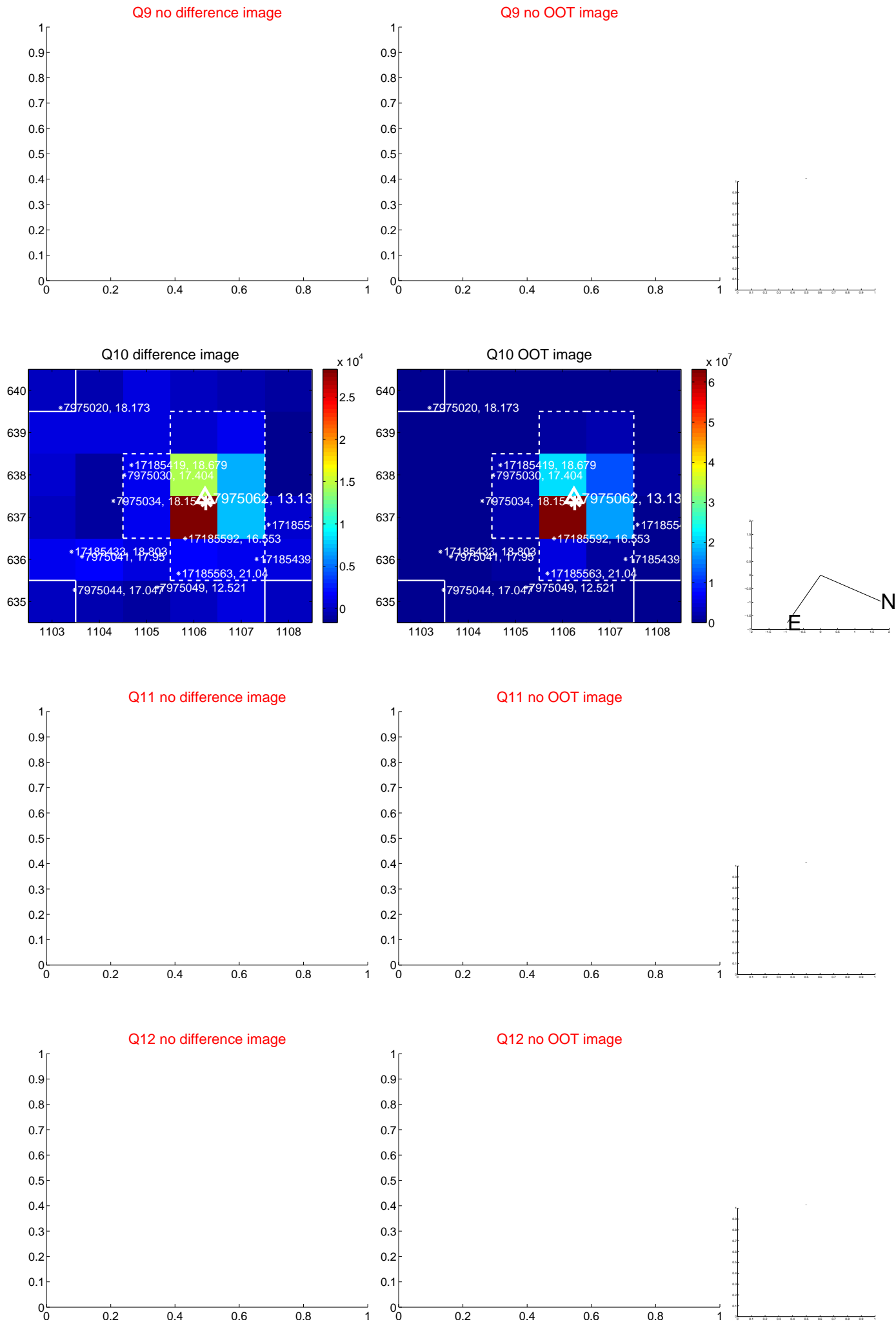
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



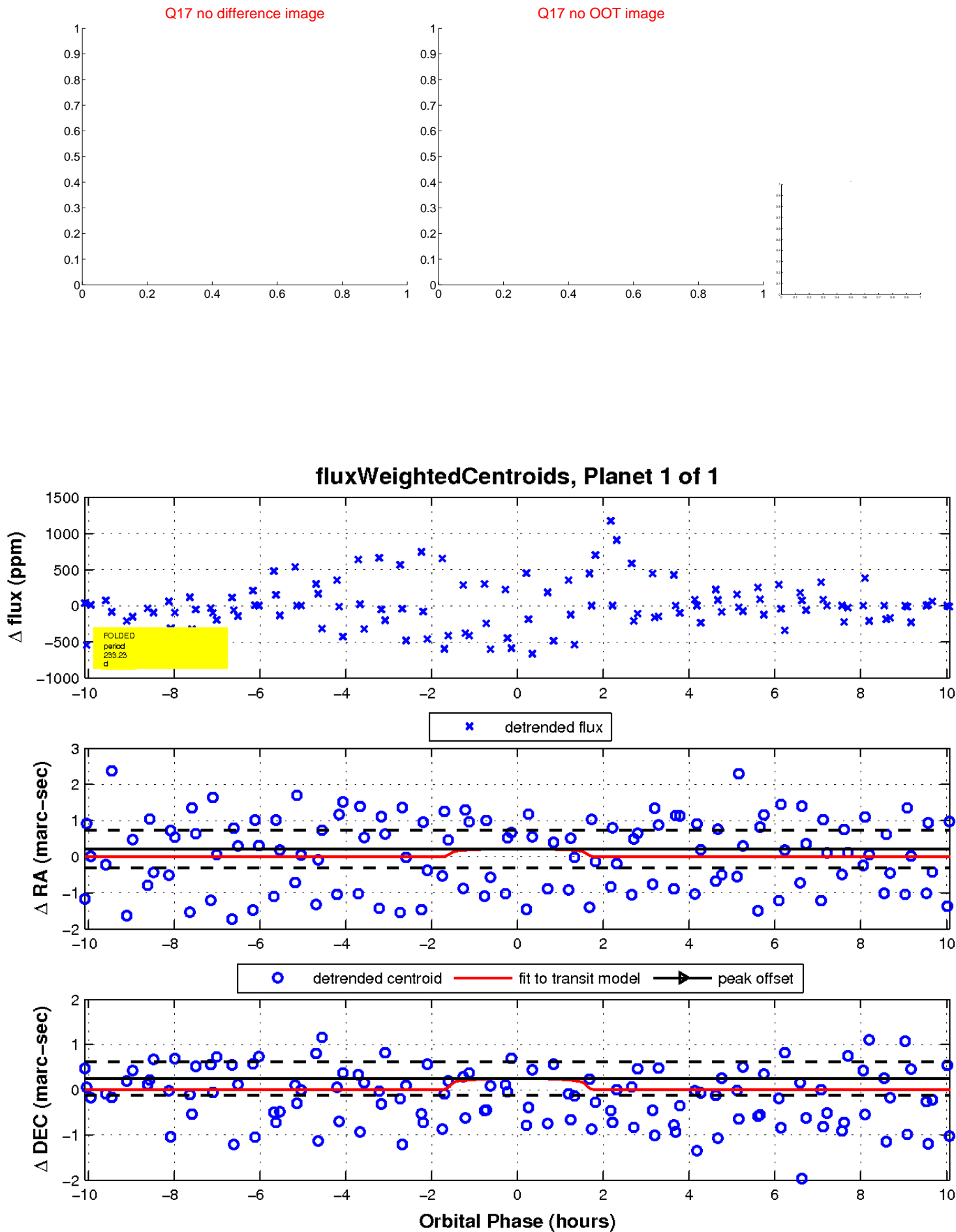
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

