

KIC 006429185

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})
006429185-01	OBS	No	444.749889	571.687593	394.5	4.756	8.0	6.7	1.62	5123	3.58	1.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006429185-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

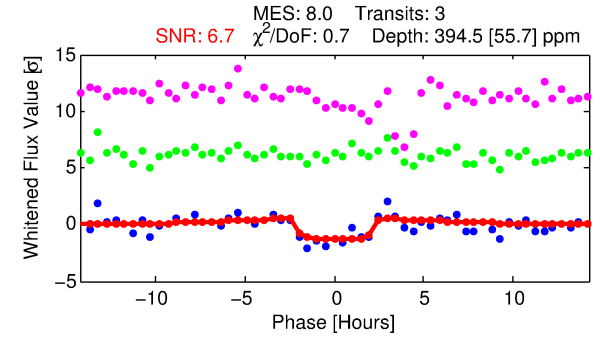
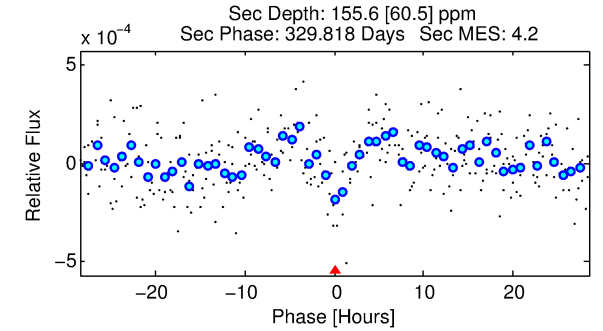
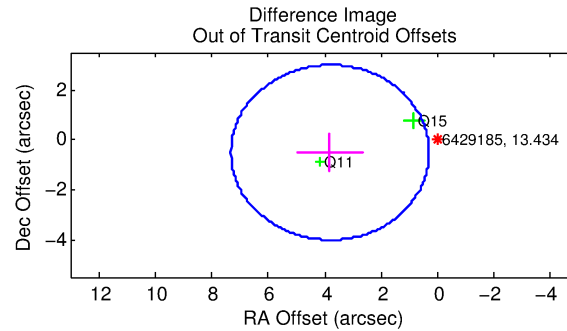
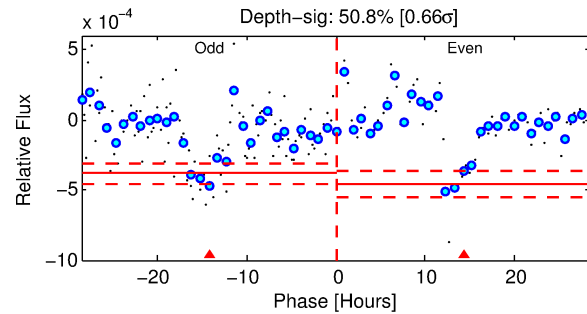
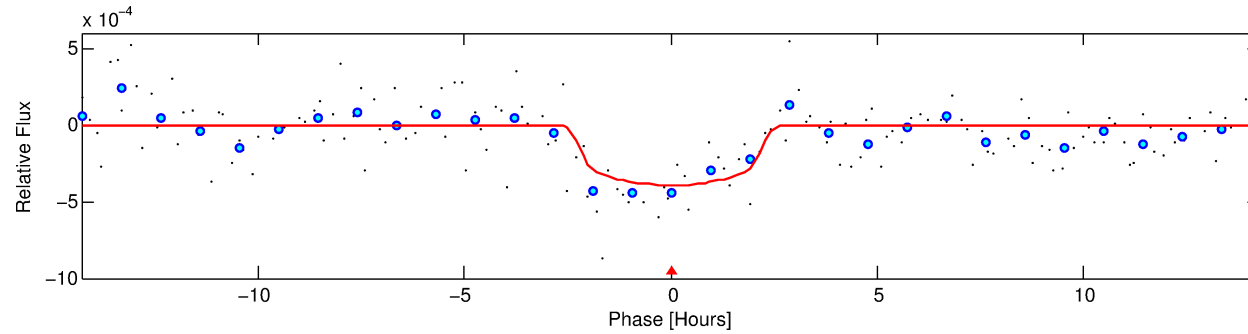
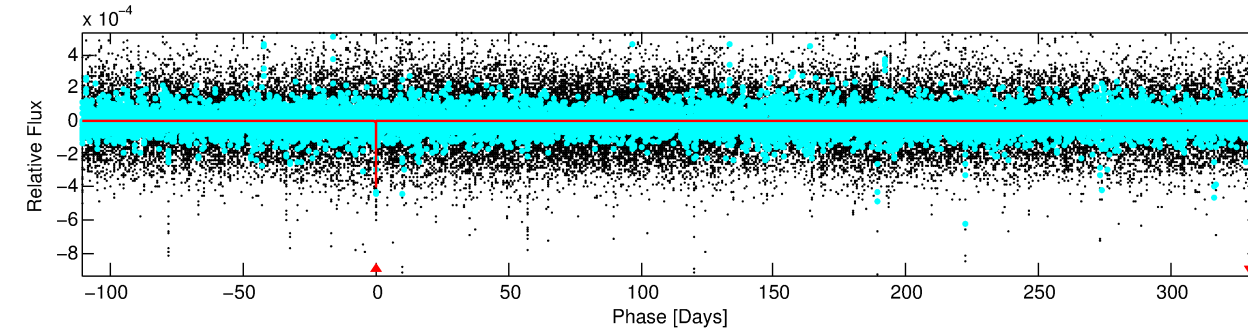
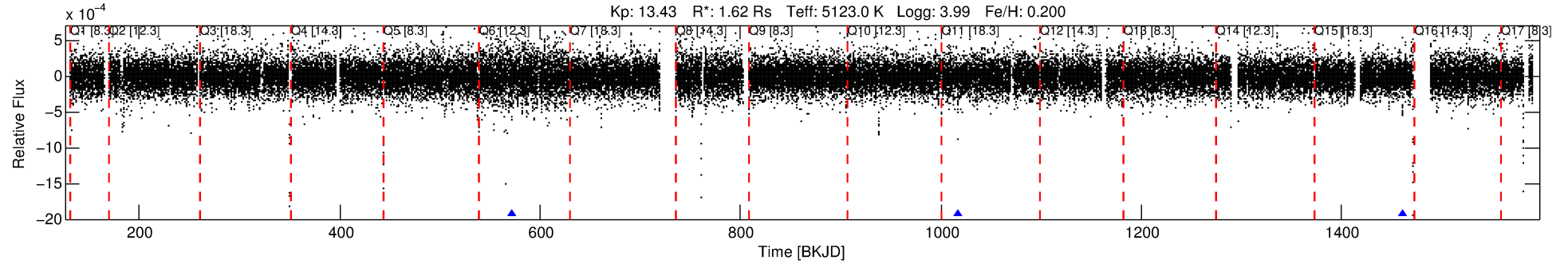
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006429185-01

No Significant Match Found

DV One-Page Summary

KIC: 6429185 Candidate: 1 of 1 Period: 444.750 d



DV Fit Results:

Period = 444.74989 [0.00671] d
Epoch = 571.6876 [0.0085] BKJD
Rp/R* = 0.0202 [0.0162]
a/R* = 462.80 [1359.44]
b = 0.79 [1.44]
Seff = 1.30 [1.27]
Teq = 272 [67] K
Rp = 3.58 [3.40] Re
a = 1.1176 [0.6361] AU
Ag = 8349.80 [15991.59] [0.52 σ]
Teffp = 4023 [1662] K [2.25 σ]

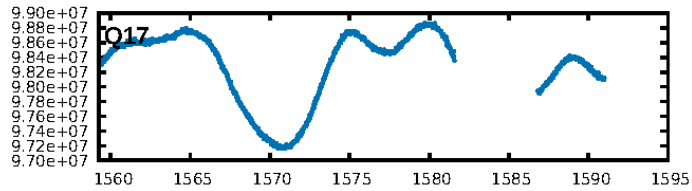
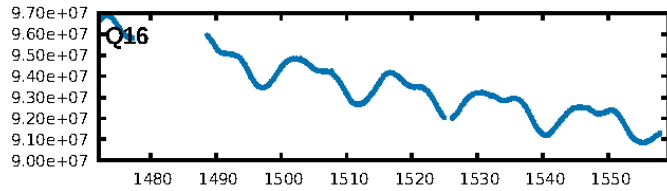
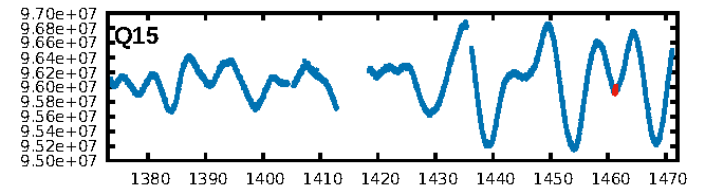
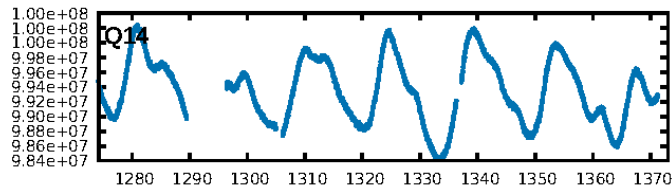
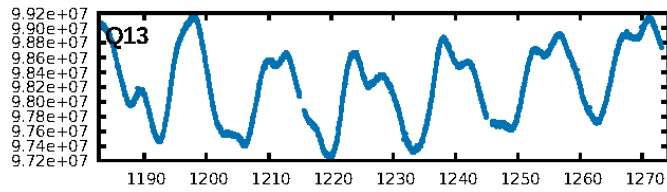
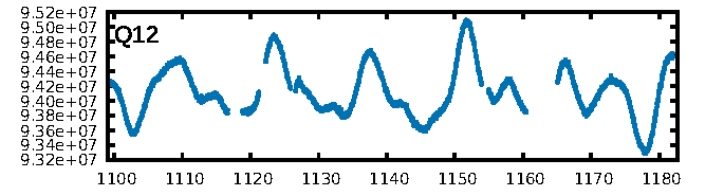
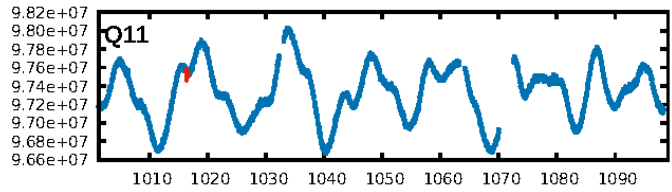
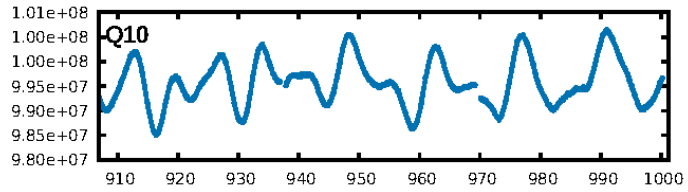
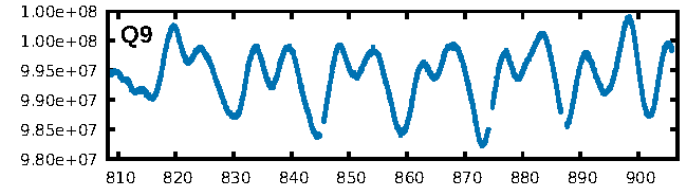
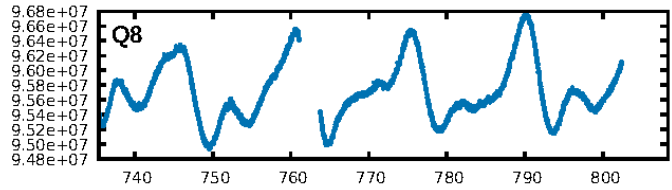
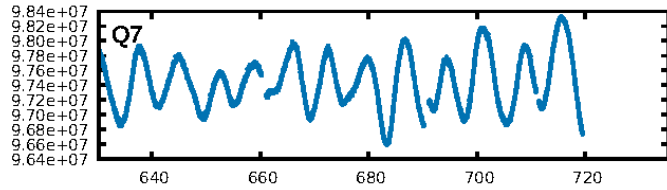
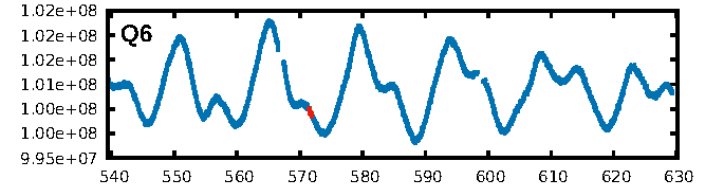
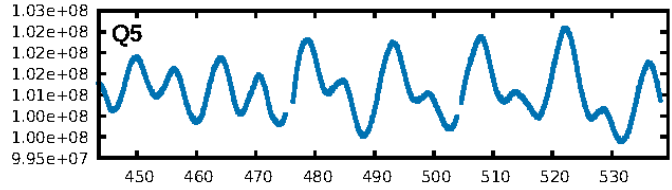
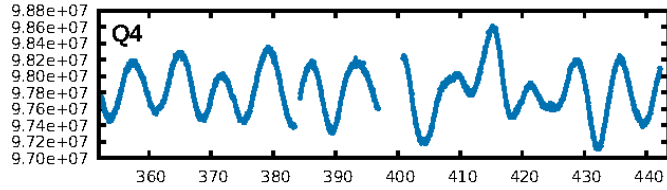
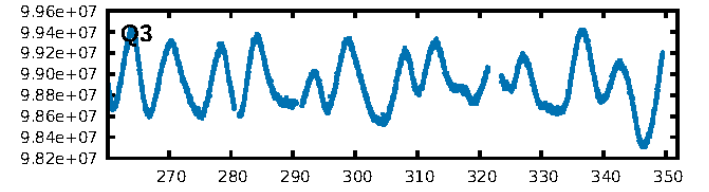
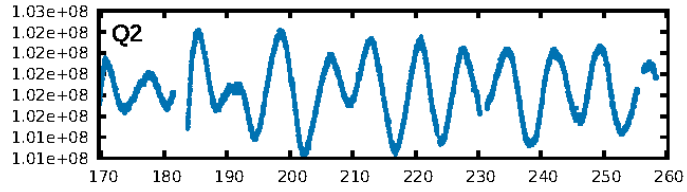
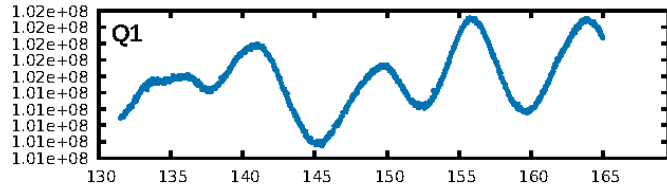
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 86.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.25e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.4123
Centroid-sig: 1.4%
Centroid-so: 2.328 arcsec [2.43 σ]
OotOffset-rm: 3.843 arcsec [3.29 σ]
KicOffset-rm: 3.792 arcsec [3.20 σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

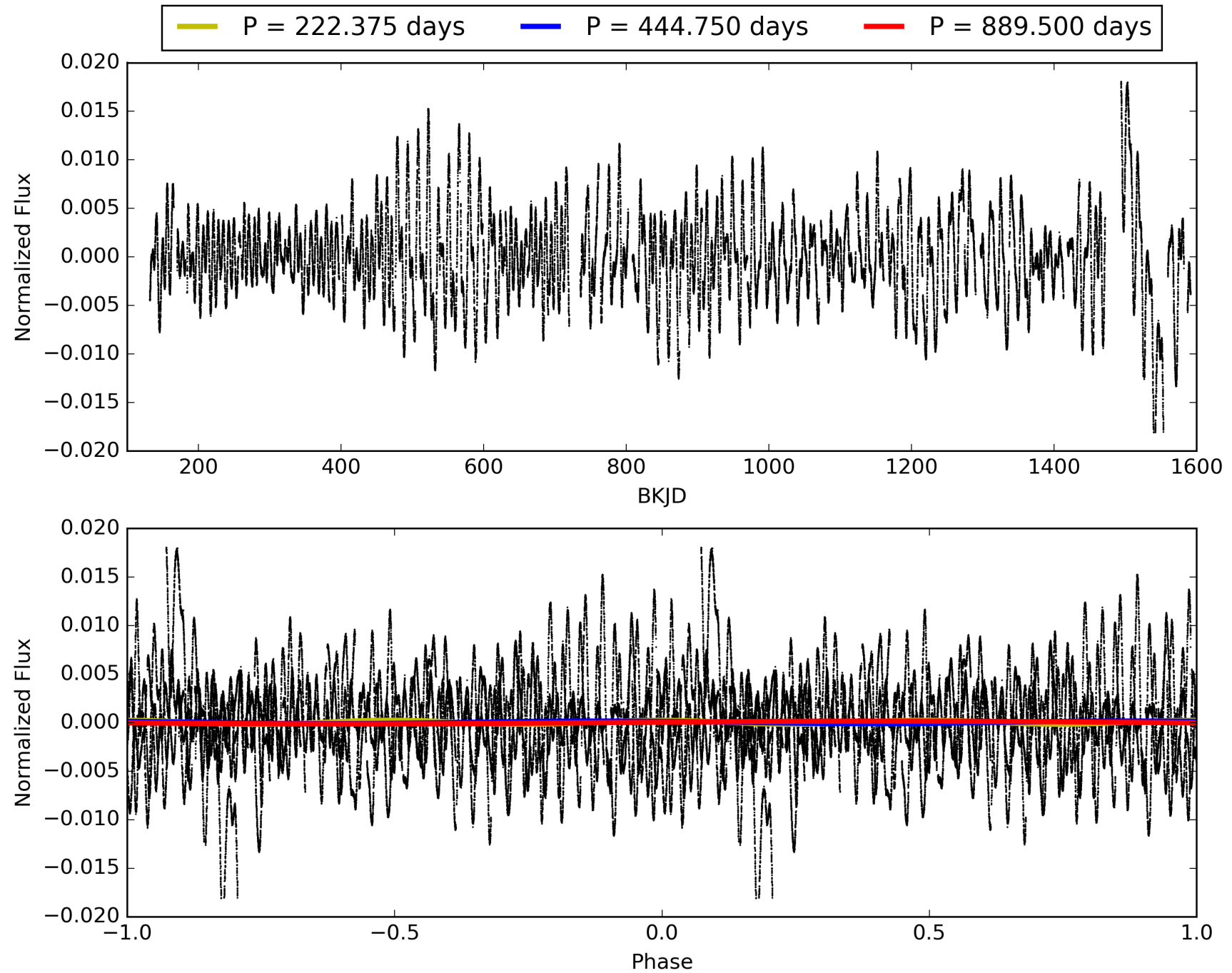
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:13:32 Z

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

TCE 006429185-01, PDC Light Curves

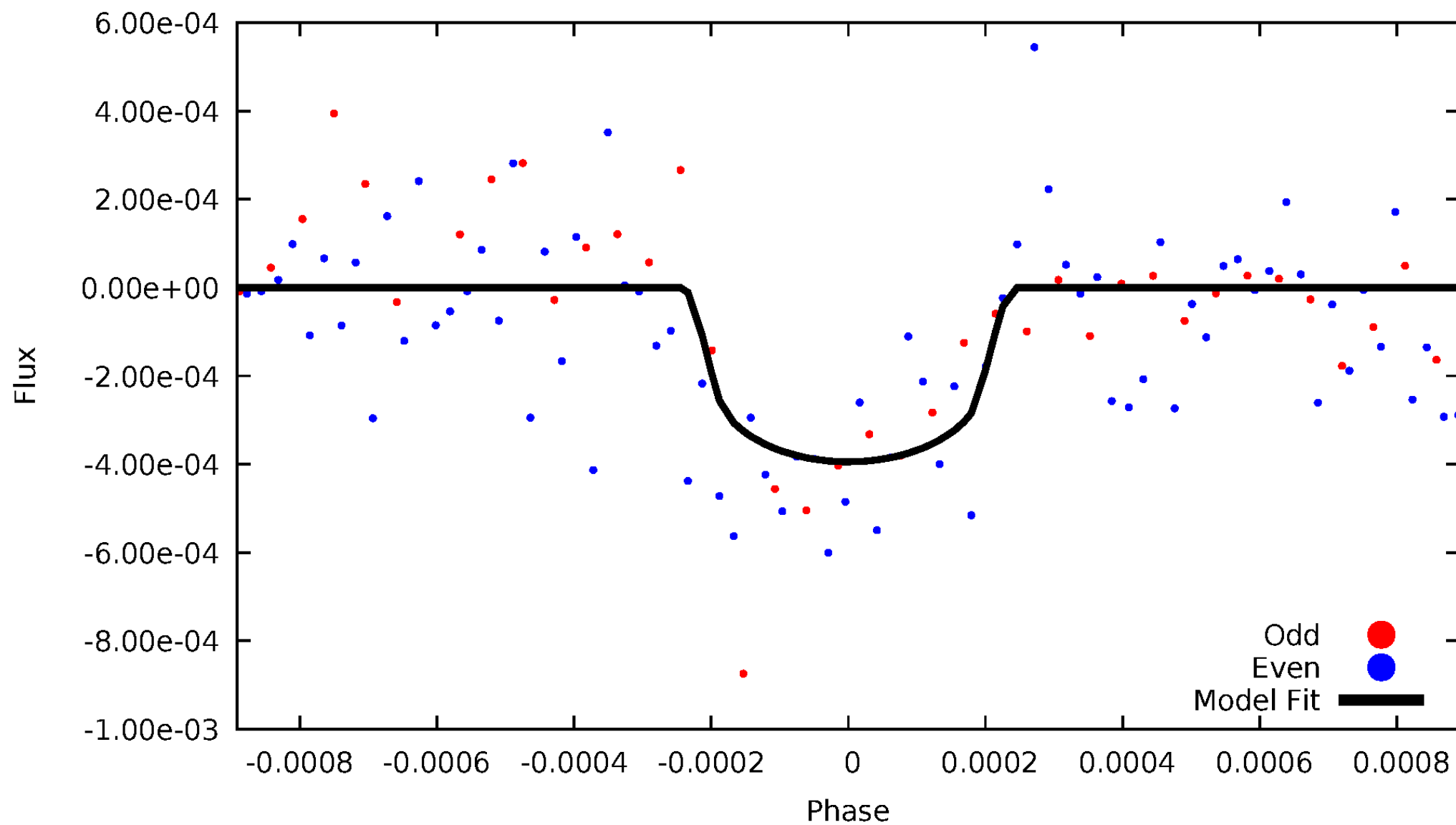


TCE 006429185-01



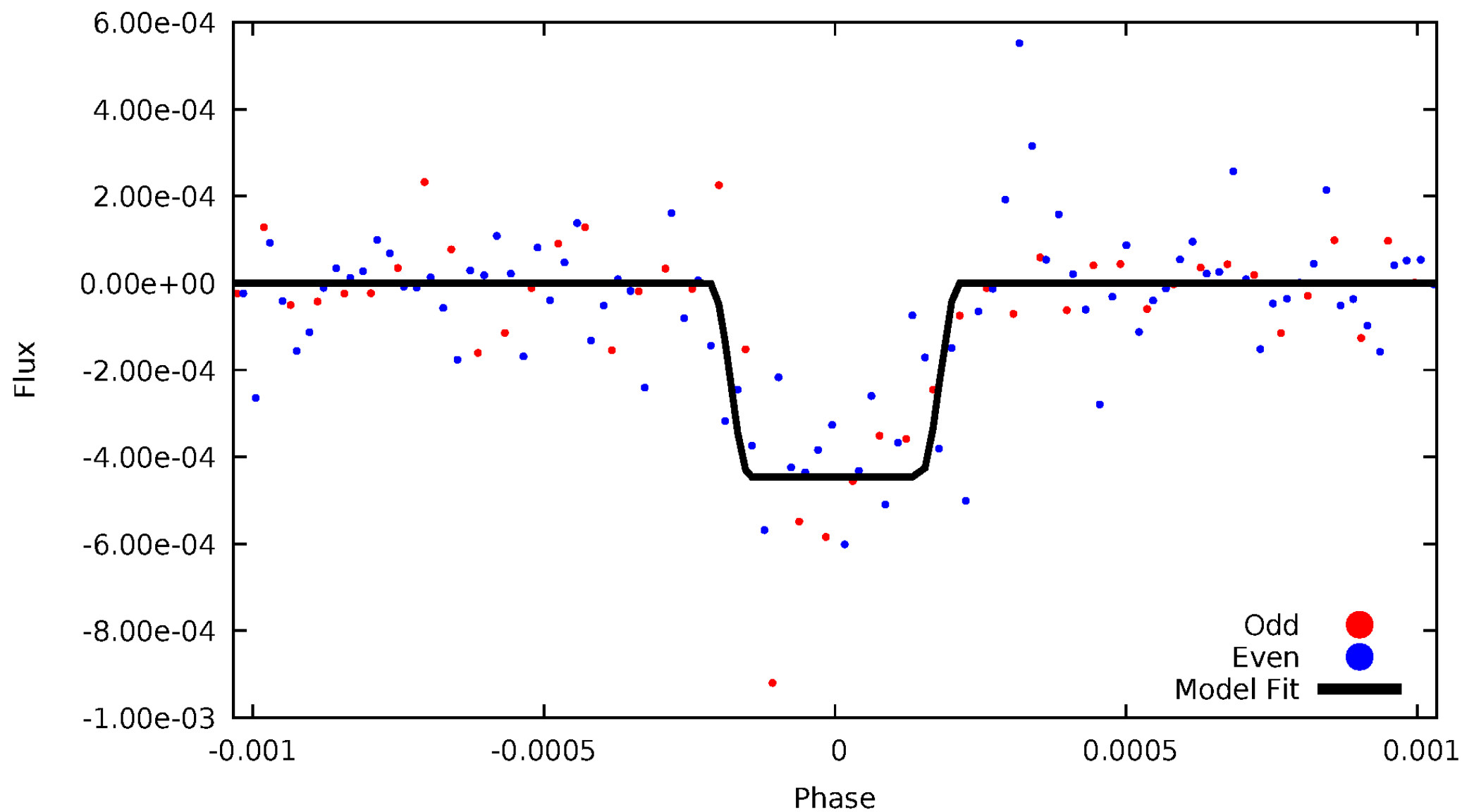
DV Odd/Even

TCE 006429185-01



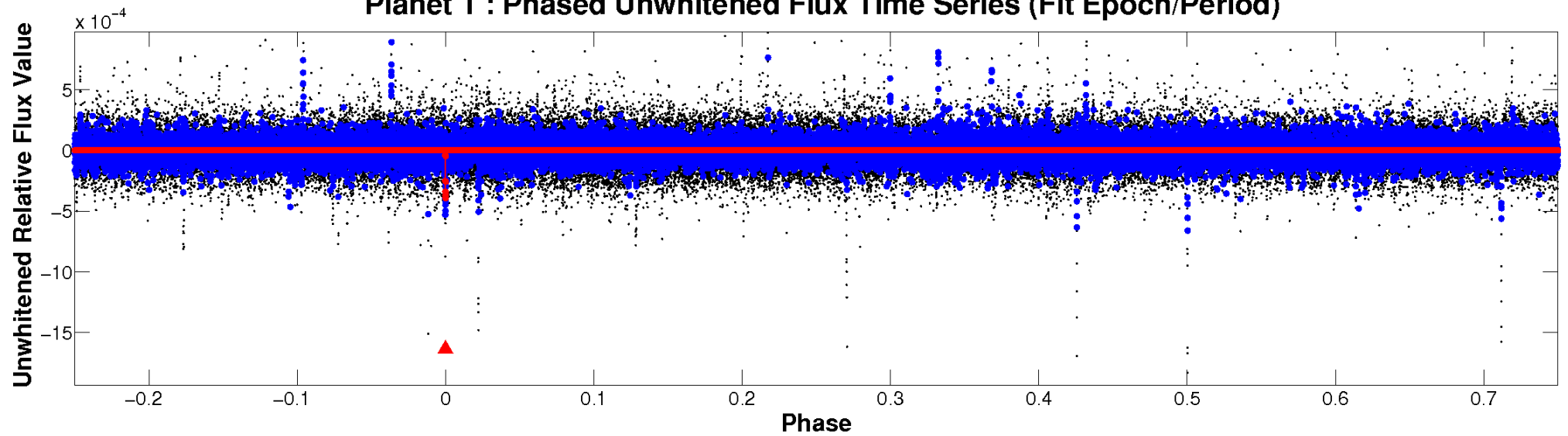
ALT Odd/Even

TCE 006429185-01

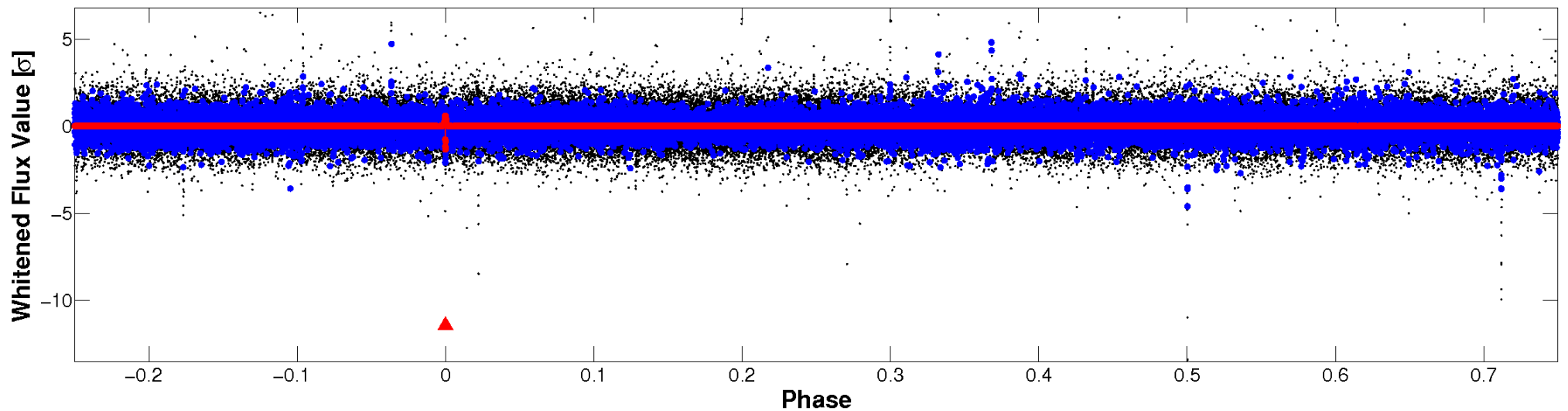


Non-Whitened Vs. Whitened Light Curve

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

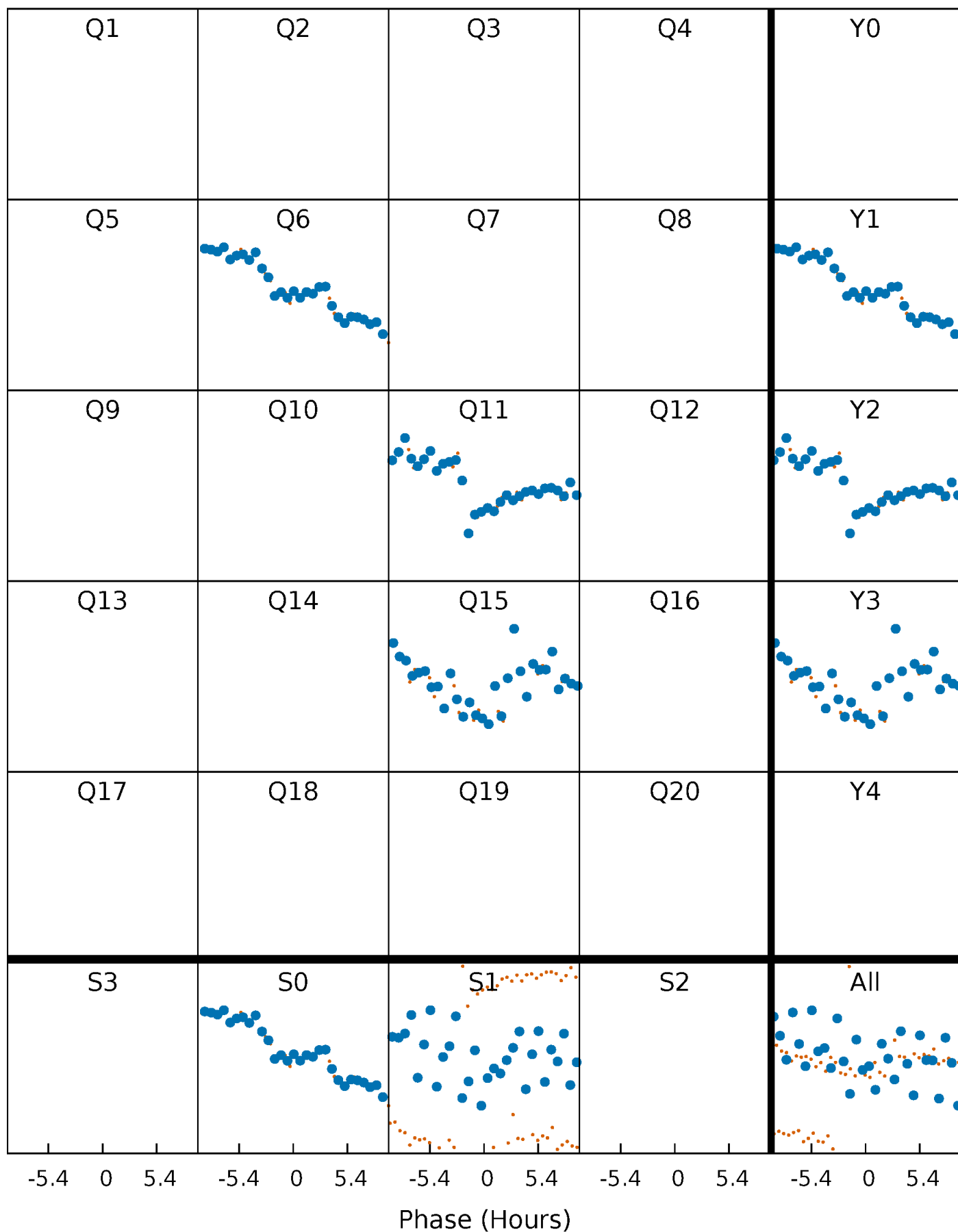


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



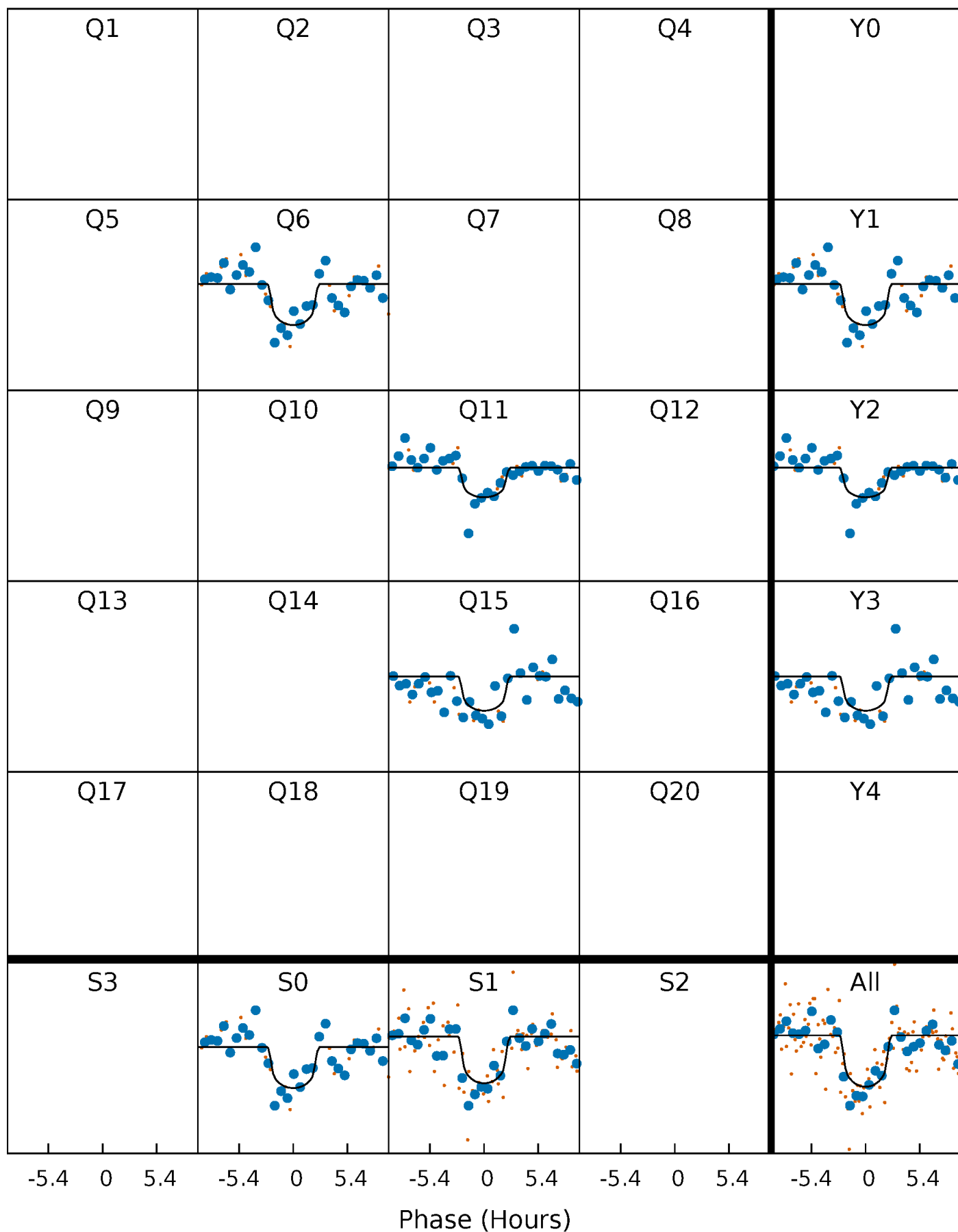
PDC Quarter-Phased Transit Curves

TCE 006429185-01 P=444.749889 Days $T_0=571.687593$ (BKJD)



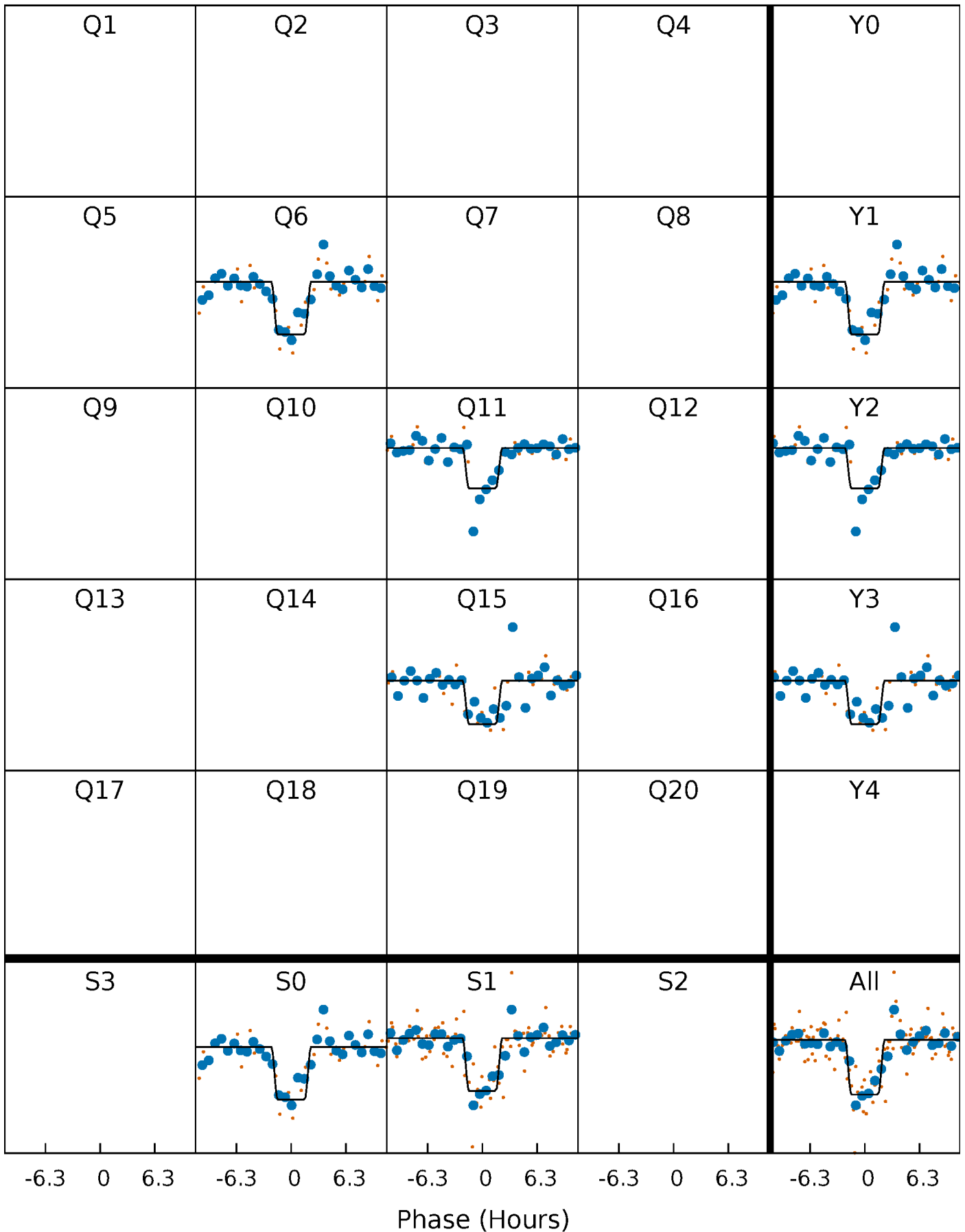
DV Quarter-Phased Transit Curves

TCE 006429185-01 P=444.749889 Days $T_0=571.687593$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

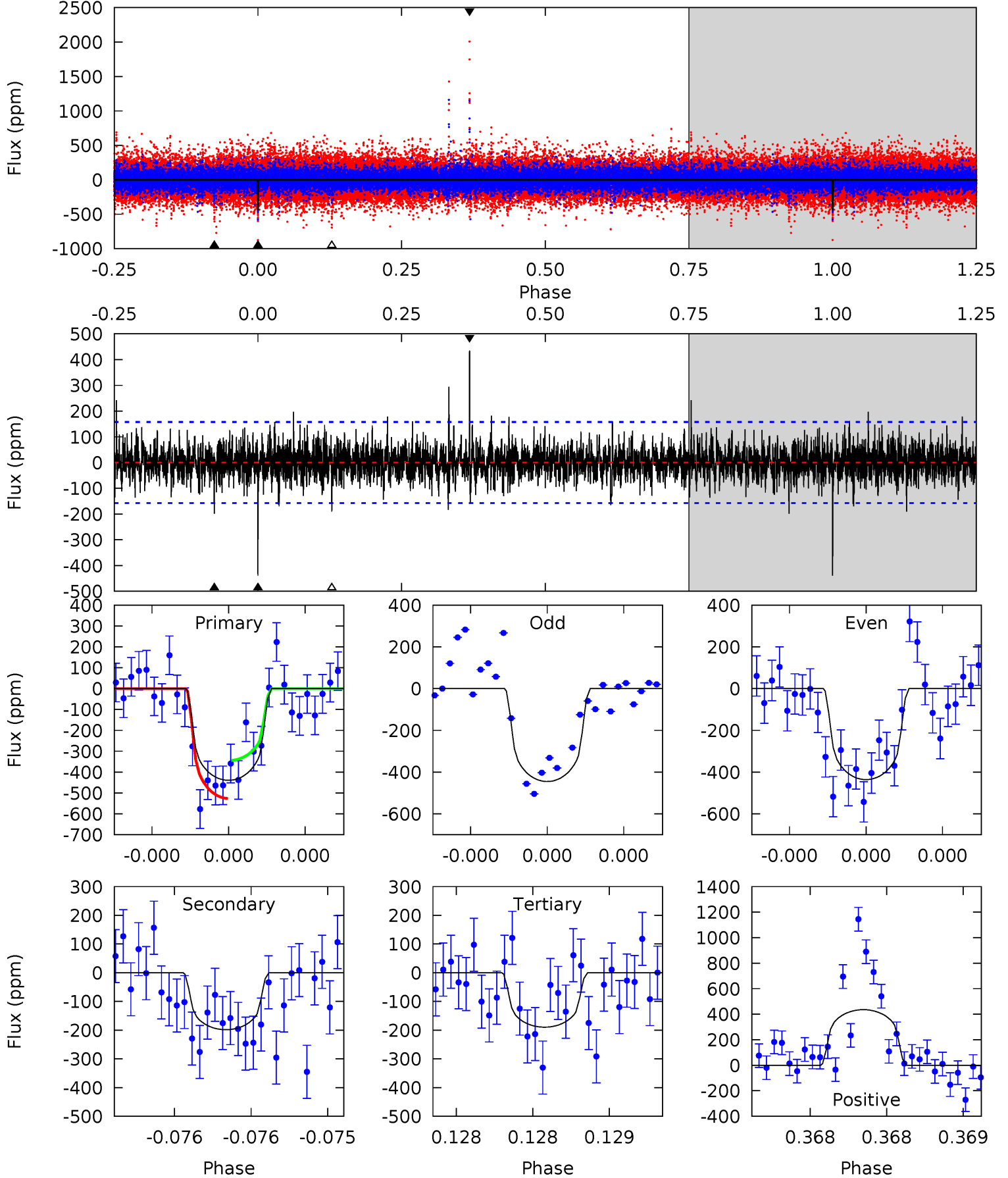
TCE 006429185-01 P=444.750056 Days $T_0=571.667144$ (BKJD)



DV Model-Shift Uniqueness Test

006429185-01, P = 444.749889 Days, E = 126.937704 Days

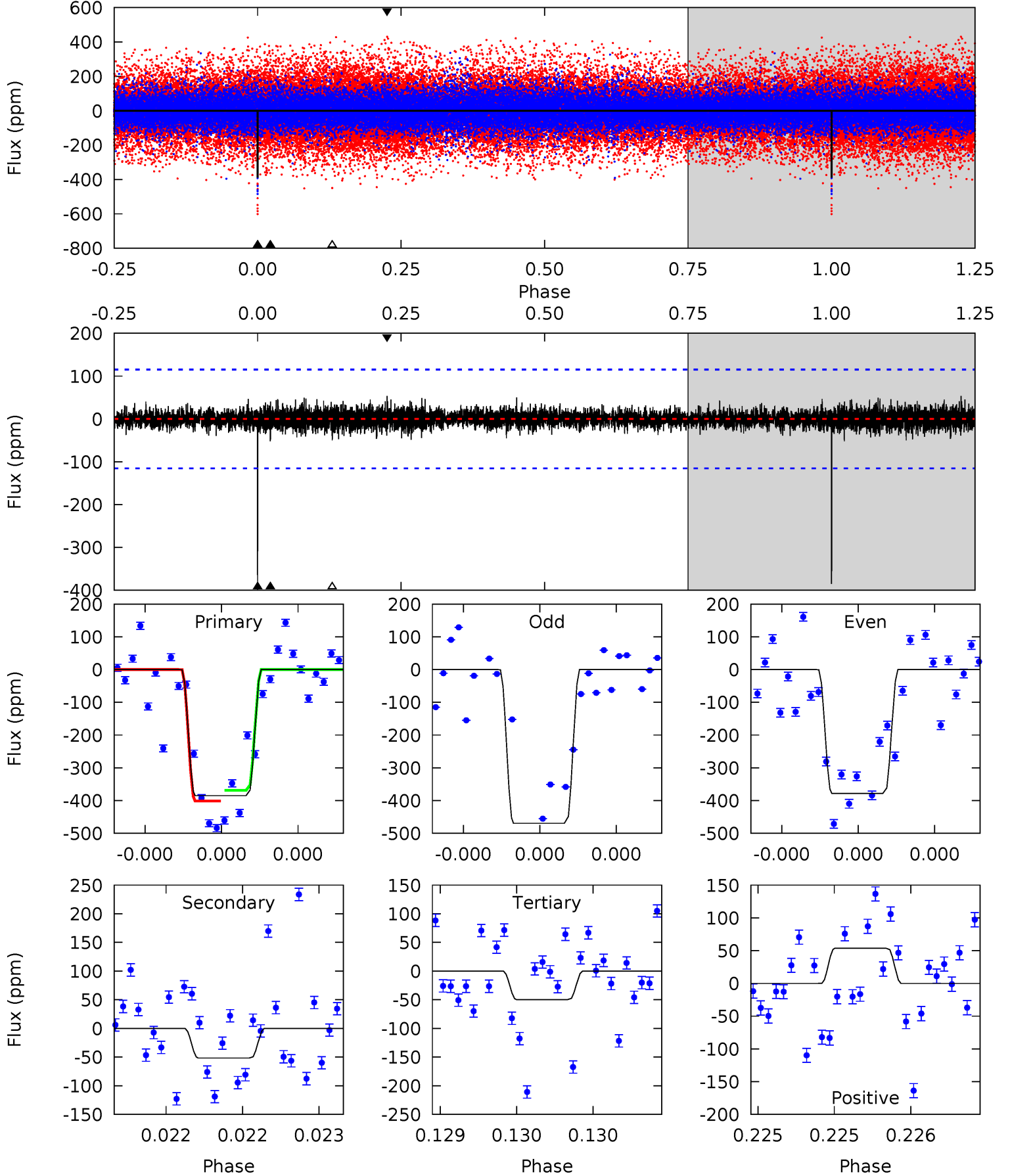
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	7.06	6.75	15.5	5.60	3.52	1.61	8.89	0.14	0.31	-8.44	0.15	0.99	0.50	3.26



Alt Model-Shift Uniqueness Test

006429185-01, P = 444.750056 Days, E = 126.917088 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	2.51	2.42	2.61	5.61	3.53	0.54	16.3	16.1	0.09	-0.10	2.07	1.03	0.12	0.80



Stellar Parameters For KIC 006429185

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5123^{+153}_{-153}	$3.992^{+0.595}_{-0.298}$	$0.200^{+0.200}_{-0.300}$	$1.621^{+0.826}_{-0.826}$	$0.941^{+0.130}_{-0.130}$	$0.311^{+2.129}_{-0.219}$
	+3%/-3%	+15%/-7%	+100%/-150%	+51%/-51%	+14%/-14%	+684%/-70%
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 006429185-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-198 ± 28	$3.61^{+3.26}_{-2.15}$	371^{+57}_{-56}	4240^{+1778}_{-687}	10822^{+55209}_{-7904}
Alt.	-52 ± 21	$3.64^{+3.39}_{-2.26}$	372^{+55}_{-51}	3340^{+1354}_{-527}	2494^{+13929}_{-1923}

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

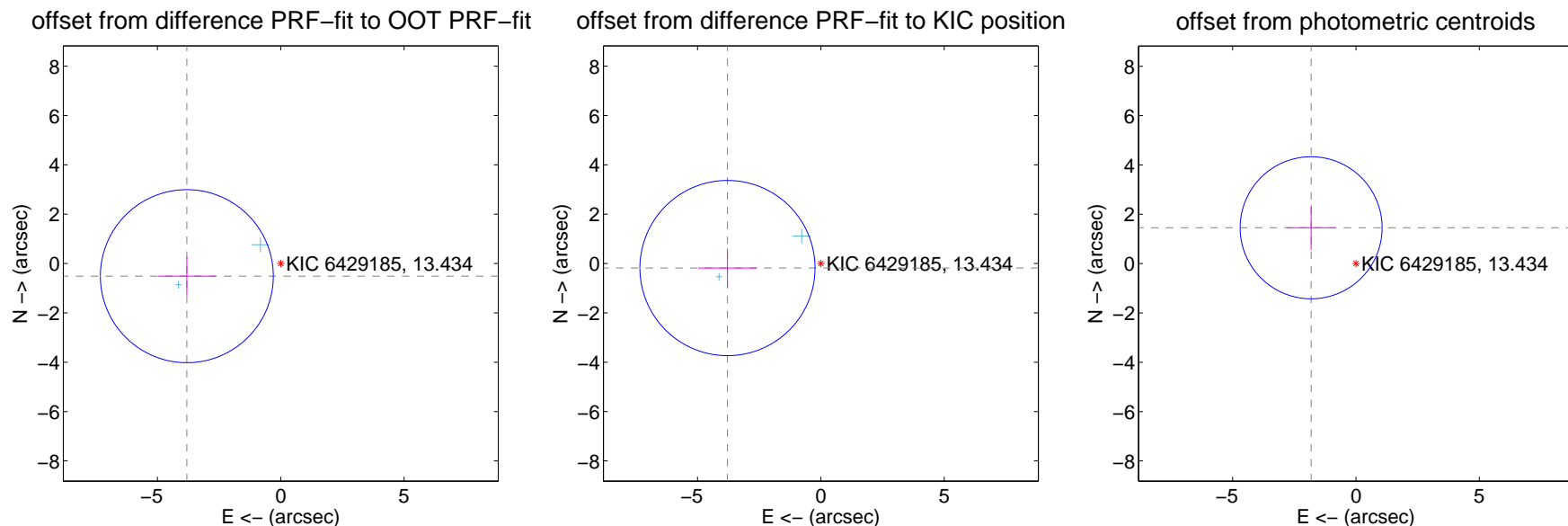
DV Centroid Data

Supplemental centroid analysis for 006429185-01. Kepler magnitude: 13.43. Transit SNR 6.69

There are 2 quarters with good PRF difference image offsets

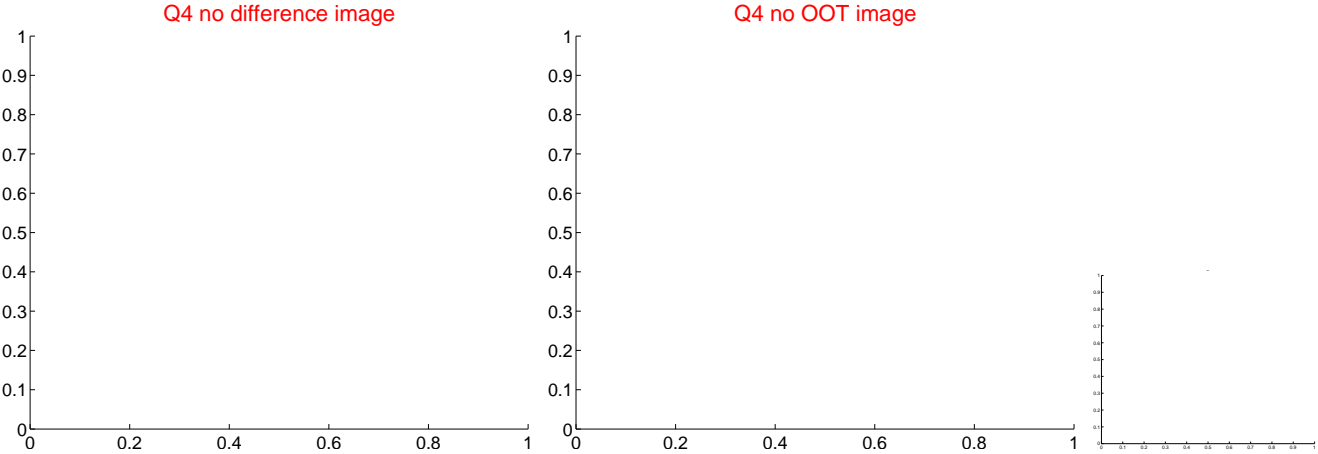
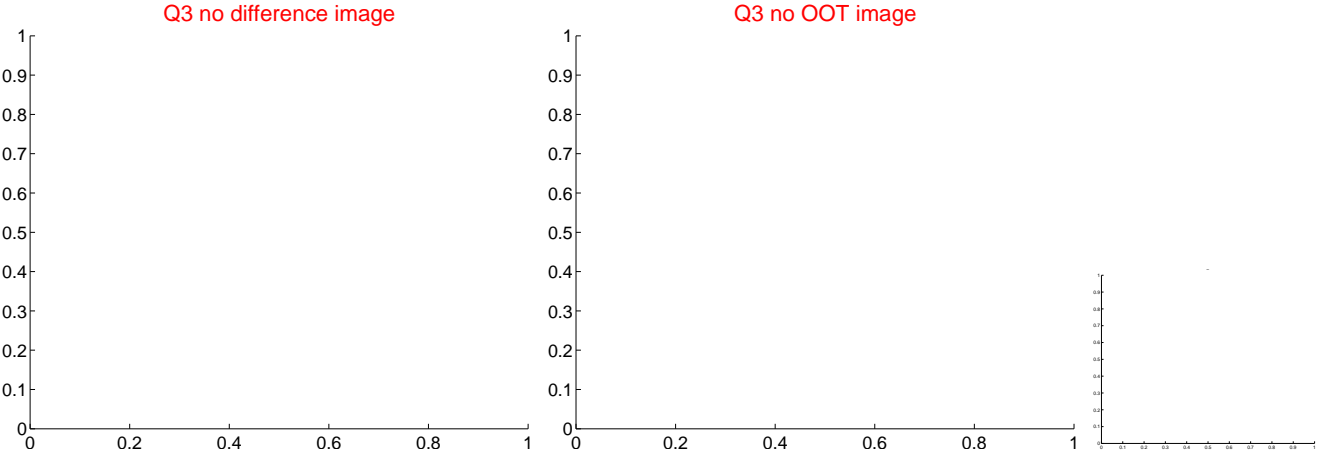
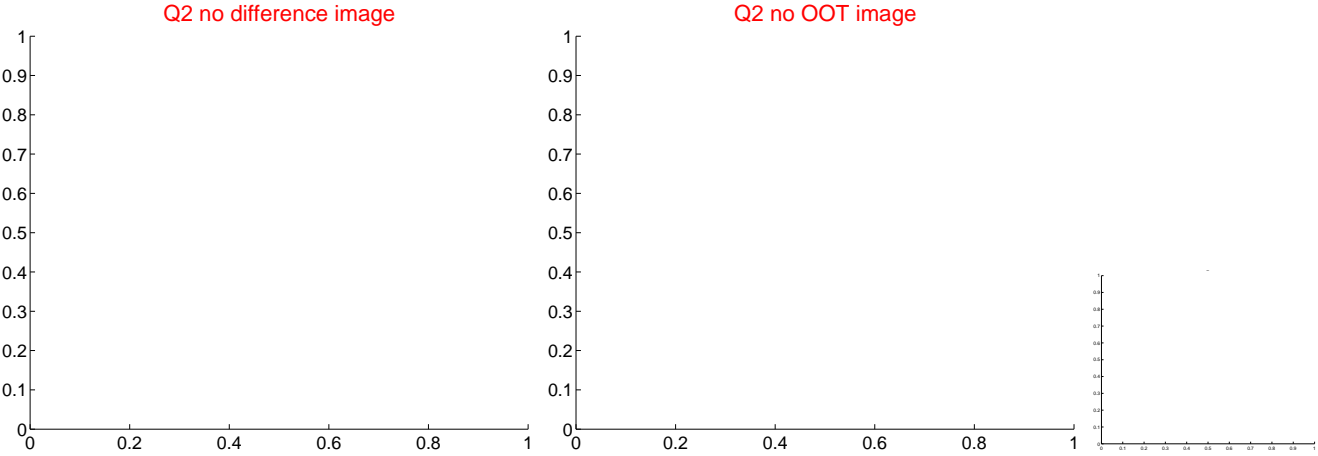
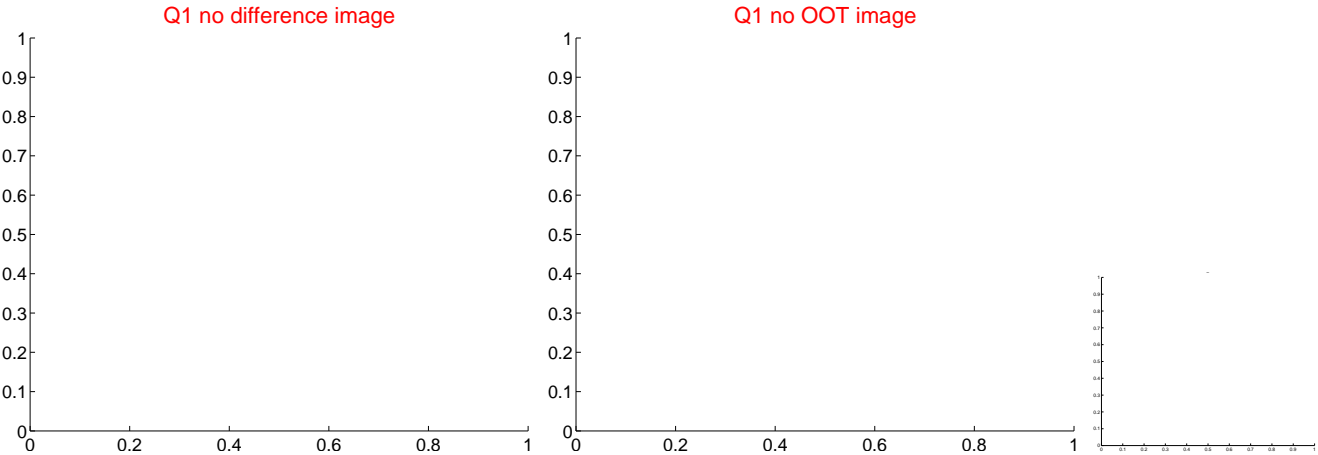
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.843 ± 1.169	3.29	3.808 ± 1.175	-0.512 ± 0.780
PRF-fit source offset from KIC position	3.792 ± 1.184	3.20	3.787 ± 1.184	-0.183 ± 0.794
photometric centroid source offset	2.33 ± 0.96	2.43	1.82 ± 0.99	1.45 ± 0.91

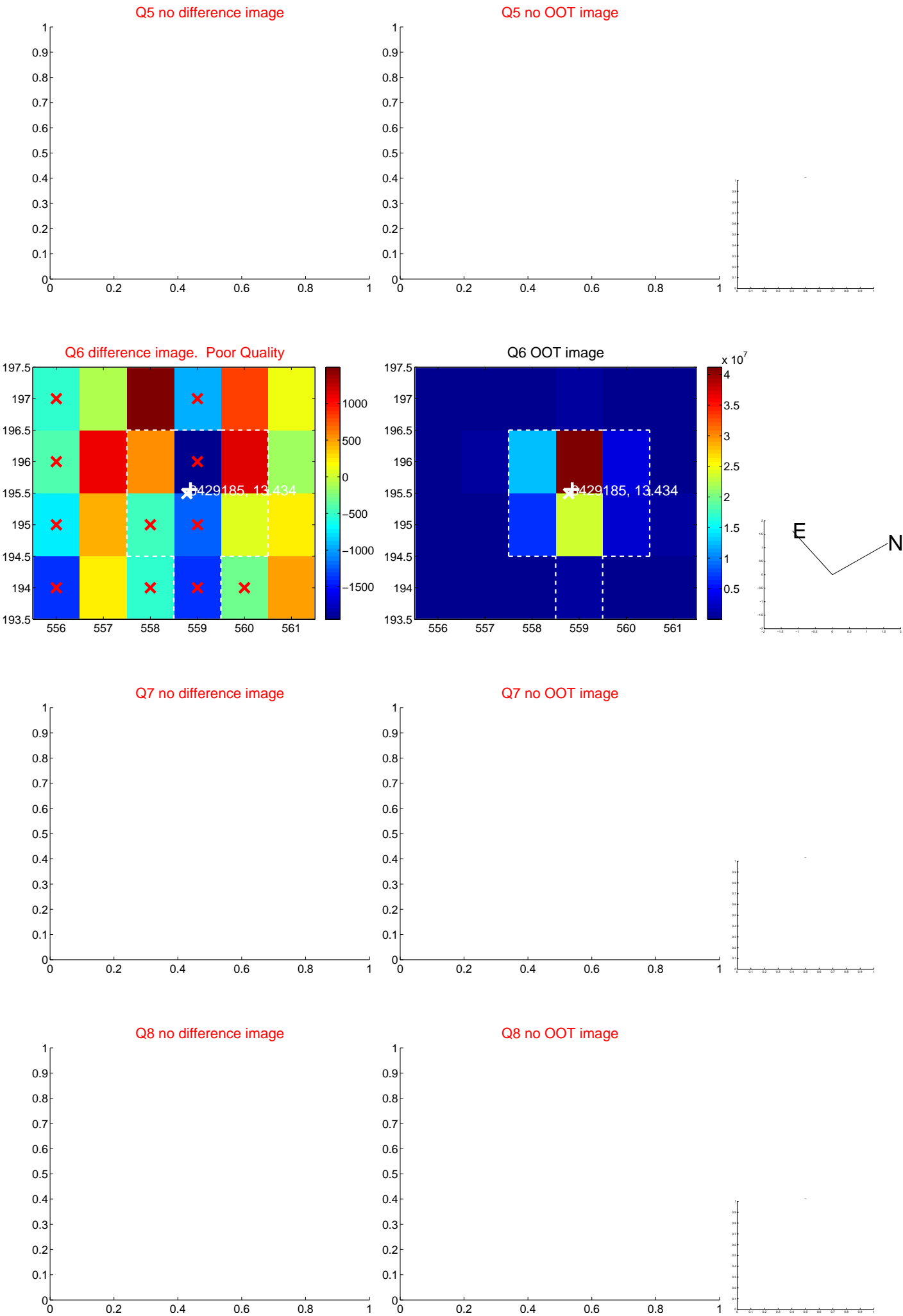


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

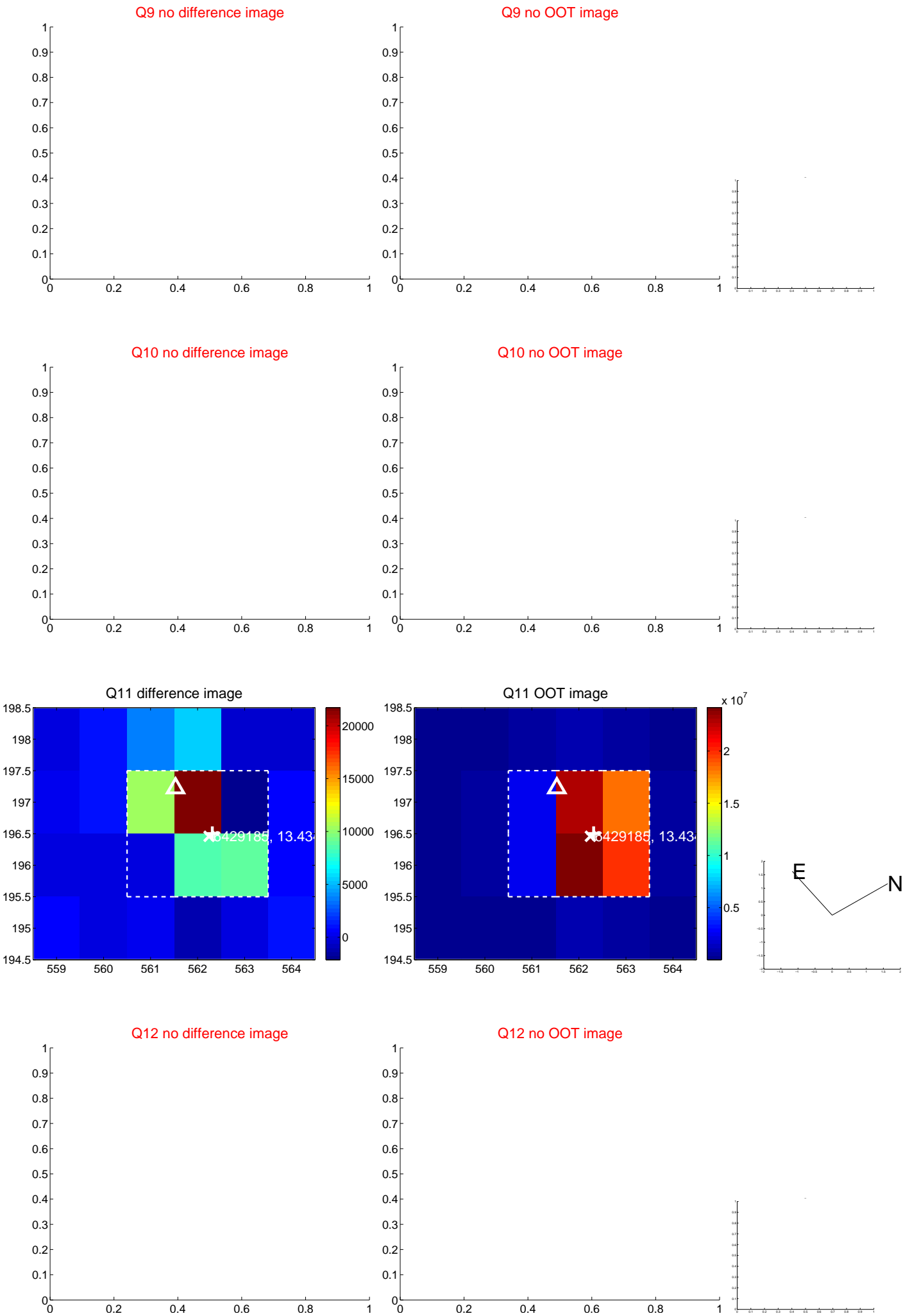
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



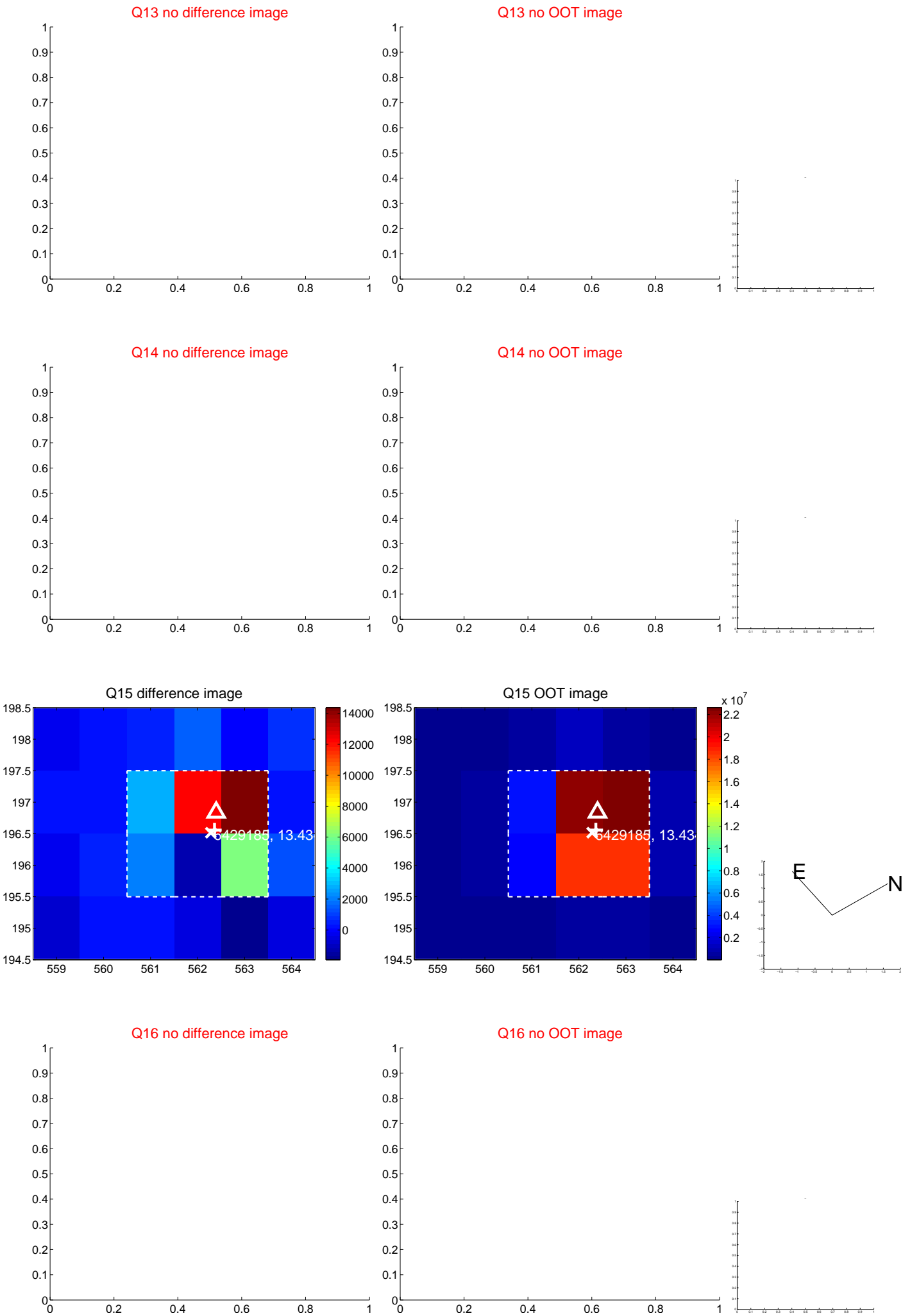
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



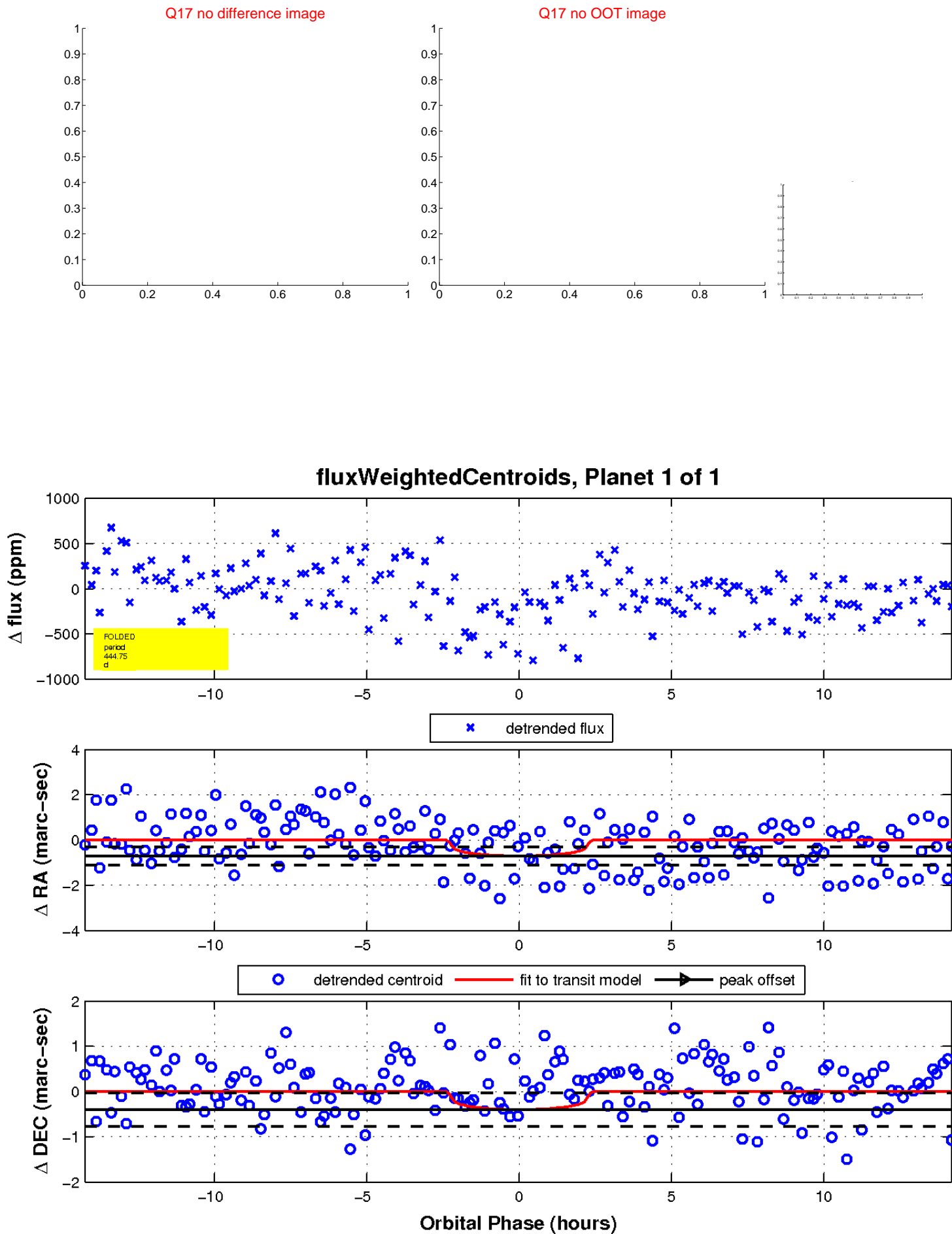
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

