

KIC 011446422

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})
011446422-01	OBS	No	379.504325	222.001023	93.8	18.504	7.6	5.9	1.60	6091	1.71	2.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011446422-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

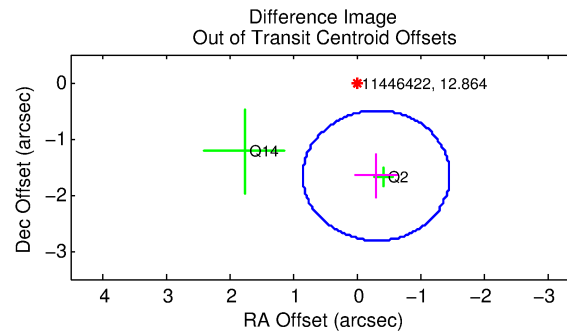
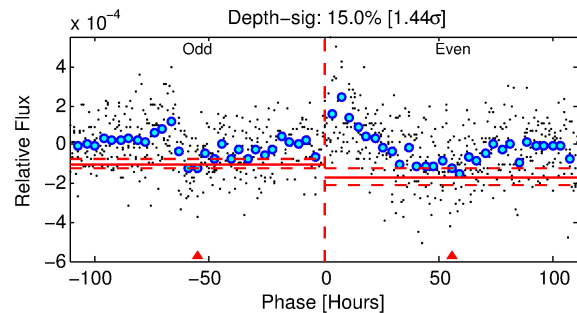
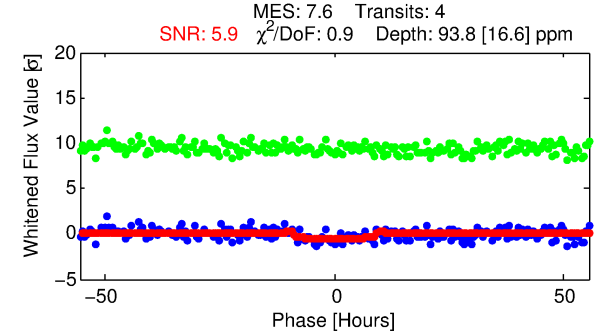
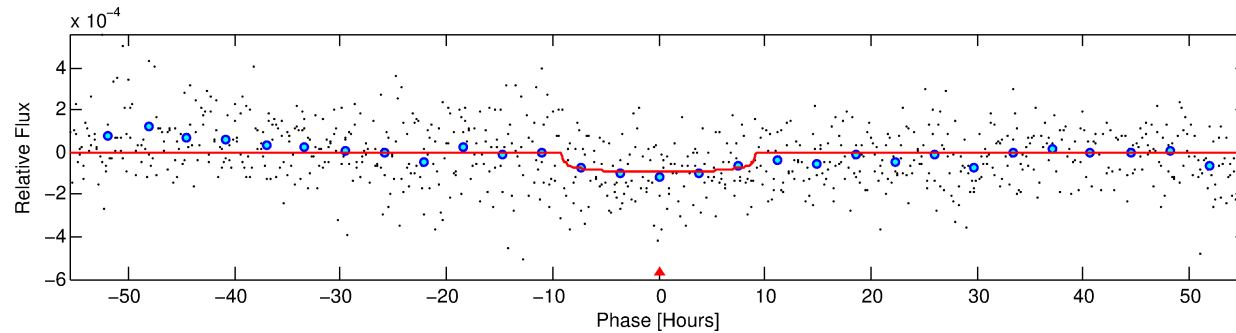
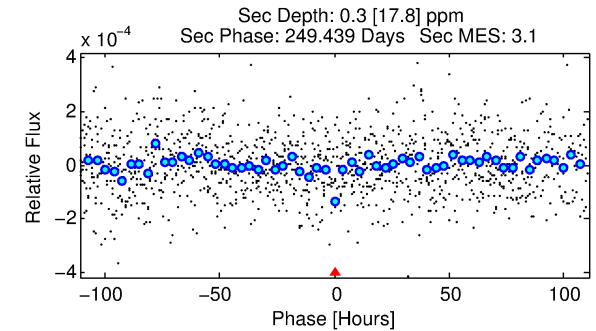
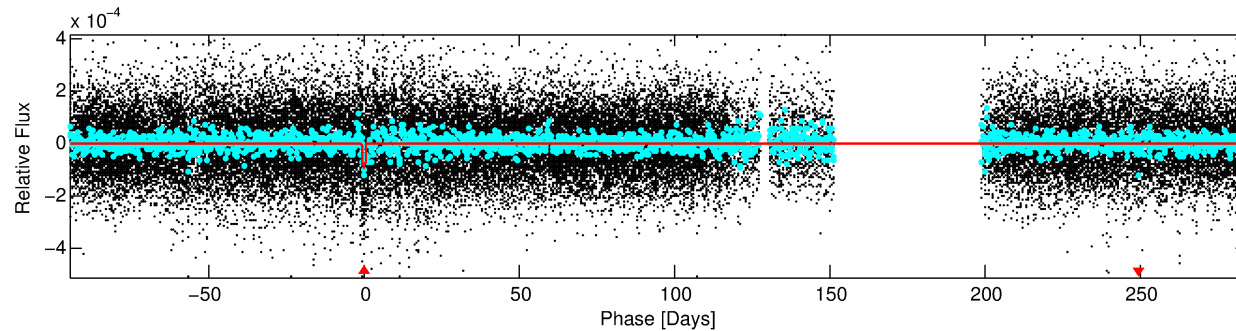
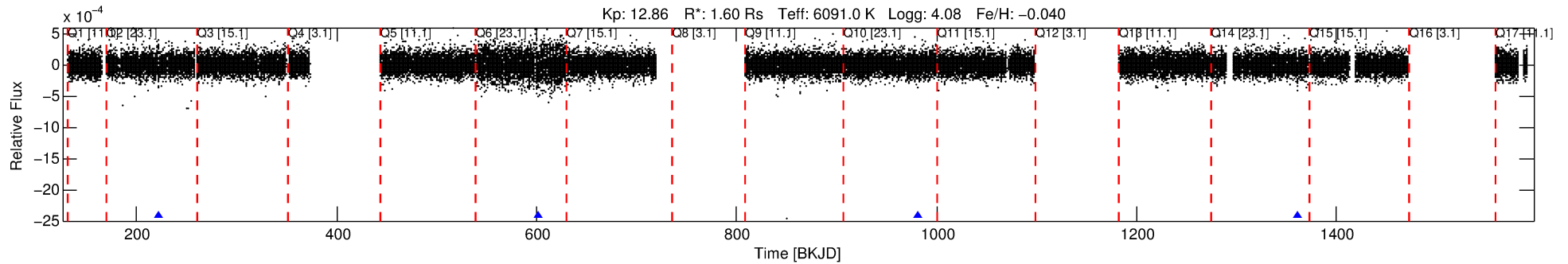
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011446422-01

No Significant Match Found

DV One-Page Summary

KIC: 11446422 Candidate: 1 of 1 Period: 379.504 d



DV Fit Results:

Period = 379.50432 [0.01446] d
Epoch = 222.0010 [0.0271] BKJD
Rp/R* = 0.0098 [0.0037]
a/R* = 99.03 [181.34]
b = 0.79 [0.89]
Seff = 2.78 [1.16]
Teq = 329 [34] K
Rp = 1.71 [0.79] Re
a = 1.0656 [0.2688] AU
Ag = 68.00 [3829.04] [0.02σ]
Teffp = 1462 [20580] K [0.06σ]

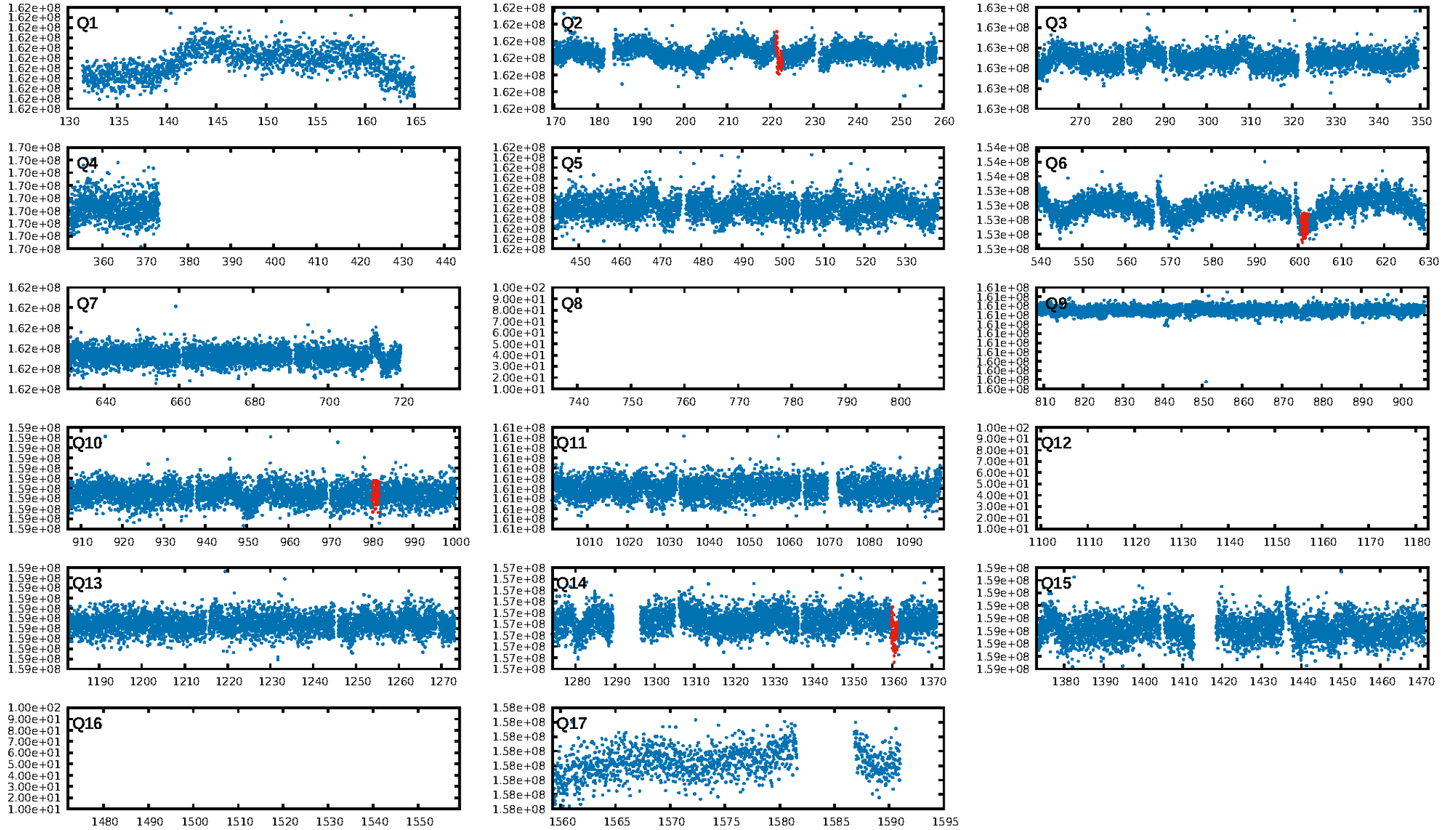
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 8.06e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -3.992
Centroid-sig: 45.3%
Centroid-so: 1.169 arcsec [0.64σ]
OotOffset-rm: 1.690 arcsec [4.39σ]
KicOffset-rm: 1.665 arcsec [4.33σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [4/4]

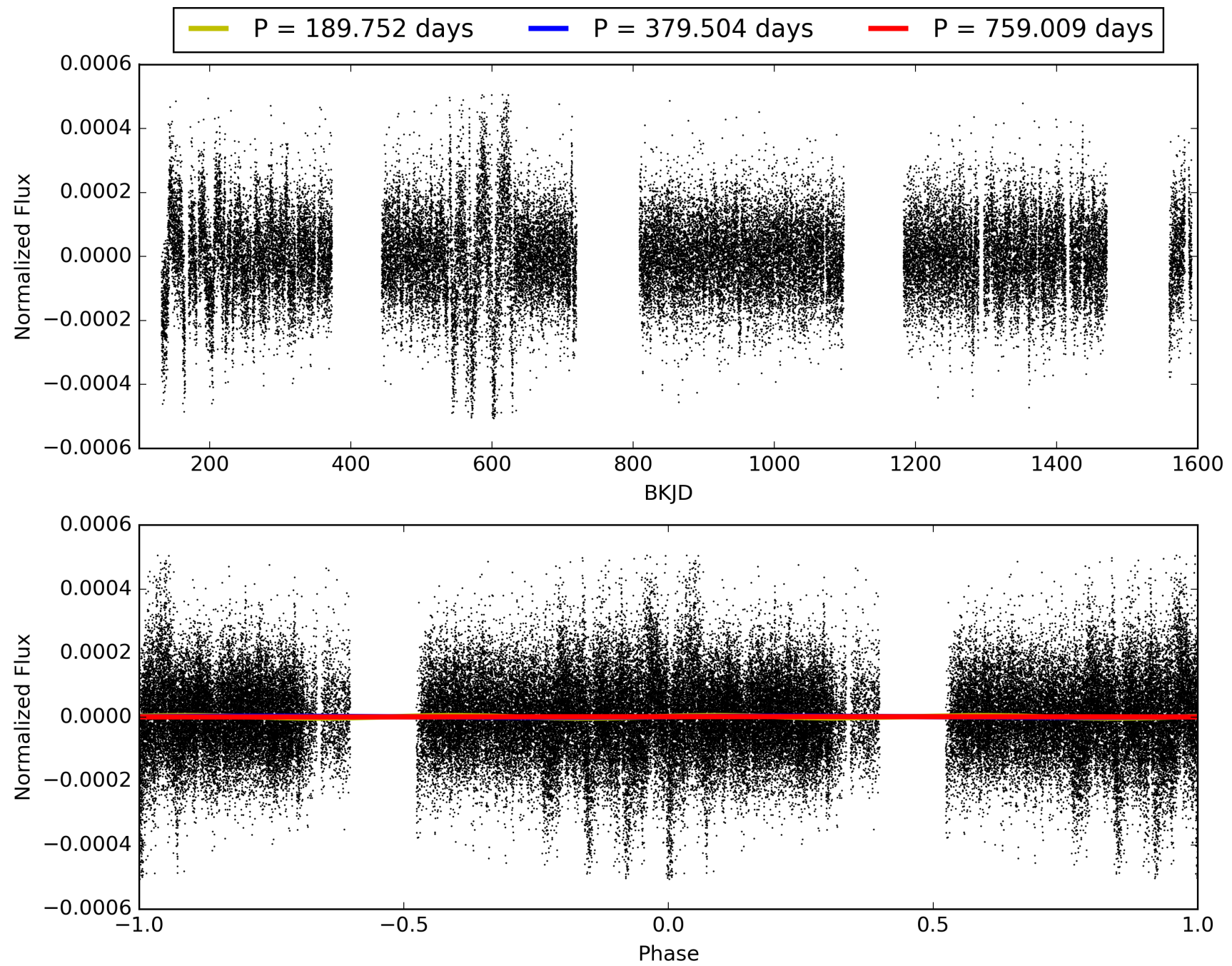
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:07:48 Z

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

TCE 011446422-01, PDC Light Curves

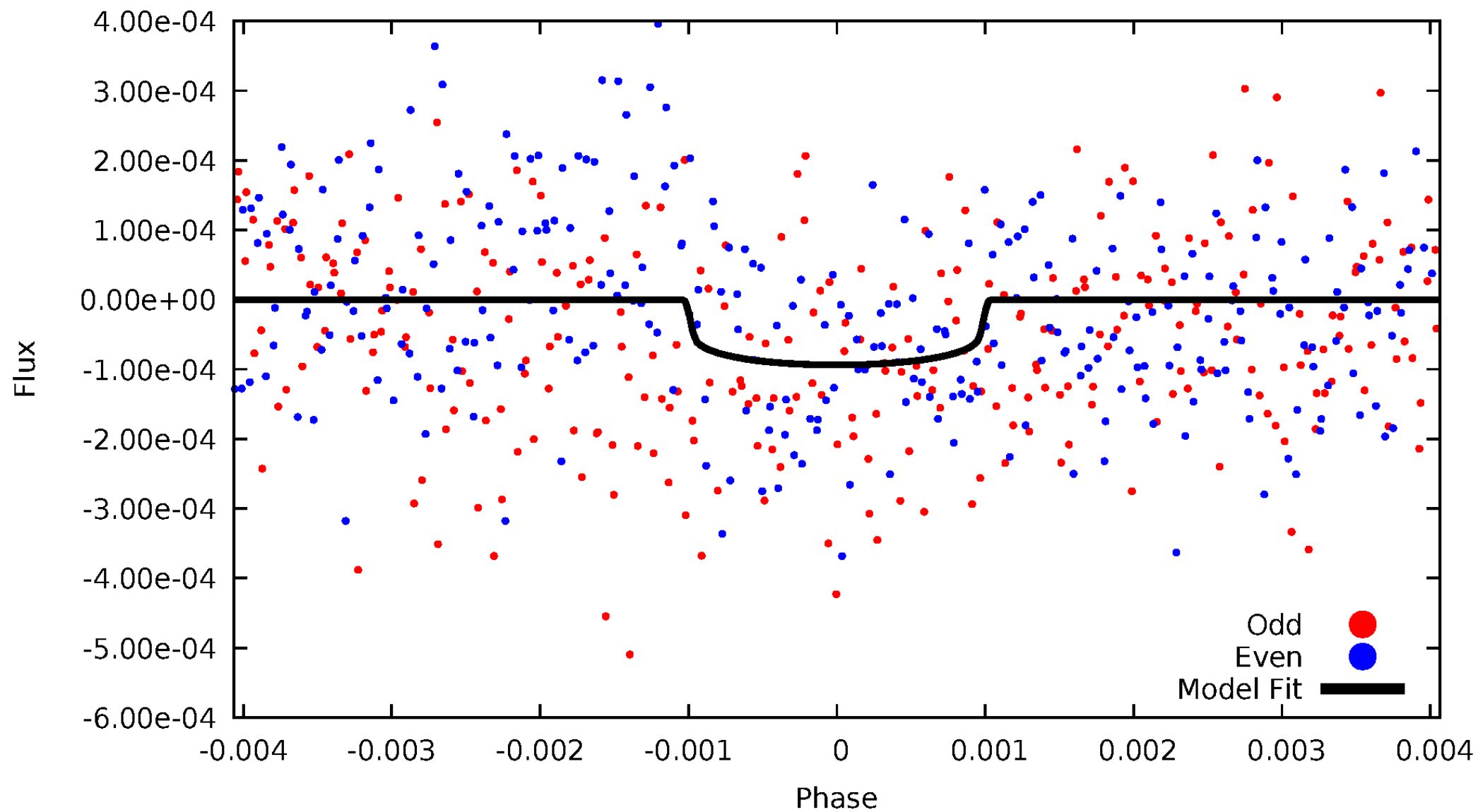


TCE 011446422-01



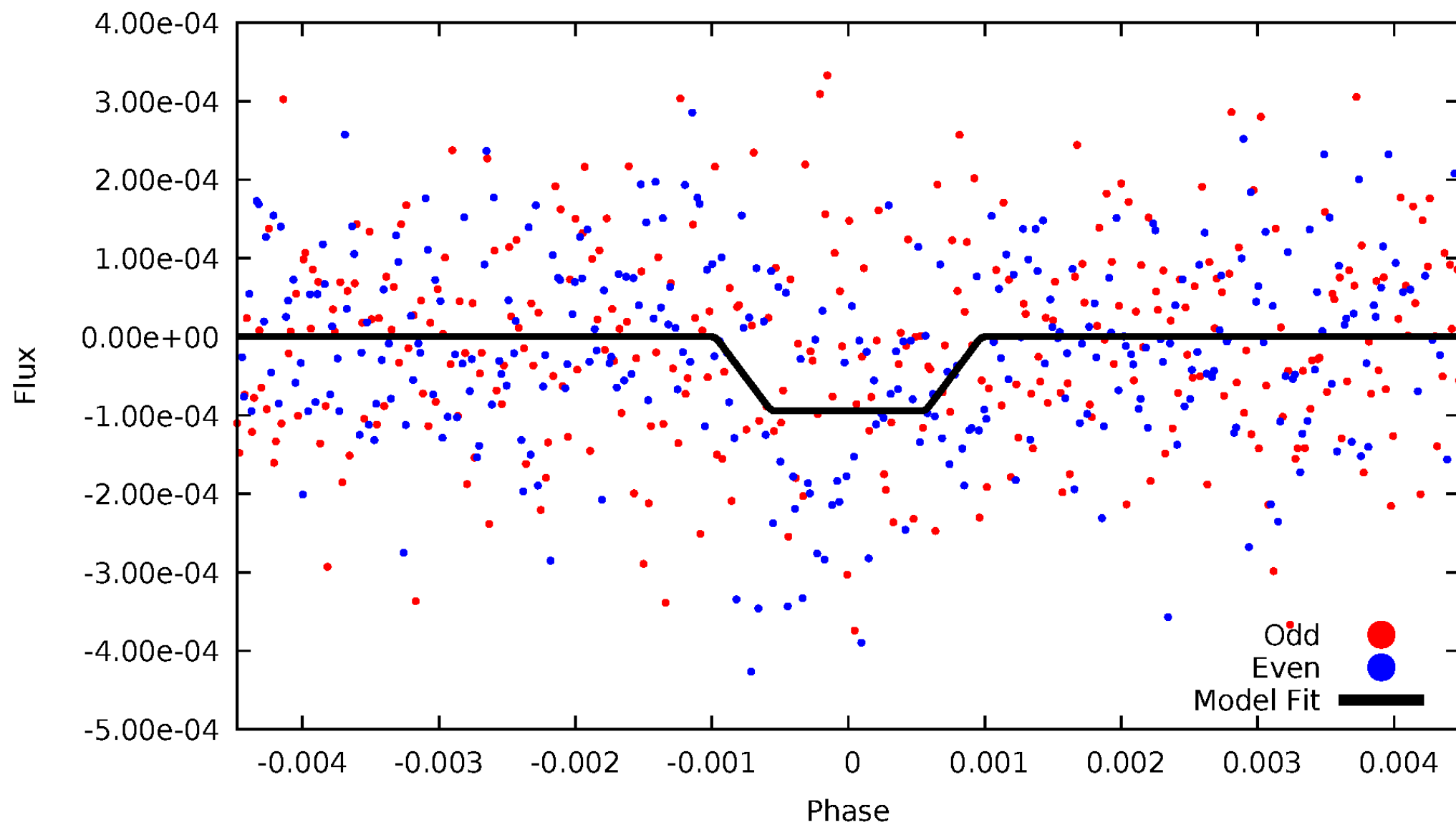
DV Odd/Even

TCE 011446422-01



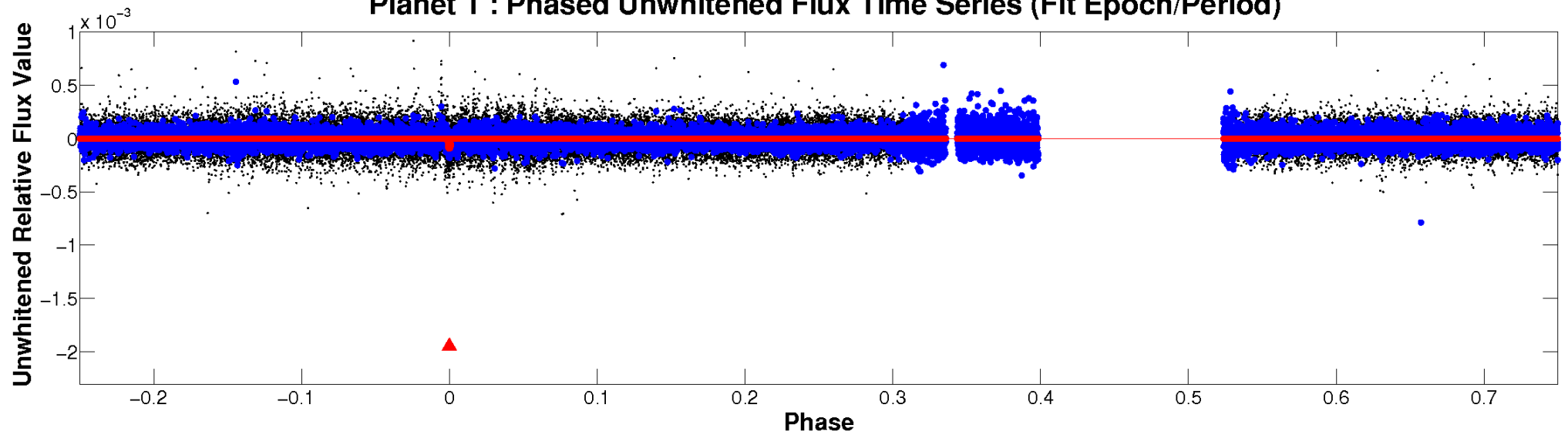
ALT Odd/Even

TCE 011446422-01

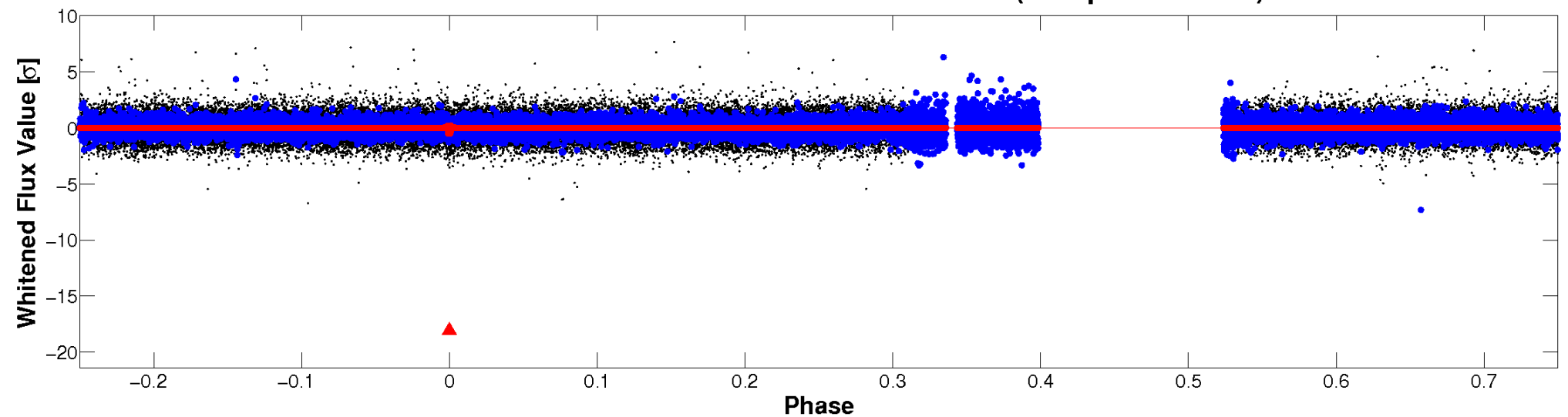


Non-Whitened Vs. Whitened Light Curve

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

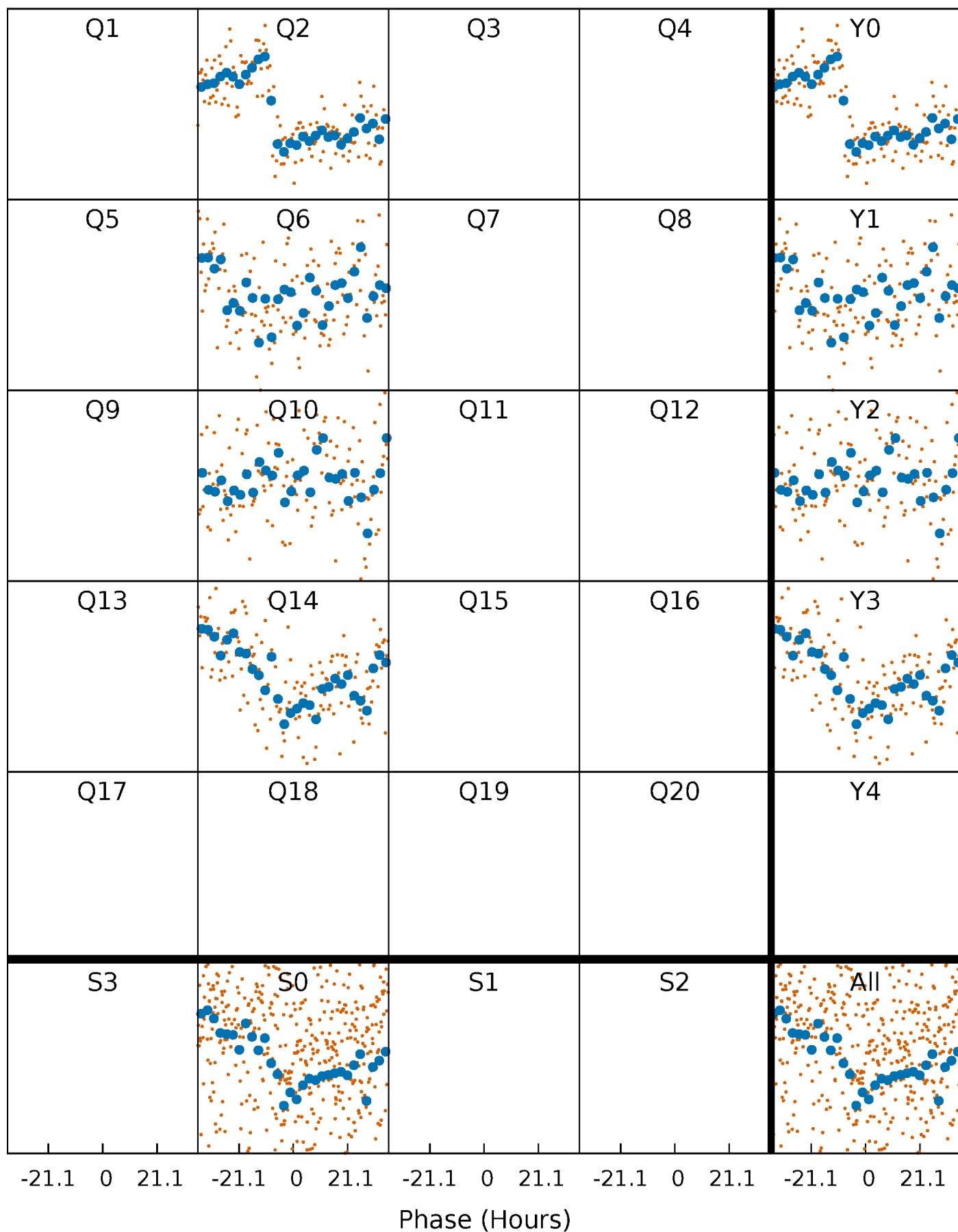


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



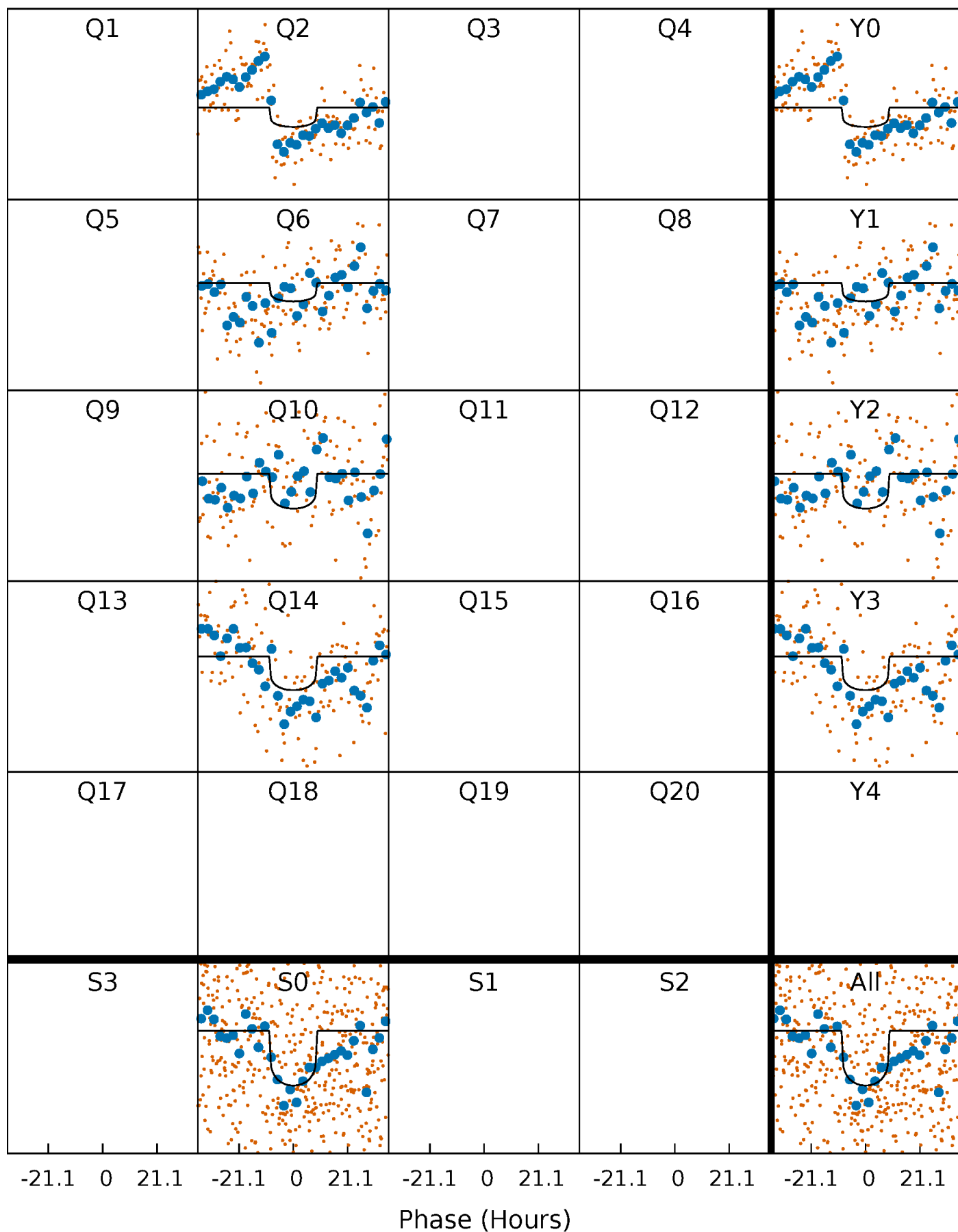
PDC Quarter-Phased Transit Curves

TCE 011446422-01 P=379.504325 Days $T_0=222.001023$ (BKJD)



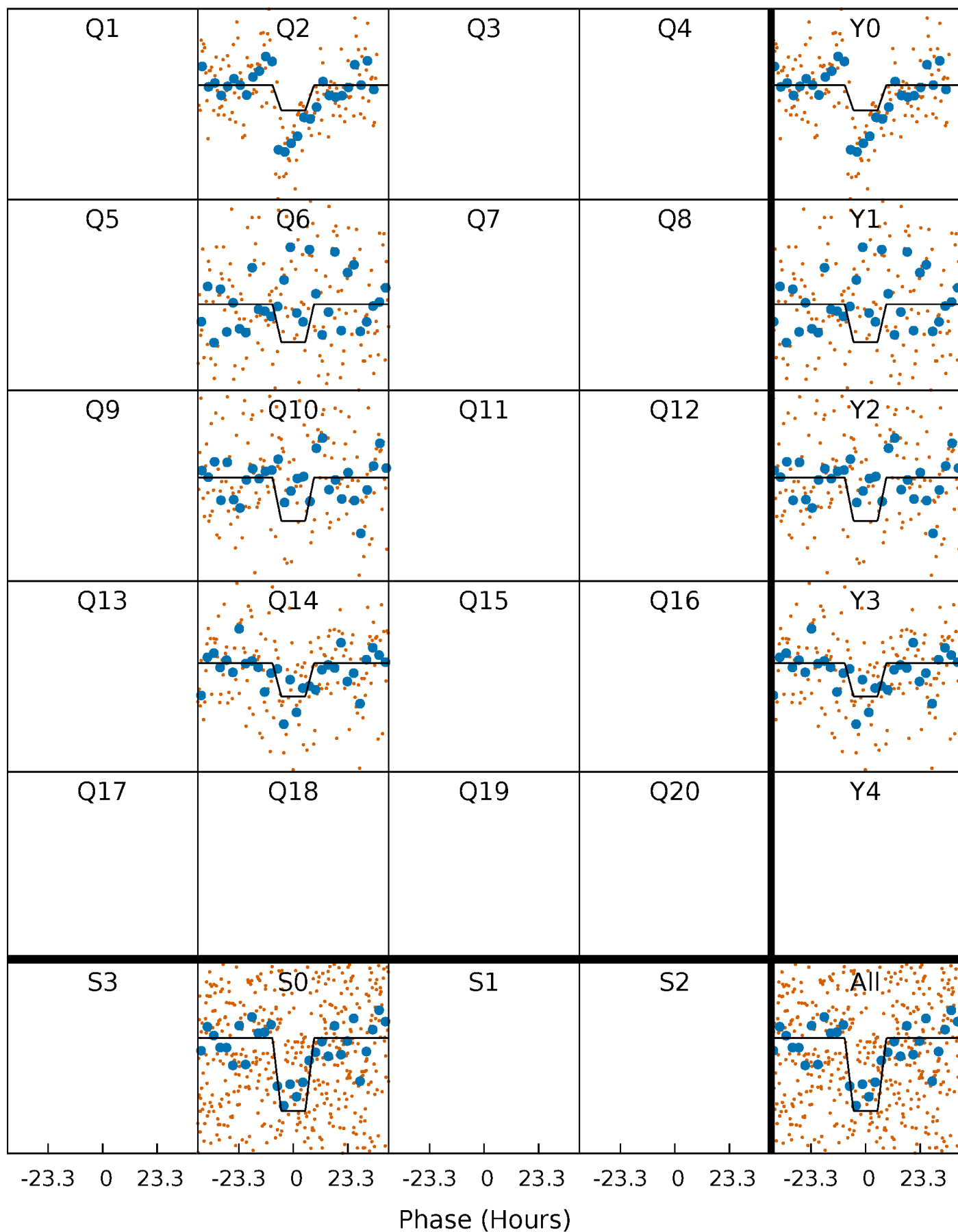
DV Quarter-Phased Transit Curves

TCE 011446422-01 P=379.504325 Days $T_0=222.001023$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

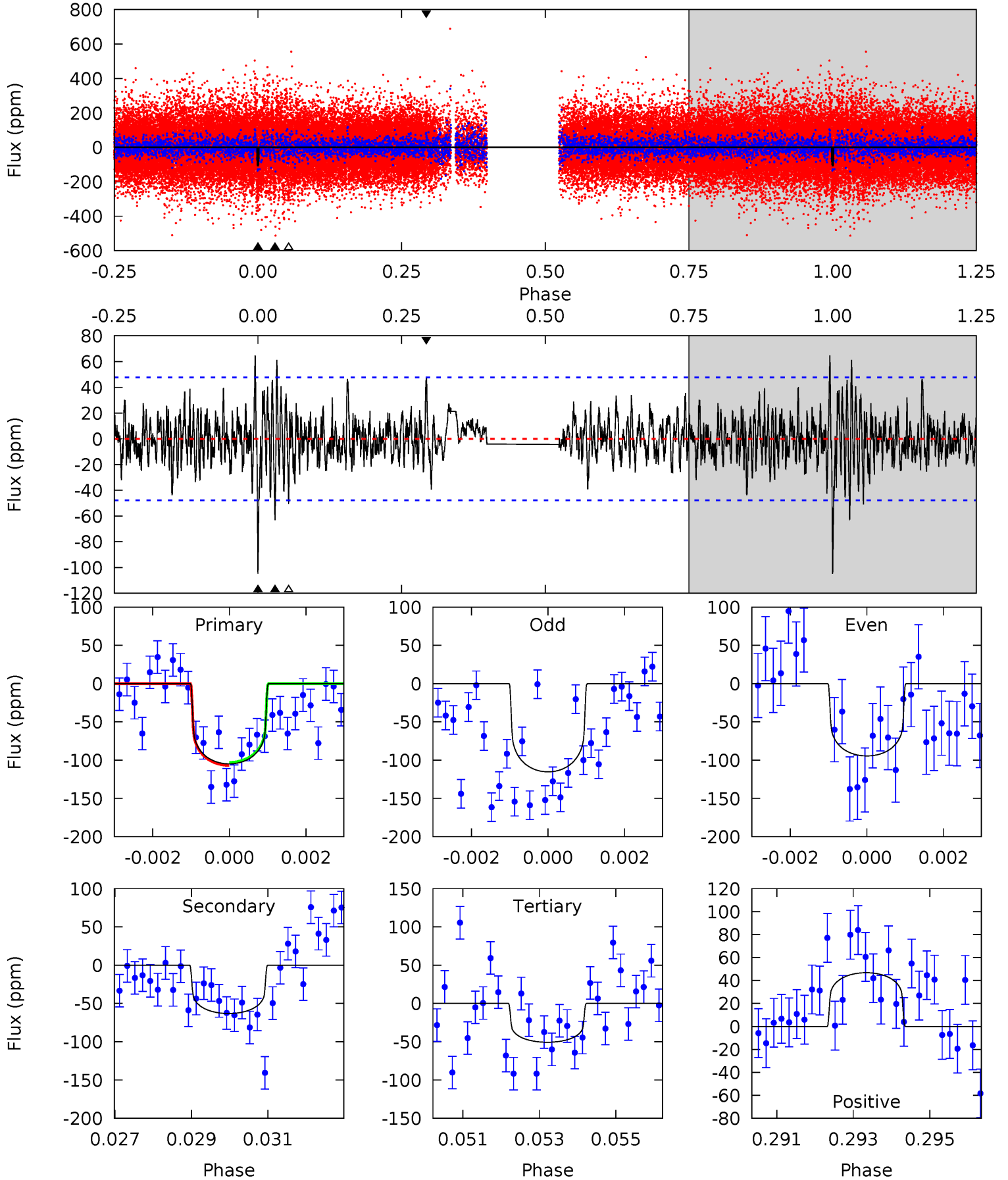
TCE 011446422-01 P=379.505699 Days $T_0=221.978052$ (BKJD)



DV Model-Shift Uniqueness Test

011446422-01, P = 379.504325 Days, E = 222.001023 Days

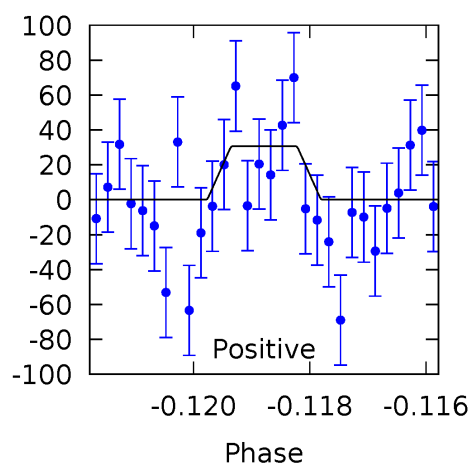
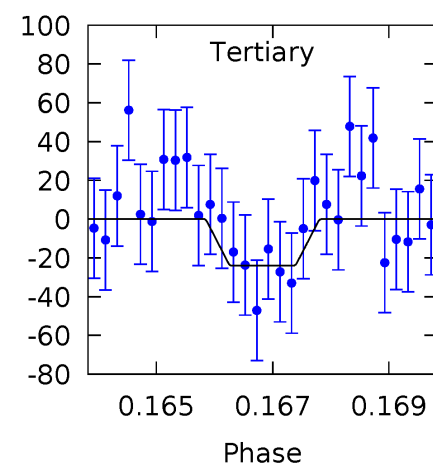
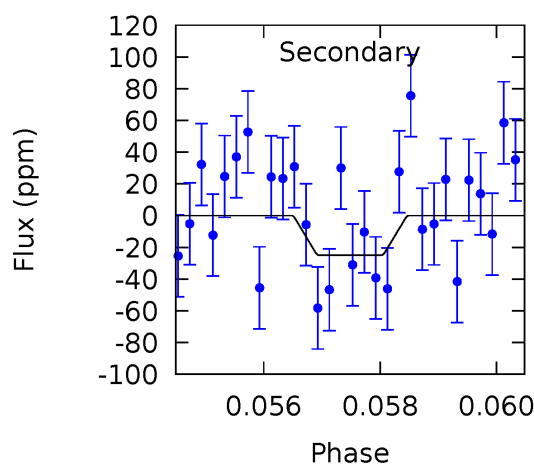
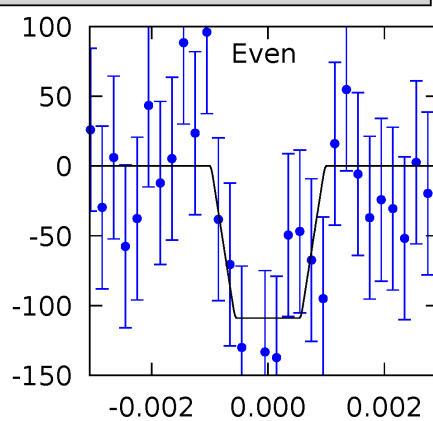
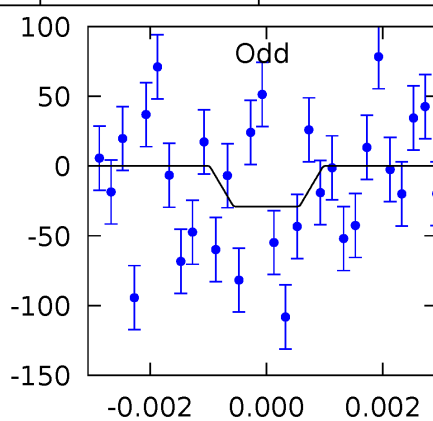
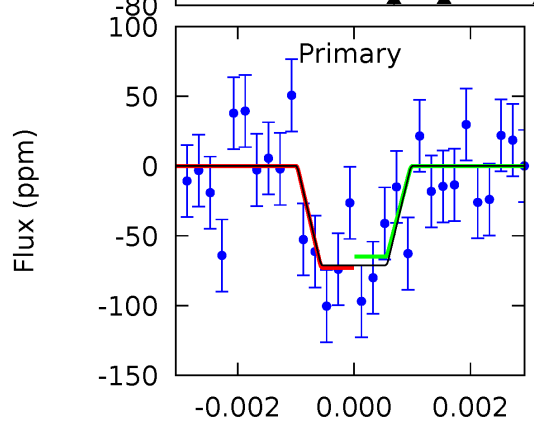
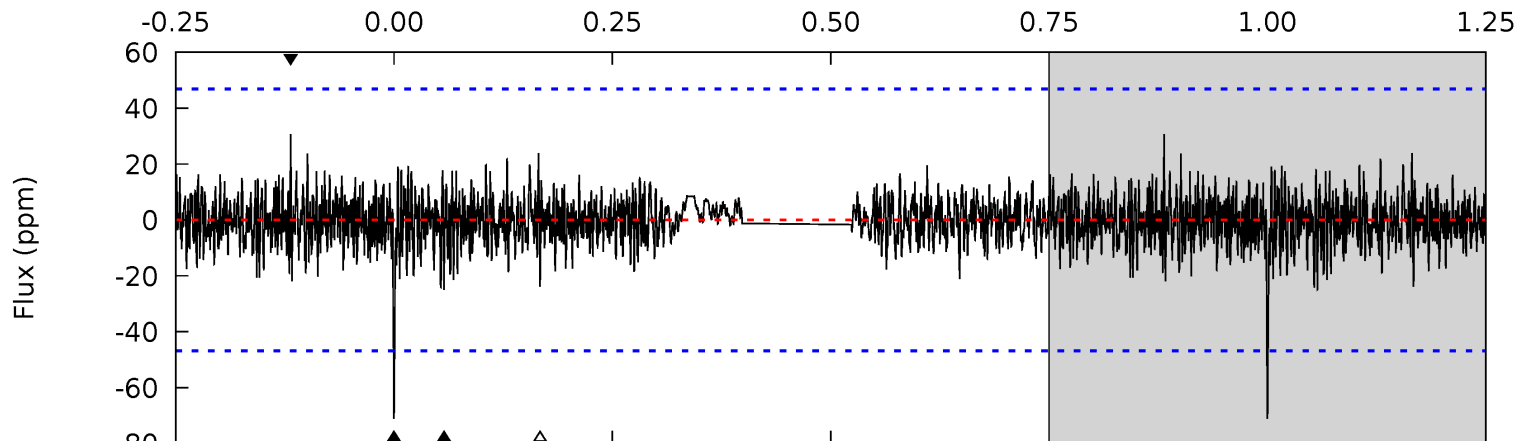
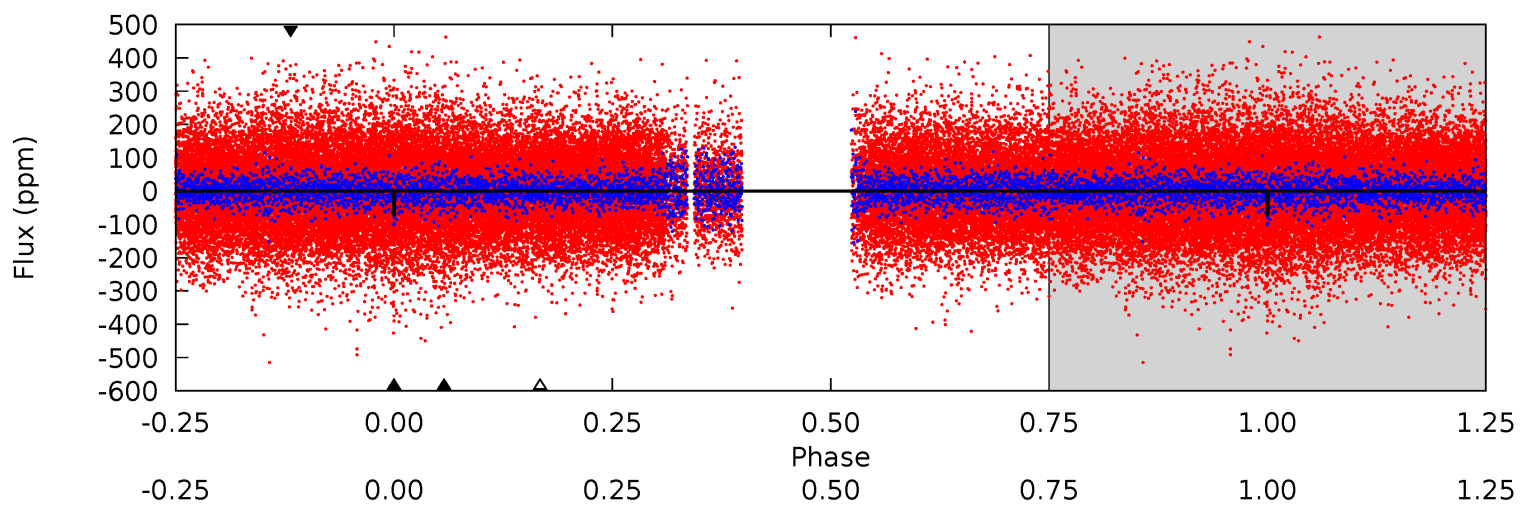
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	7.04	5.65	5.21	5.32	3.08	1.62	6.04	6.47	1.39	1.83	1.16	0.90	0.38	0.21



Alt Model-Shift Uniqueness Test

011446422-01, P = 379.505699 Days, E = 221.978052 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.09	2.84	2.72	3.49	5.33	3.09	0.82	5.38	4.60	0.12	-0.65	4.52	1.22	0.30	0.46



Stellar Parameters For KIC 011446422

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6091^{+164}_{-183}	$4.079^{+0.234}_{-0.126}$	$-0.040^{+0.250}_{-0.300}$	$1.600^{+0.348}_{-0.425}$	$1.120^{+0.189}_{-0.154}$	$0.385^{+0.517}_{-0.141}$
	+3%/-3%	+6%/-3%	+625%/-750%	+22%/-27%	+17%/-14%	+134%/-37%
Source	PHO1	FLK73	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 011446422-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-63 ± 9	$1.65^{+0.73}_{-0.60}$	457^{+28}_{-34}	5506^{+1307}_{-710}	14148^{+22221}_{-7168}
Alt.	-25 ± 9	$1.68^{+0.72}_{-0.70}$	455^{+29}_{-33}	4529^{+1101}_{-661}	5579^{+12326}_{-3173}

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

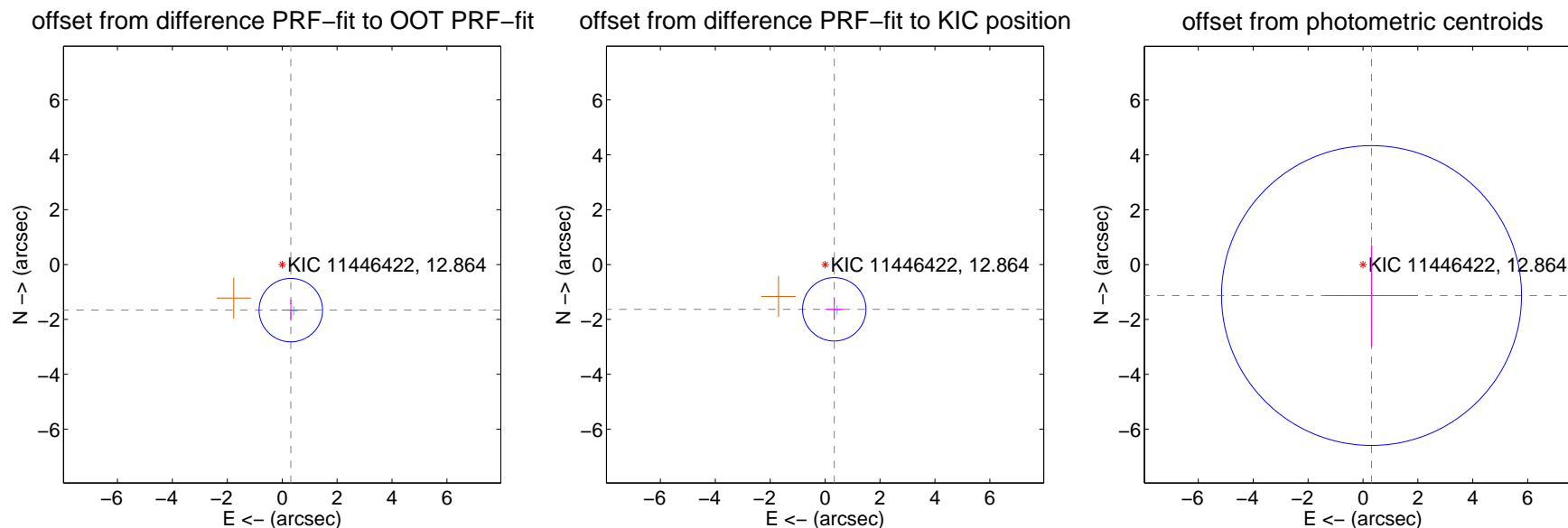
DV Centroid Data

Supplemental centroid analysis for 011446422-01. Kepler magnitude: 12.86. Transit SNR 5.85

There are 1 quarters with good PRF difference image offsets

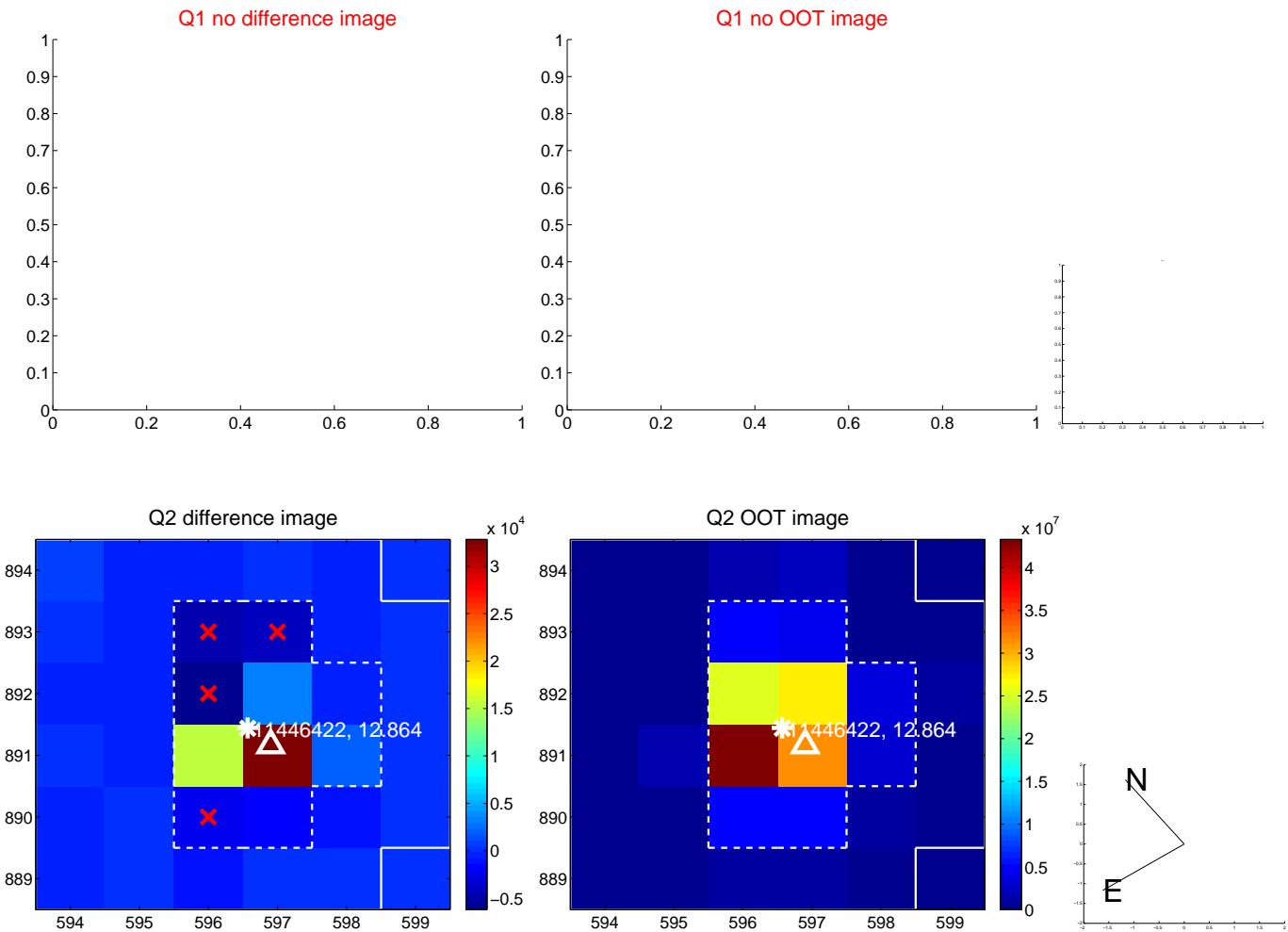
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.690 ± 0.385	4.39	-0.313 ± 0.329	-1.661 ± 0.387
PRF-fit source offset from KIC position	1.665 ± 0.385	4.33	-0.333 ± 0.329	-1.632 ± 0.387
photometric centroid source offset	1.17 ± 1.82	0.64	-0.31 ± 1.69	-1.13 ± 1.83

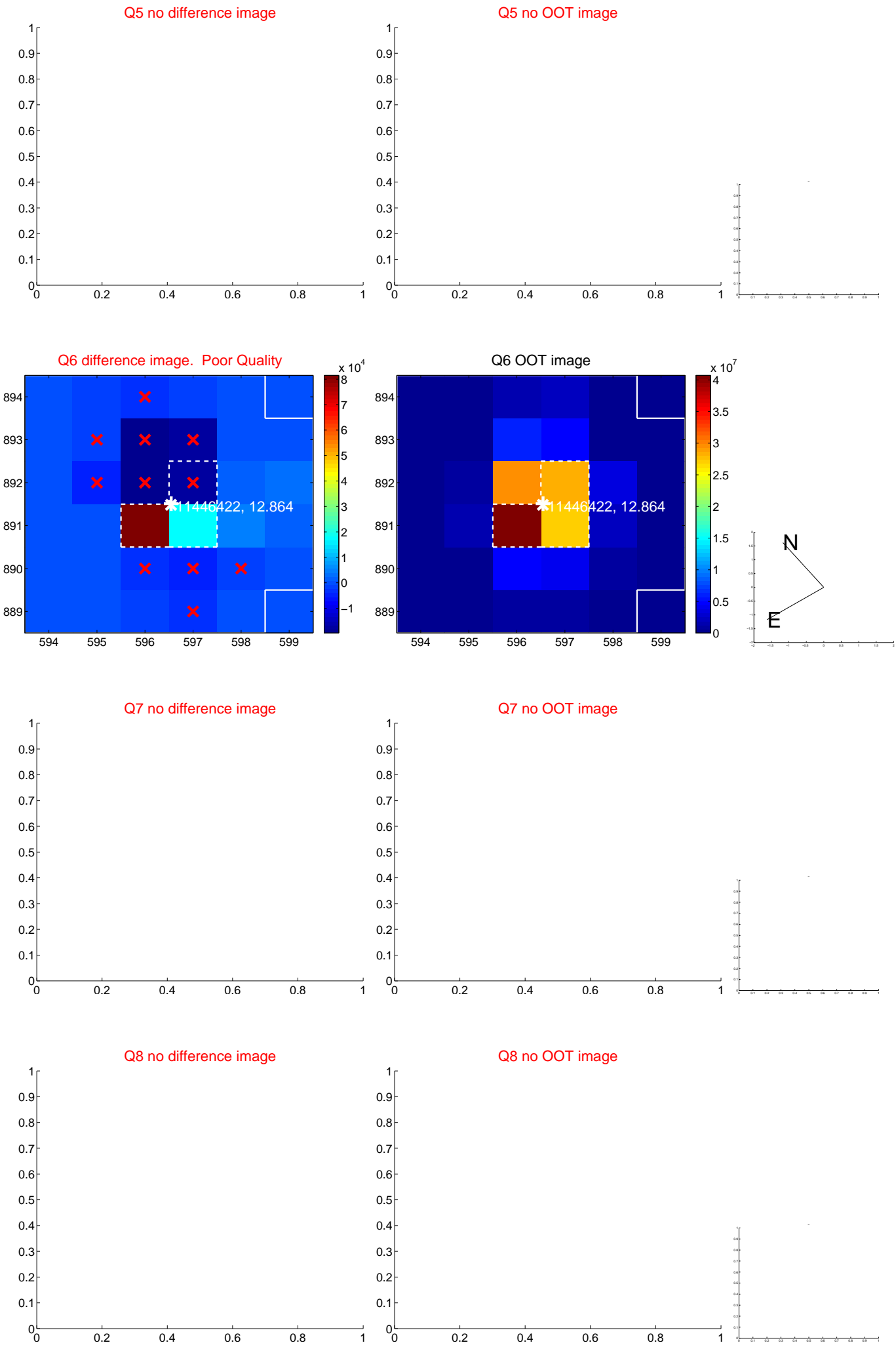


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

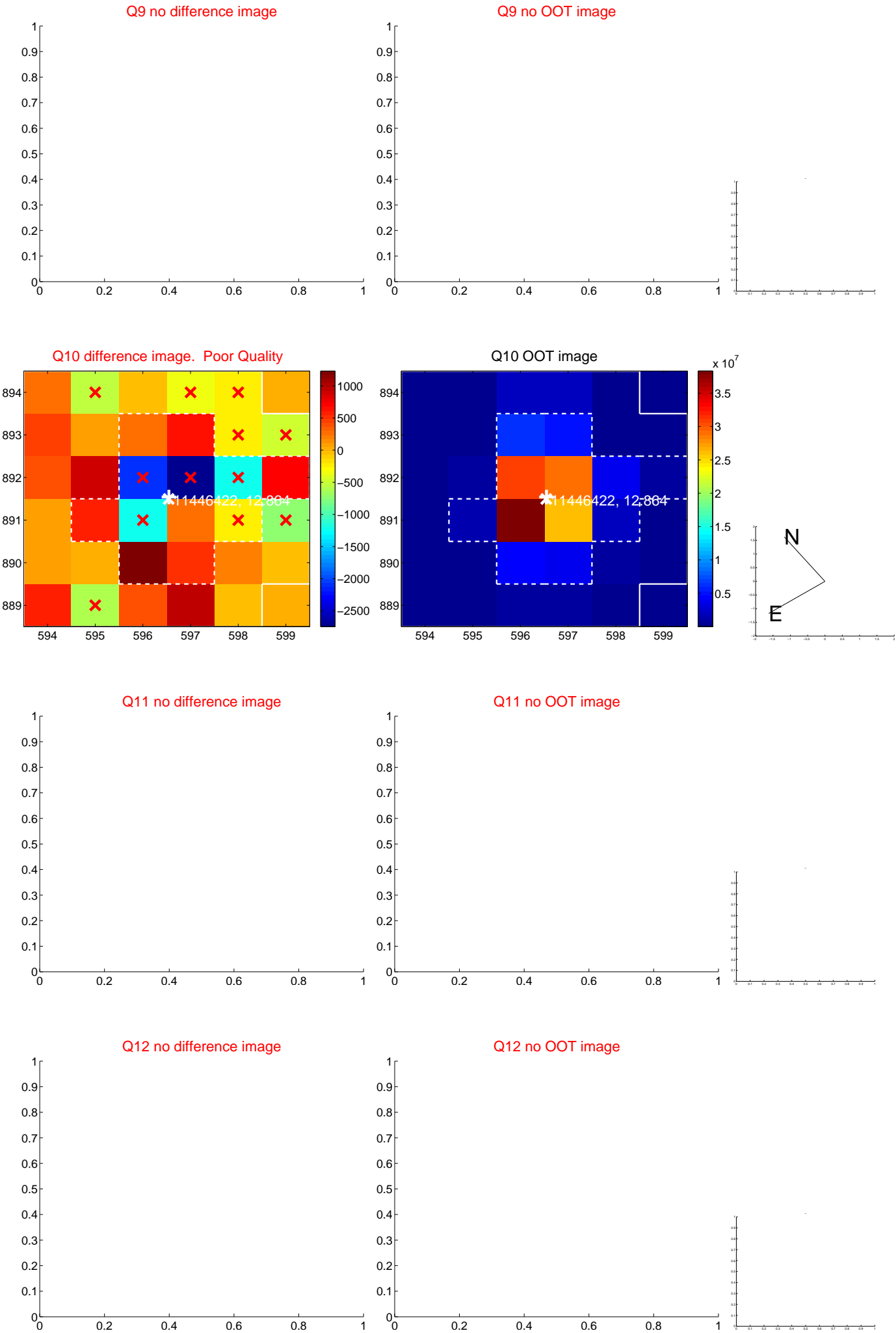
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



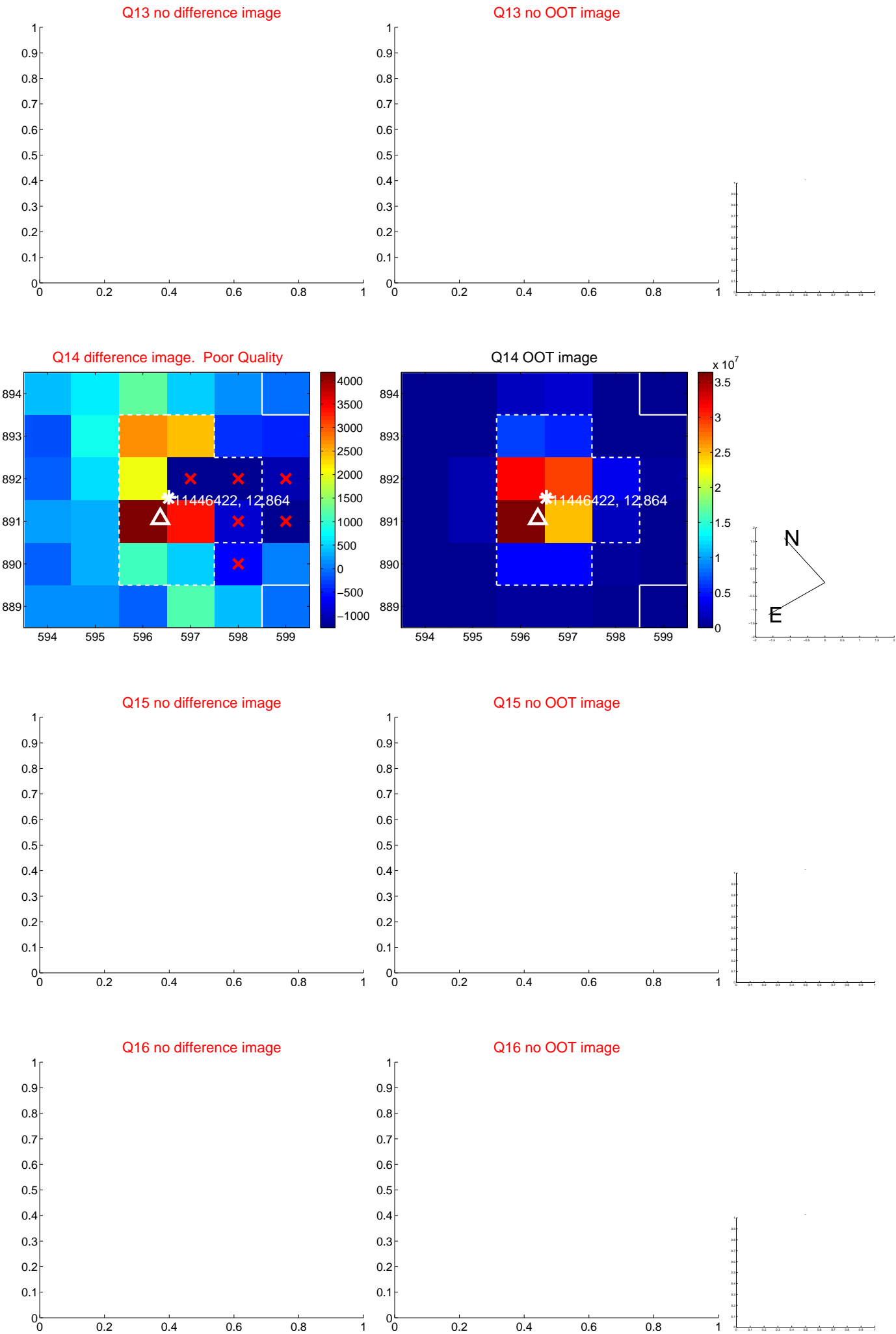
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



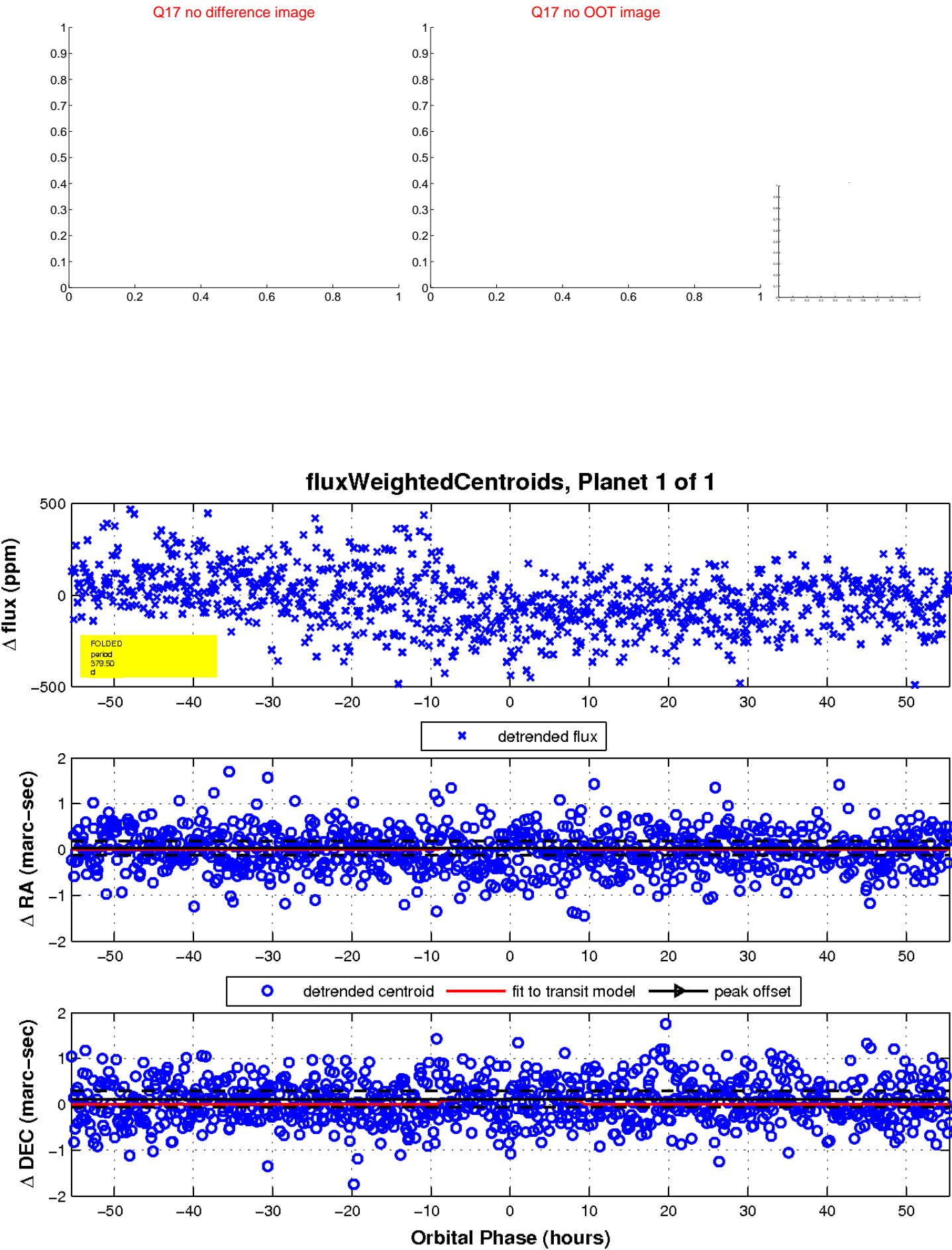
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

