

KIC 005961106

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})
005961106-01	OBS	No	445.734763	188.489582	766.3	6.640	7.4	7.2	0.91	5778	2.68	0.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005961106-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—MOD_NONUNIQ_ALT—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.

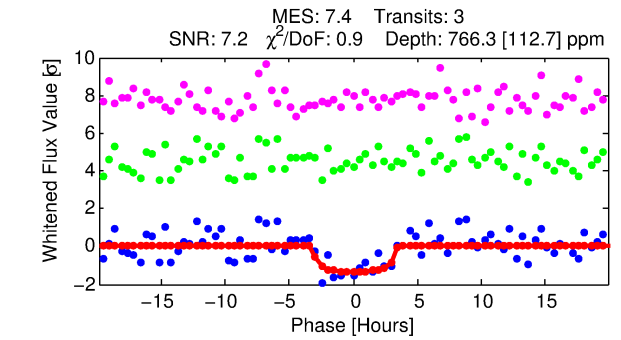
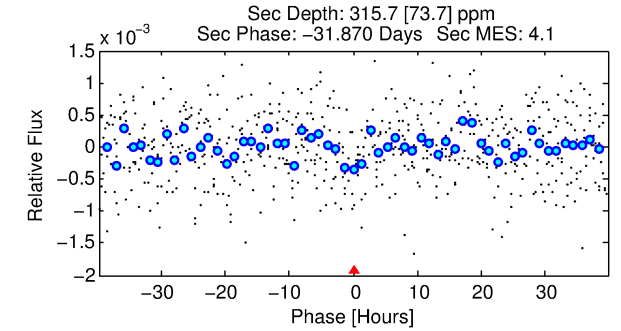
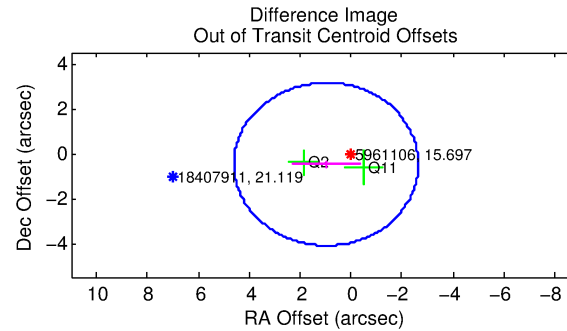
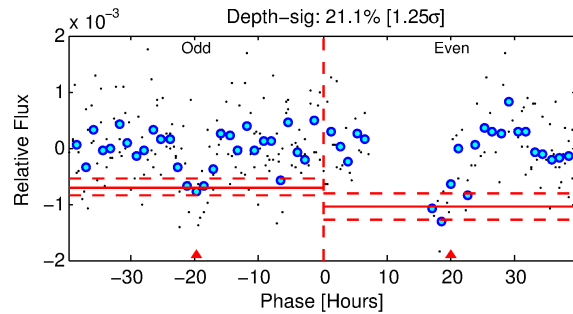
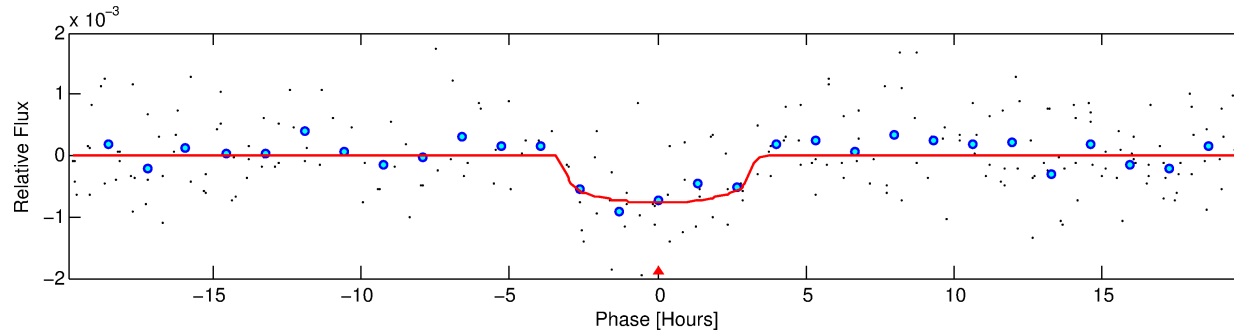
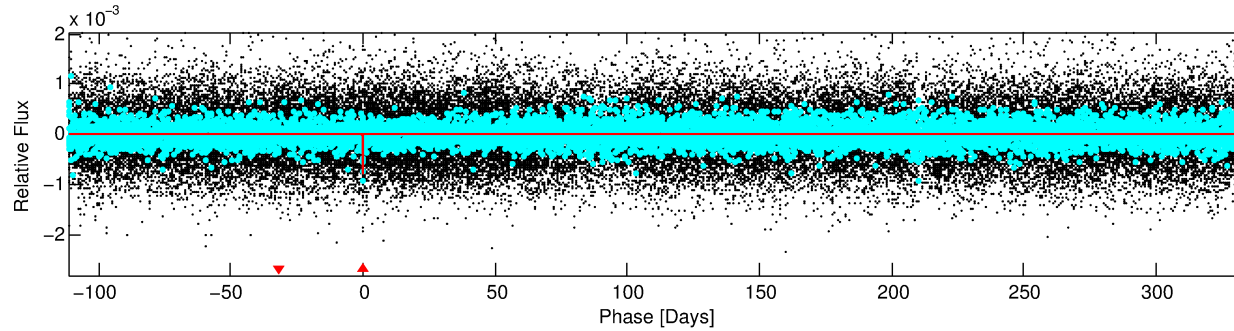
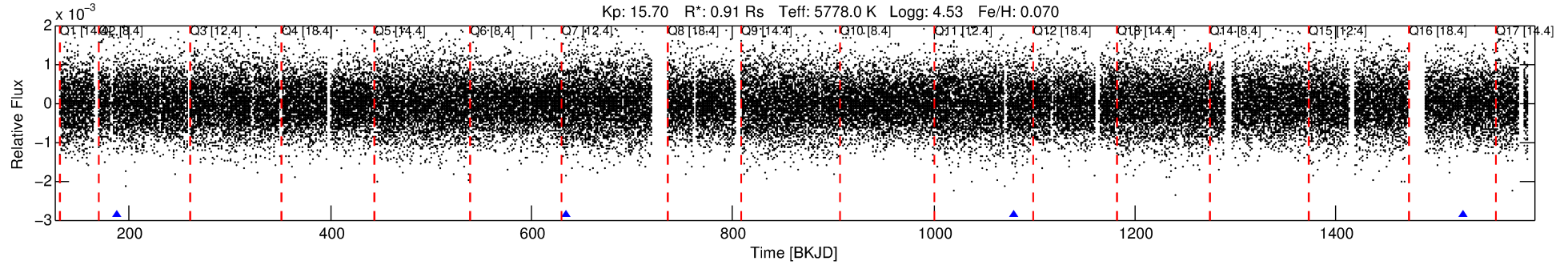
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005961106-01

No Significant Match Found

DV One-Page Summary

KIC: 5961106 Candidate: 1 of 1 Period: 445.735 d



DV Fit Results:

Period = 445.73476 [0.01207] d
Epoch = 188.4896 [0.0152] BKJD
Rp/R* = 0.0270 [0.0284]
a/R* = 391.24 [1777.88]
b = 0.69 [3.53]
Seff = 0.62 [0.25]
Teq = 227 [23] K
Rp = 2.68 [2.94] Re
a = 1.1528 [0.2989] AU
Ag = 32096.18 [69166.75] [0.46 σ]
Teffp = 4689 [2491] K [1.79 σ]

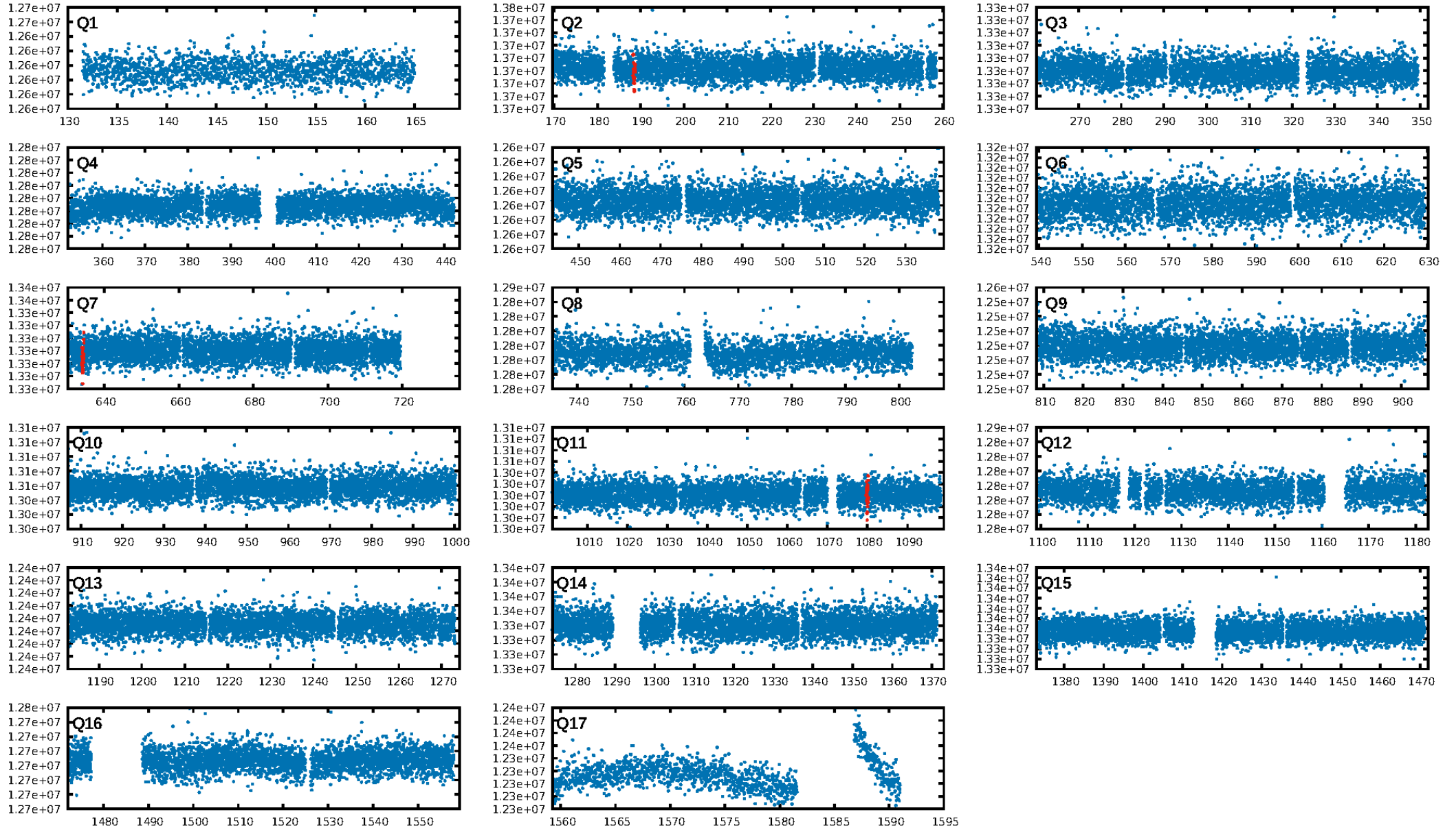
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 65.1%
ModelChiSquareGof-sig: 97.3%
Bootstrap-pfa: 5.26e-15
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.589
Centroid-sig: 46.3%
Centroid-so: 2.426 arcsec [1.01 σ]
OotOffset-rm: 1.085 arcsec [0.90 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-rm: 0.990 arcsec [0.84 σ]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

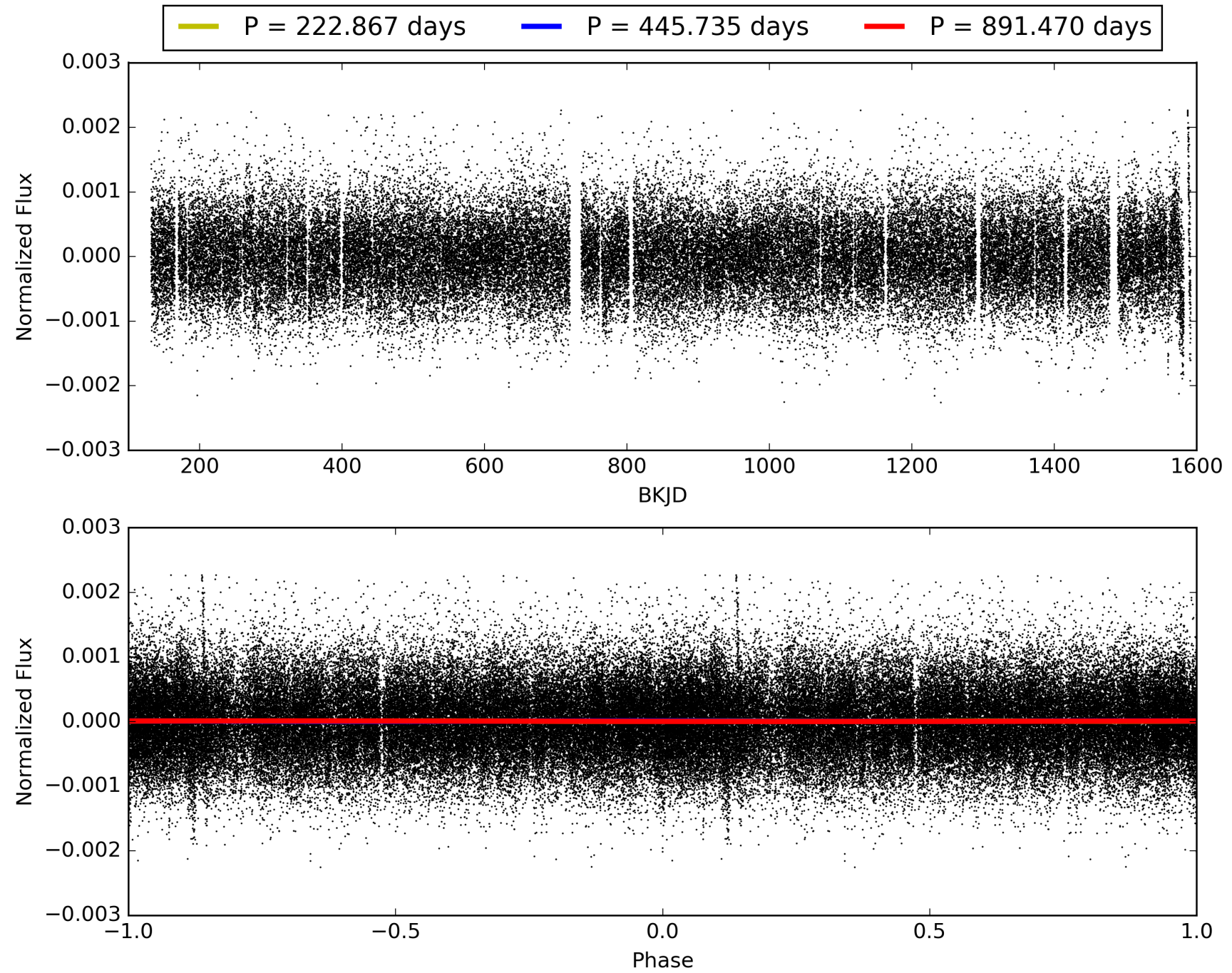
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:48:52 Z

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

TCE 005961106-01, PDC Light Curves

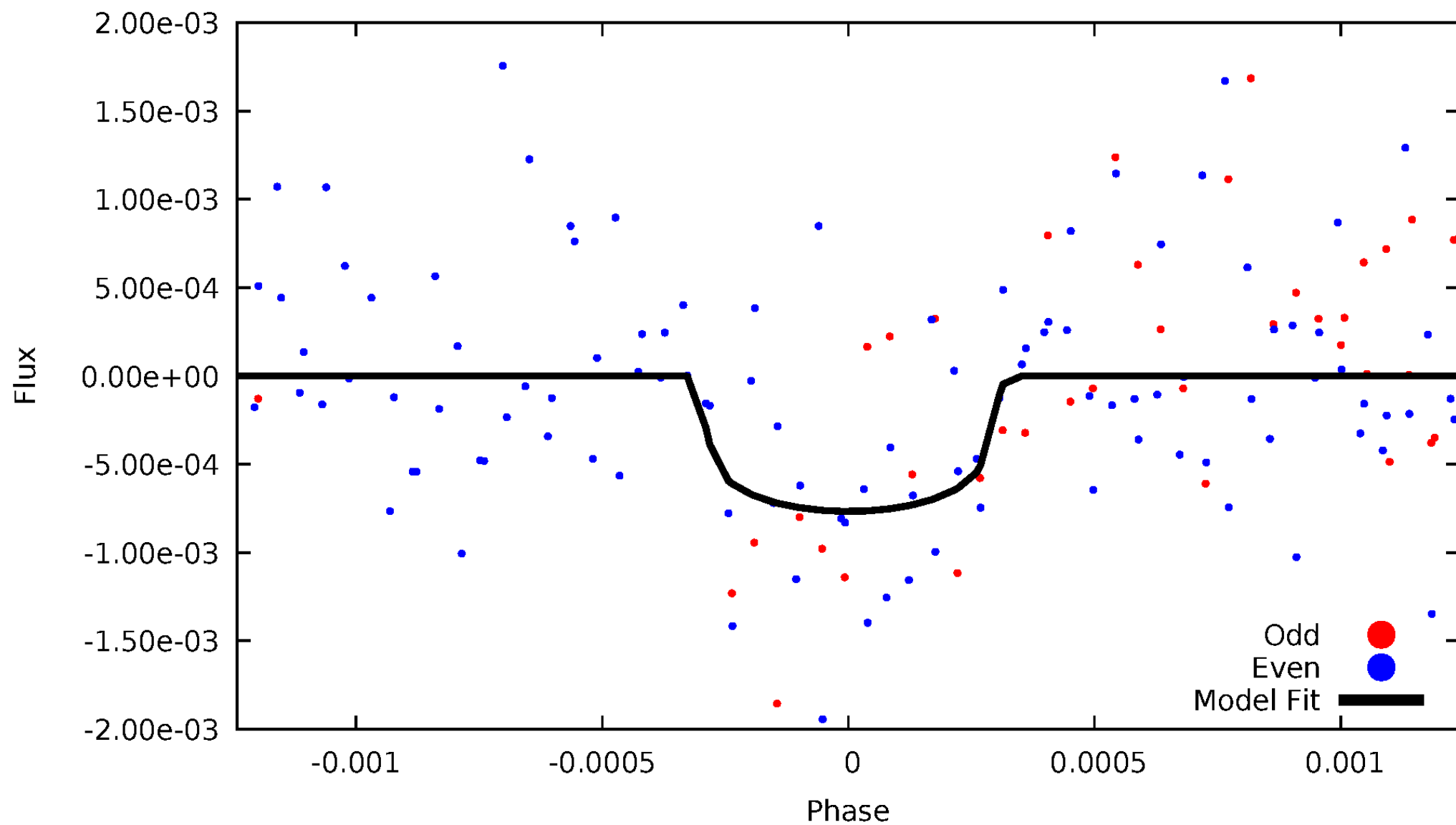


TCE 005961106-01



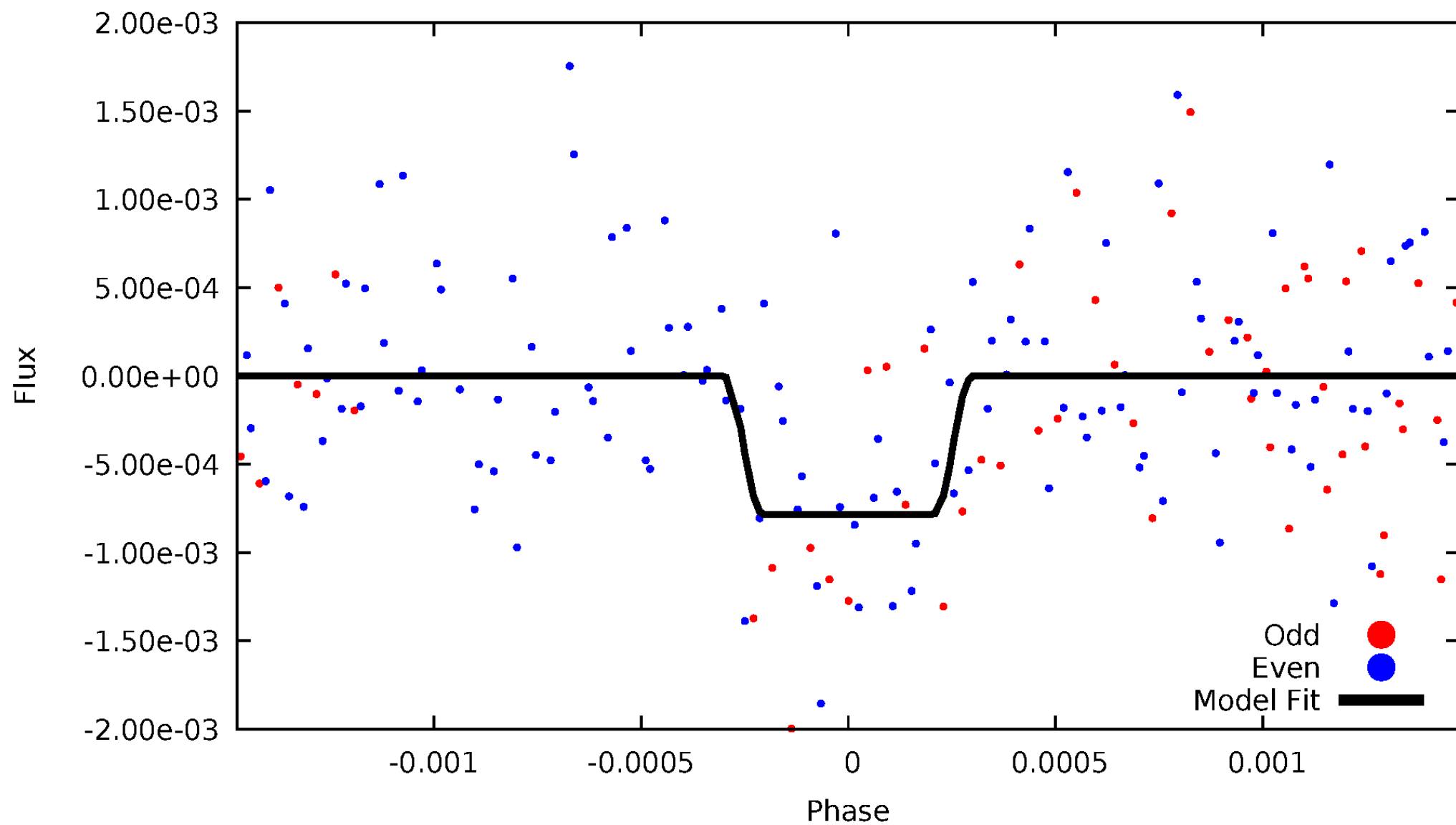
DV Odd/Even

TCE 005961106-01

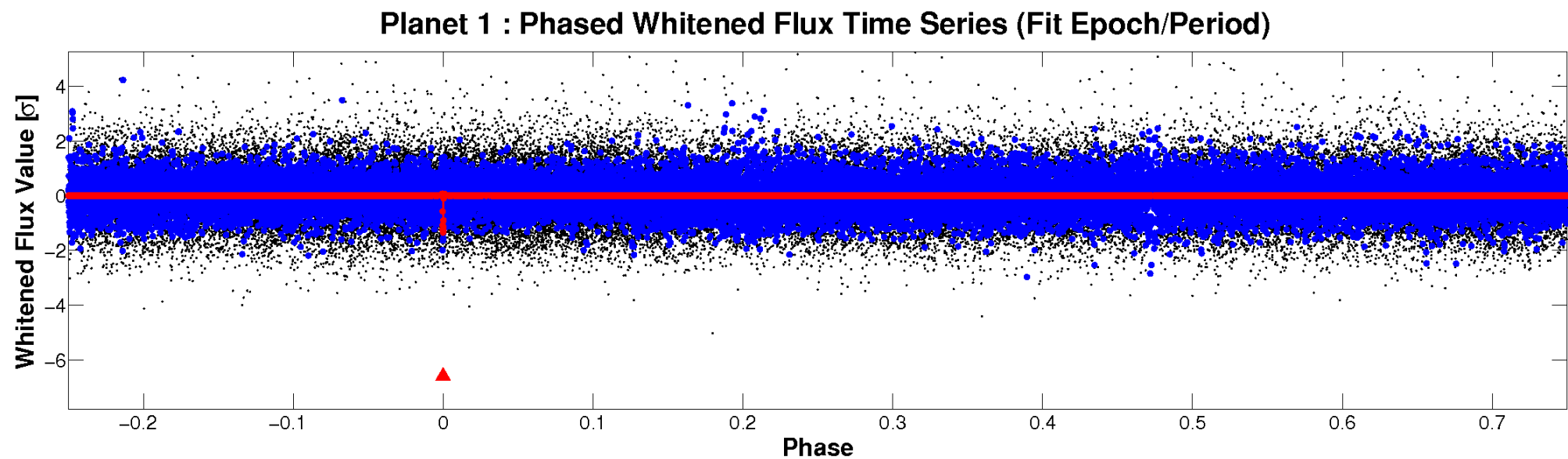
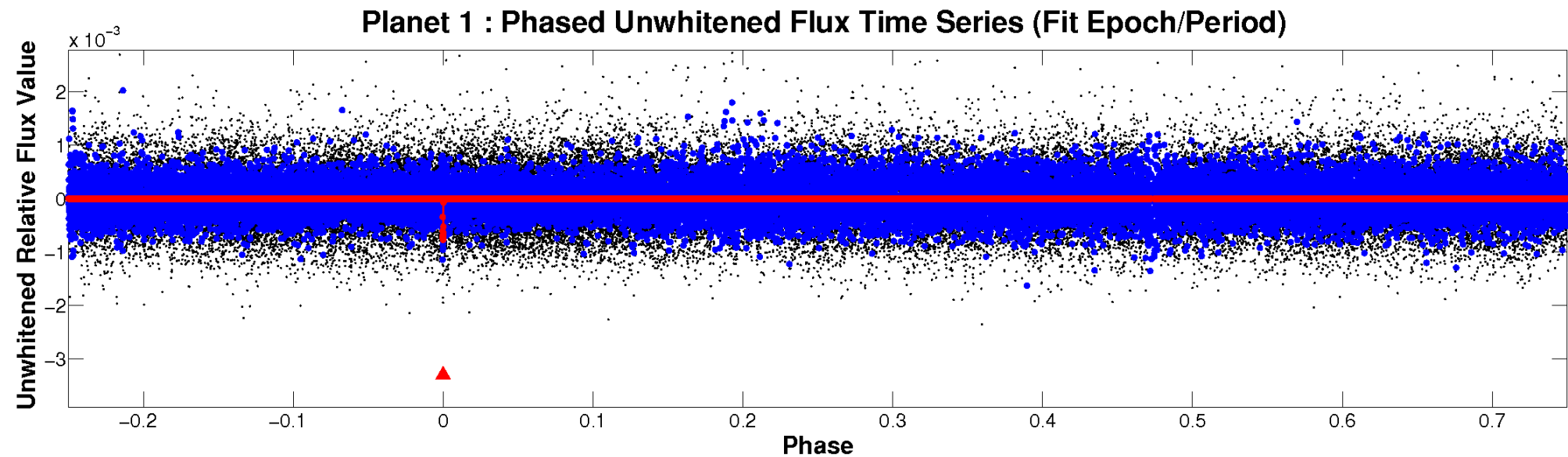


ALT Odd/Even

TCE 005961106-01



Non-Whitened Vs. Whitened Light Curve



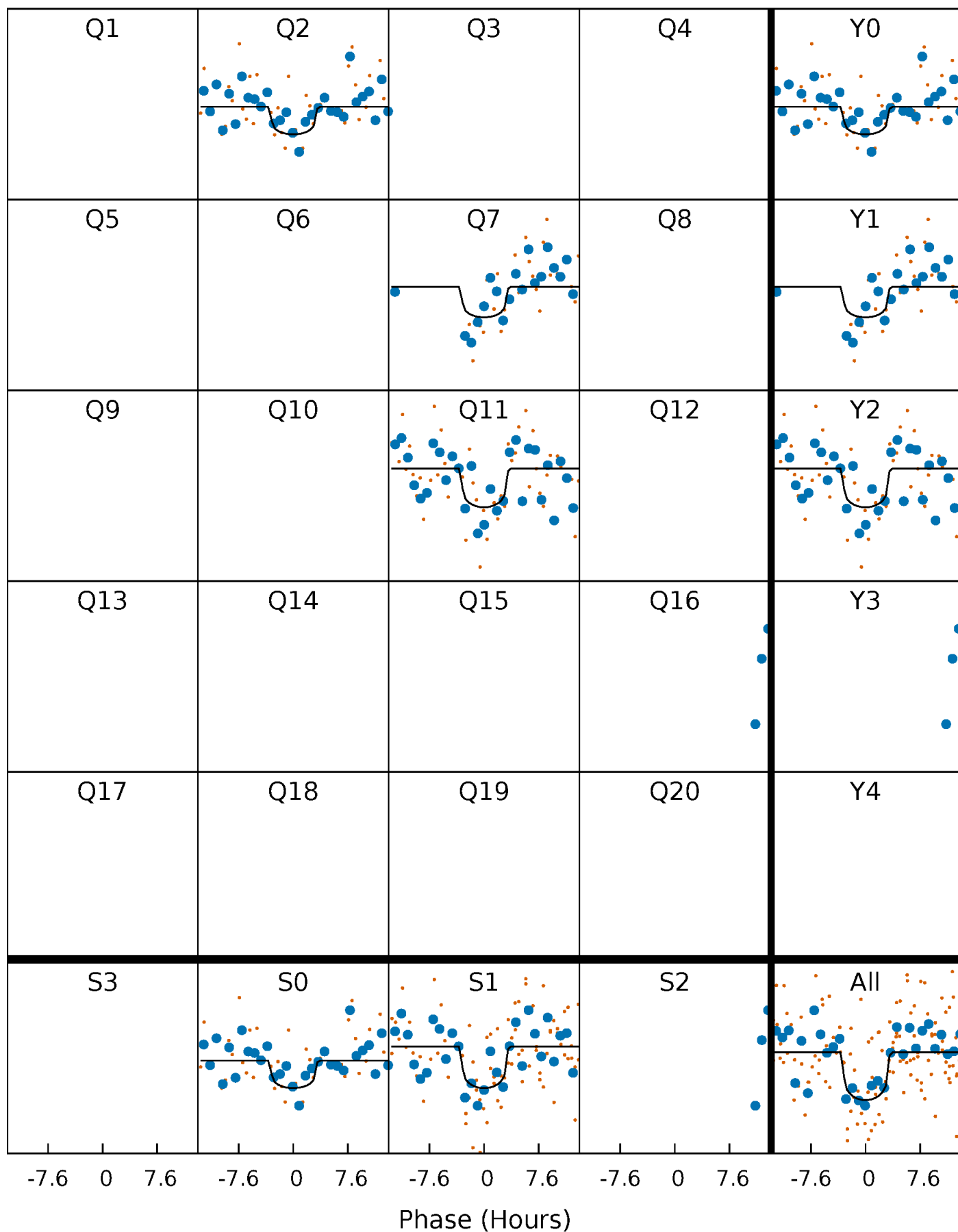
PDC Quarter-Phased Transit Curves

TCE 005961106-01 P=445.734763 Days $T_0=188.489582$ (BKJD)



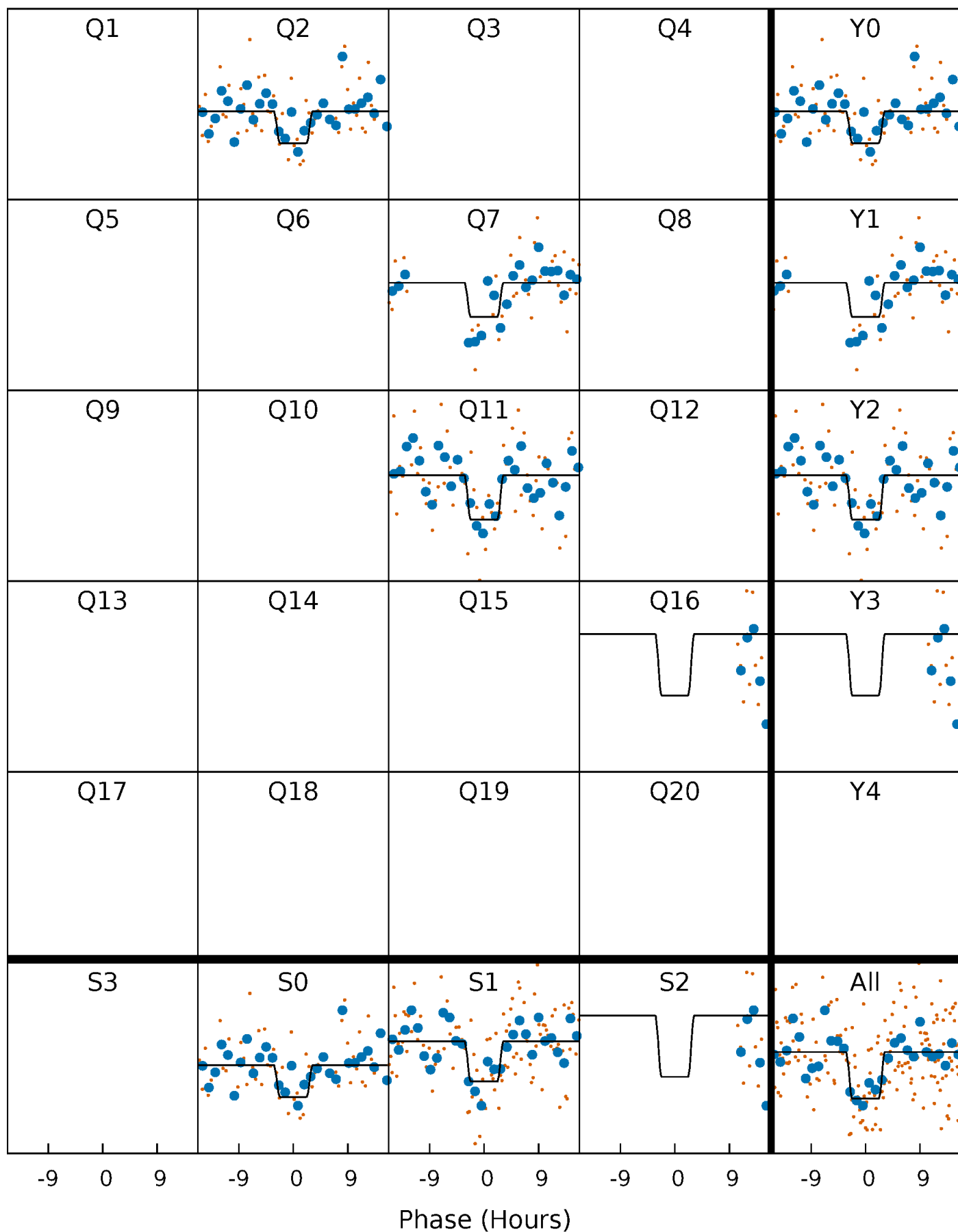
DV Quarter-Phased Transit Curves

TCE 005961106-01 P=445.734763 Days $T_0=188.489582$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

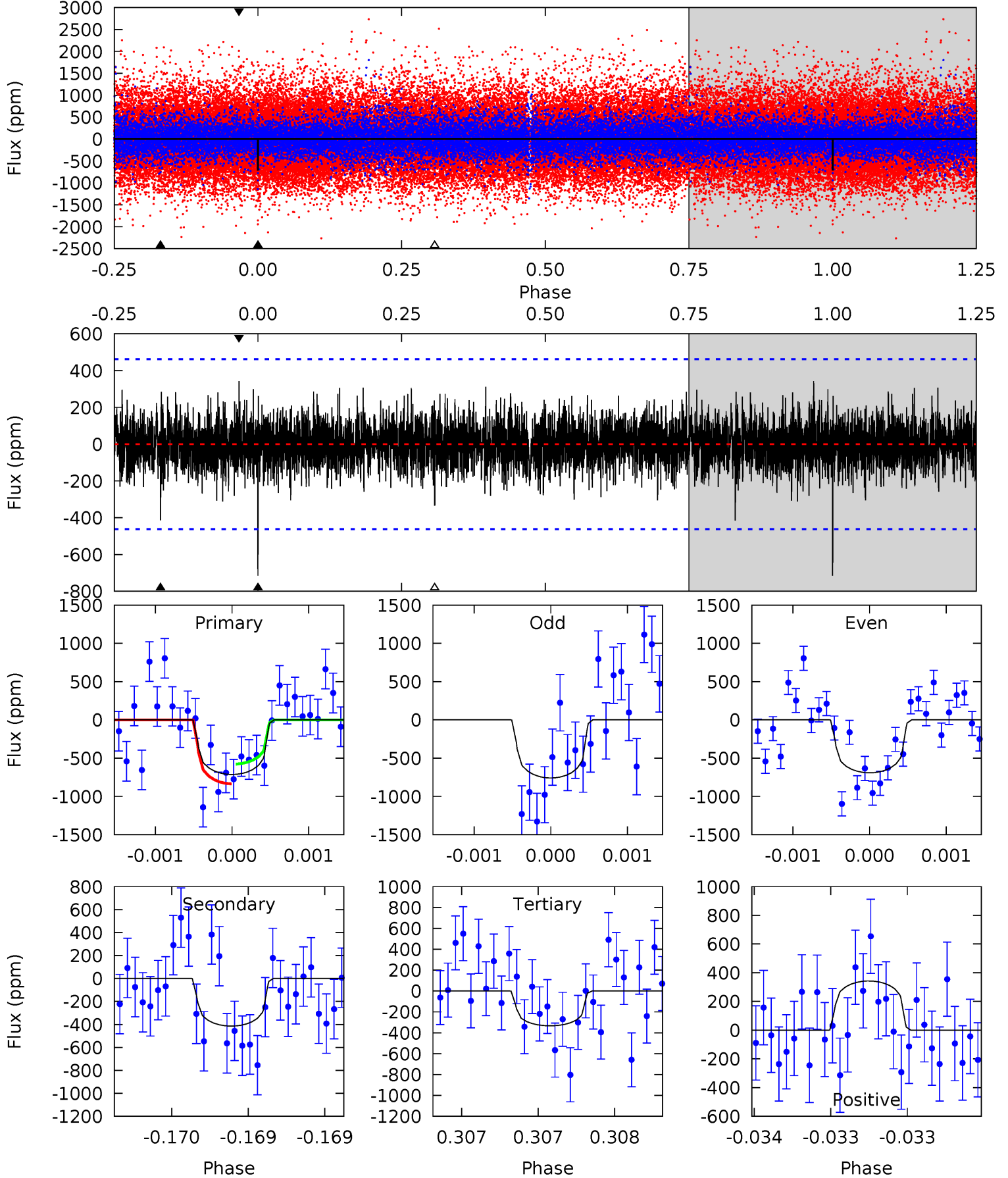
TCE 005961106-01 P=445.744489 Days $T_0=188.476355$ (BKJD)



DV Model-Shift Uniqueness Test

005961106-01, P = 445.734763 Days, E = 188.489582 Days

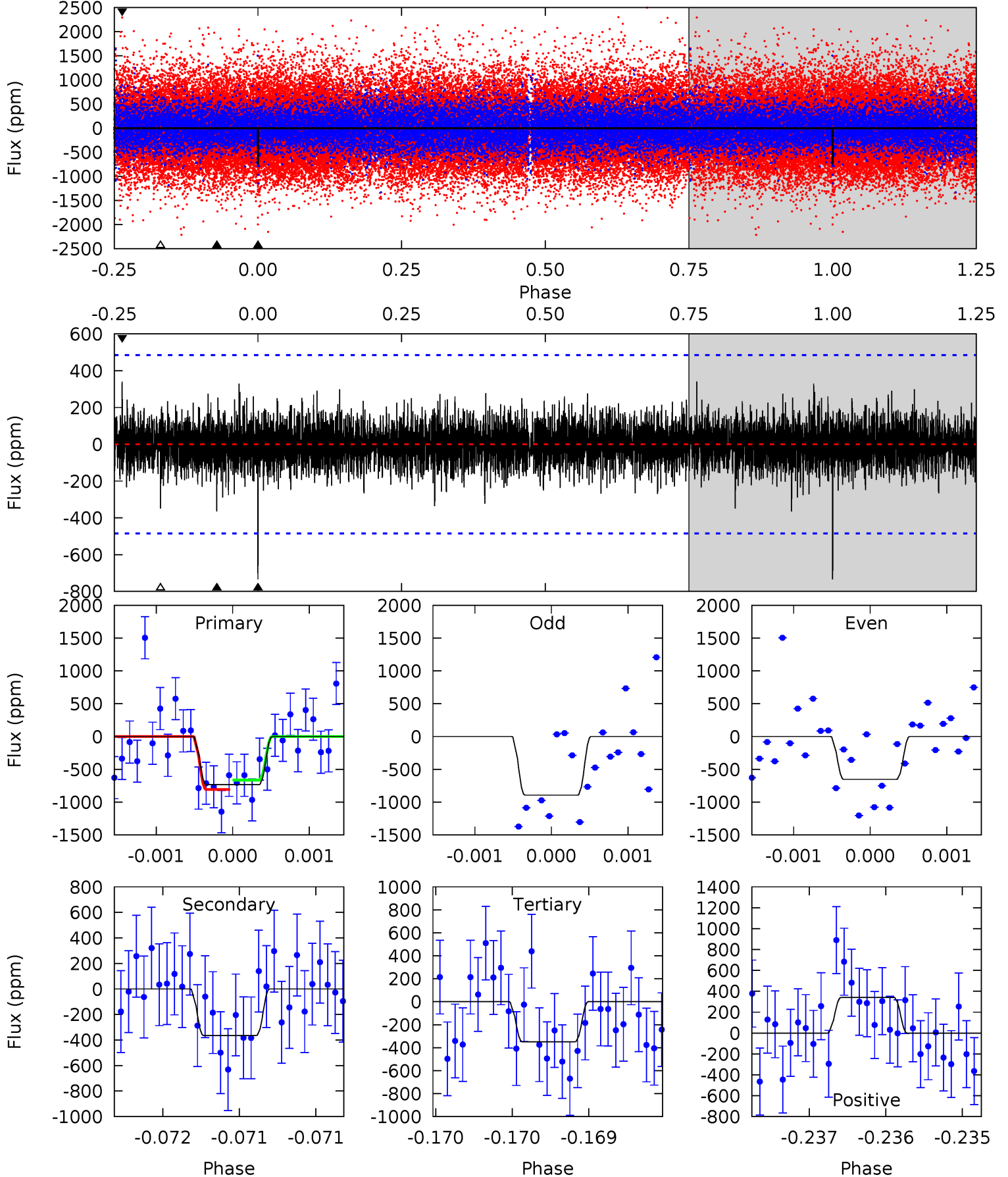
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.53	4.96	3.99	4.10	5.53	3.41	1.09	4.55	4.43	0.97	0.86	0.38	0.94	0.32	1.54



Alt Model-Shift Uniqueness Test

005961106-01, P = 445.744489 Days, E = 188.476355 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.39	4.17	3.99	3.90	5.55	3.44	0.98	4.40	4.49	0.18	0.27	1.31	0.98	0.32	0.82



Stellar Parameters For KIC 005961106

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5778^{+156}_{-190}	$4.531^{+0.037}_{-0.213}$	$0.070^{+0.250}_{-0.300}$	$0.911^{+0.275}_{-0.086}$	$1.028^{+0.102}_{-0.125}$	$1.914^{+0.385}_{-0.993}$
	+3%/-3%	+1%/-5%	+357%/-429%	+30%/-9%	+10%/-12%	+20%/-52%
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 005961106-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-414 ± 84	$3.49^{+2.80}_{-2.13}$	325^{+22}_{-16}	4687^{+2730}_{-938}	$24336^{+143157}_{-17180}$
Alt.	-365 ± 87	$3.44^{+2.69}_{-2.17}$	324^{+26}_{-16}	4575^{+2587}_{-924}	$22566^{+135950}_{-16452}$

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

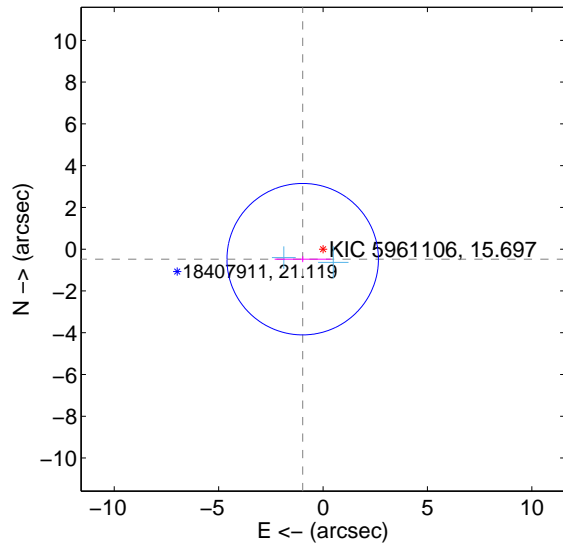
Supplemental centroid analysis for 005961106-01. Kepler magnitude: 15.70. Transit SNR 7.15

There are 2 quarters with good PRF difference image offsets

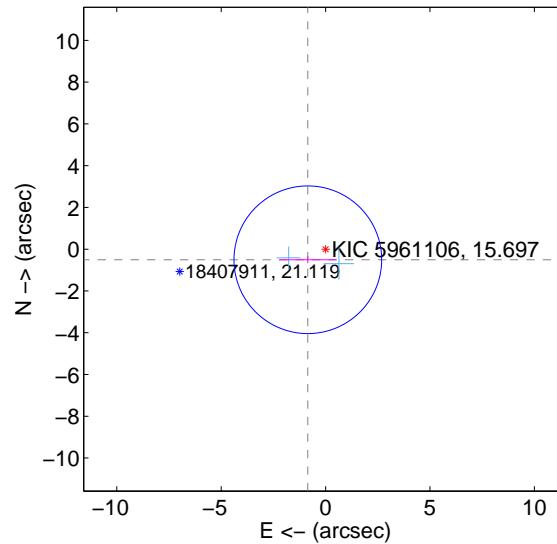
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.085 ± 1.209	0.90	0.974 ± 1.345	-0.479 ± 0.141
PRF-fit source offset from KIC position	0.990 ± 1.179	0.84	0.850 ± 1.368	-0.507 ± 0.167
photometric centroid source offset	2.43 ± 2.41	1.01	-2.37 ± 2.43	-0.53 ± 1.96

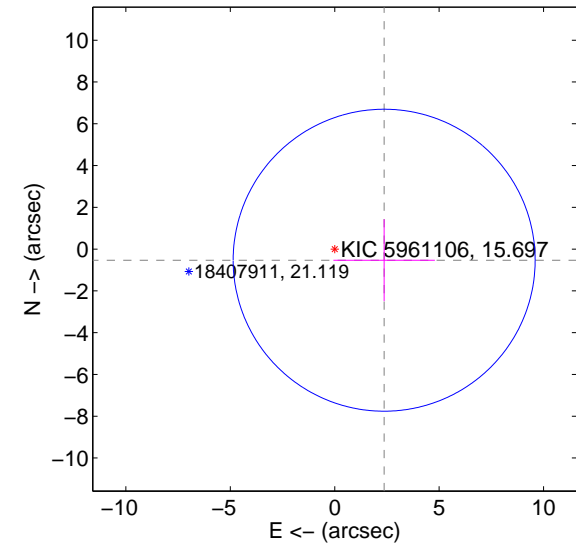
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

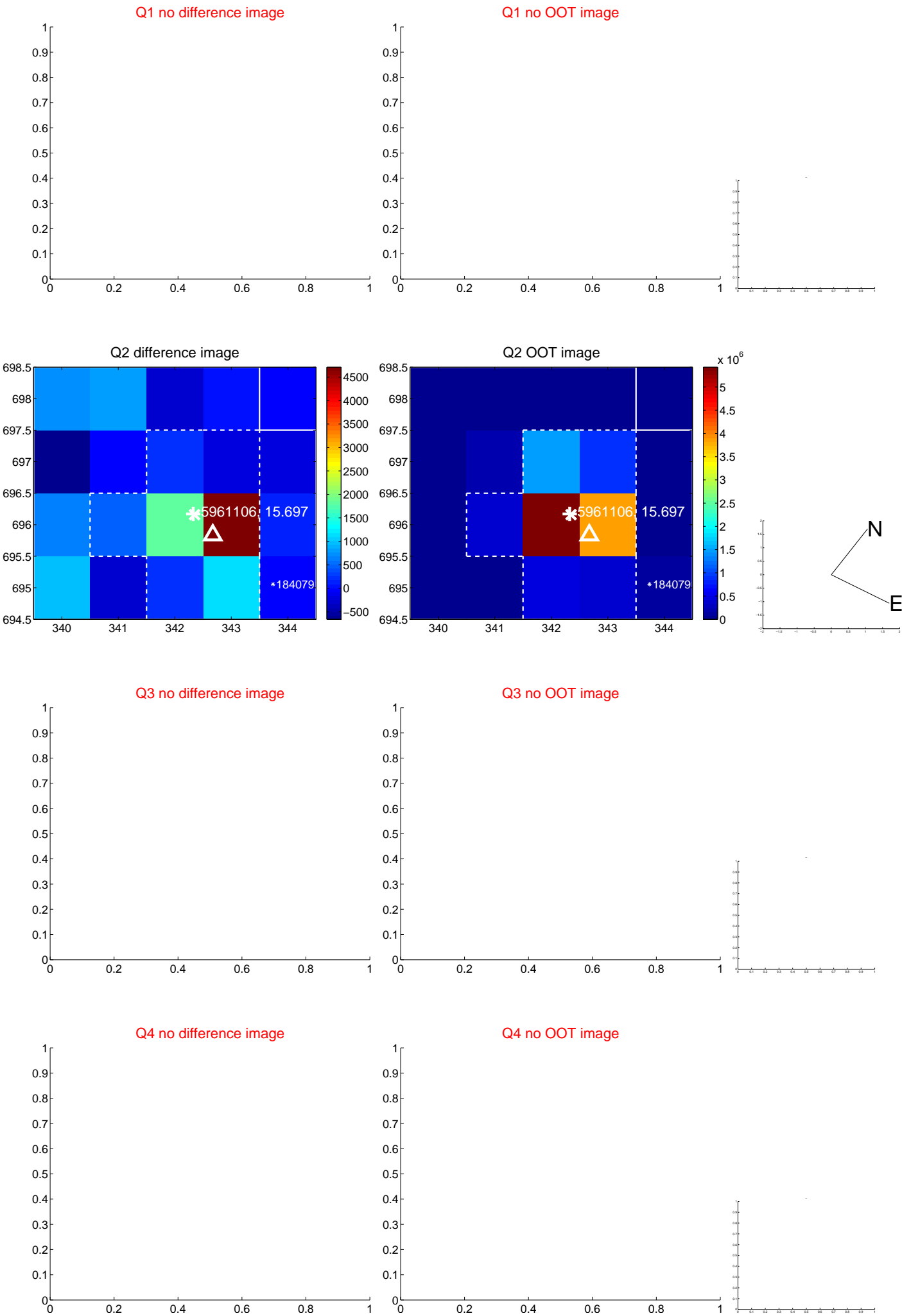


offset from photometric centroids



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.

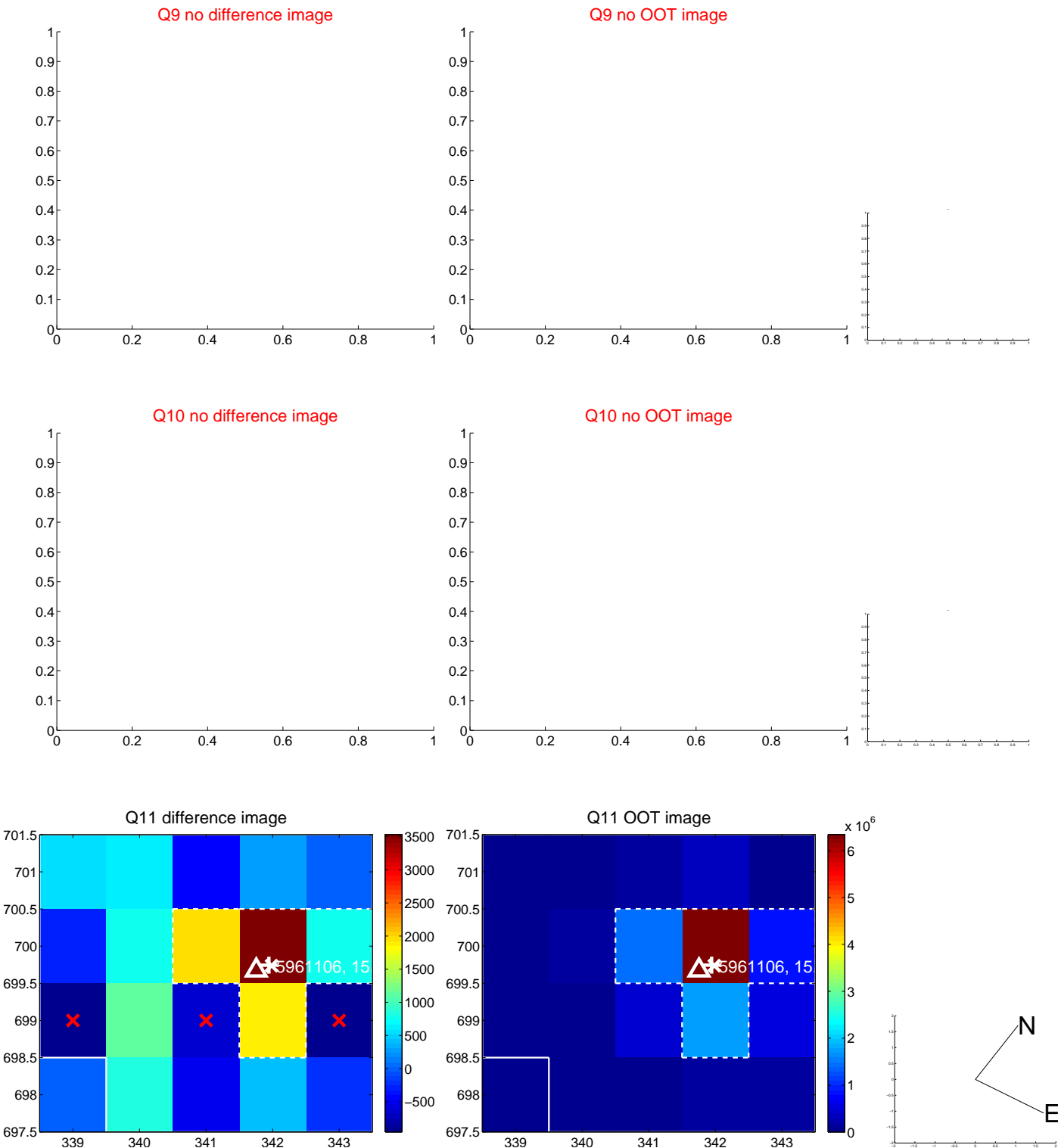
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



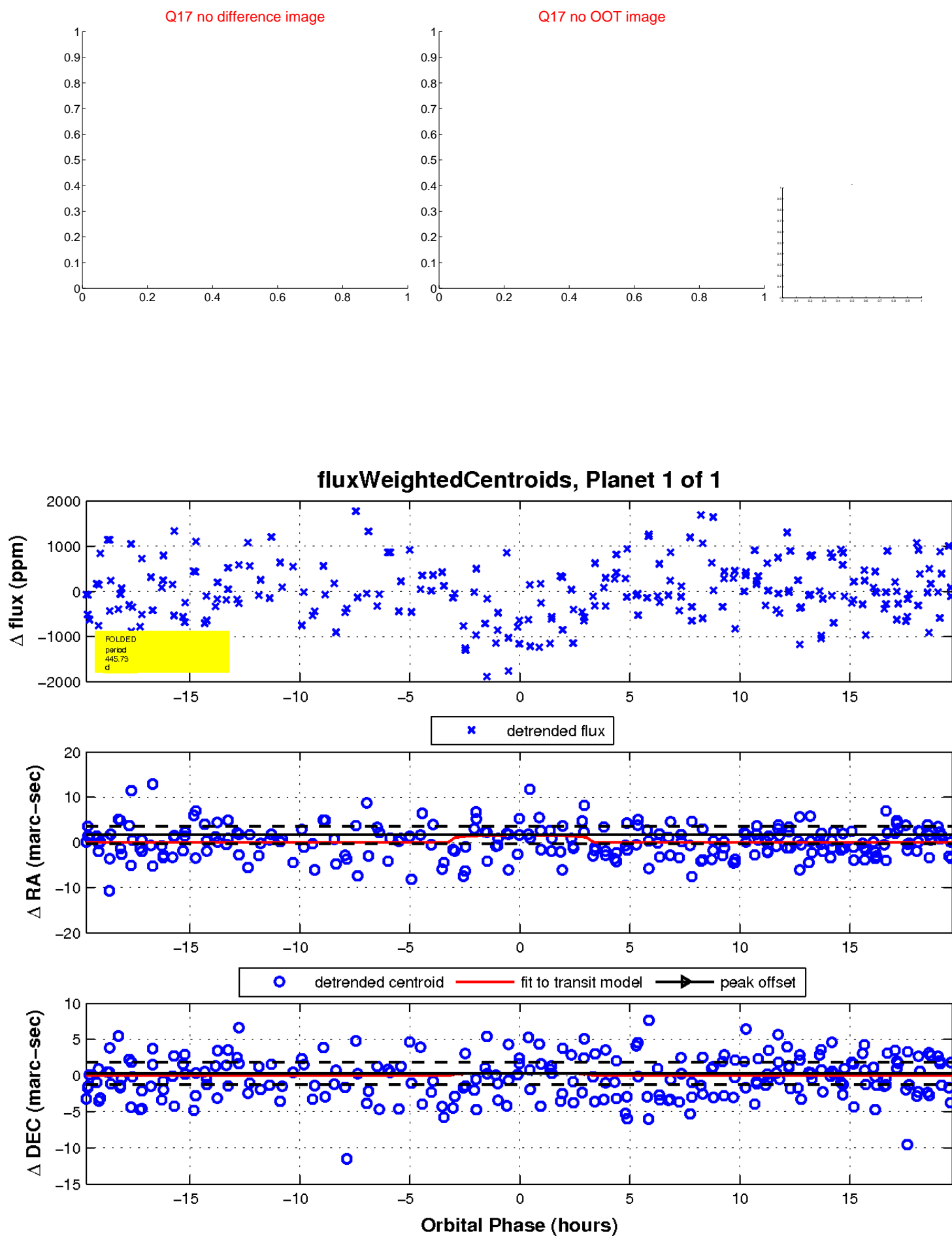
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

