

KIC 011068543

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})
011068543-01	OBS	No	337.450586	256.386463	198.3	3.416	10.5	5.2	21.18	4236	42.99	152.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011068543-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

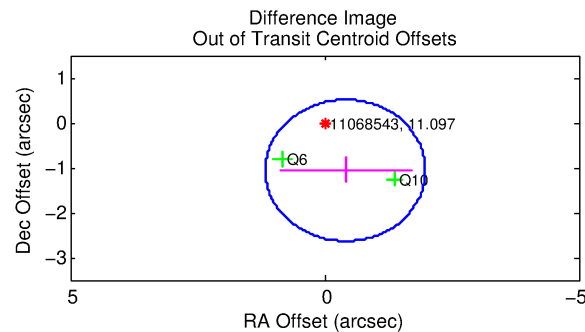
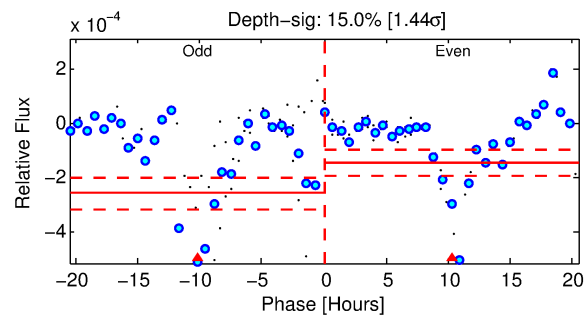
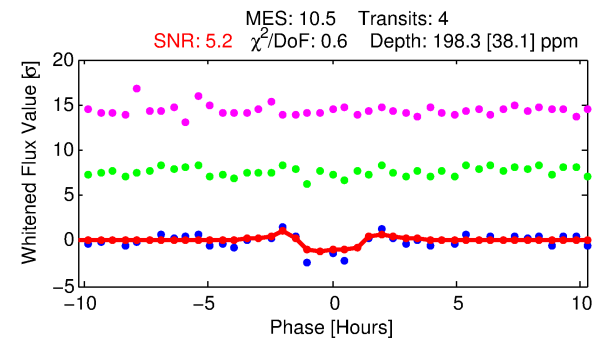
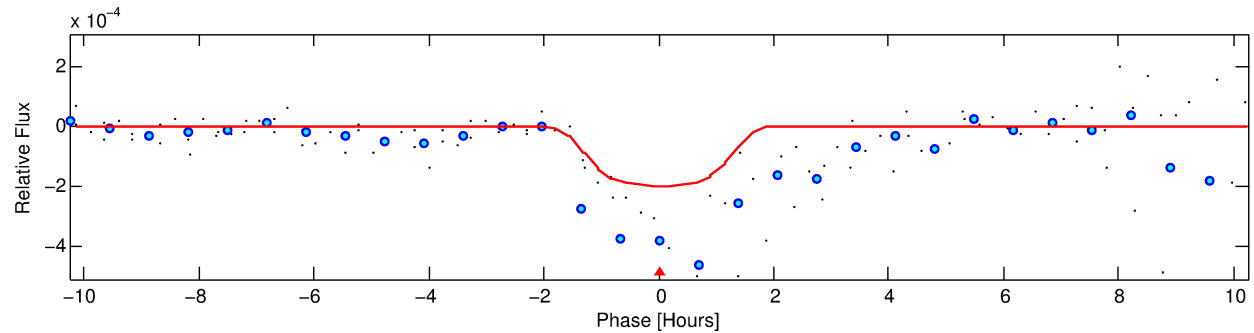
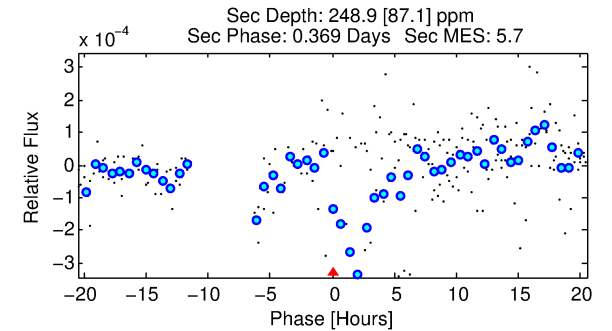
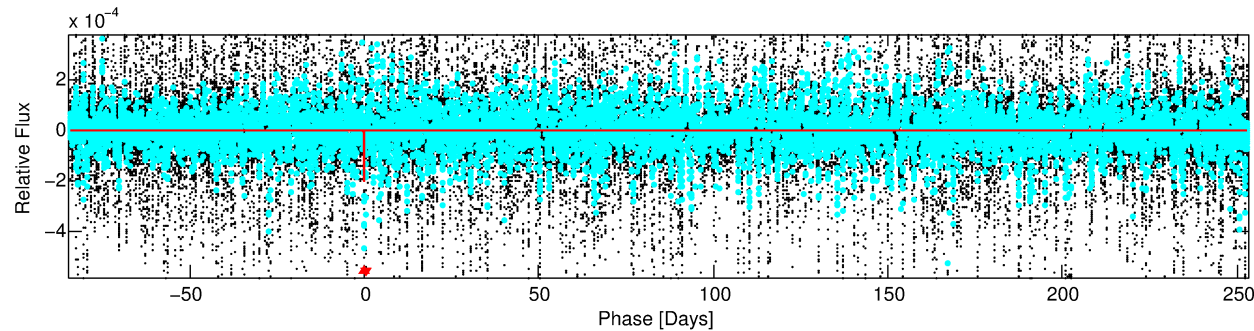
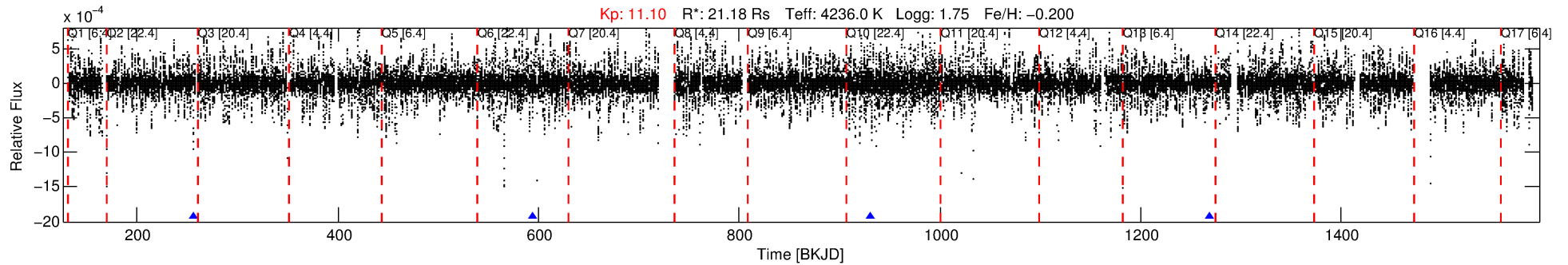
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011068543-01

No Significant Match Found

DV One-Page Summary

KIC: 11068543 Candidate: 1 of 1 Period: 337.451 d



DV Fit Results:

Period = 337.45059 [0.00368] d
Epoch = 256.3865 [0.0066] BKJD
Rp/R* = 0.0186 [0.0025]
a/R* = 236.11 [69.84]
b = 0.97 [0.02]
Seff = 152.65 [90.27]
Teff = 896 [133] K
Rp = 42.99 [20.61] Re
a = 0.9207 [0.3610] AU
Ag = 62.82 [45.58] [1.36σ]
Teffp = 3901 [448] K [6.43σ]

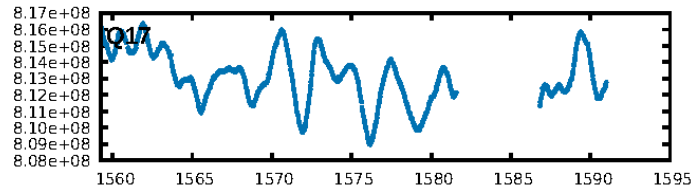
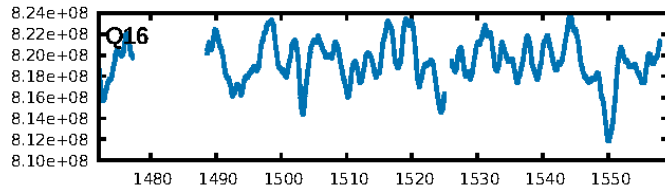
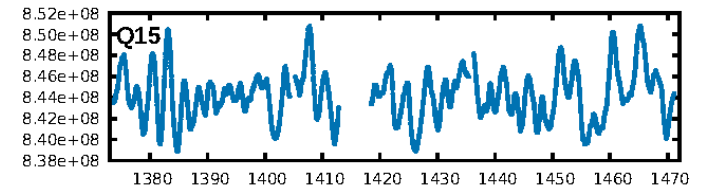
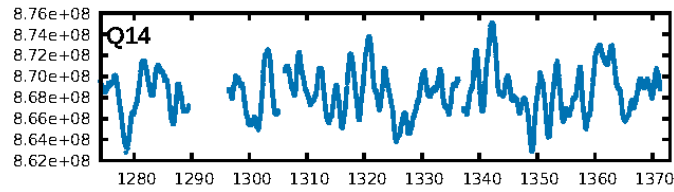
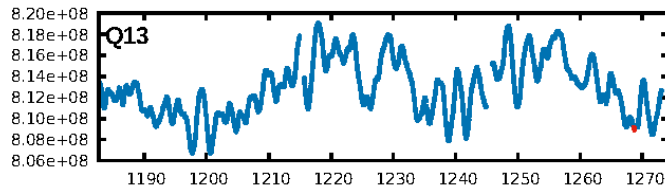
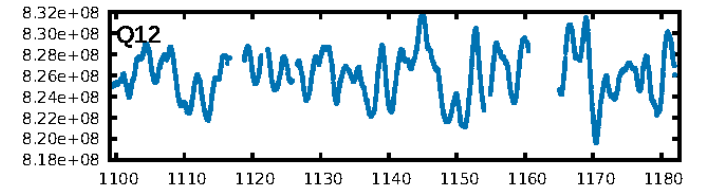
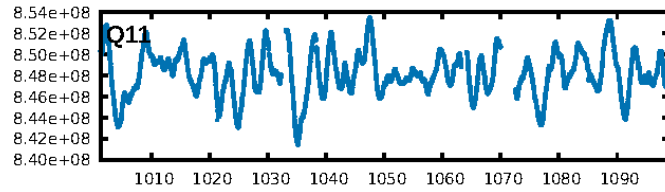
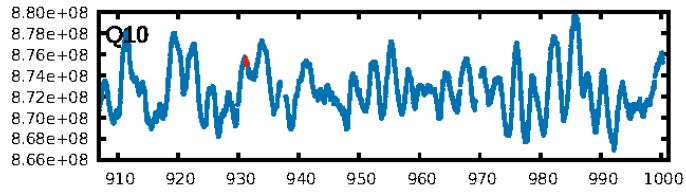
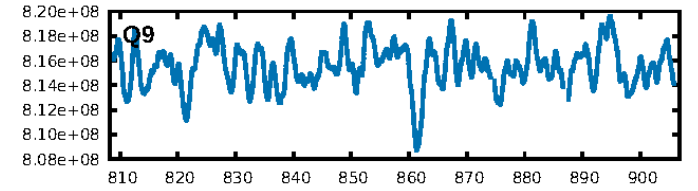
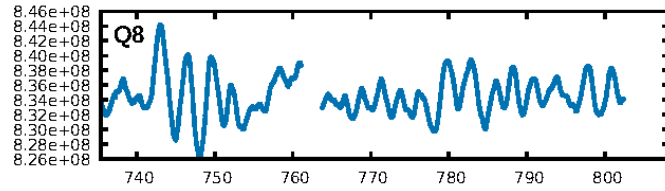
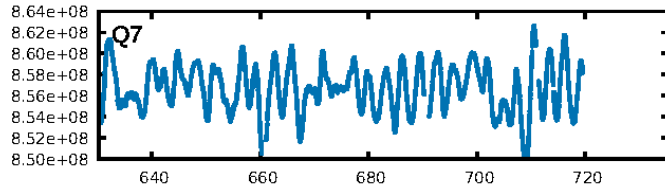
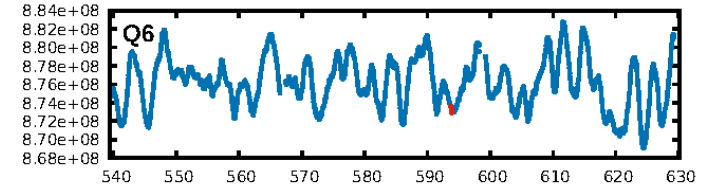
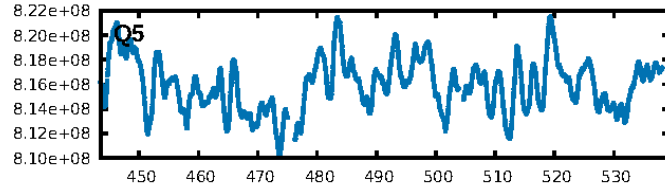
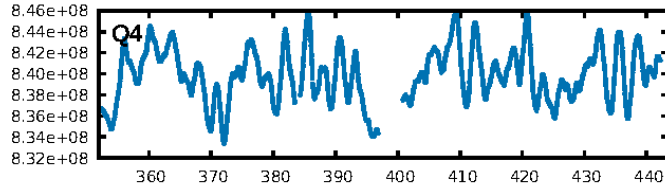
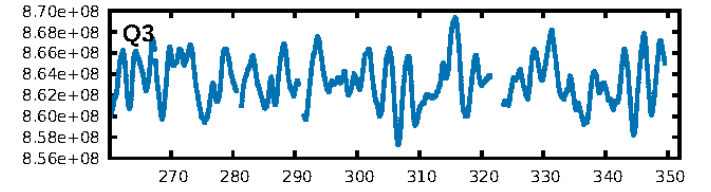
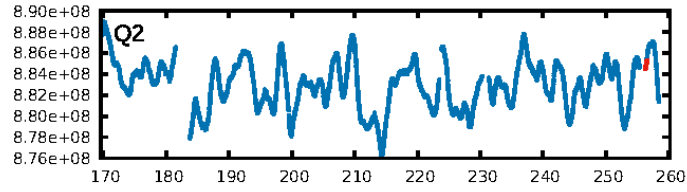
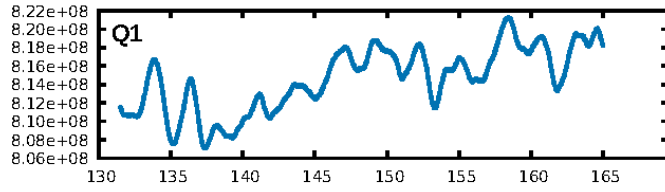
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 71.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.20e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.4264
Centroid-sig: 1.8%
Centroid-so: 1.748 arcsec [1.32σ]
OotOffset-rm: 1.137 arcsec [2.17σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-rm: 1.141 arcsec [1.63σ]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

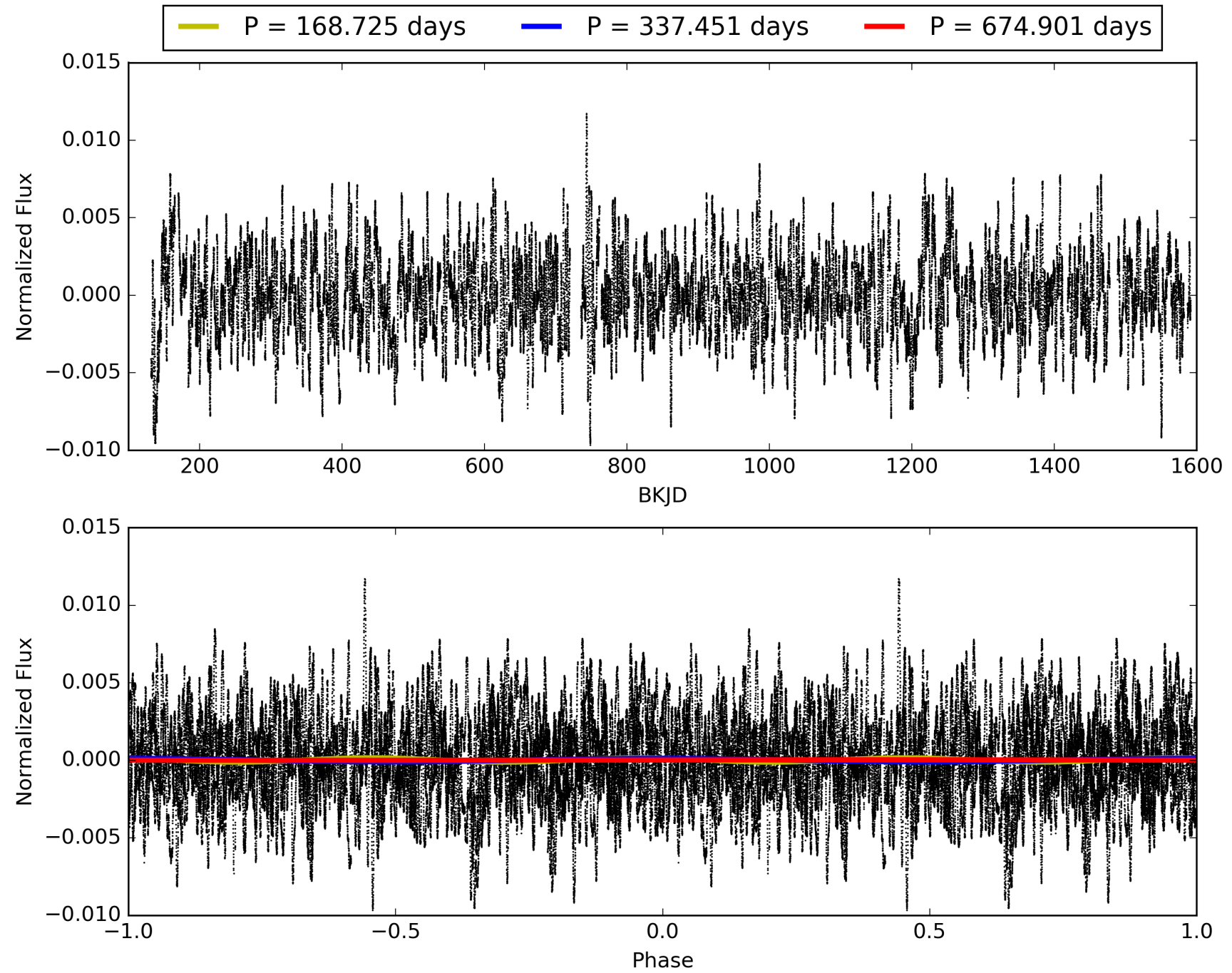
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 09:12:07 Z

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

TCE 011068543-01, PDC Light Curves

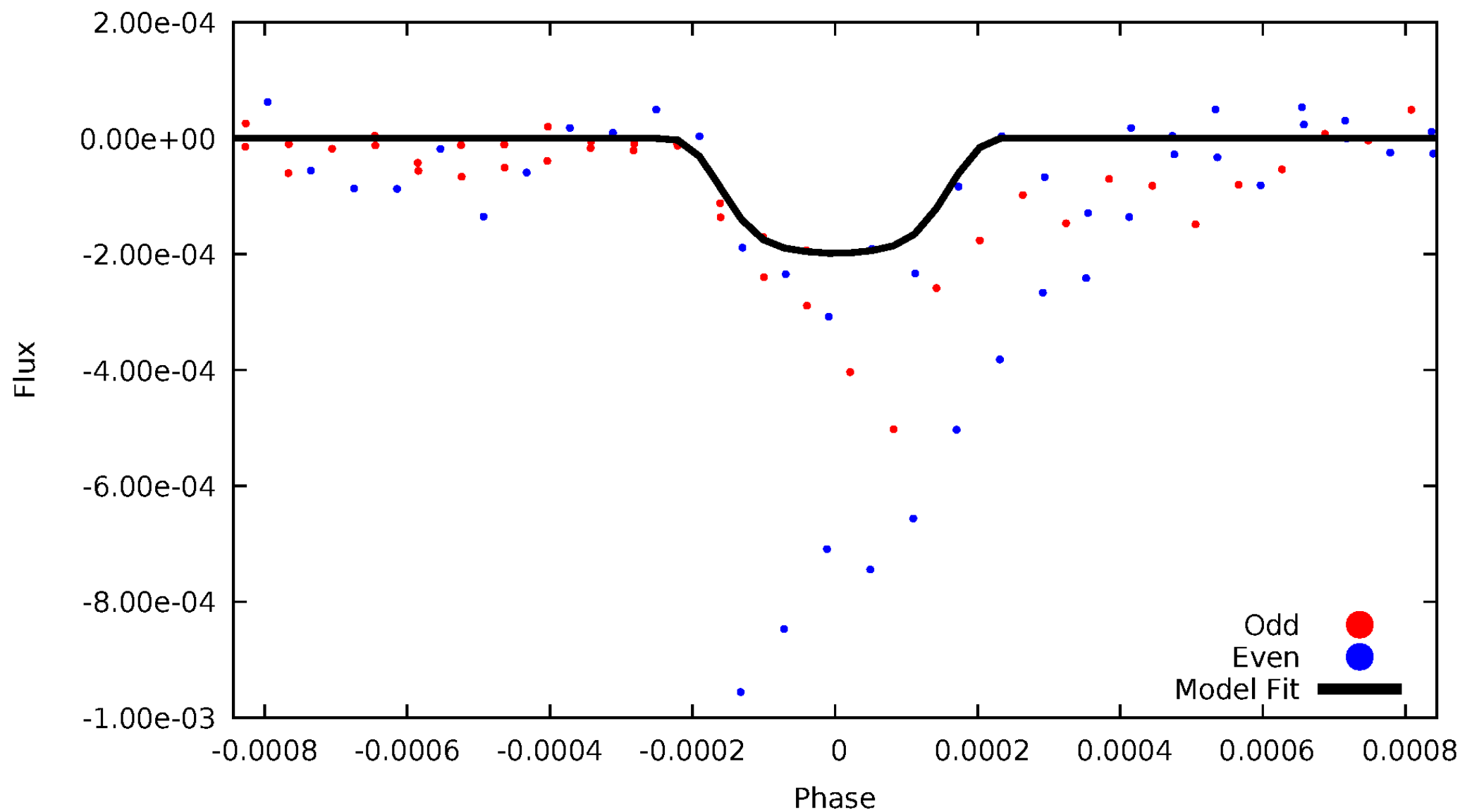


TCE 011068543-01



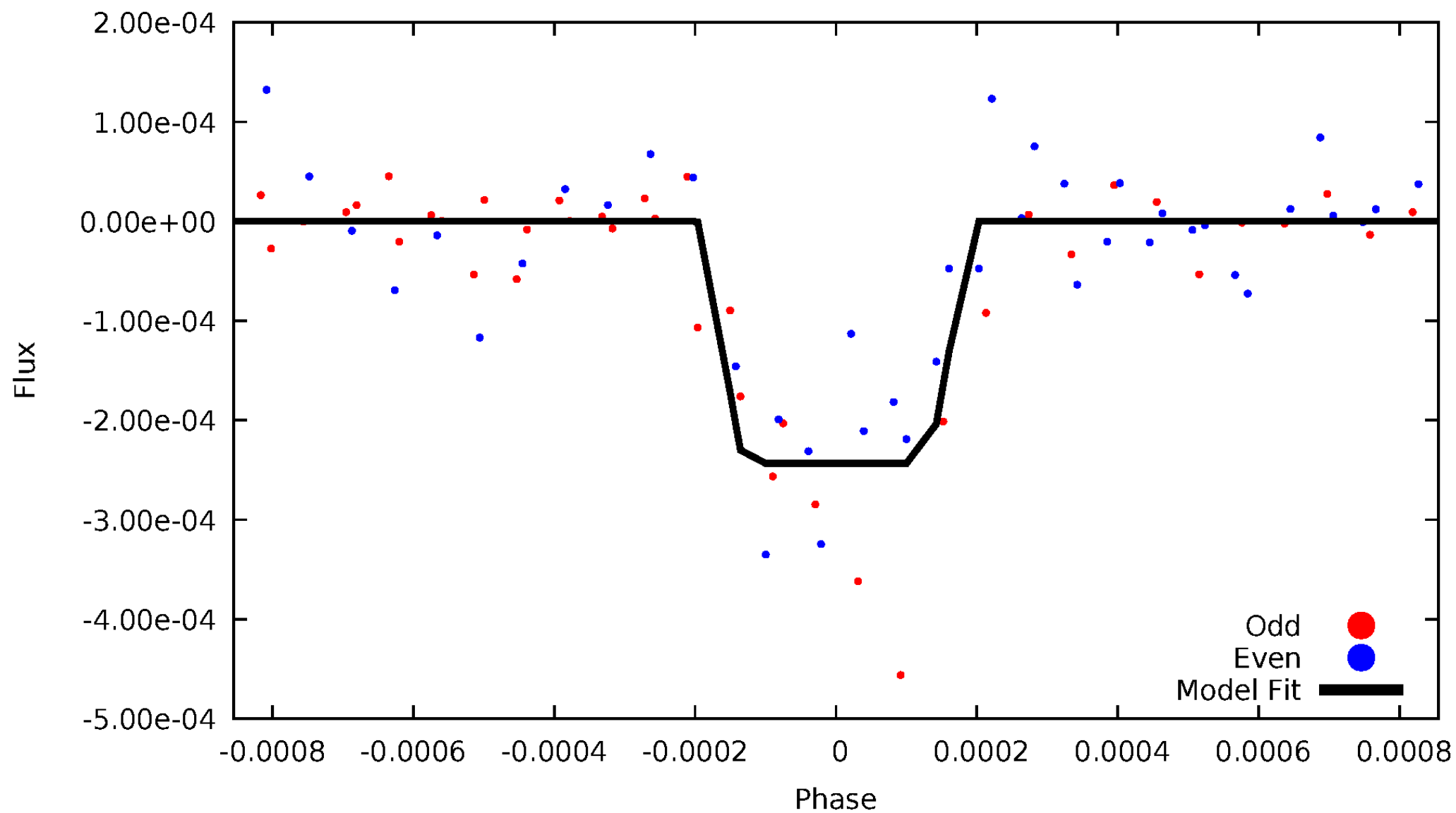
DV Odd/Even

TCE 011068543-01

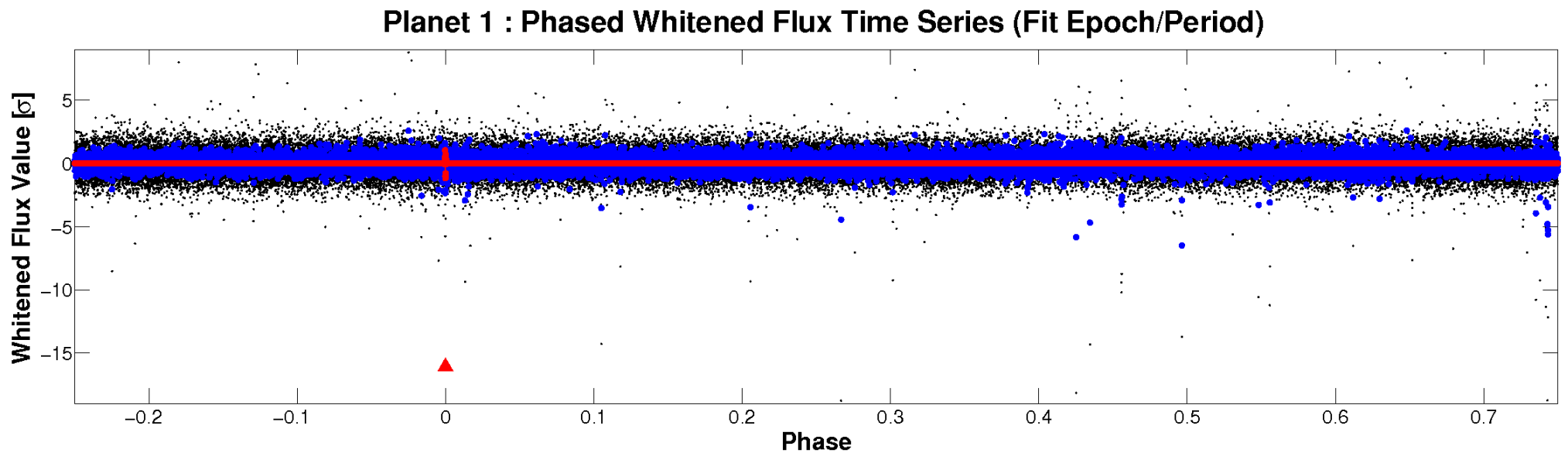
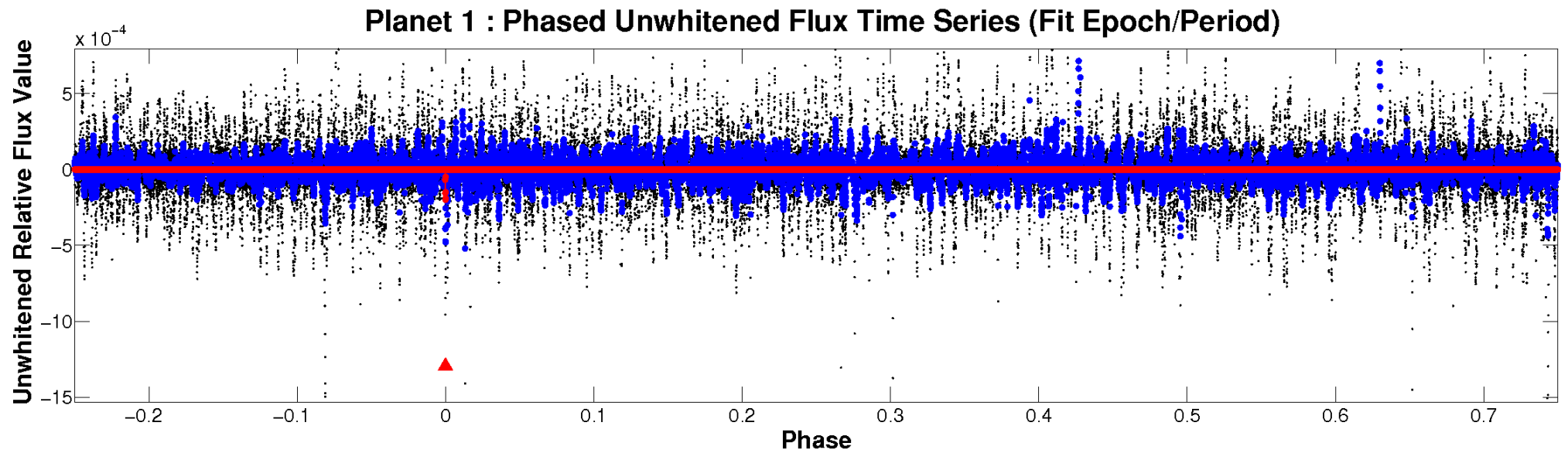


ALT Odd/Even

TCE 011068543-01

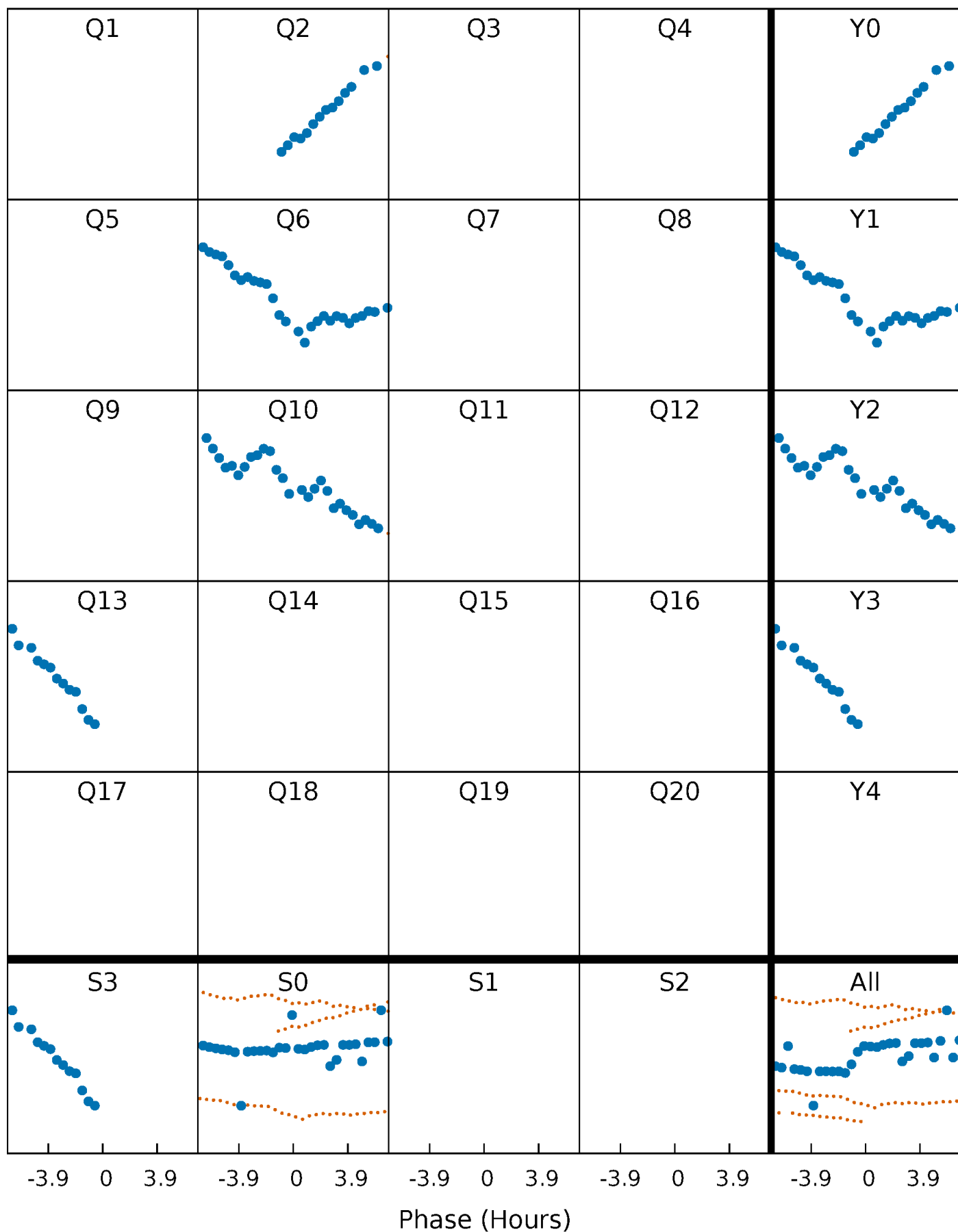


Non-Whitened Vs. Whitened Light Curve



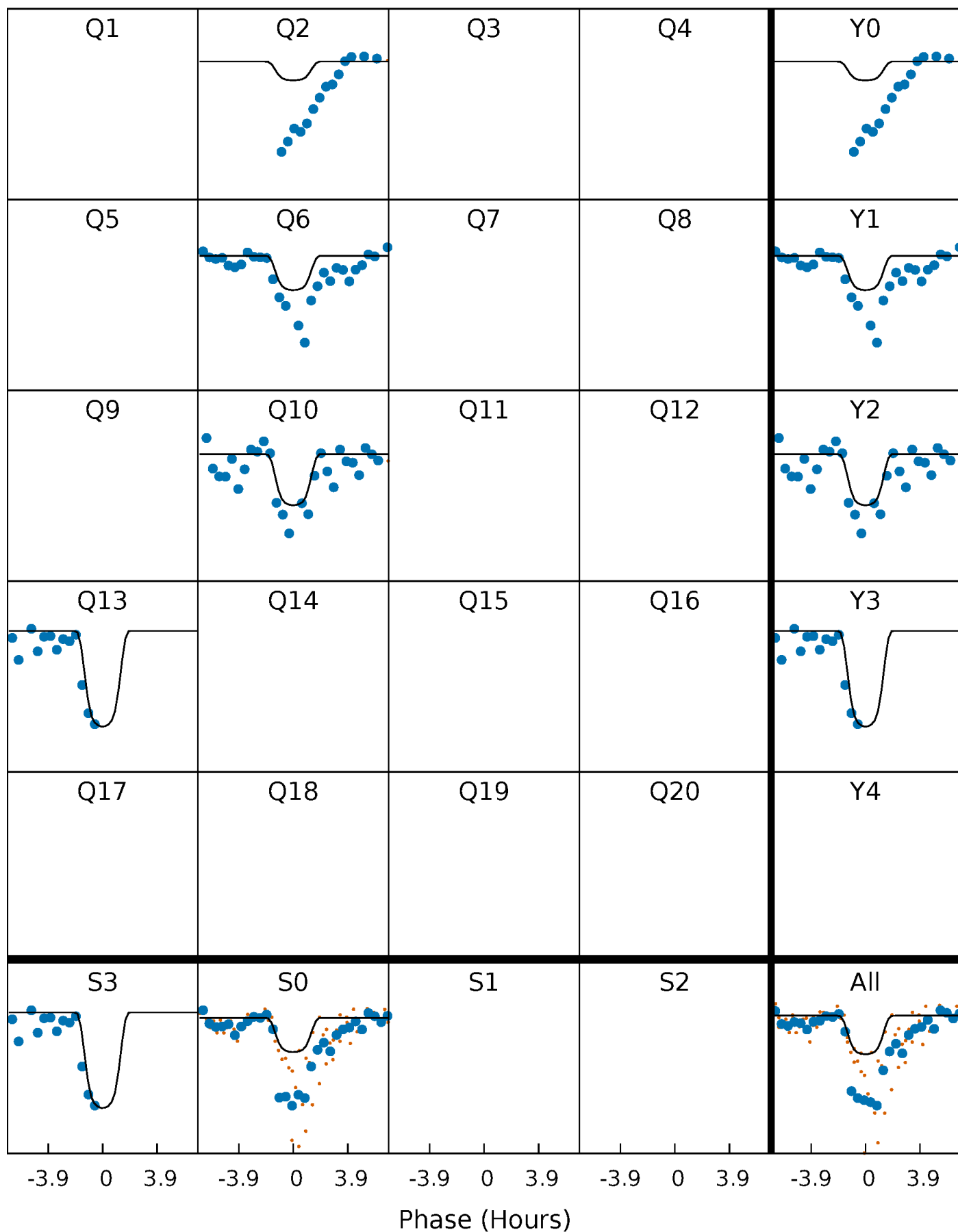
PDC Quarter-Phased Transit Curves

TCE 011068543-01 P=337.450586 Days $T_0=256.386463$ (BKJD)



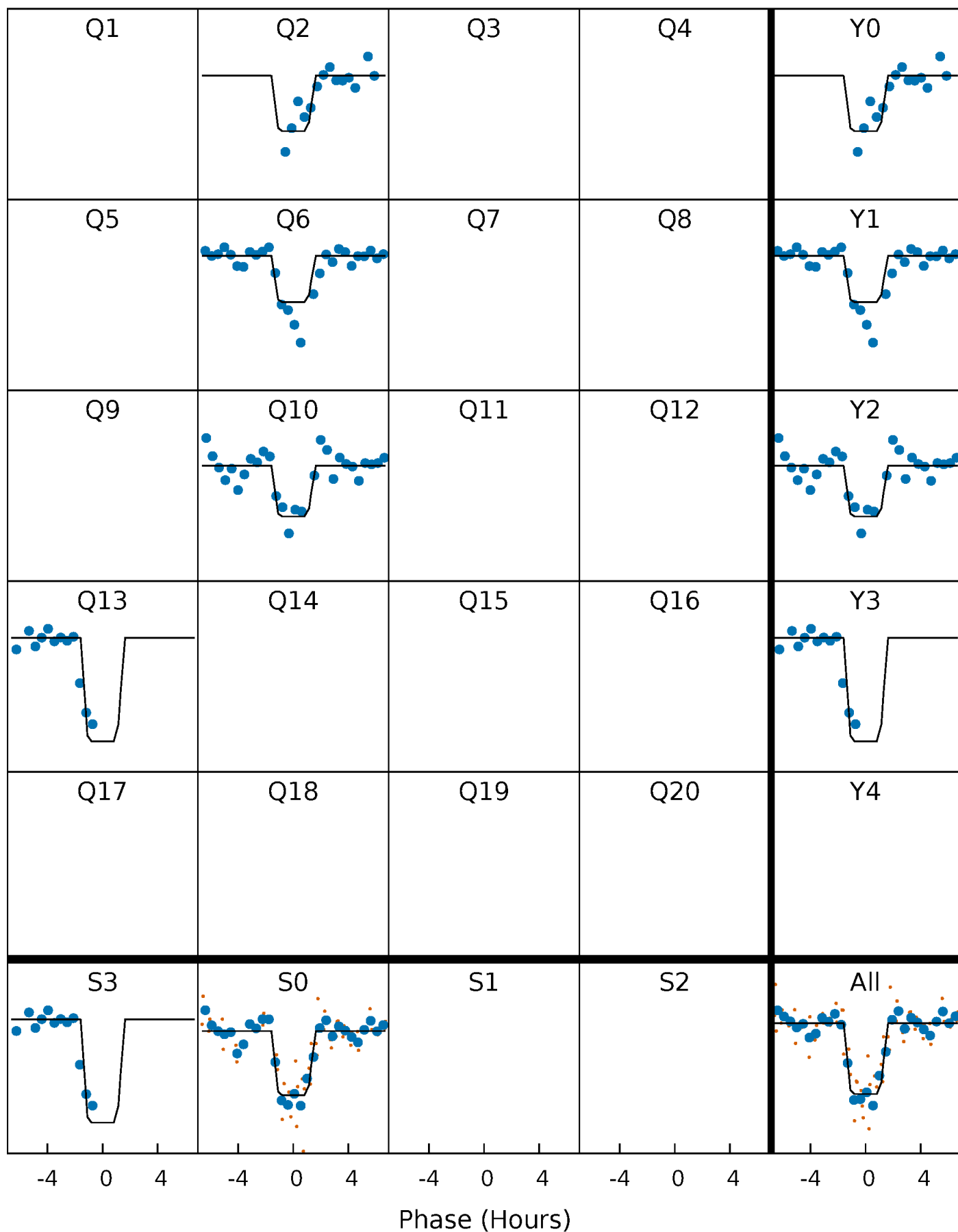
DV Quarter-Phased Transit Curves

TCE 011068543-01 P=337.450586 Days $T_0=256.386463$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

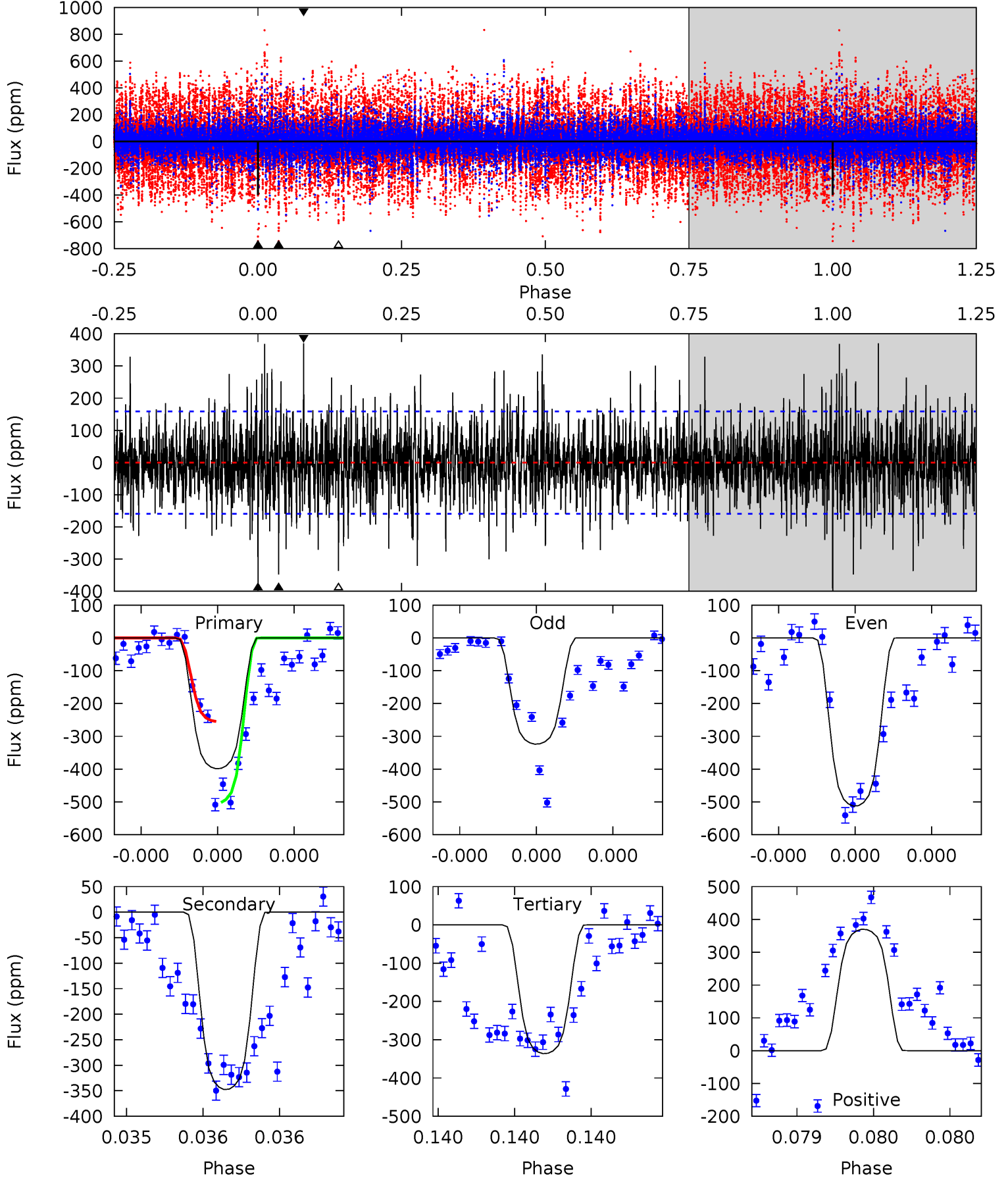
TCE 011068543-01 P=337.458180 Days $T_0=256.375464$ (BKJD)



DV Model-Shift Uniqueness Test

011068543-01, P = 337.450586 Days, E = 256.386463 Days

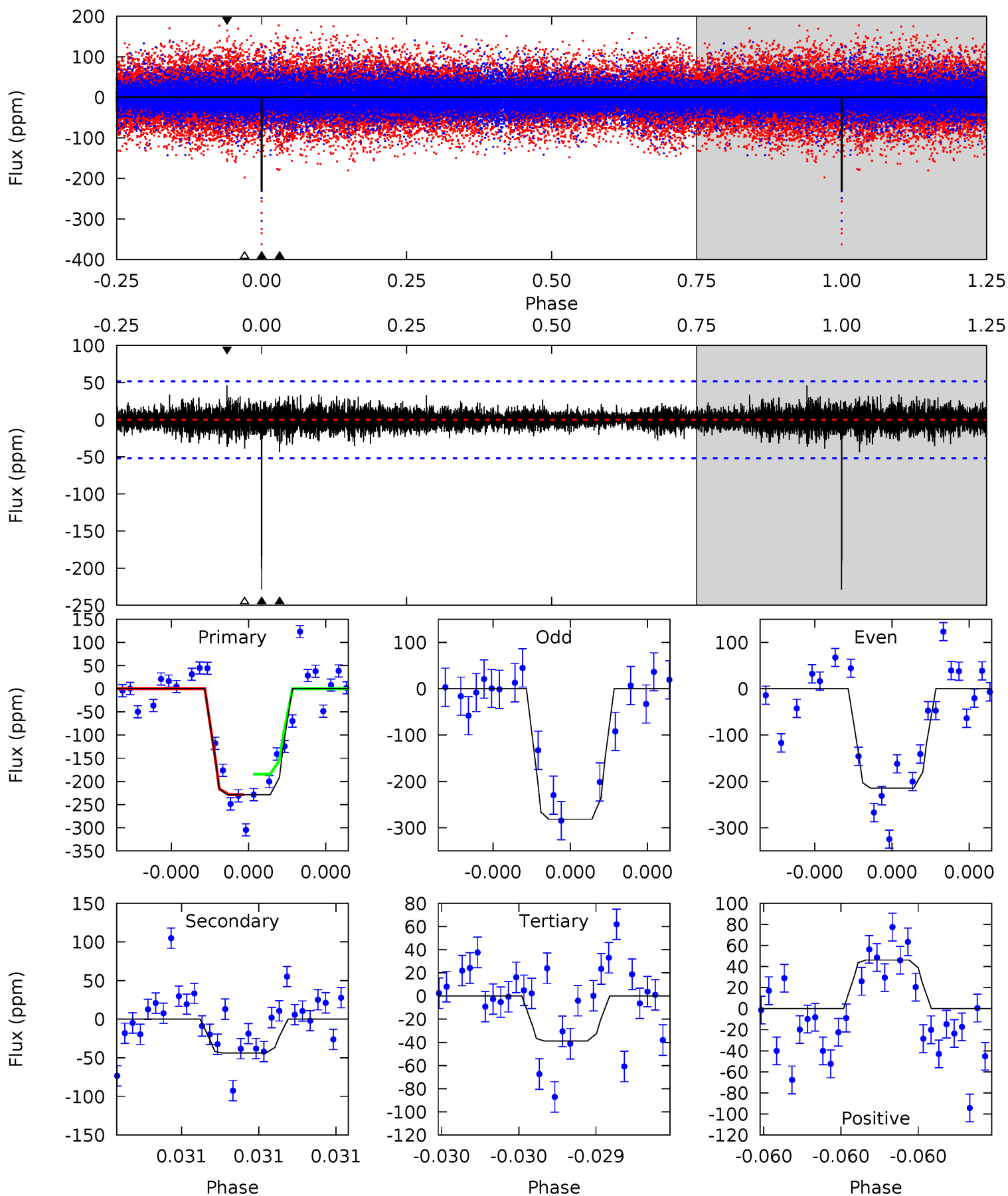
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	12.2	11.8	13.0	5.59	3.51	2.57	2.20	1.01	0.40	-0.79	2.91	1.34	0.48	4.27



Alt Model-Shift Uniqueness Test

011068543-01, P = 337.458180 Days, E = 256.375464 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.9	4.77	4.22	5.02	5.63	3.57	0.87	20.6	19.8	0.55	-0.25	3.84	1.09	0.17	2.19



Stellar Parameters For KIC 011068543

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4236^{+139}_{-96}	$1.747^{+0.318}_{-0.238}$	$-0.200^{+0.300}_{-0.200}$	$21.179^{+9.749}_{-5.249}$	$0.914^{+0.553}_{-0.031}$	$0.000^{+0.000}_{-0.000}$
	+3%/-2%	+18%/-14%	+150%/-100%	+46%/-25%	+61%/-3%	+158%/-62%
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 011068543-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-348 ± 28	$43.80^{+11.59}_{-9.83}$	1237^{+135}_{-116}	4264^{+265}_{-223}	93^{+62}_{-34}
Alt.	-44 ± 9	$37.11^{+11.32}_{-8.40}$	1251^{+124}_{-123}	3180^{+212}_{-175}	16^{+13}_{-6}

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

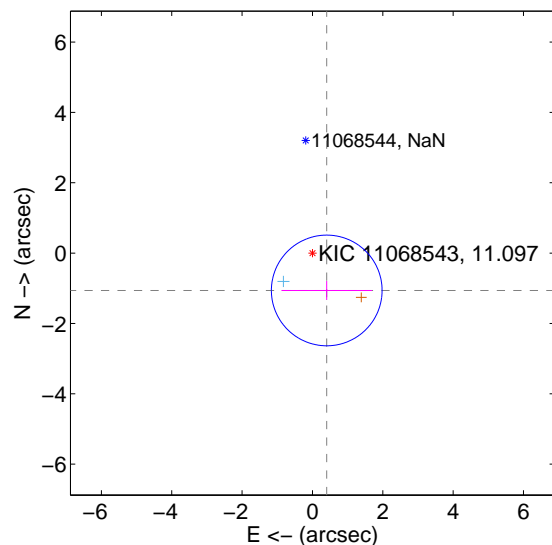
Supplemental centroid analysis for 011068543-01. **Kepler magnitude: 11.10.** Transit SNR 5.20

There are 1 quarters with good PRF difference image offsets

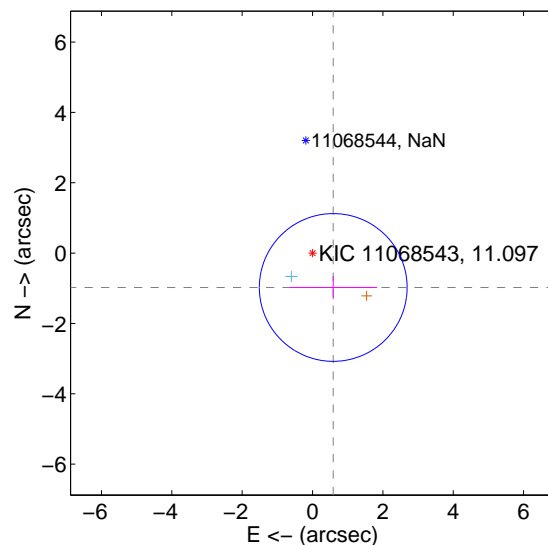
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.137 ± 0.525	2.17	-0.406 ± 1.286	-1.062 ± 0.271
PRF-fit source offset from KIC position	1.141 ± 0.700	1.63	-0.589 ± 1.245	-0.977 ± 0.325
photometric centroid source offset	1.75 ± 1.33	1.32	-0.61 ± 1.49	-1.64 ± 1.31

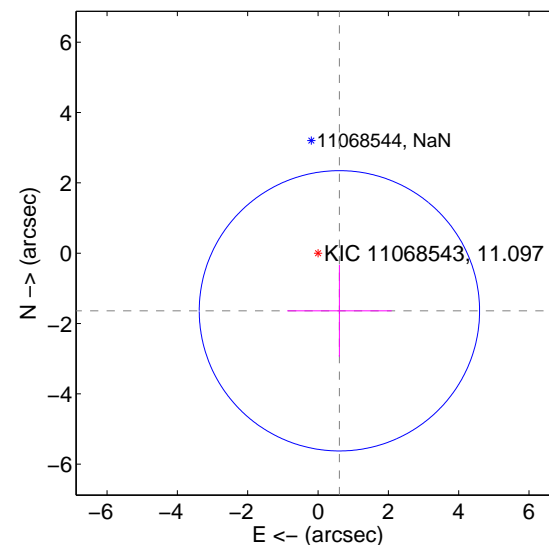
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

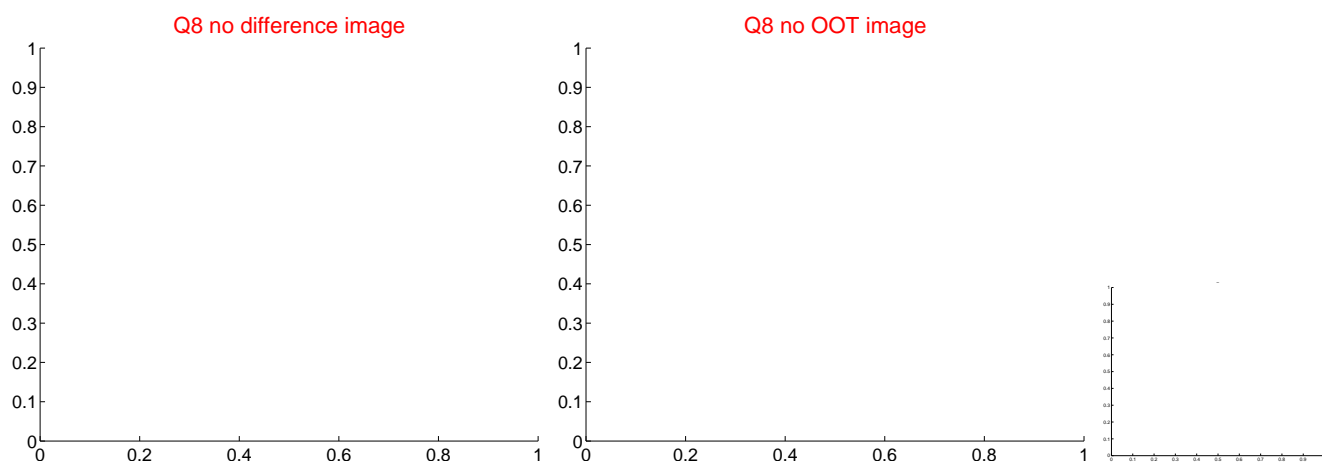
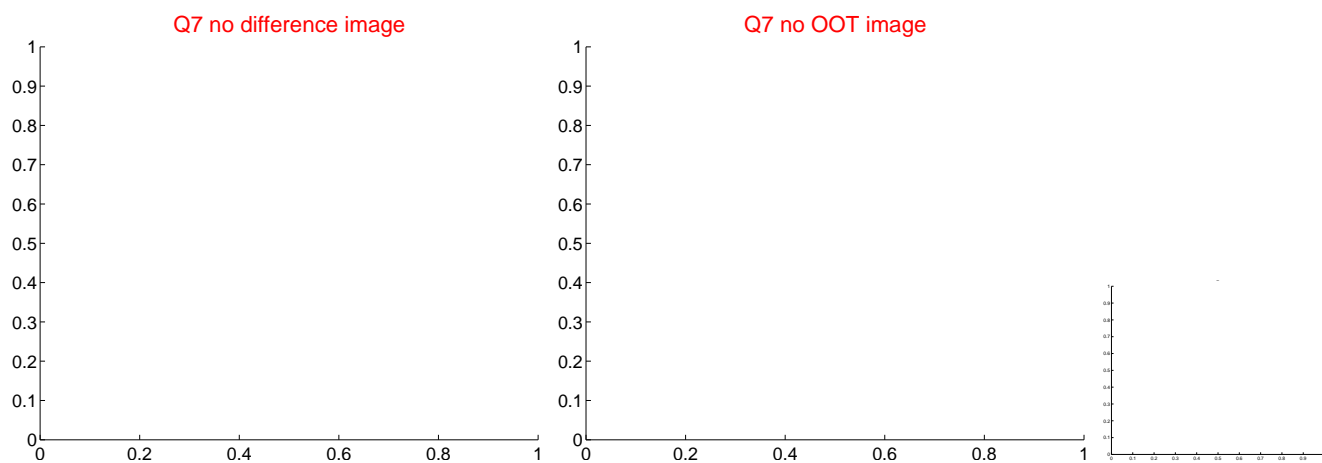
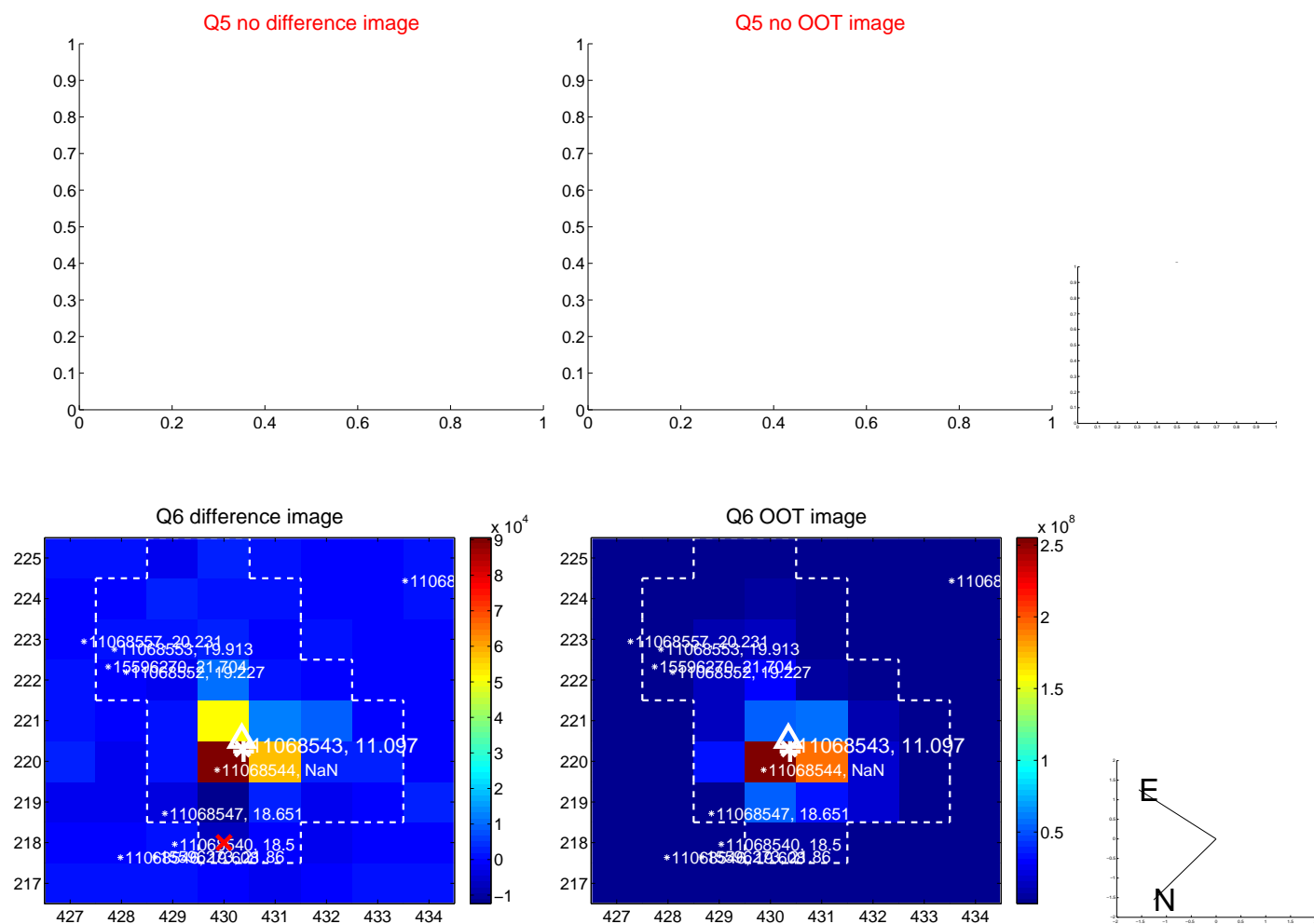


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

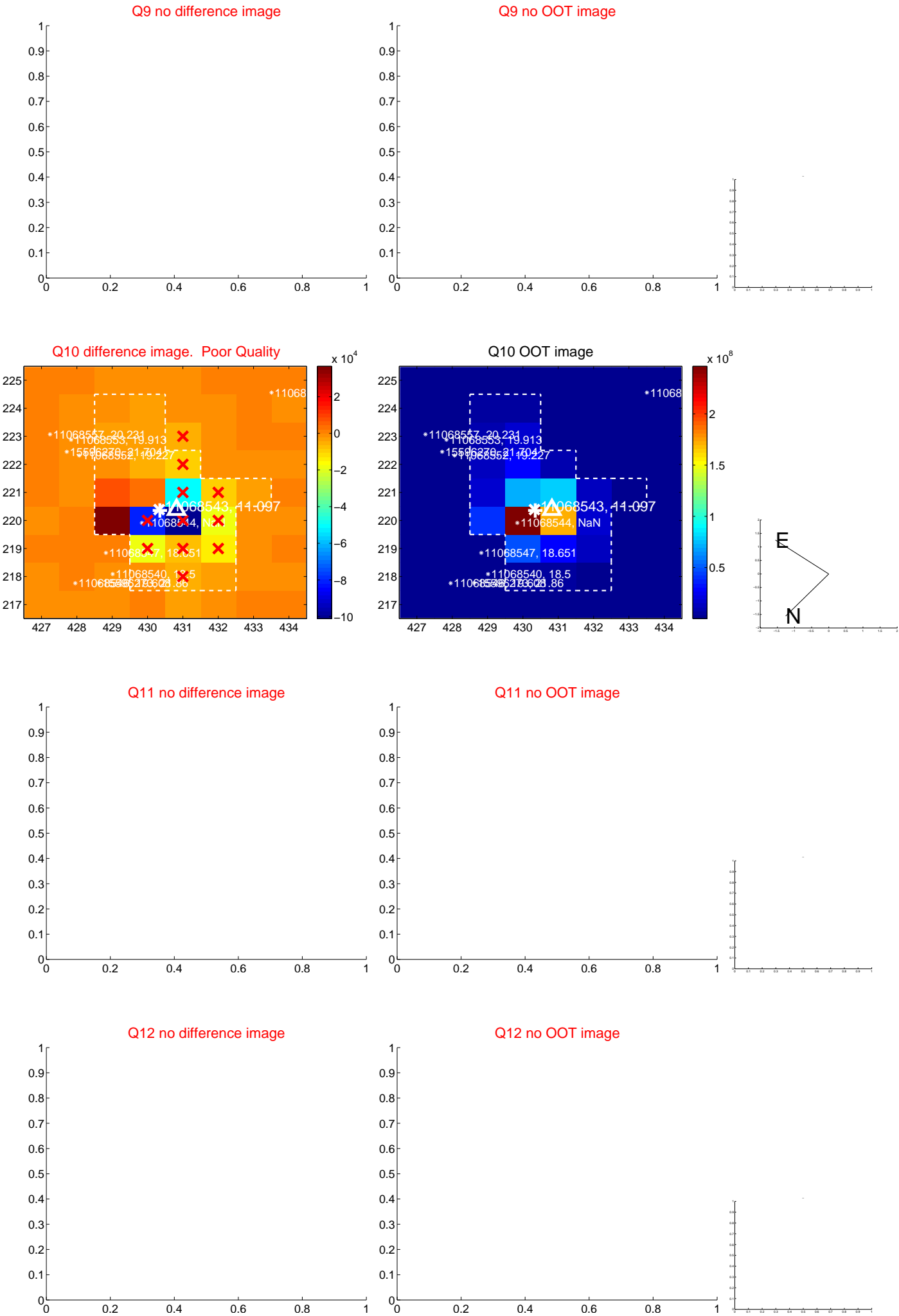
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



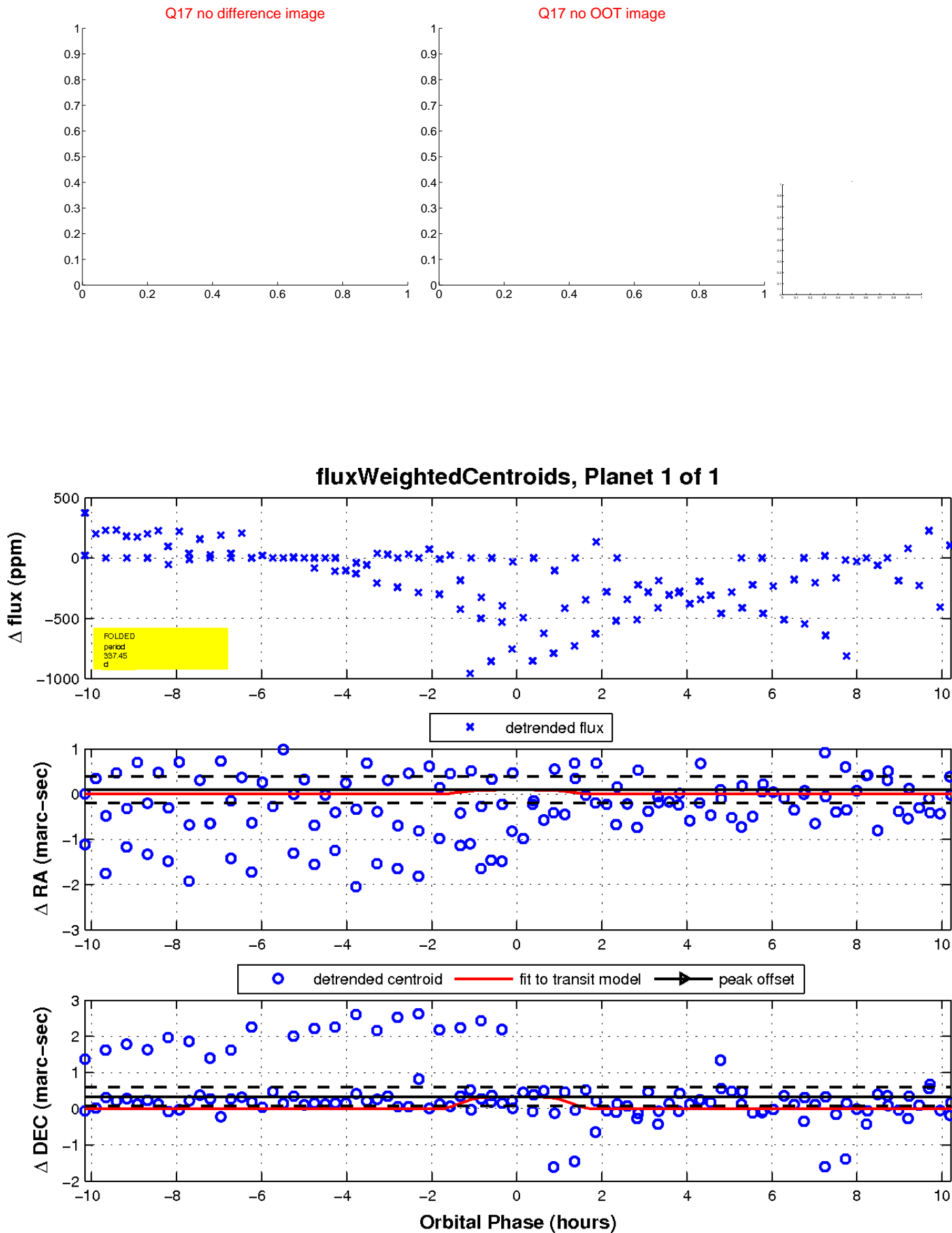
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

