

KIC 006929285

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})
006929285-01	OBS	4572.01	4.606834	135.204391	128.7	4.172	11.0	11.6	0.78	5529	1.05	192.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006929285-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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.

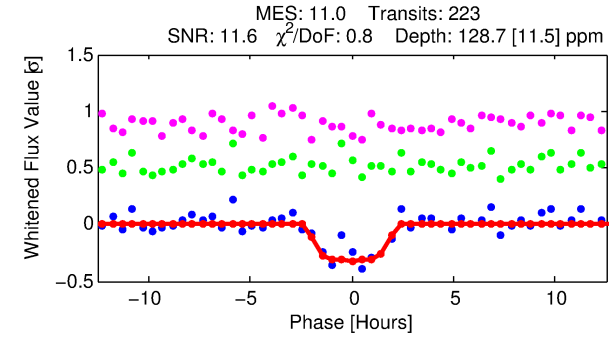
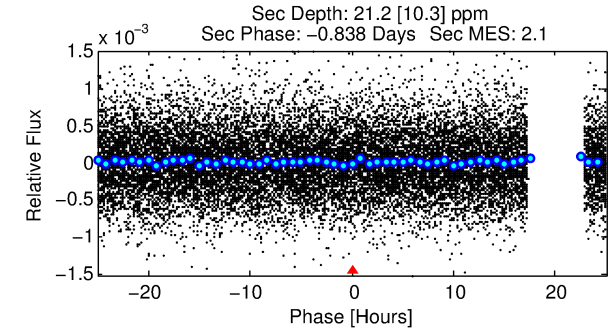
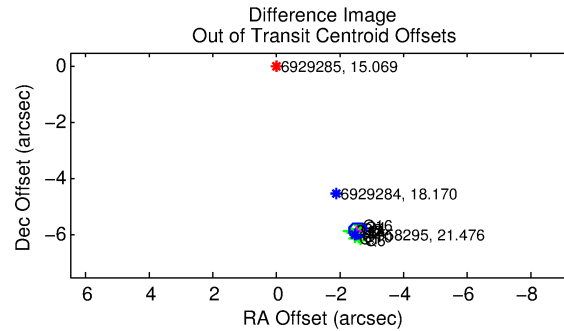
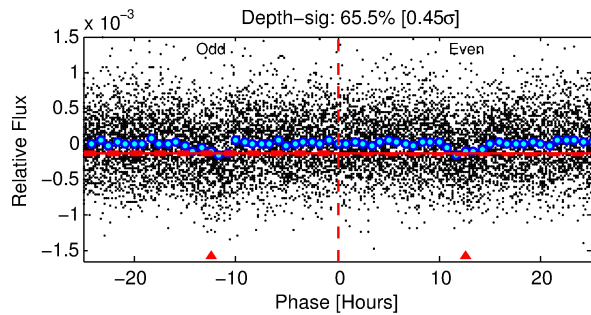
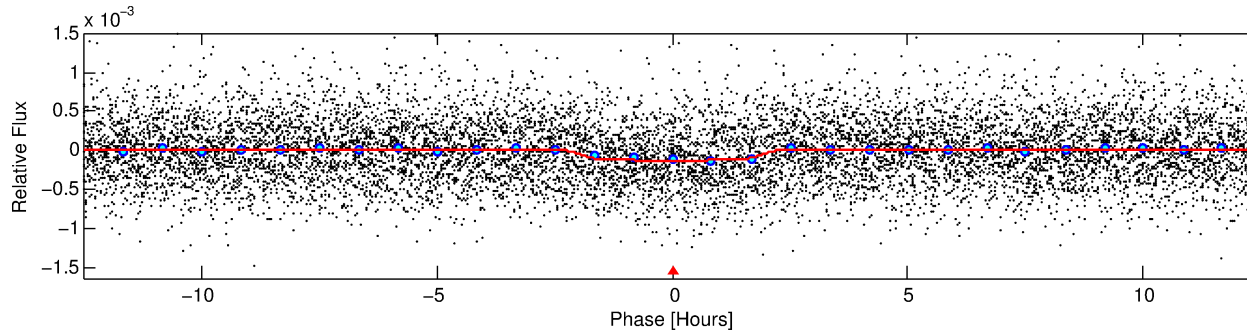
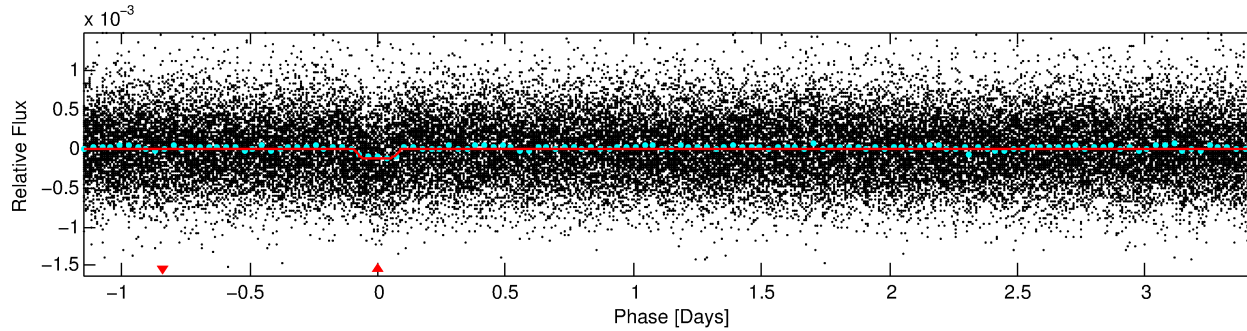
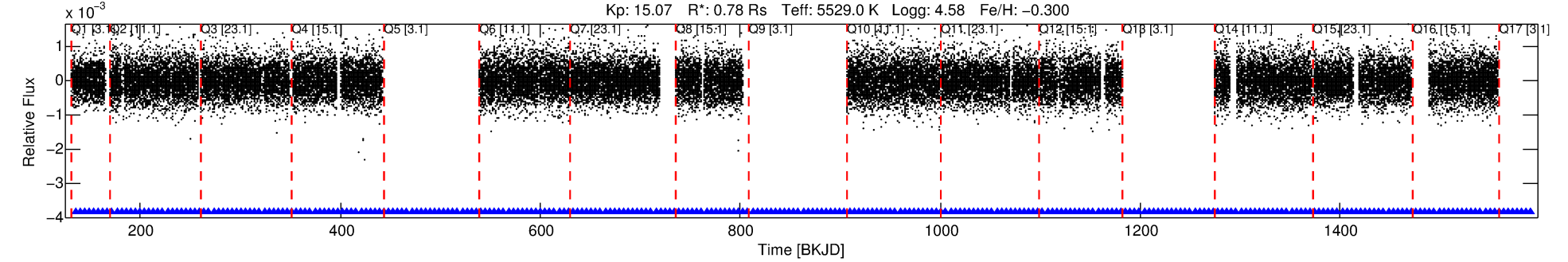
Ephemeris Match Information For 006929285-01

No Significant Match Found

DV One-Page Summary

KIC: 6929285 Candidate: 1 of 1 Period: 4.607 d
KOI: K04572.01 Corr: 0.954

Kp: 15.07 R*: 0.78 Rs Teff: 5529.0 K Logg: 4.58 Fe/H: -0.300



DV Fit Results:

Period = 4.60683 [0.00004] d
Epoch = 135.2044 [0.0057] BKJD
Rp/R* = 0.0124 [0.0056]
a/R* = 3.99 [7.93]
b = 0.90 [0.45]
Seff = 192.52 [53.33]
Teq = 950 [66] K
Rp = 1.05 [0.52] Re
a = 0.0511 [0.0088] AU
Ag = 27.60 [29.14] [0.91σ]
Teffp = 3366 [869] K [2.77σ]

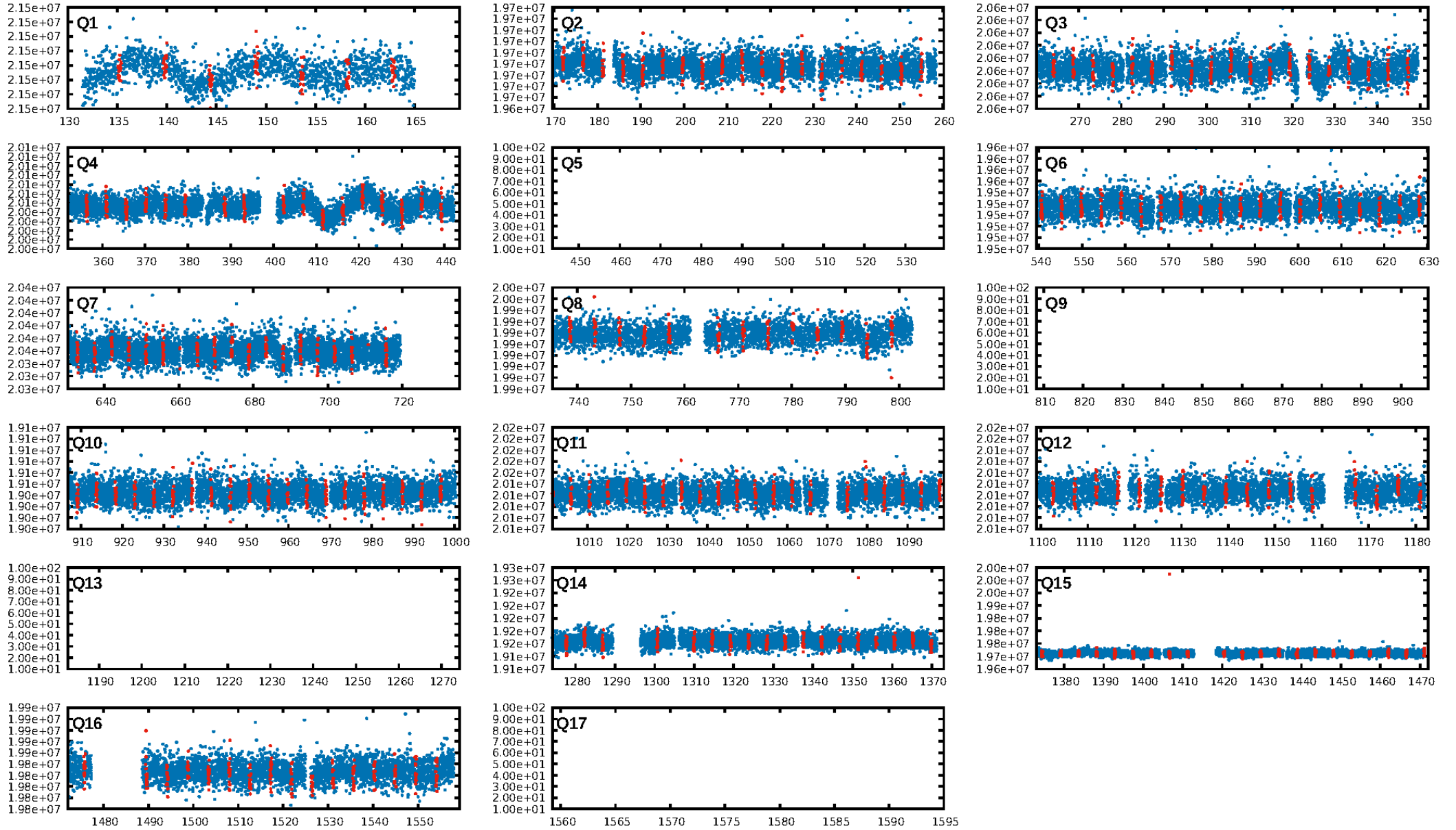
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.85e-28
RollingBand-fgt: 1.00 [216/216]
GhostDiagnostic-chr: -0.3849
Centroid-sig: 0.0%
Centroid-so: 20.758 arcsec [15.76σ]
OotOffset-rm: 6.369 arcsec [71.82σ]
KicOffset-rm: 6.531 arcsec [76.51σ]
OotOffset-st: 4/0/4/1 [9]
KicOffset-st: 4/0/4/1 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [13/13]

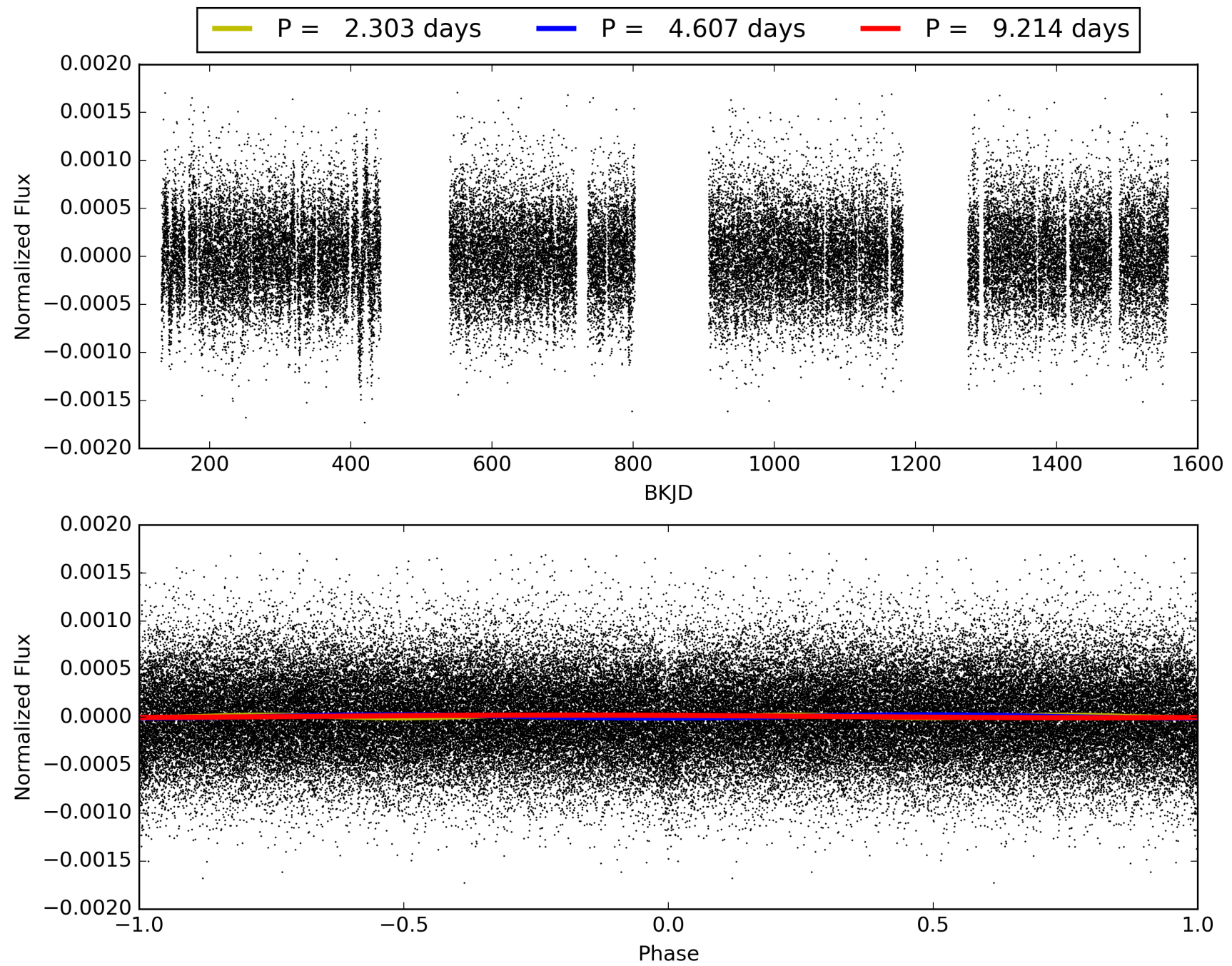
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:13:54 Z

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

TCE 006929285-01, PDC Light Curves

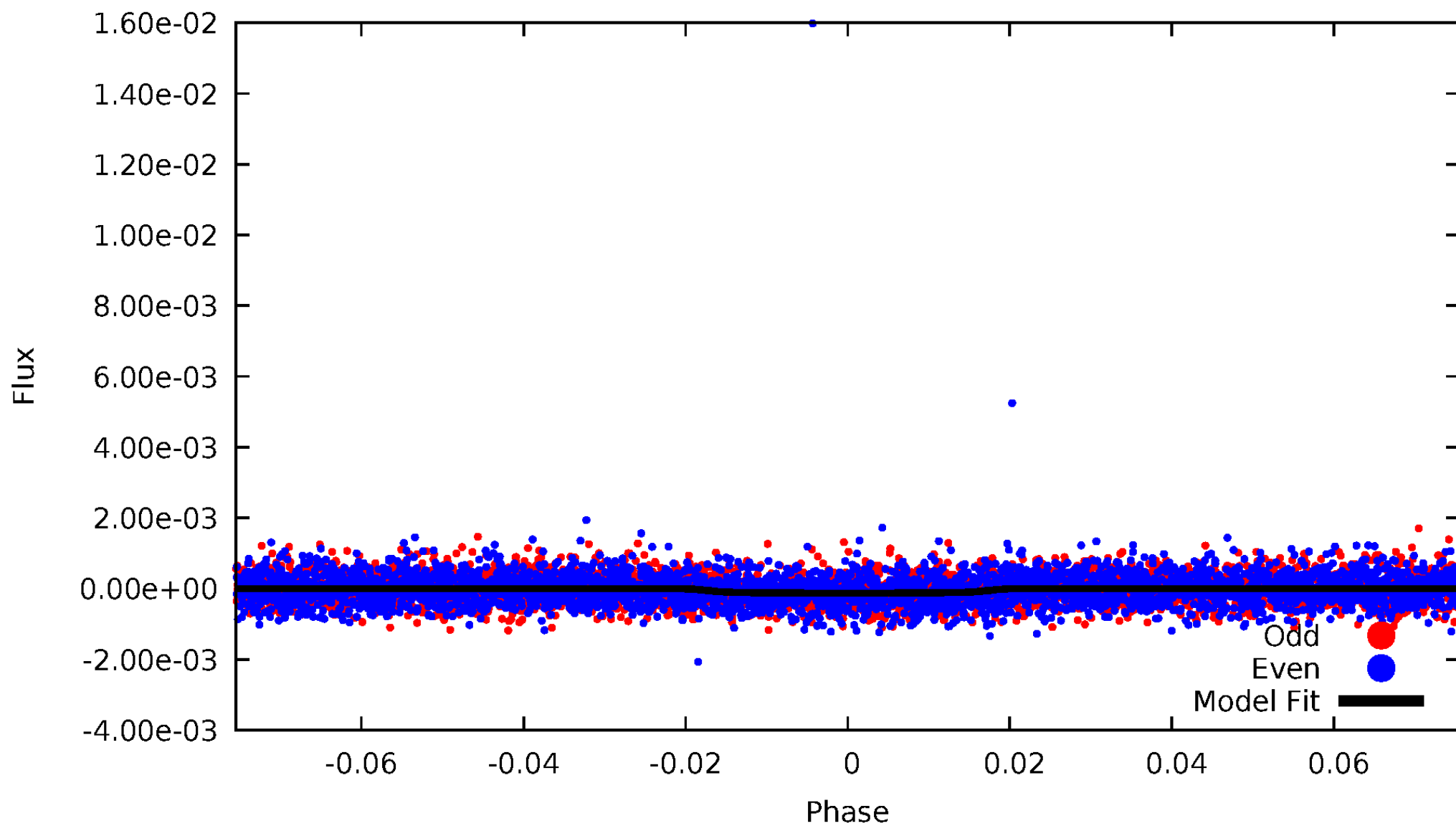


TCE 006929285-01



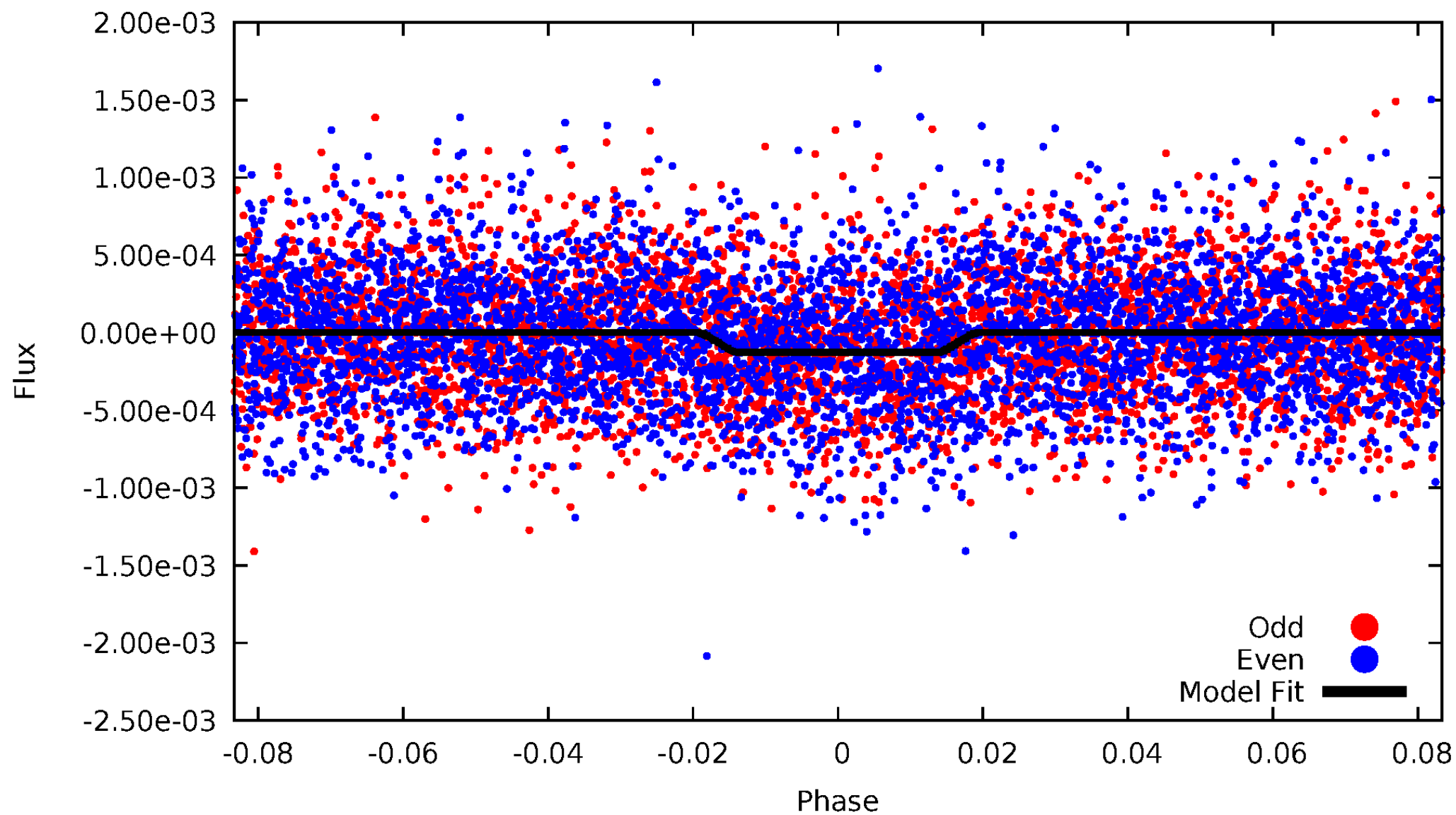
DV Odd/Even

TCE 006929285-01



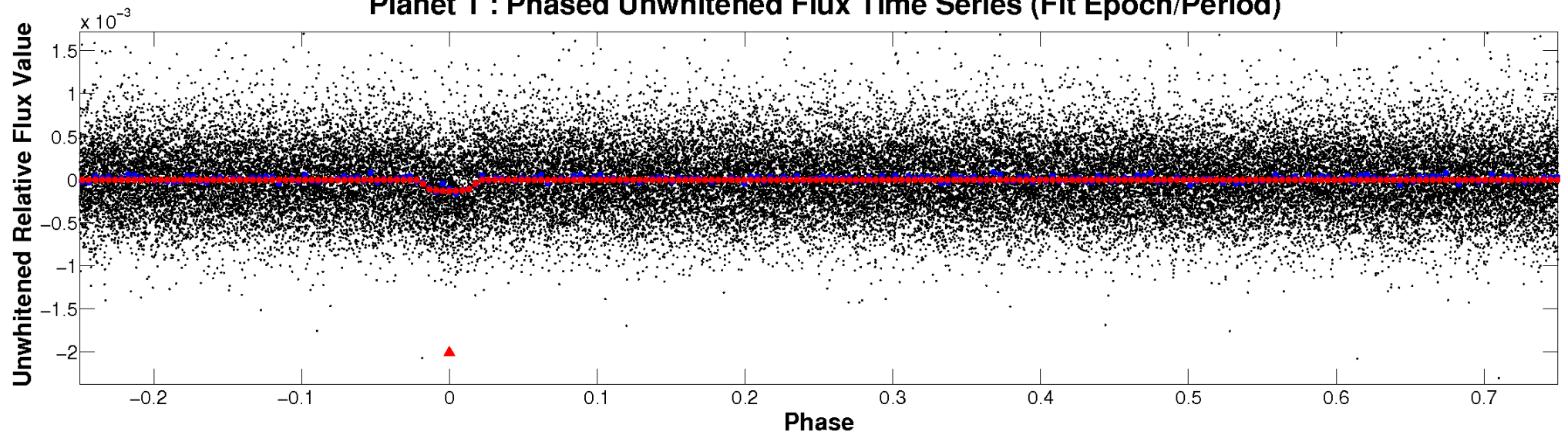
ALT Odd/Even

TCE 006929285-01

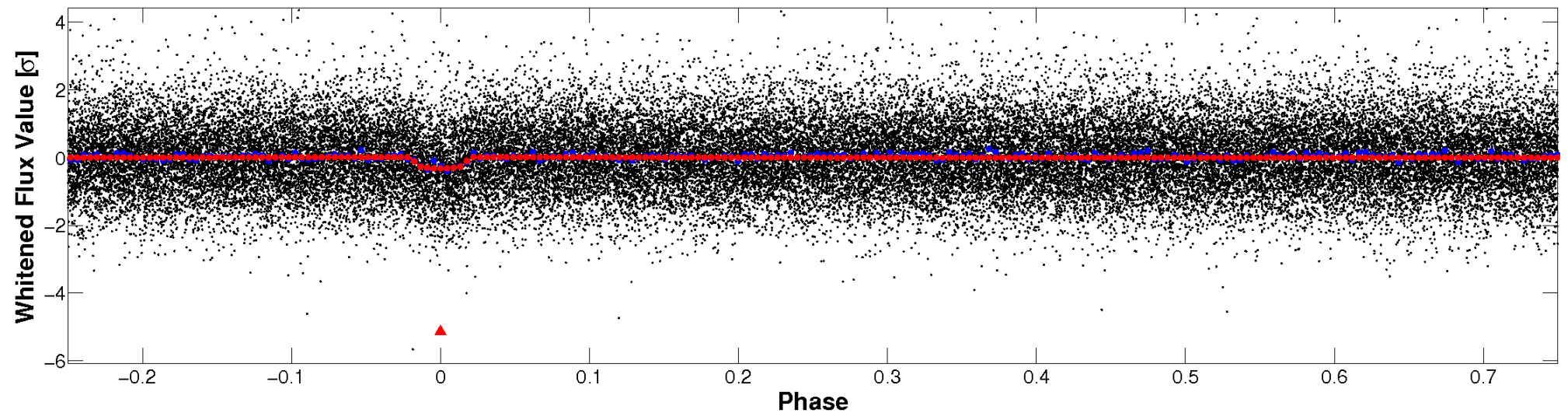


Non-Whitened Vs. Whitened Light Curve

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

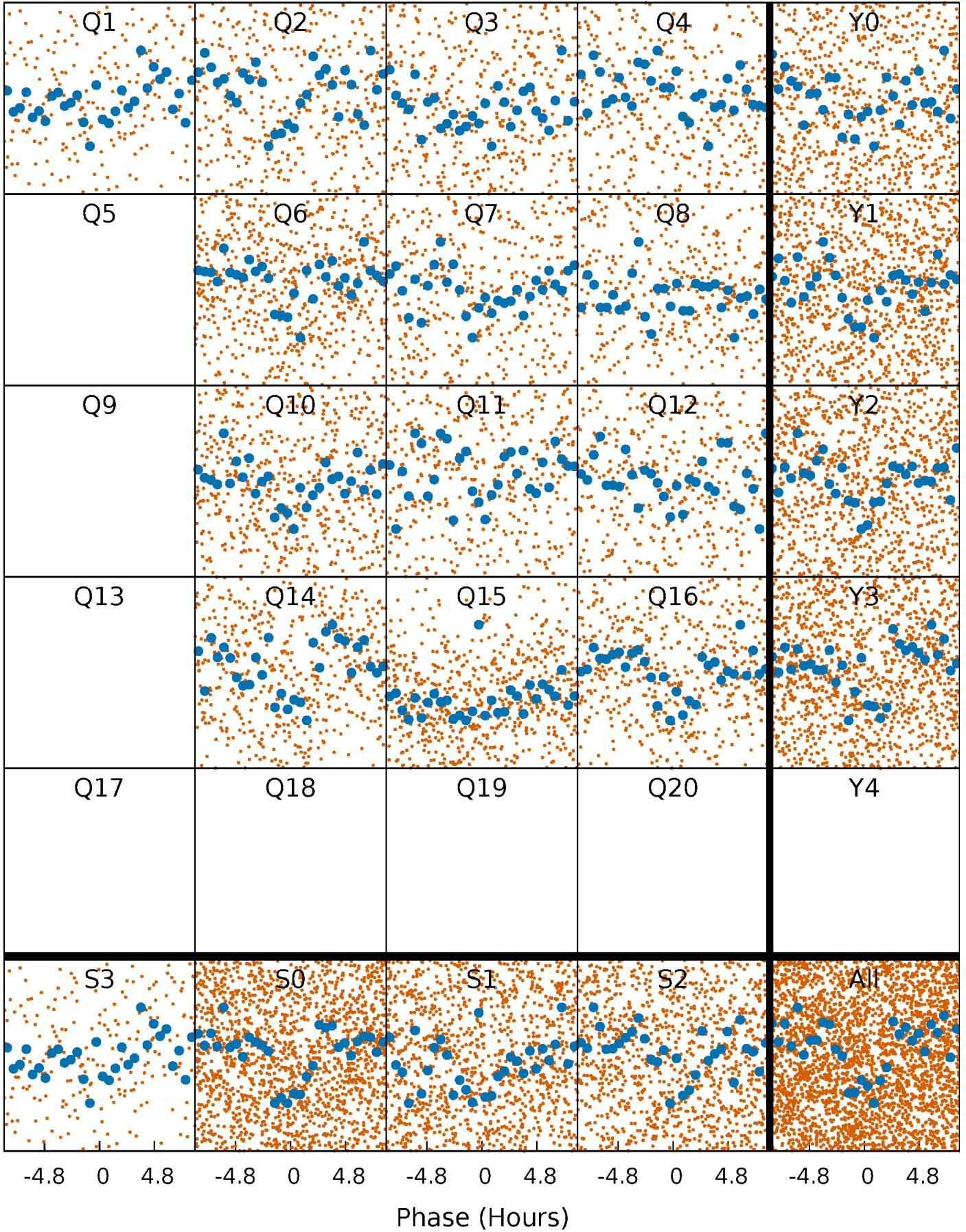


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



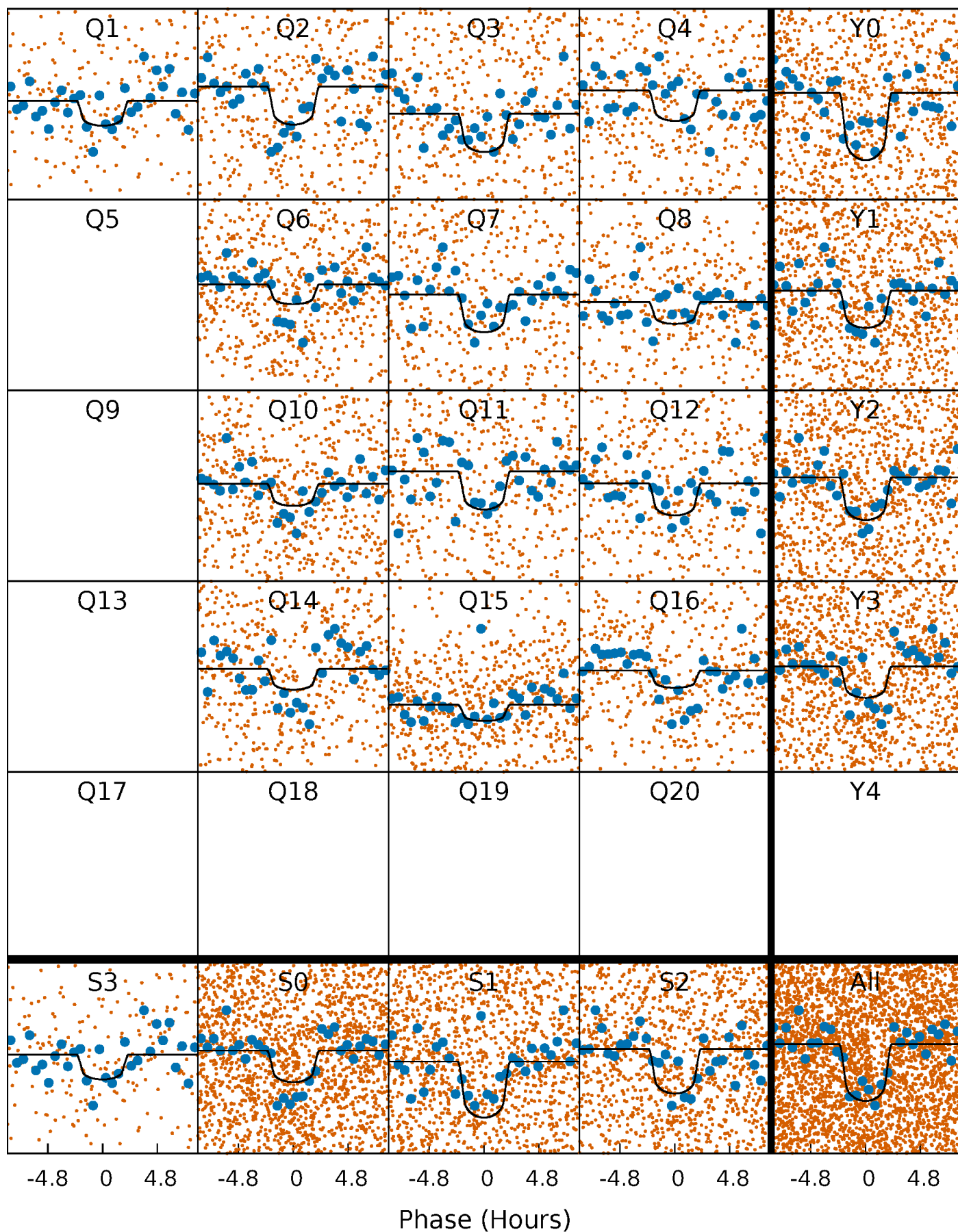
PDC Quarter-Phased Transit Curves

TCE 006929285-01 P= 4.606834 Days $T_0=135.204391$ (BKJD)



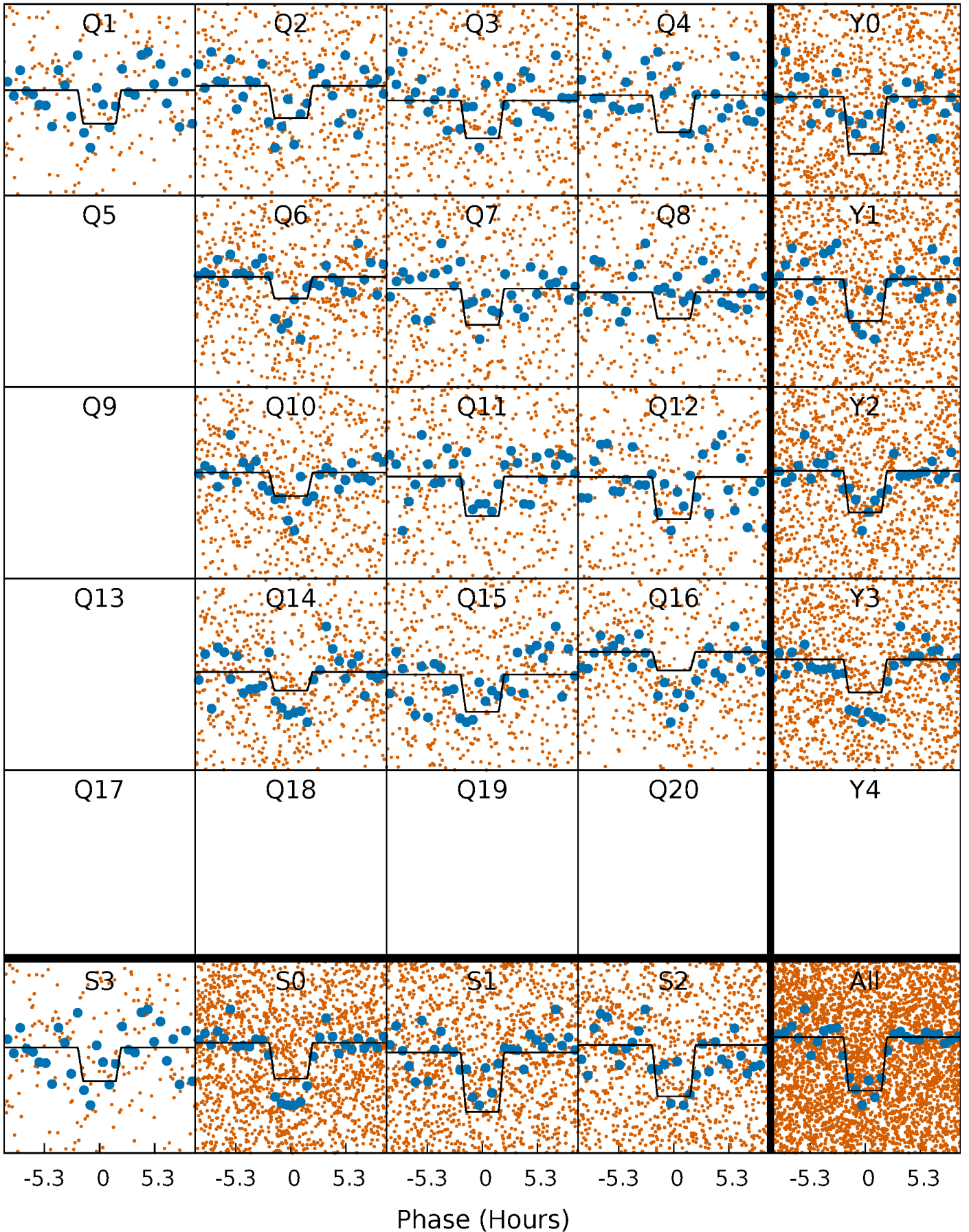
DV Quarter-Phased Transit Curves

TCE 006929285-01 P= 4.606834 Days $T_0=135.204391$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

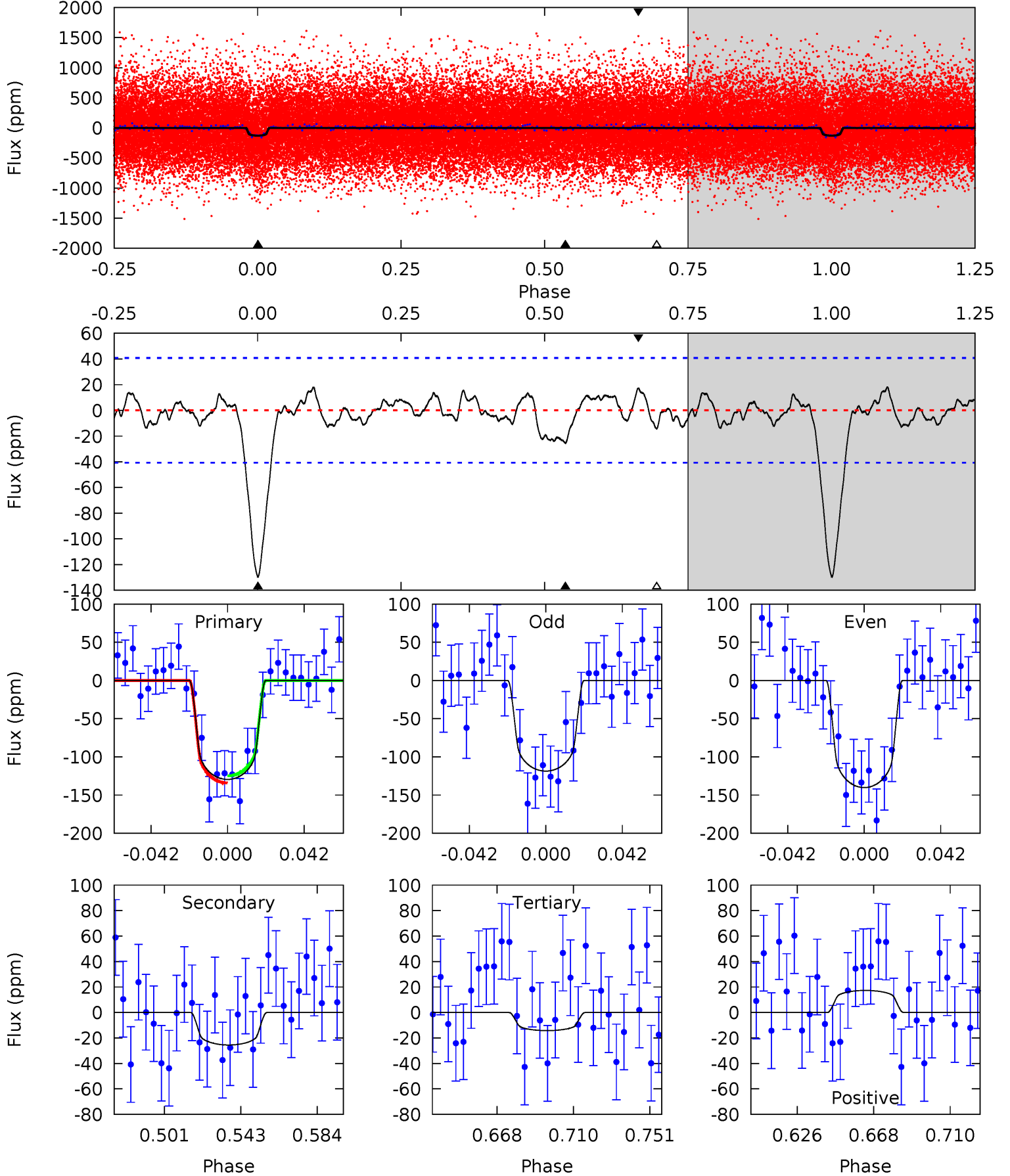
TCE 006929285-01 P= 4.606865 Days $T_0=135.198356$ (BKJD)



DV Model-Shift Uniqueness Test

006929285-01, P = 4.606834 Days, E = 130.597557 Days

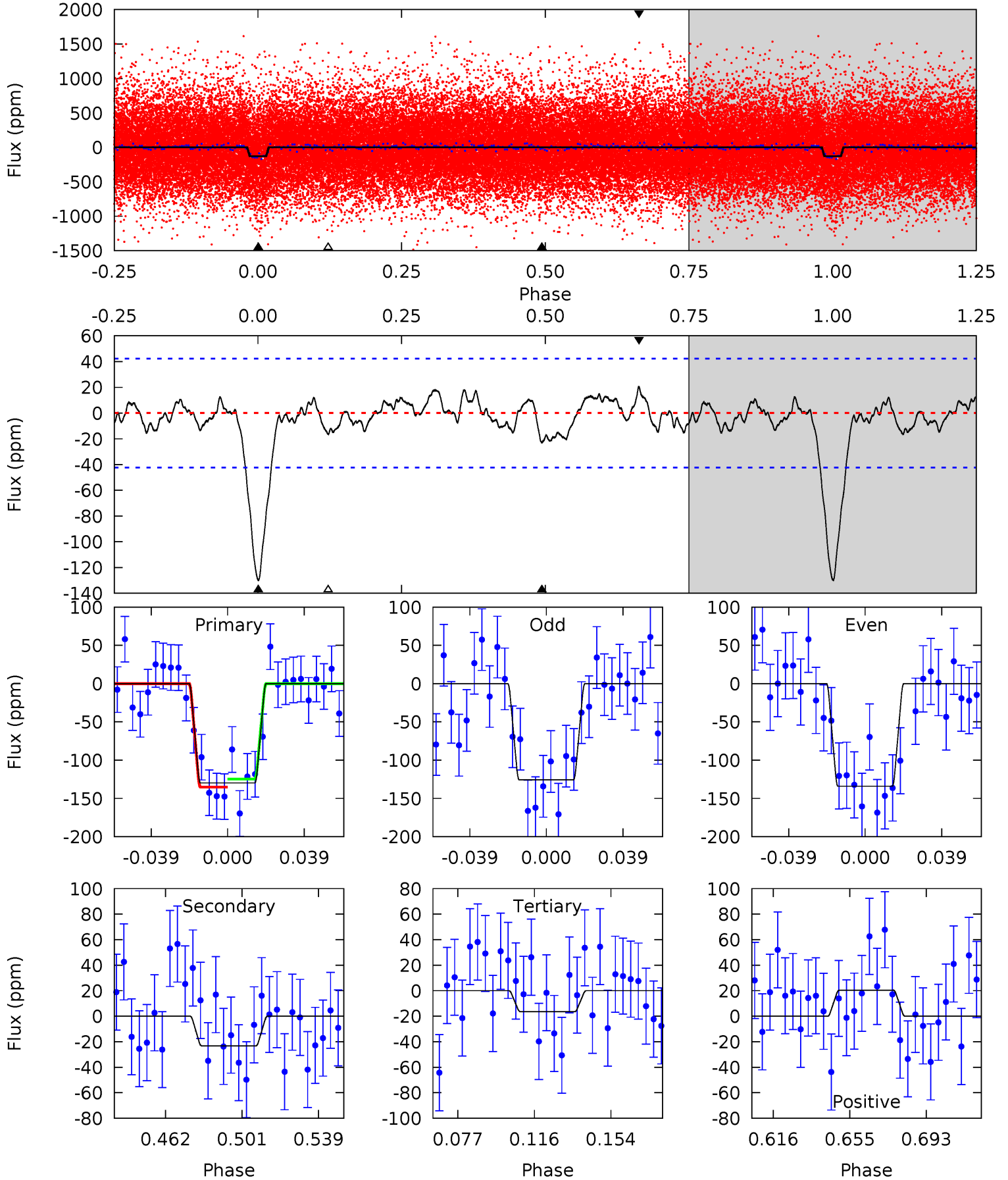
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	2.97	1.65	2.02	4.74	2.04	0.90	13.4	13.1	1.32	0.95	1.26	0.88	0.12	0.54



Alt Model-Shift Uniqueness Test

006929285-01, P = 4.606865 Days, E = 130.591491 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	2.61	1.85	2.29	4.76	2.07	0.96	12.8	12.3	0.76	0.33	0.48	1.13	0.14	0.59



Stellar Parameters For KIC 006929285

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5529^{+167}_{-150}	$4.583^{+0.045}_{-0.135}$	$-0.300^{+0.300}_{-0.300}$	$0.775^{+0.161}_{-0.069}$	$0.839^{+0.091}_{-0.091}$	$2.544^{+0.473}_{-0.962}$
	+3%/-3%	+1%/-3%	+100%/-100%	+21%/-9%	+11%/-11%	+19%/-38%
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 006929285-01 / KOI 4572.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-26 ± 9	$1.07^{+0.49}_{-0.48}$	1348^{+63}_{-54}	3872^{+947}_{-510}	32^{+69}_{-19}
Alt.	-23 ± 9	$0.99^{+0.52}_{-0.45}$	1349^{+76}_{-60}	3920^{+1104}_{-596}	34^{+86}_{-21}

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

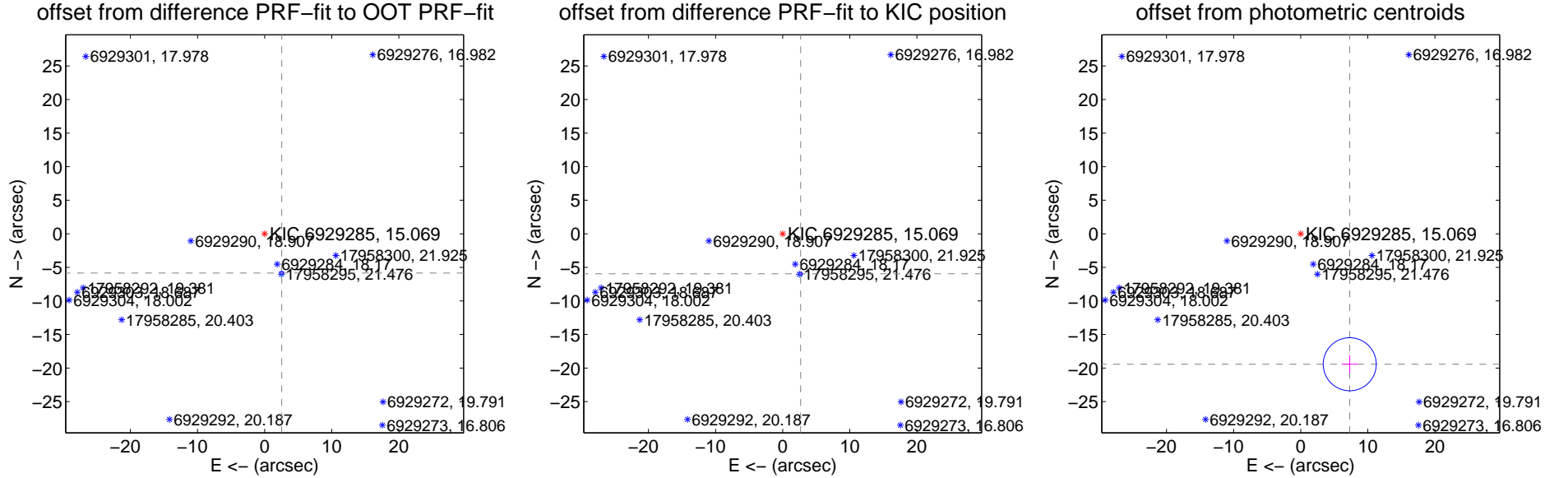
DV Centroid Data

Supplemental centroid analysis for 006929285-01. Kepler magnitude: 15.07. Transit SNR 11.64

There are 9 quarters with good PRF difference image offsets

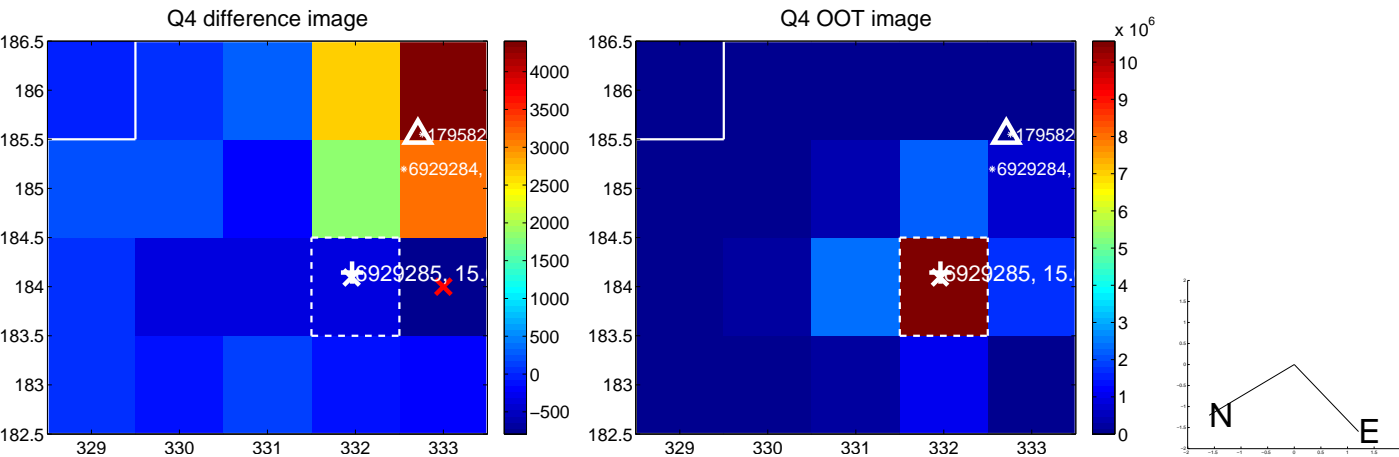
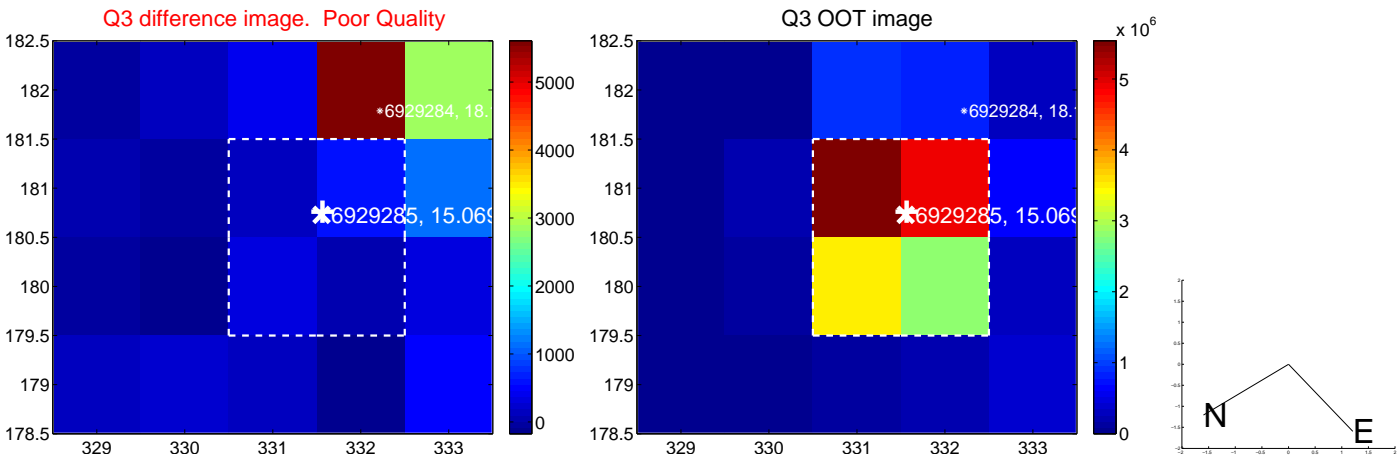
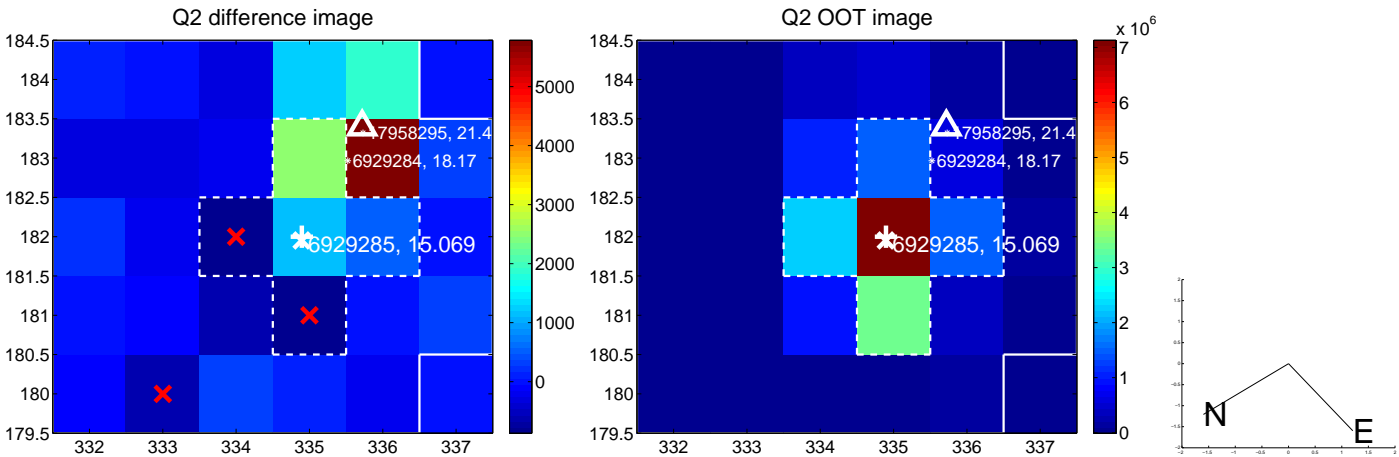
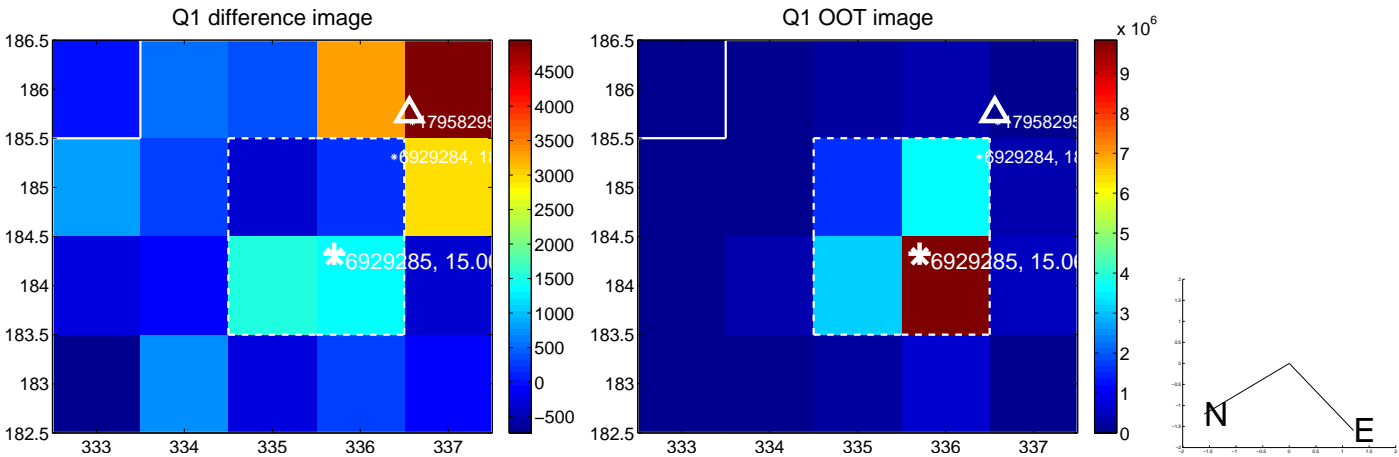
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.369 ± 0.089	71.82	-2.541 ± 0.079	-5.841 ± 0.090
PRF-fit source offset from KIC position	6.531 ± 0.085	76.51	-2.670 ± 0.079	-5.960 ± 0.087
photometric centroid source offset	20.76 ± 1.32	15.76	-7.30 ± 1.23	-19.43 ± 1.33

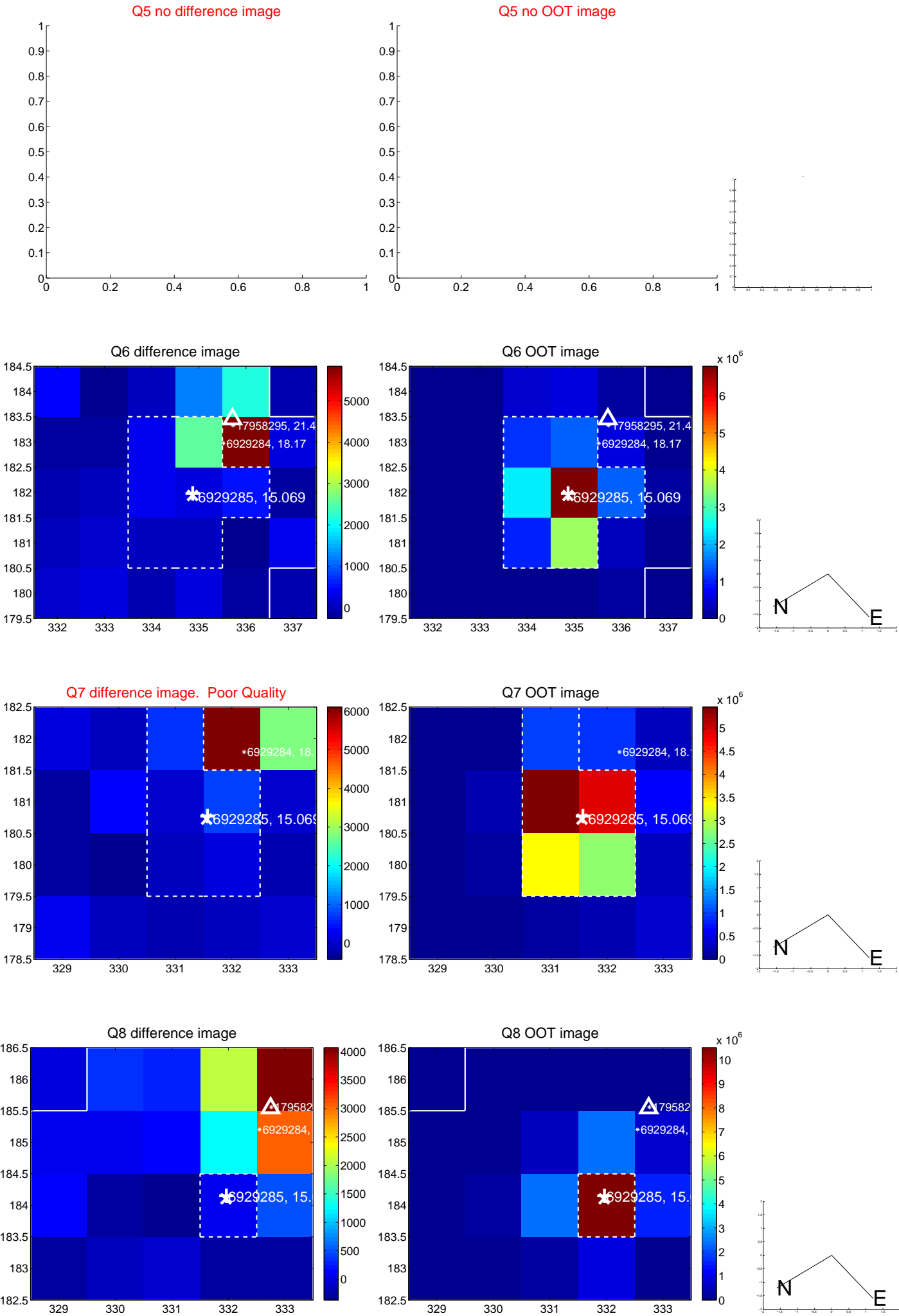


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

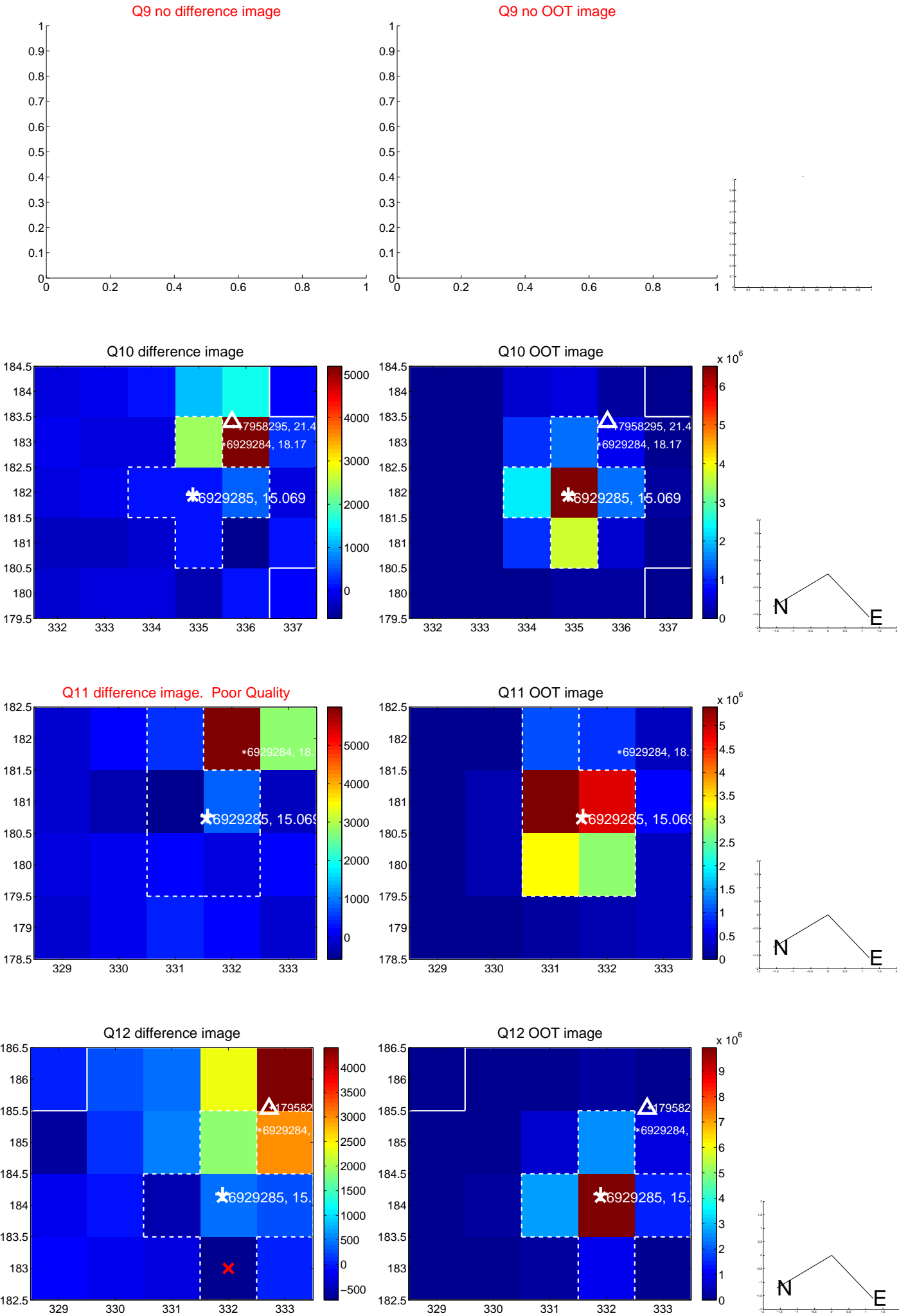
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



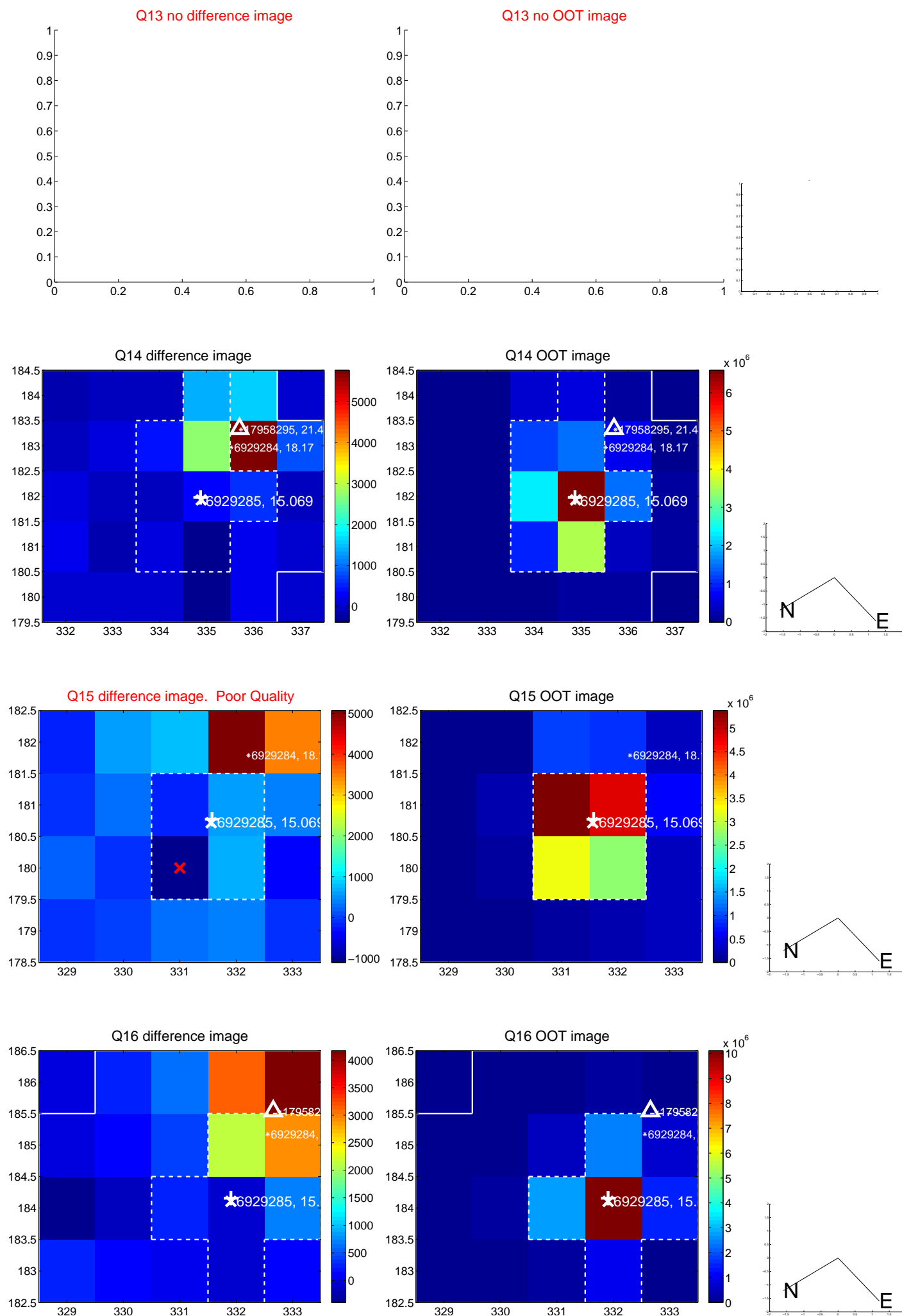
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



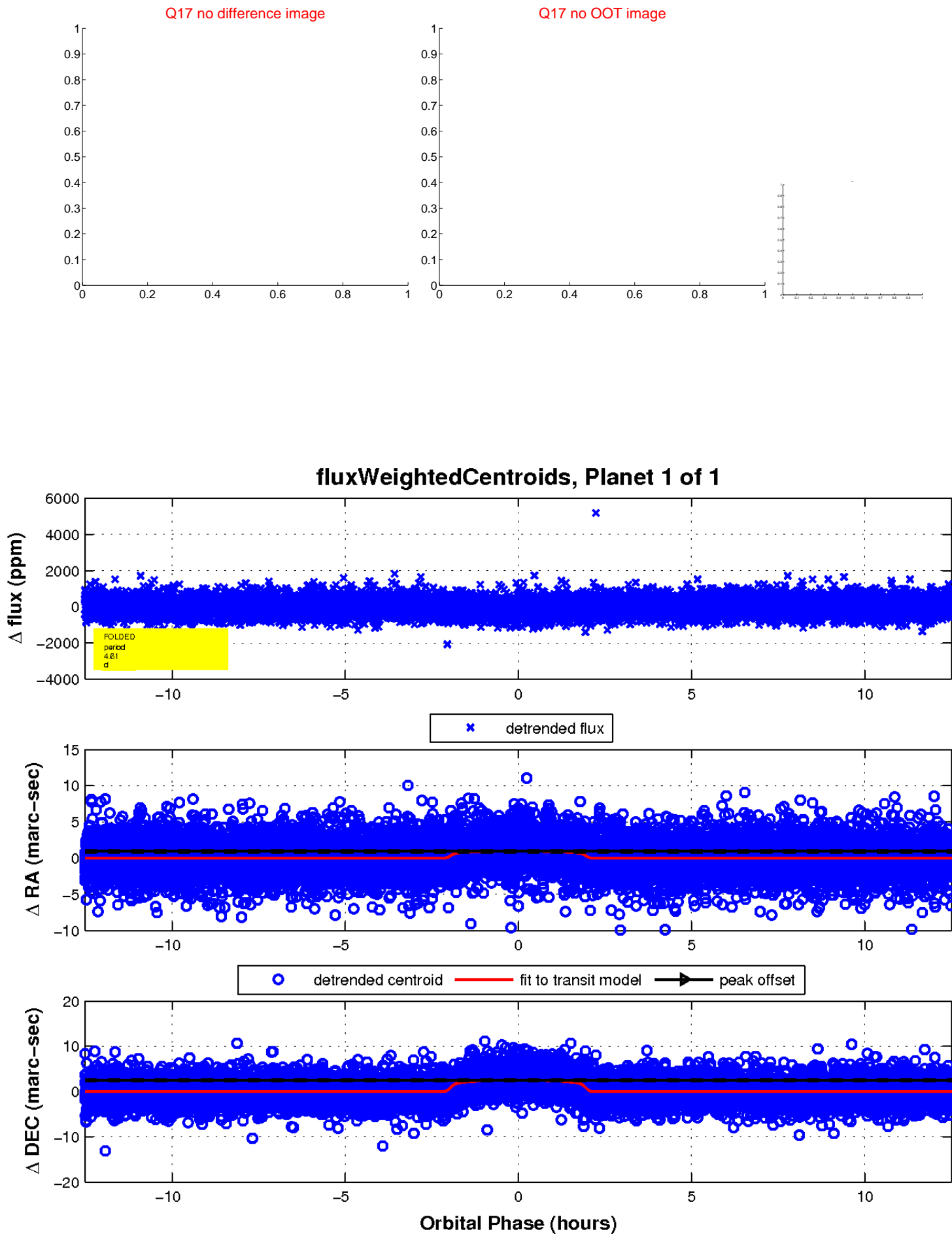
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

