

KIC 006785967

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})
006785967-01	OBS	No	23.848379	155.123571	45.6	25.237	9.6	11.1	1.20	6706	0.99	96.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006785967-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

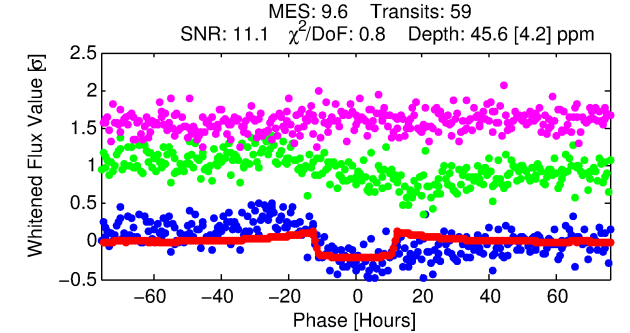
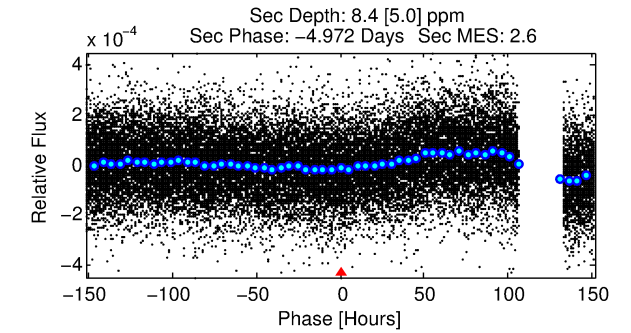
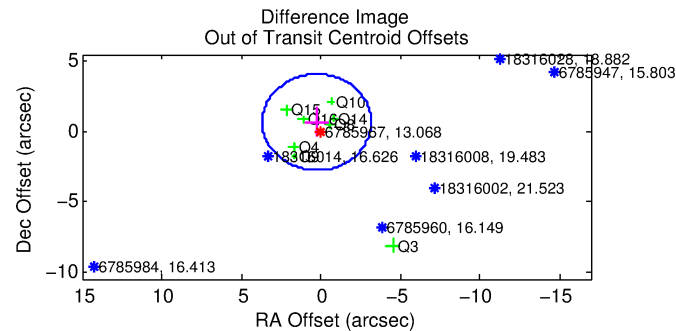
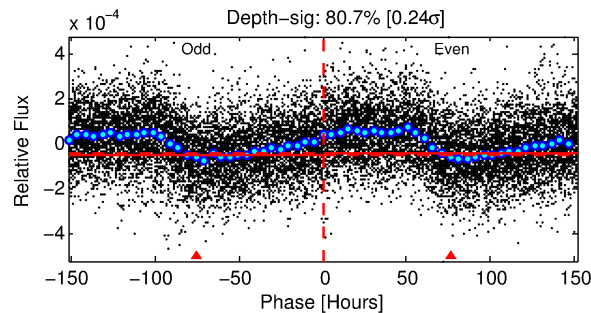
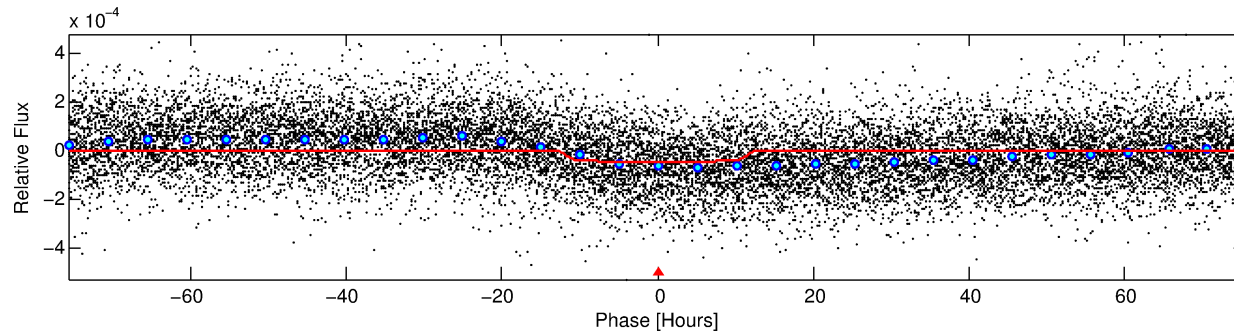
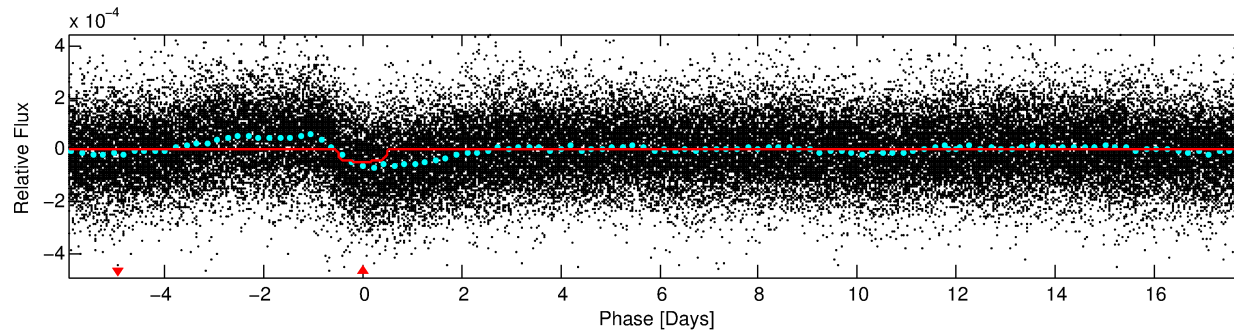
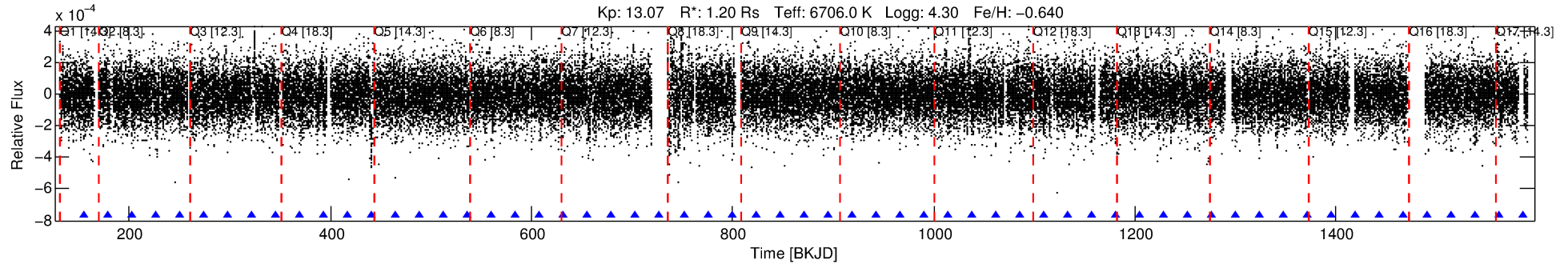
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006785967-01

No Significant Match Found

DV One-Page Summary

KIC: 6785967 Candidate: 1 of 1 Period: 23.848 d



DV Fit Results:

Period = 23.84838 [0.00071] d
Epoch = 155.1236 [0.0241] BKJD
Rp/R* = 0.0076 [0.0005]
a/R* = 2.60 [0.63]
b = 0.95 [0.03]
Seff = 96.32 [25.53]
Teq = 799 [53] K
Rp = 0.99 [0.20] Re
a = 0.1639 [0.0260] AU
Ag = 126.08 [82.31] [1.52 σ]
Teff = 4139 [647] K [5.14 σ]

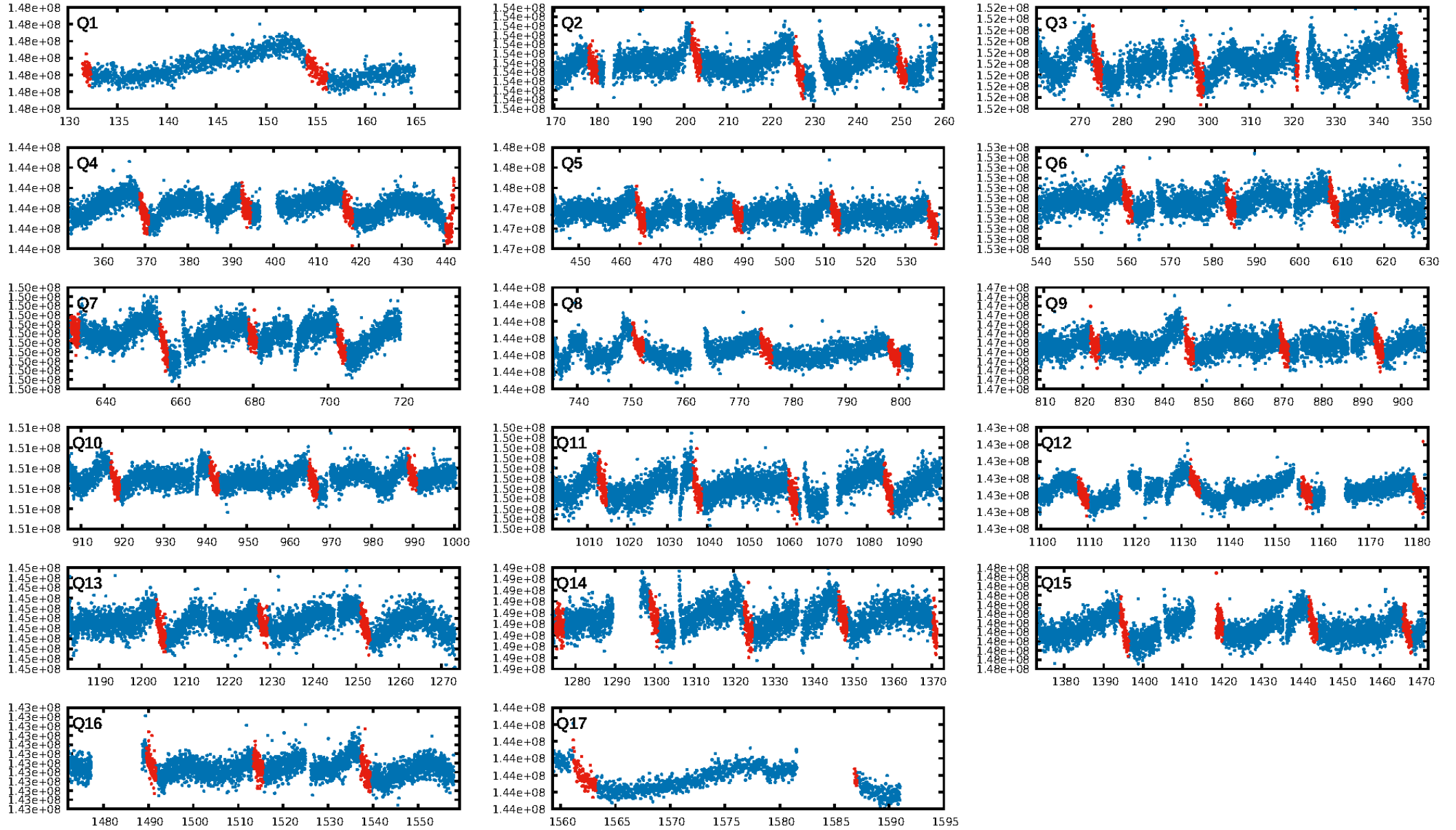
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 83.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.97e-22
RollingBand-fgt: 1.00 [56/56]
GhostDiagnostic-chr: 1.854
Centroid-sig: 3.2%
Centroid-so: 1.252 arcsec [1.59 σ]
OotOffset-rm: 0.716 arcsec [0.63 σ]
KicOffset-rm: 0.519 arcsec [0.51 σ]
OotOffset-st: 2/2/3/1 [8]
KicOffset-st: 2/2/3/1 [8]
DiffImageQuality-fgm: 0.88 [7/8]
DiffImageOverlap-fno: 1.00 [15/15]

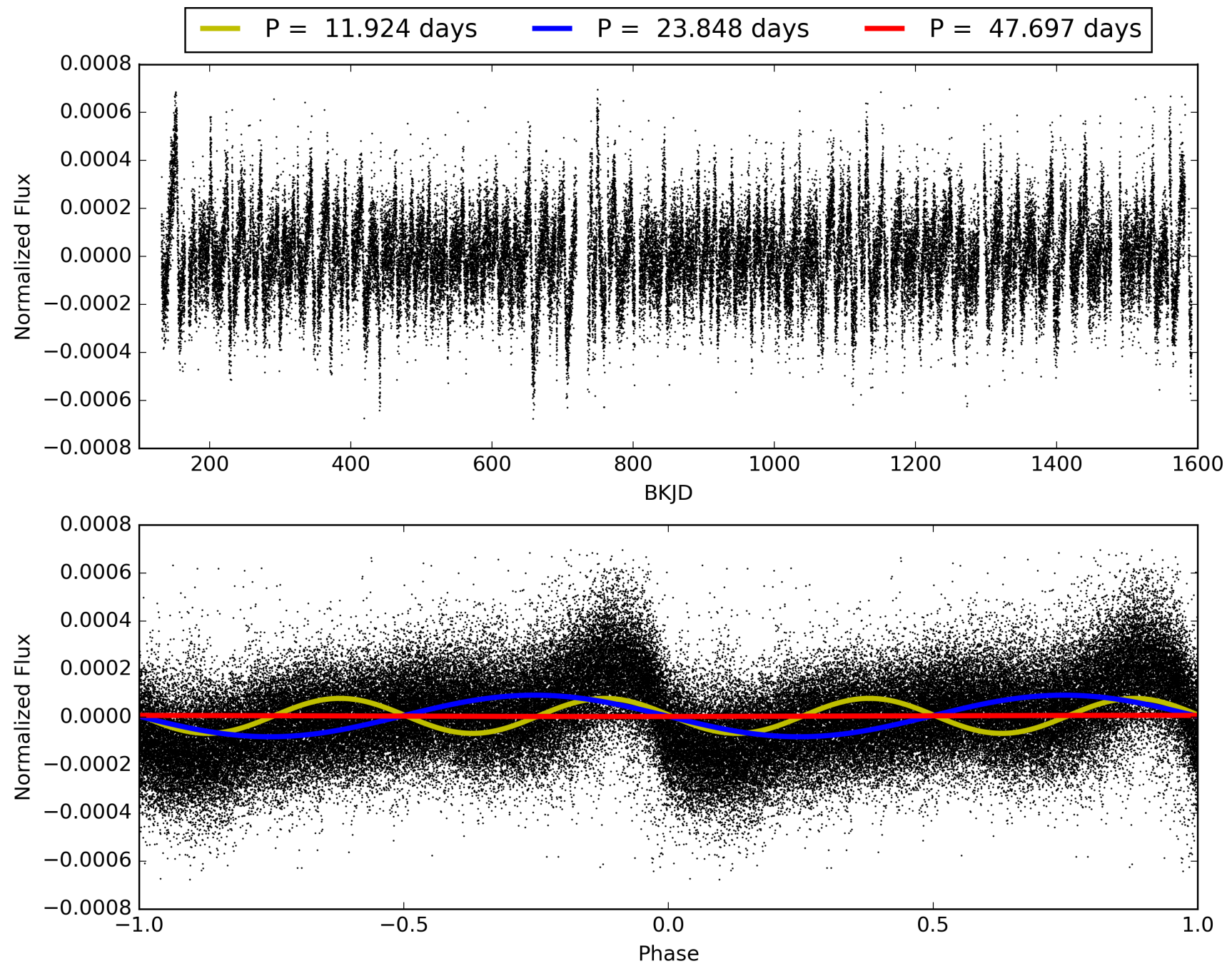
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:44:57 Z

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

TCE 006785967-01, PDC Light Curves

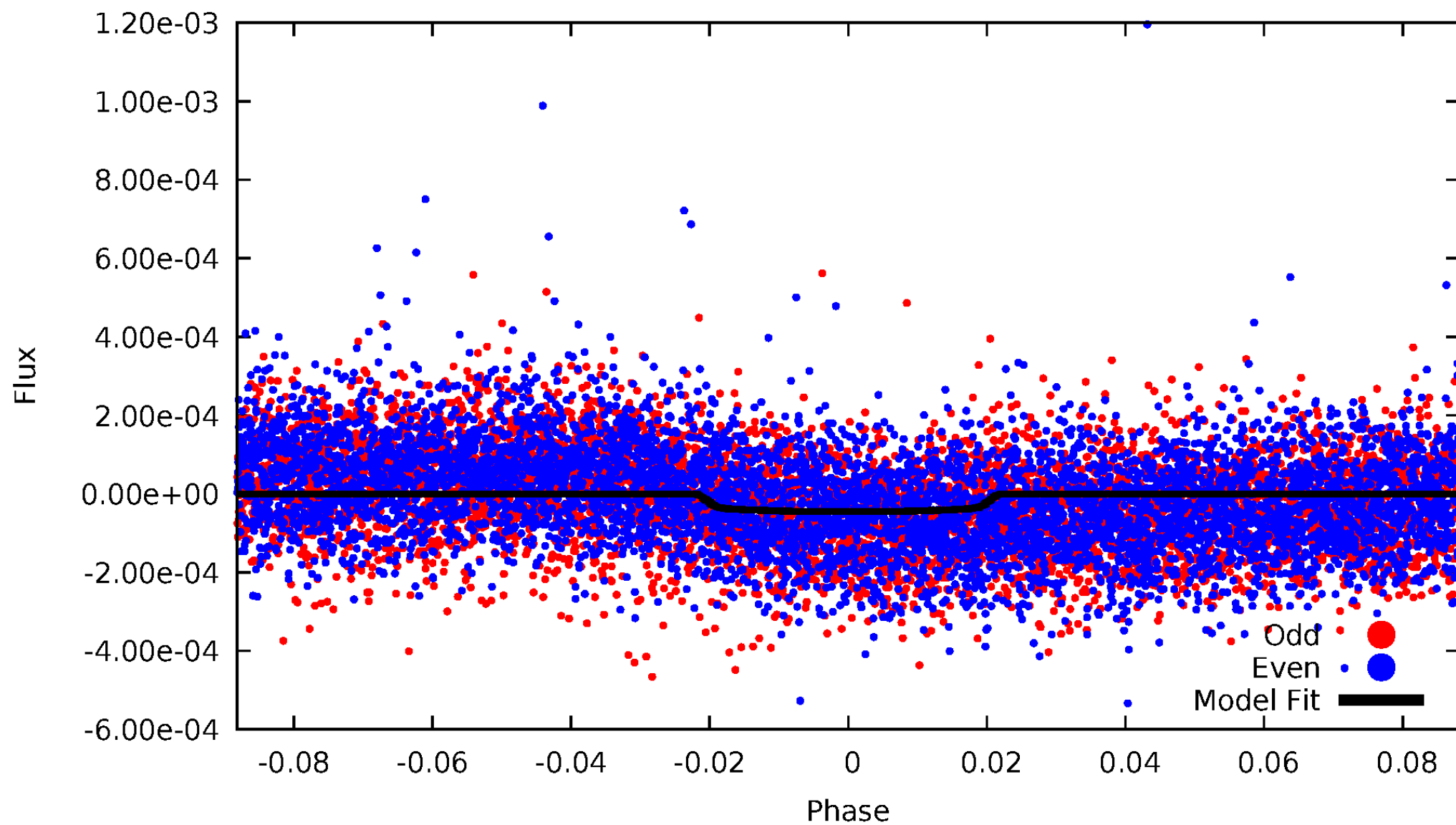


TCE 006785967-01



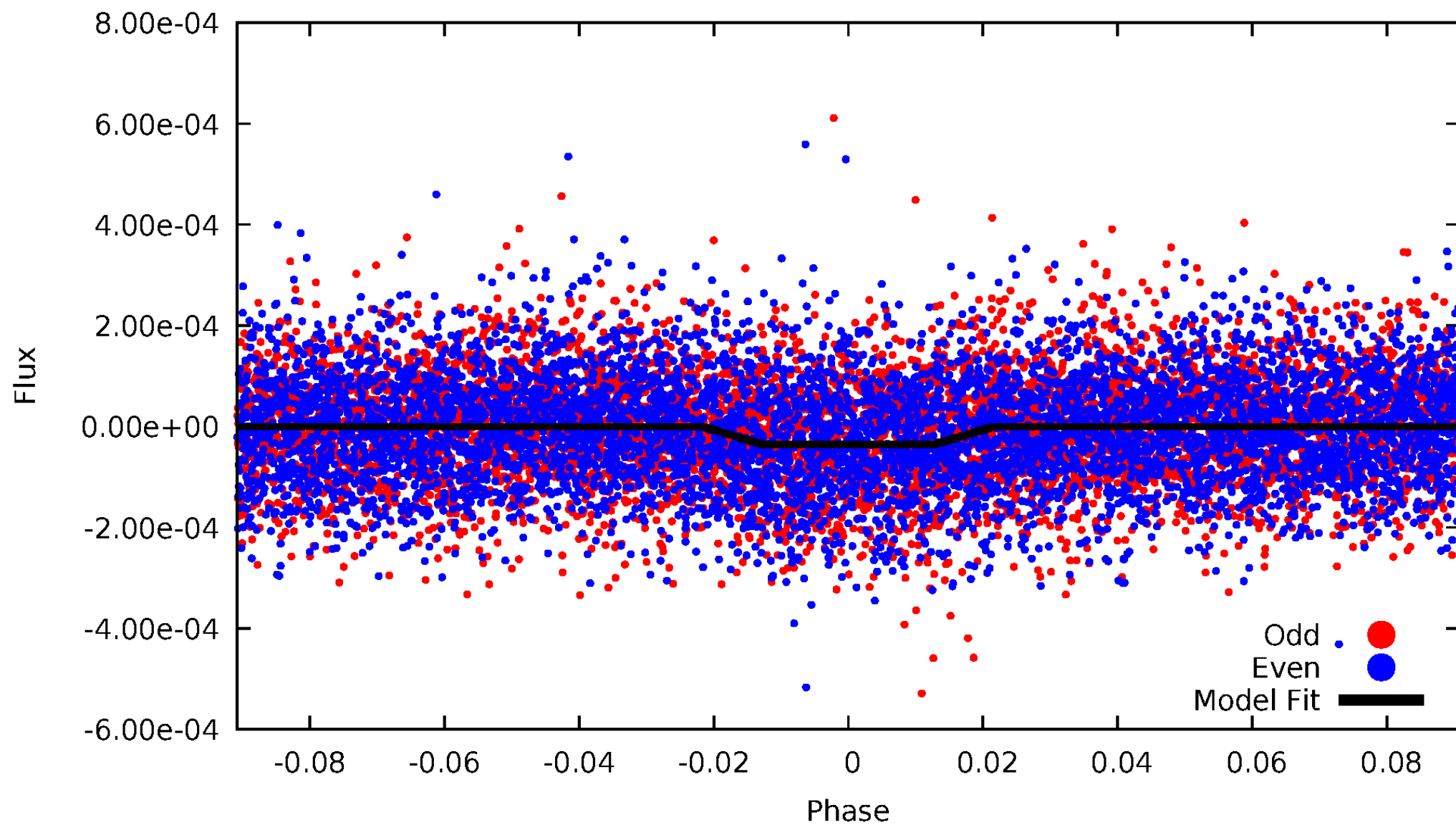
DV Odd/Even

TCE 006785967-01



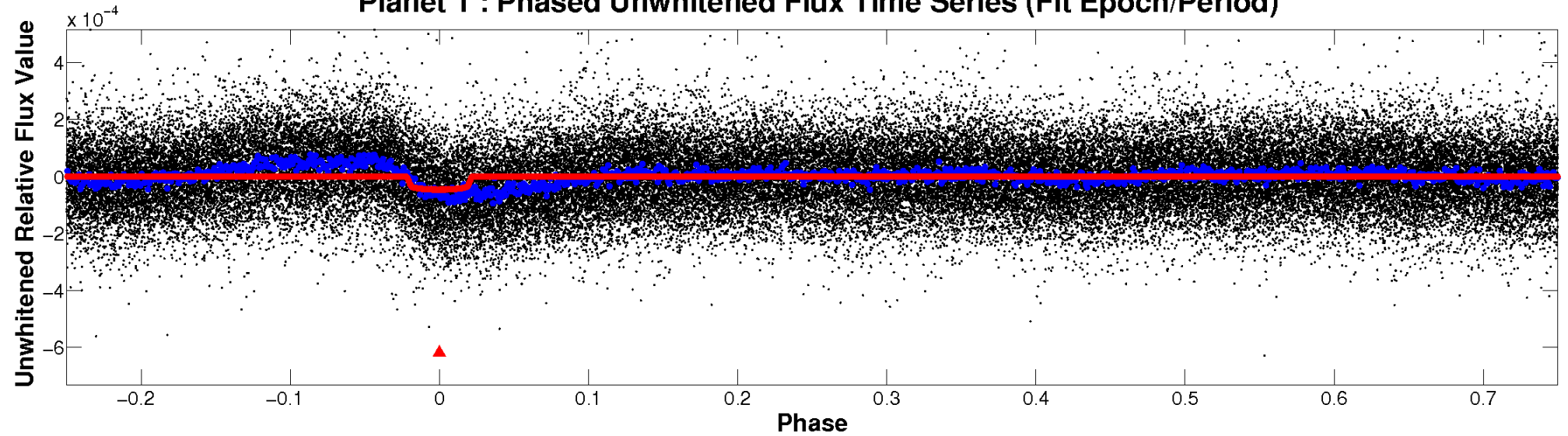
ALT Odd/Even

TCE 006785967-01

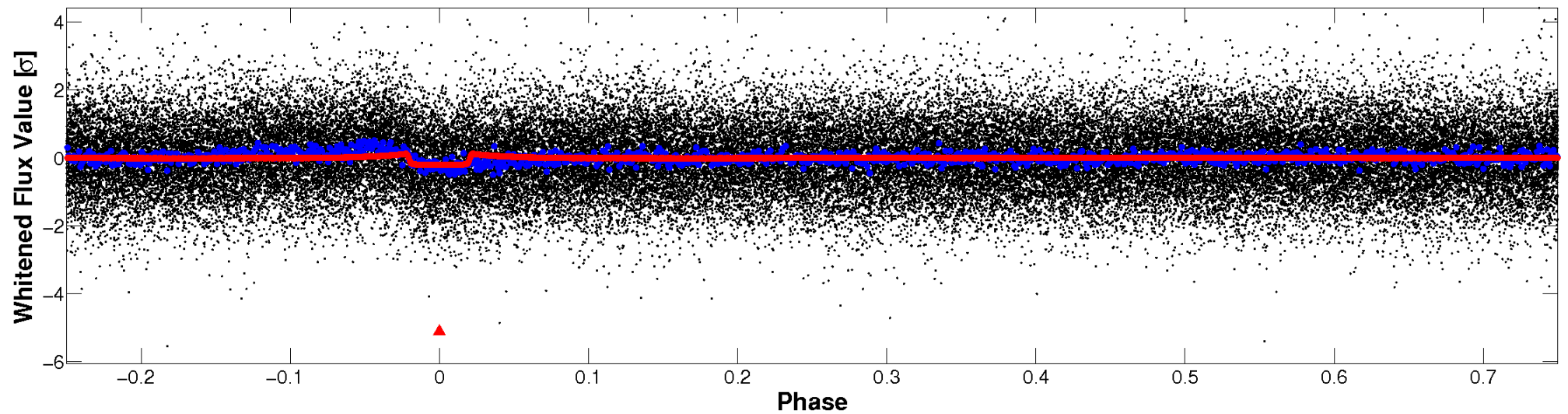


Non-Whitened Vs. Whitened Light Curve

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

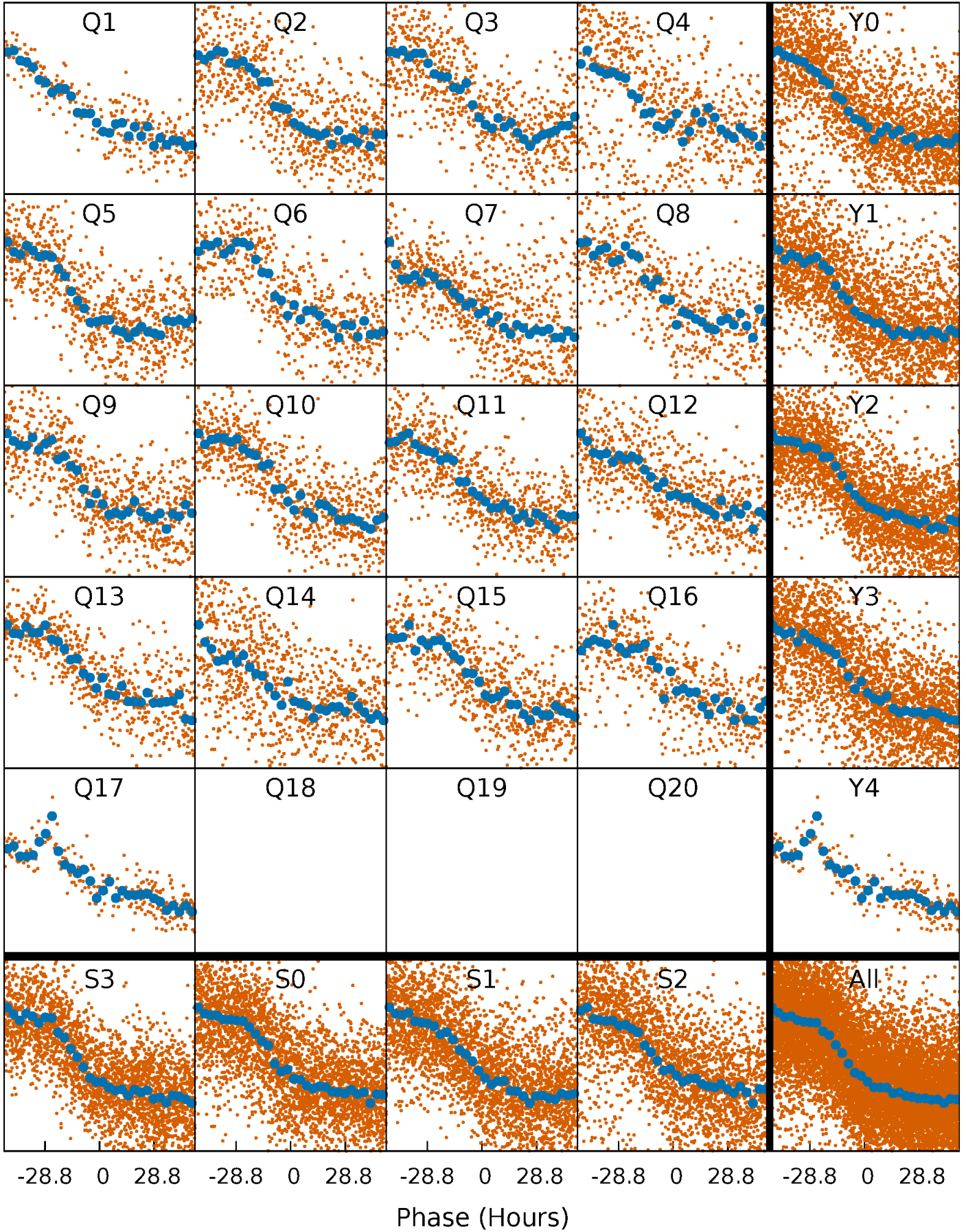


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



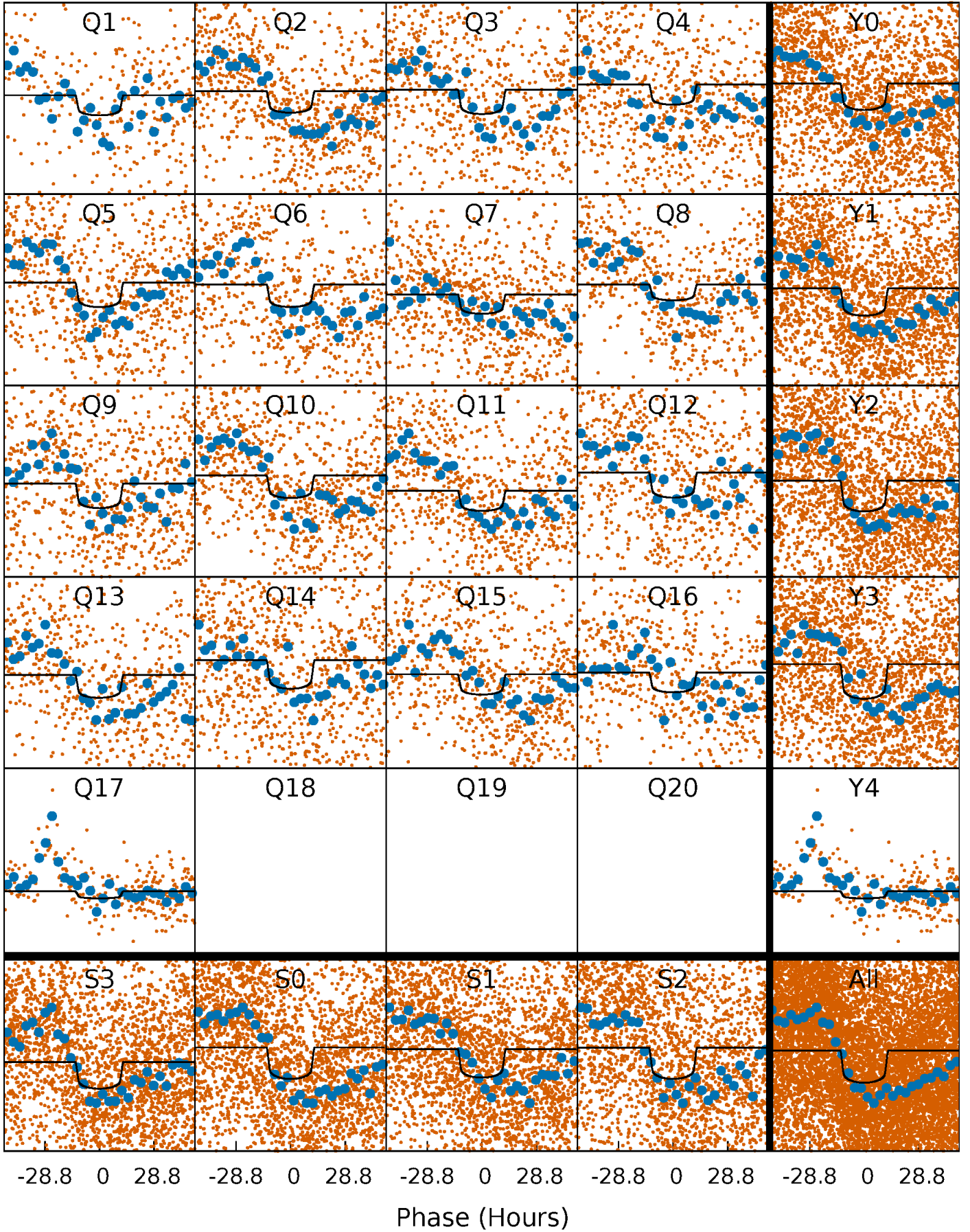
PDC Quarter-Phased Transit Curves

TCE 006785967-01 P= 23.848379 Days $T_0=155.123571$ (BKJD)



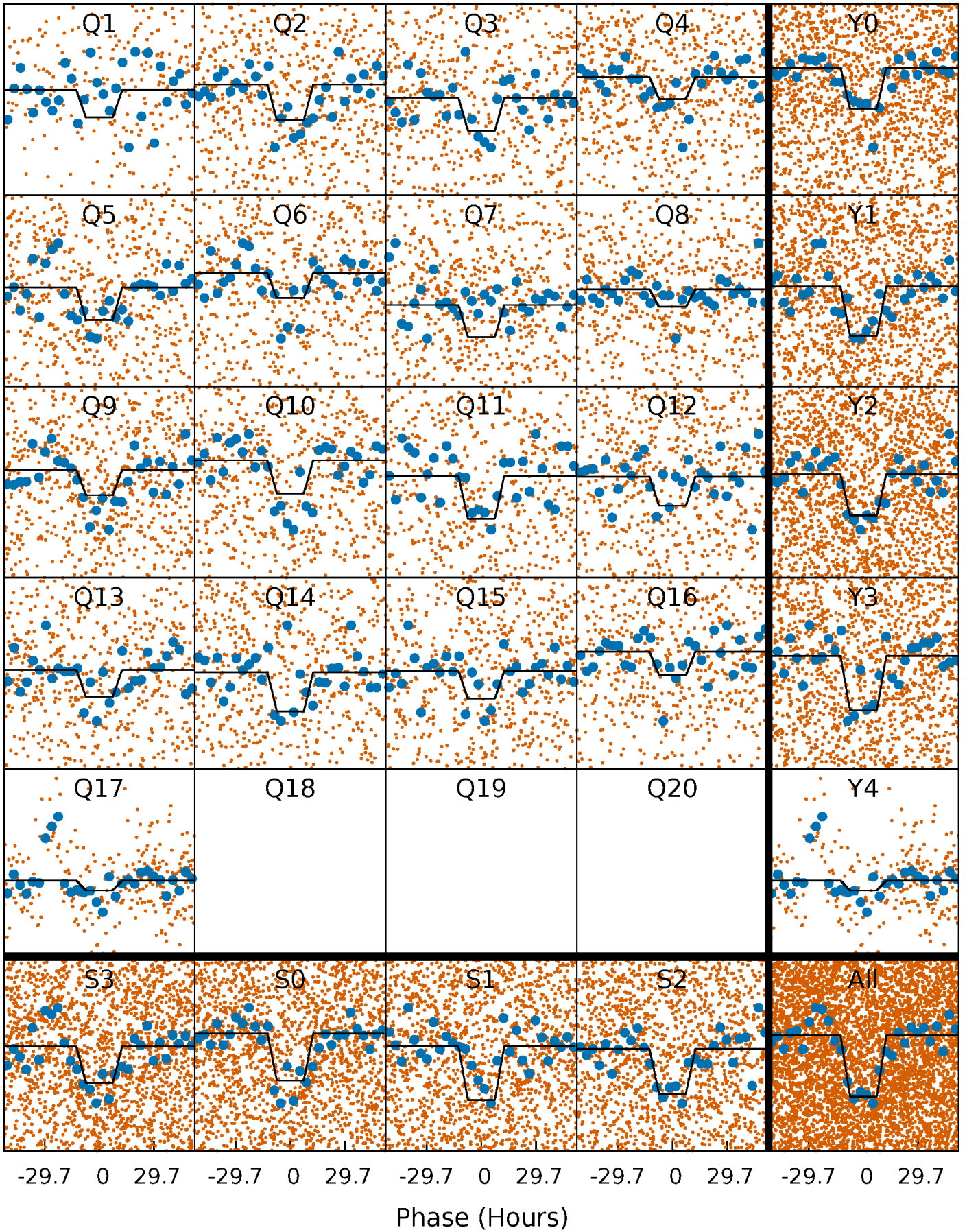
DV Quarter-Phased Transit Curves

TCE 006785967-01 P= 23.848379 Days $T_0=155.123571$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

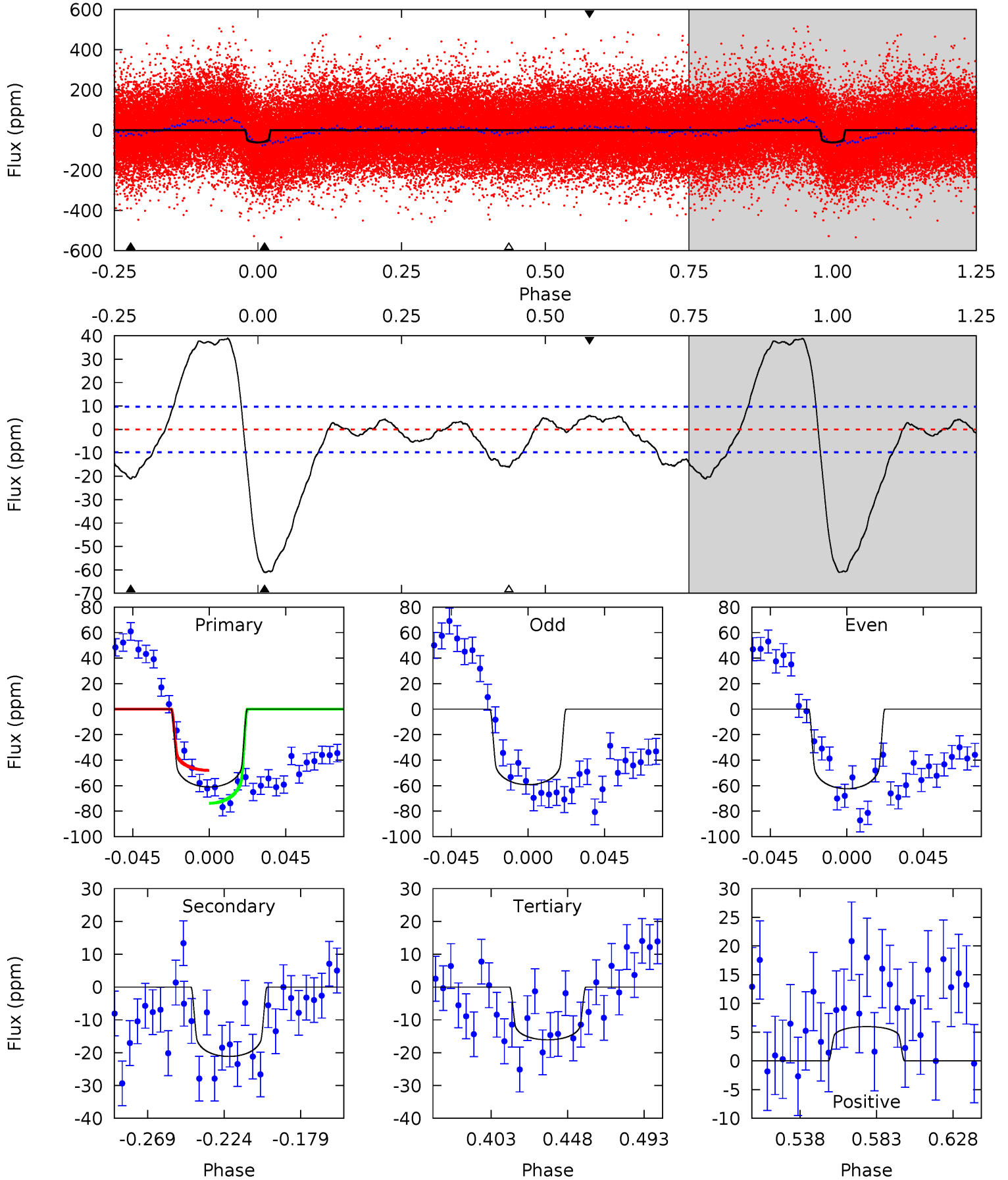
TCE 006785967-01 P= 23.847882 Days $T_0=155.113948$ (BKJD)



DV Model-Shift Uniqueness Test

006785967-01, P = 23.848379 Days, E = 131.275192 Days

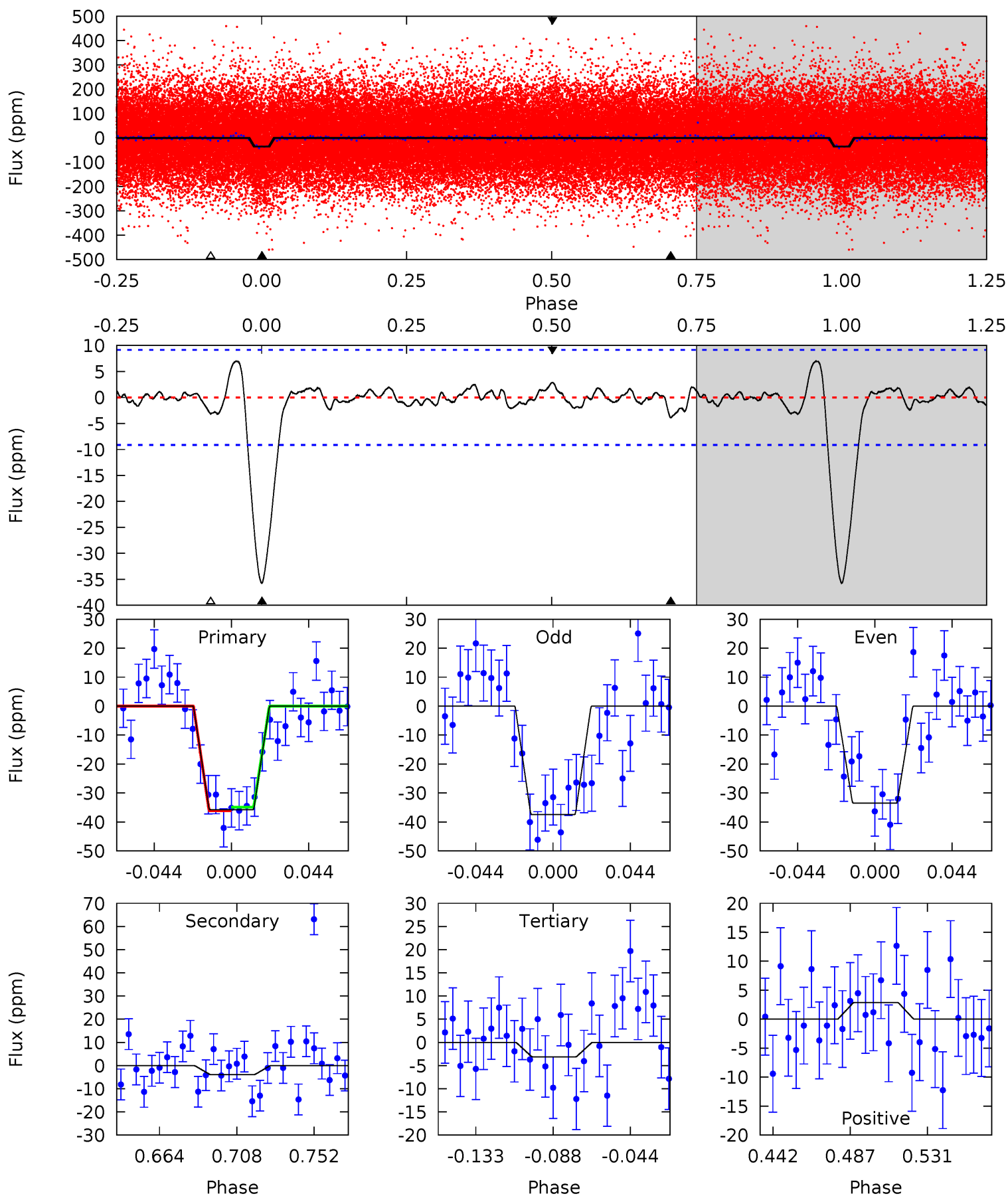
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.6	10.3	7.81	2.90	4.73	2.01	7.34	21.8	26.7	2.46	7.36	0.76	0.97	0.39	6.26



Alt Model-Shift Uniqueness Test

006785967-01, P = 23.847882 Days, E = 131.266066 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	2.03	1.61	1.49	4.73	2.01	0.73	16.9	17.0	0.42	0.54	1.02	1.09	0.16	0.30



Stellar Parameters For KIC 006785967

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6706^{+181}_{-222}	$4.297^{+0.125}_{-0.125}$	$-0.640^{+0.300}_{-0.300}$	$1.195^{+0.226}_{-0.185}$	$1.031^{+0.120}_{-0.108}$	$0.852^{+0.490}_{-0.309}$
	+3%/-3%	+3%/-3%	+47%/-47%	+19%/-15%	+12%/-10%	+58%/-36%
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 006785967-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-21 ± 2	$0.99^{+0.11}_{-0.12}$	1113^{+62}_{-62}	5245^{+253}_{-231}	319^{+88}_{-66}
Alt.	-4 ± 2	$0.78^{+0.11}_{-0.10}$	1118^{+64}_{-63}	4125^{+358}_{-461}	95^{+54}_{-48}

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

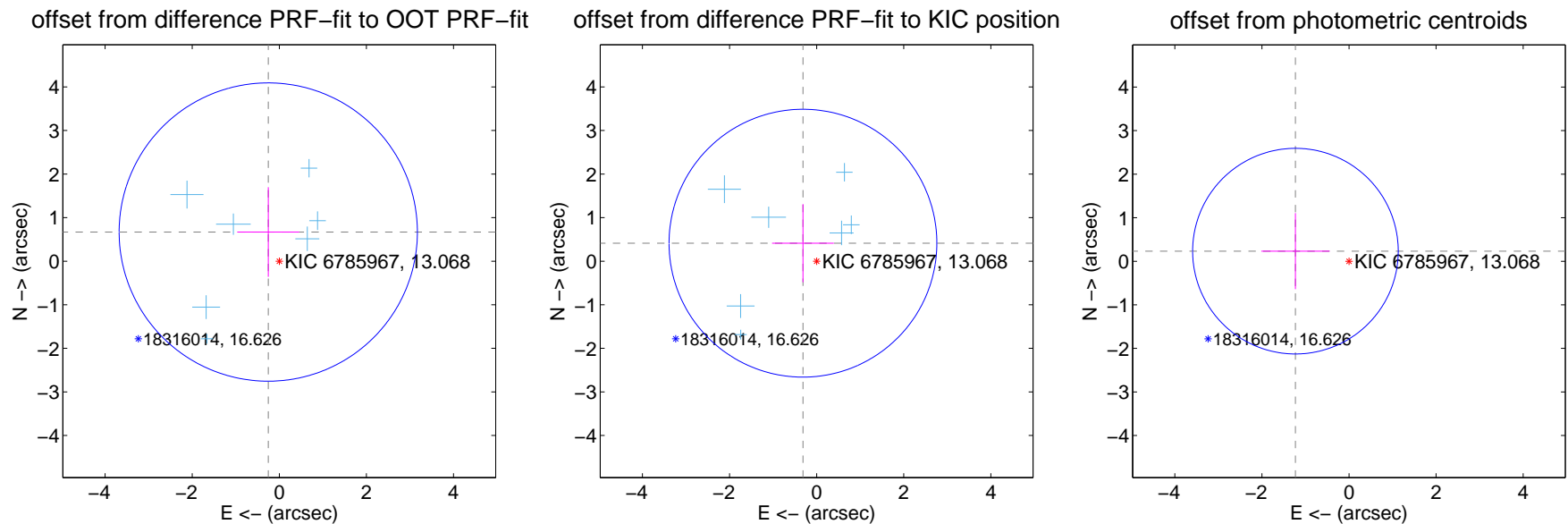
DV Centroid Data

Supplemental centroid analysis for 006785967-01. Kepler magnitude: 13.07. Transit SNR 11.06

There are 7 quarters with good PRF difference image offsets

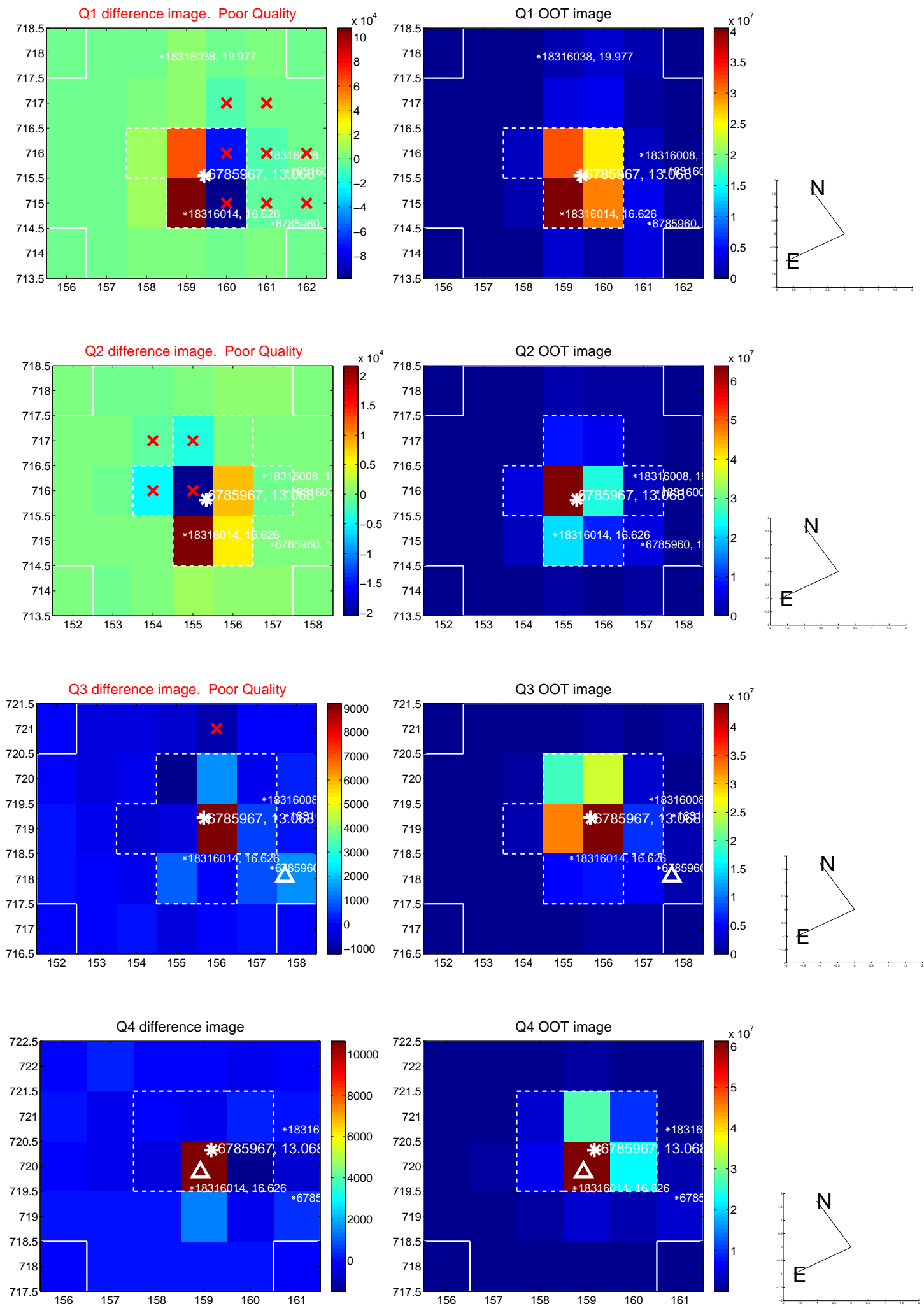
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.716 ± 1.141	0.63	0.254 ± 0.710	0.669 ± 1.028
PRF-fit source offset from KIC position	0.519 ± 1.025	0.51	0.315 ± 0.708	0.413 ± 0.897
photometric centroid source offset	1.25 ± 0.79	1.59	1.23 ± 0.78	0.23 ± 0.87

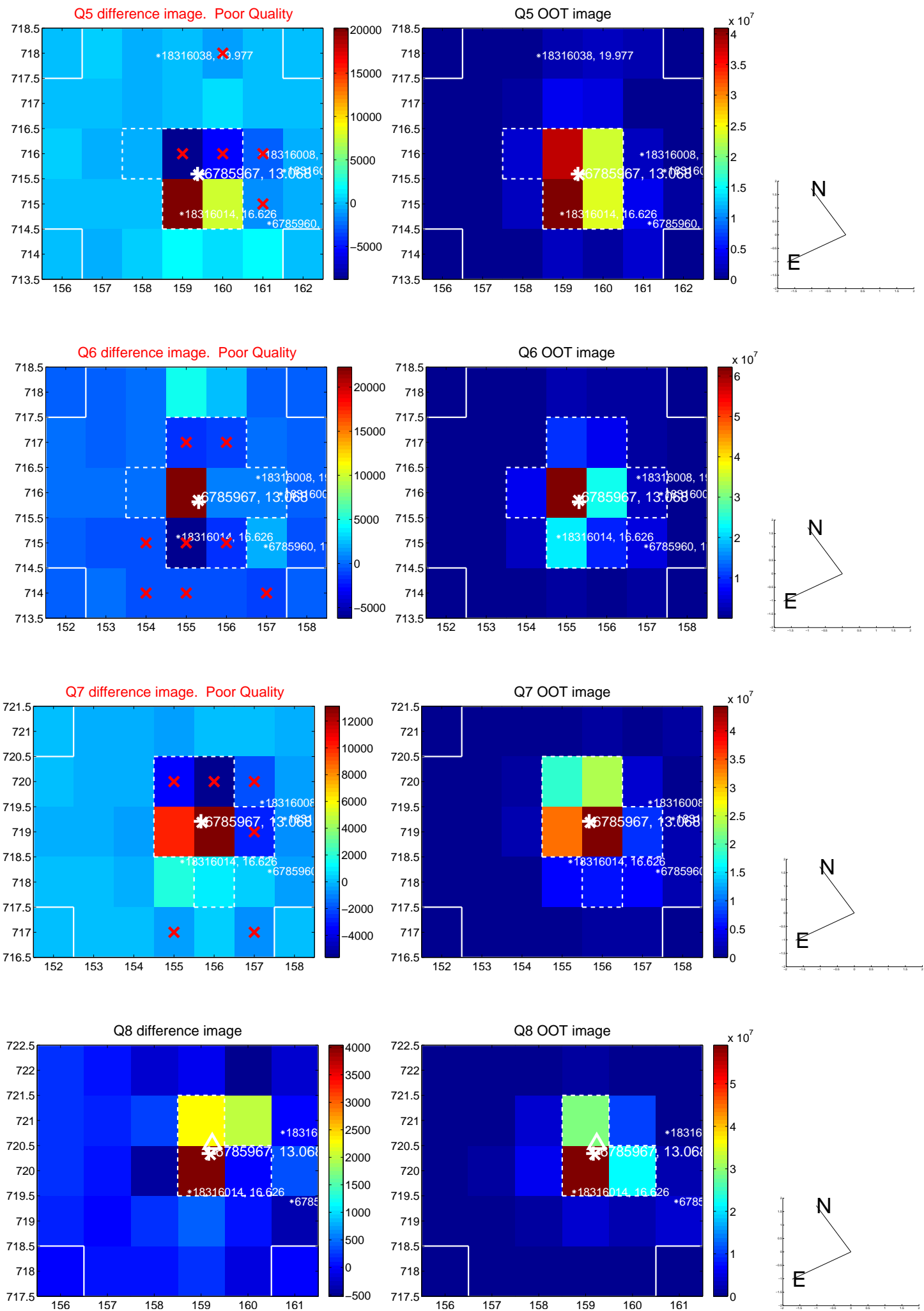


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

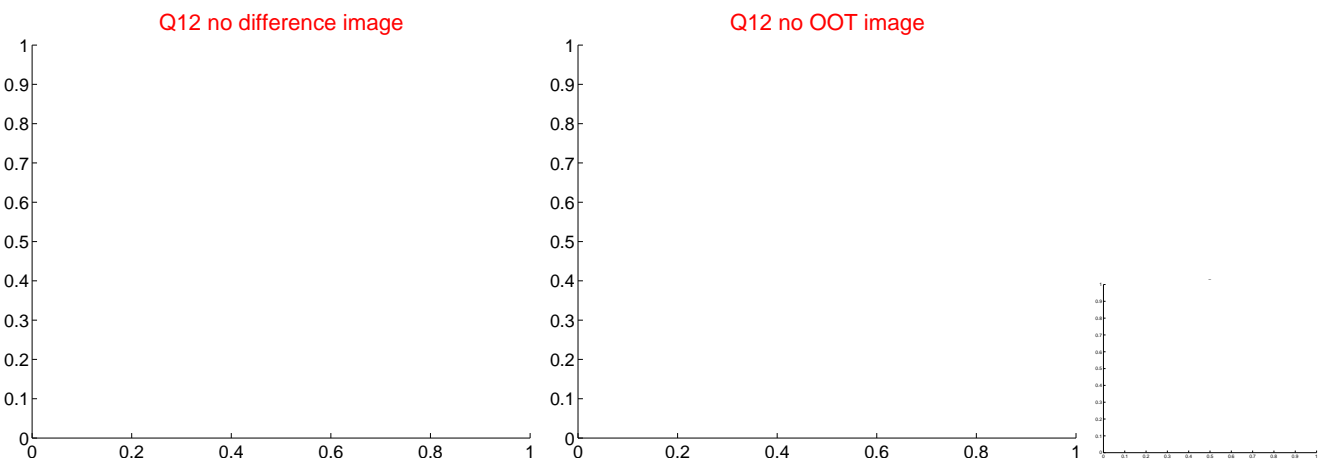
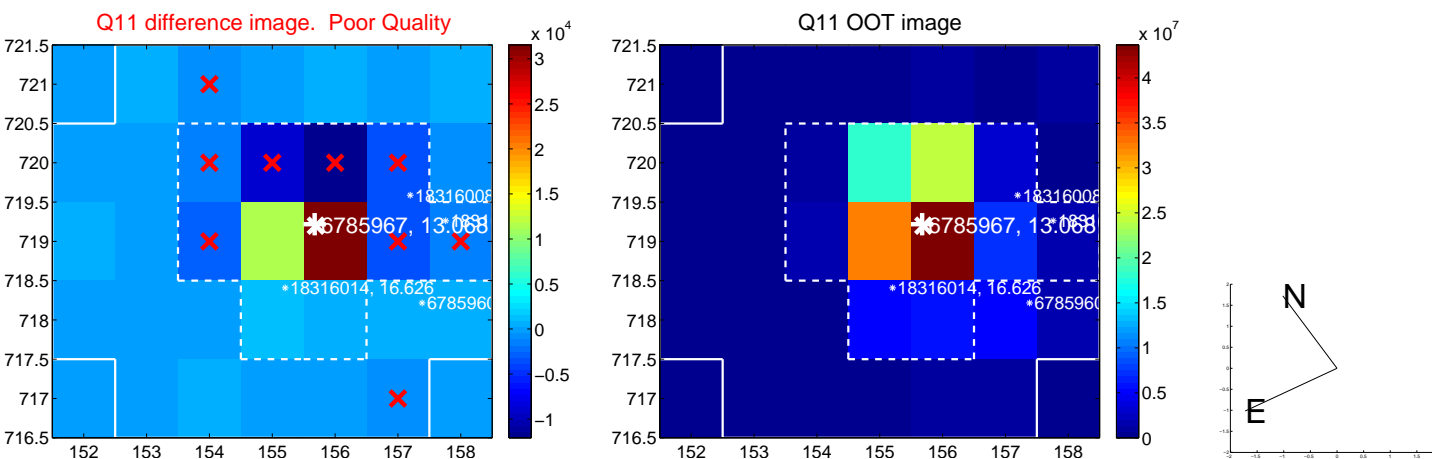
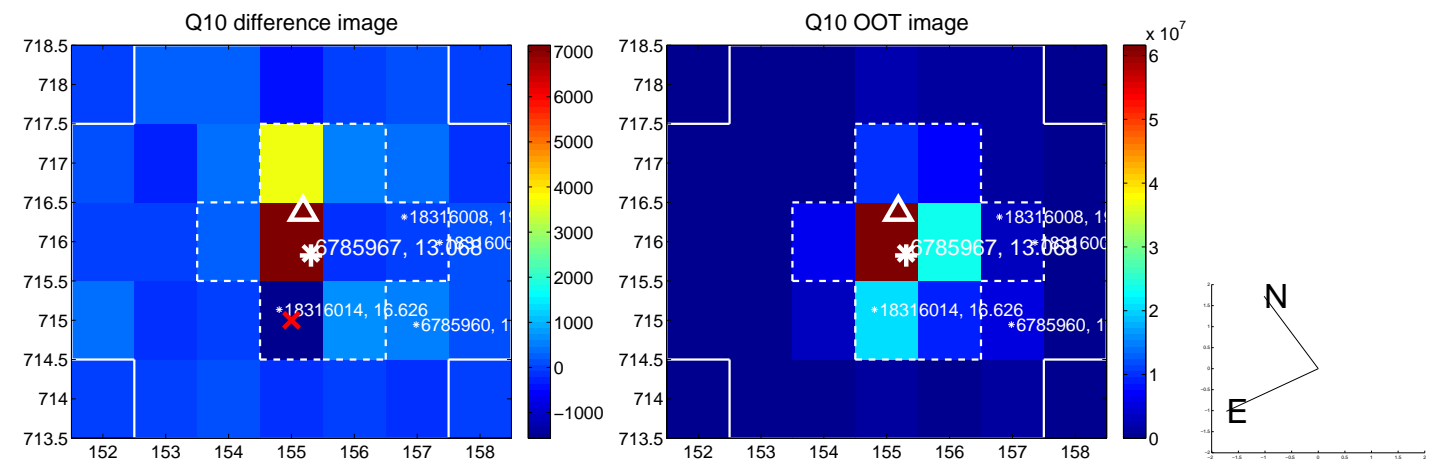
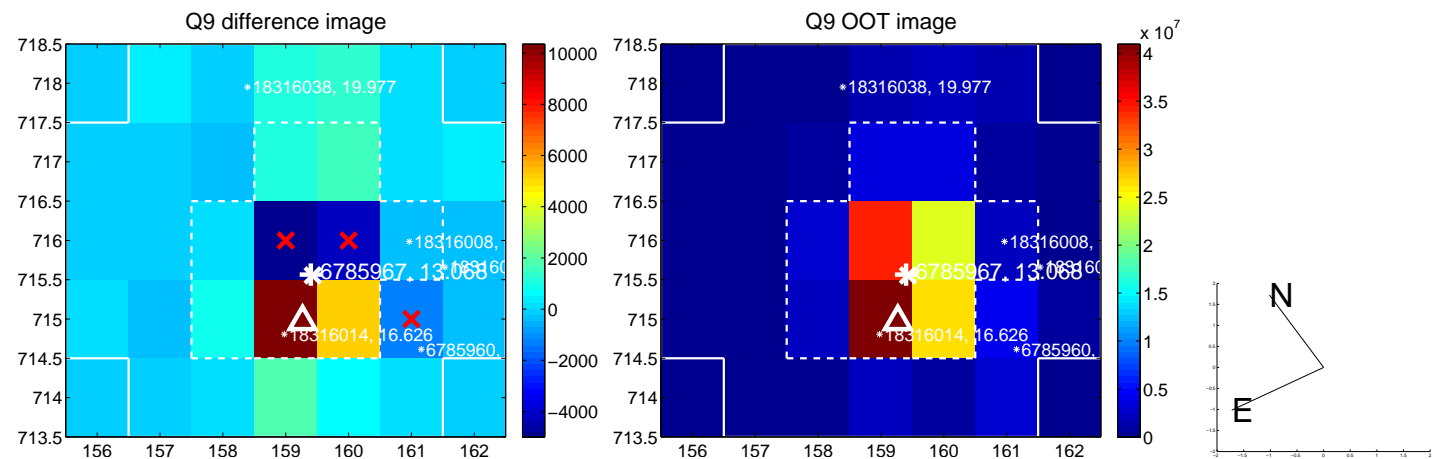
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



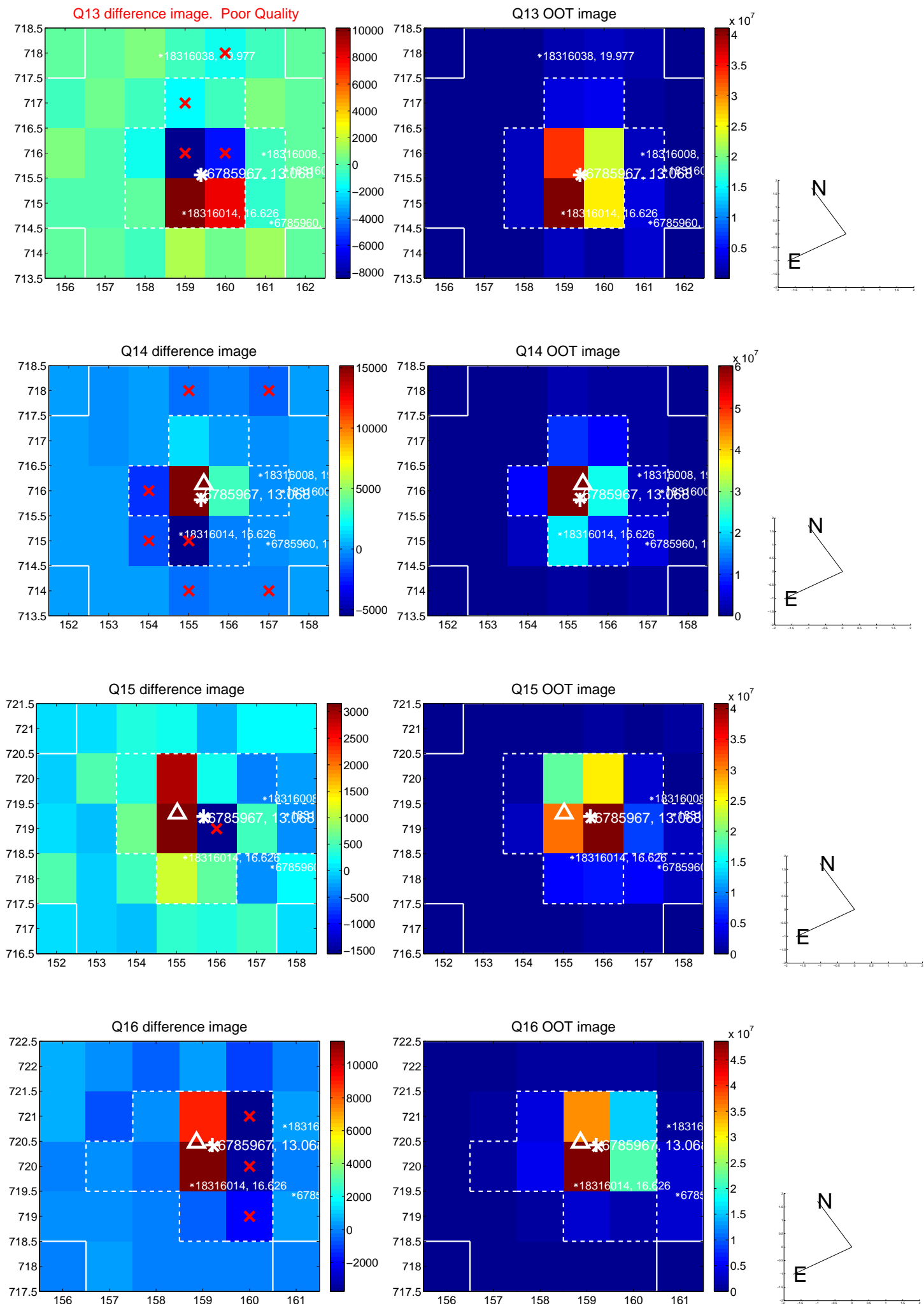
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



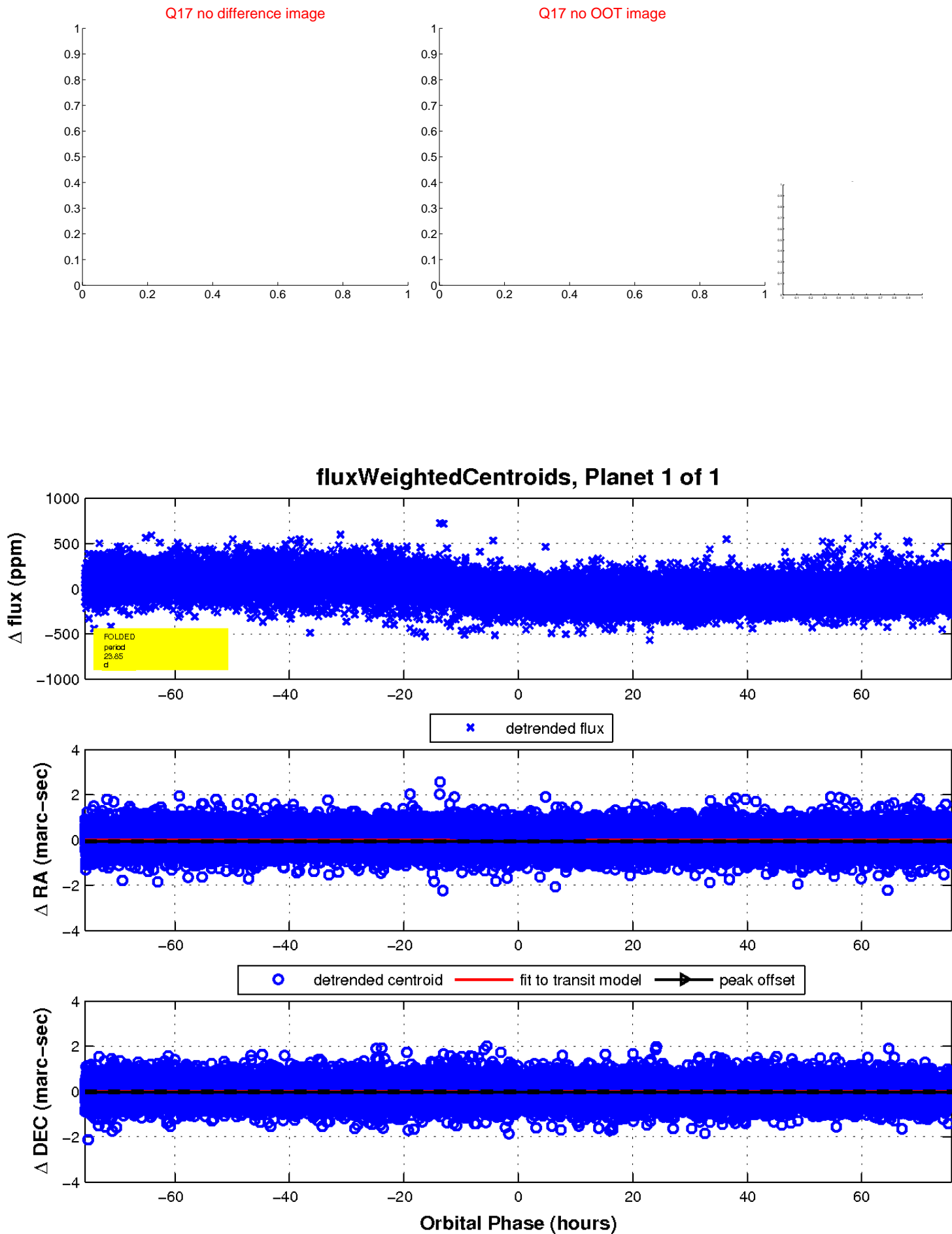
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

