

KIC 007885258

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})
007885258-01	OBS	No	0.749751	132.034499	107.9	1.416	8.6	8.3	0.80	5484	1.00	2201.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007885258-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_KIC_POS

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

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

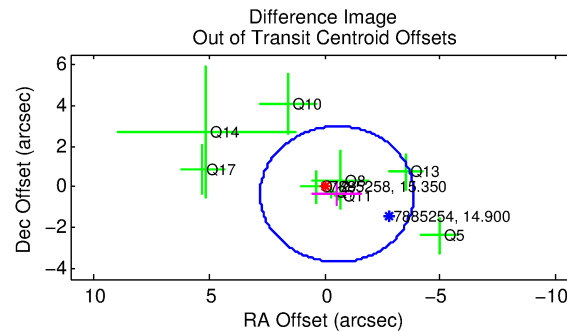
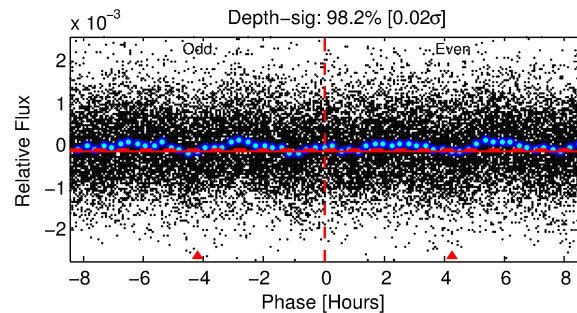
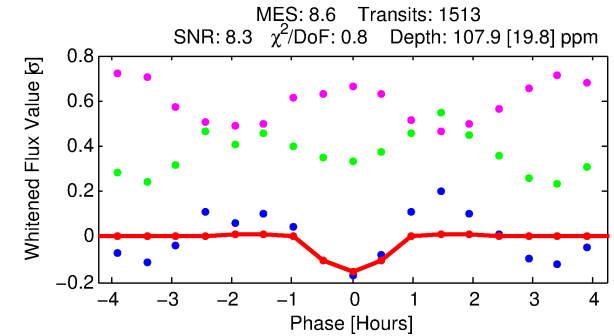
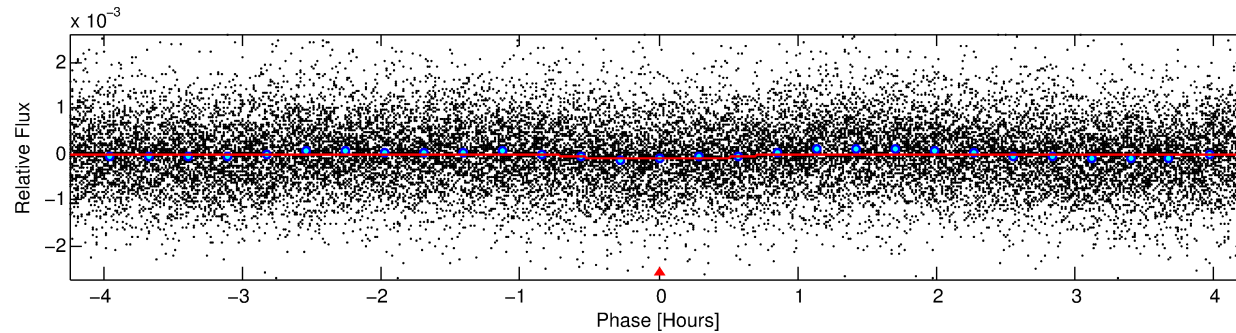
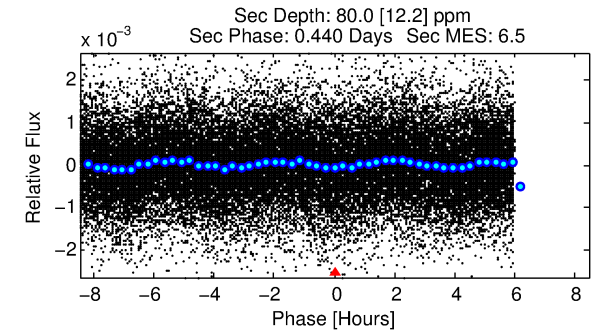
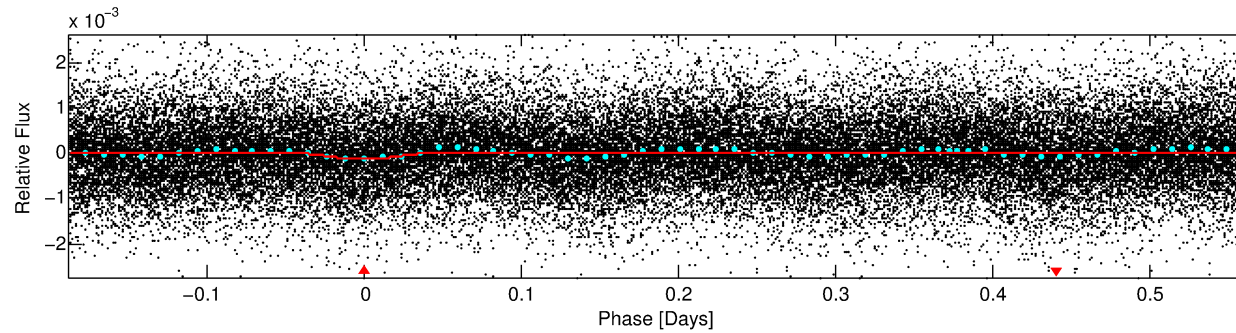
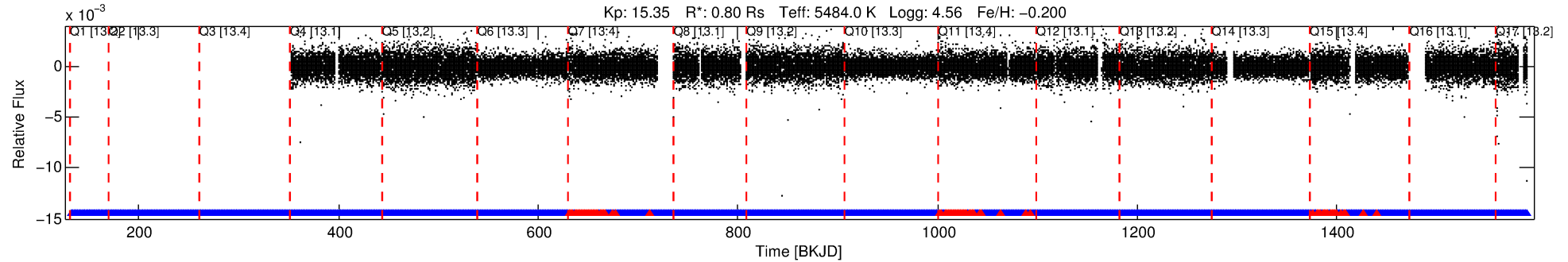
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007885258-01

No Significant Match Found

DV One-Page Summary

KIC: 7885258 Candidate: 1 of 1 Period: 0.750 d



DV Fit Results:

Period = 0.74975 [0.00001] d
Epoch = 132.0345 [0.0026] BKJD
Rp/R* = 0.0114 [0.0106]
a/R* = 2.09 [6.74]
b = 0.90 [0.91]
Seff = 2201.56 [663.66]
Teq = 1747 [132] K
Rp = 1.00 [0.95] Re
a = 0.0153 [0.0028] AU
Ag = 10.40 [19.47] [0.48σ]
Teffp = 4850 [2253] K [1.37σ]

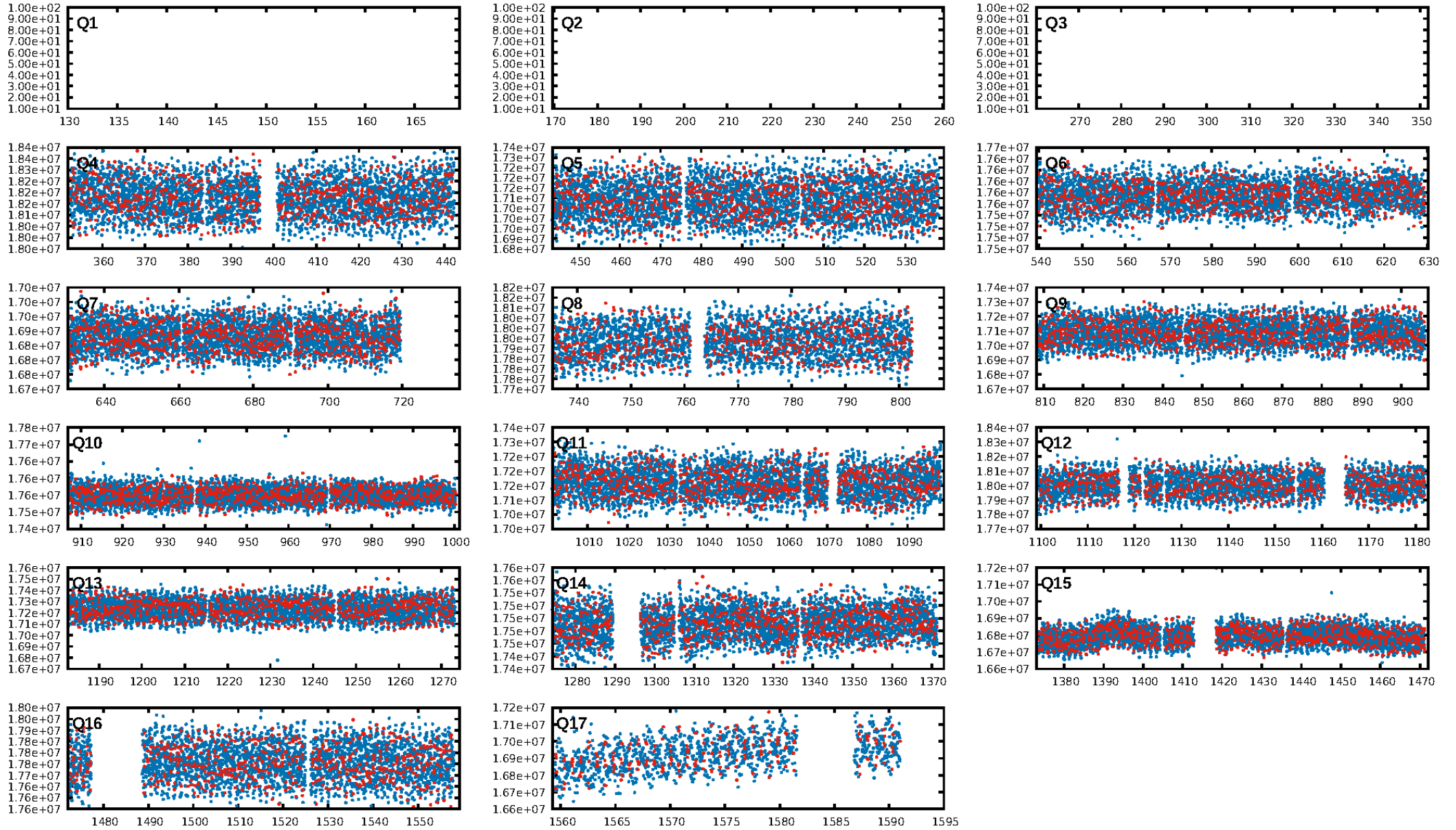
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.09e-17
RollingBand-fgt: 0.93 [1377/1478]
GhostDiagnostic-chr: 1.001
Centroid-sig: 34.4%
Centroid-so: 1.492 arcsec [2.81σ]
OotOffset-rm: 0.641 arcsec [0.58σ]
OotOffset-st: 2/2/2/3 [9]
KicOffset-rm: 2.976 arcsec [2.86σ]
KicOffset-st: 2/2/2/3 [9]
DiffImageQuality-fgm: 0.44 [4/9]
DiffImageOverlap-fno: 1.00 [14/14]

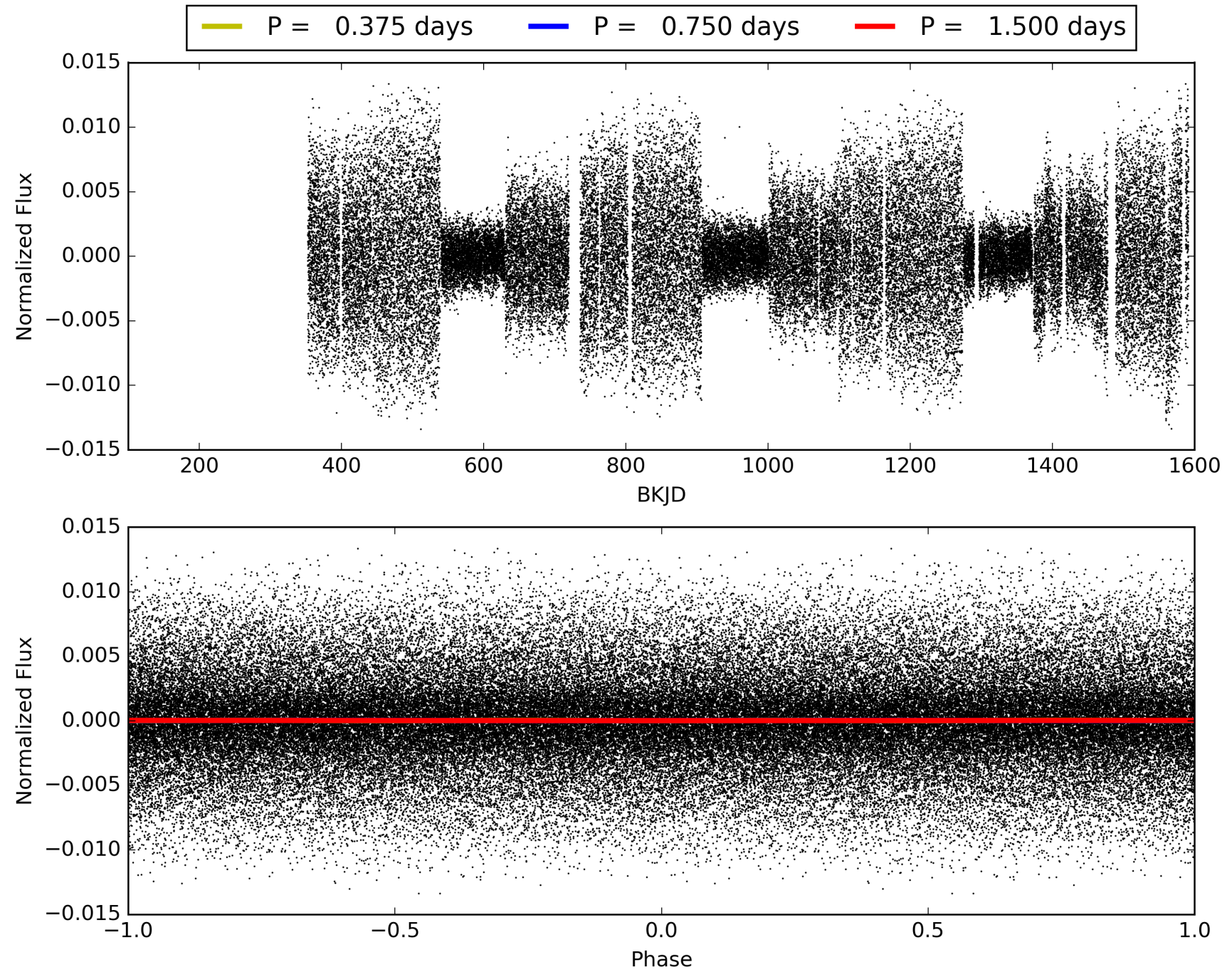
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 22:37:41 Z

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

TCE 007885258-01, PDC Light Curves

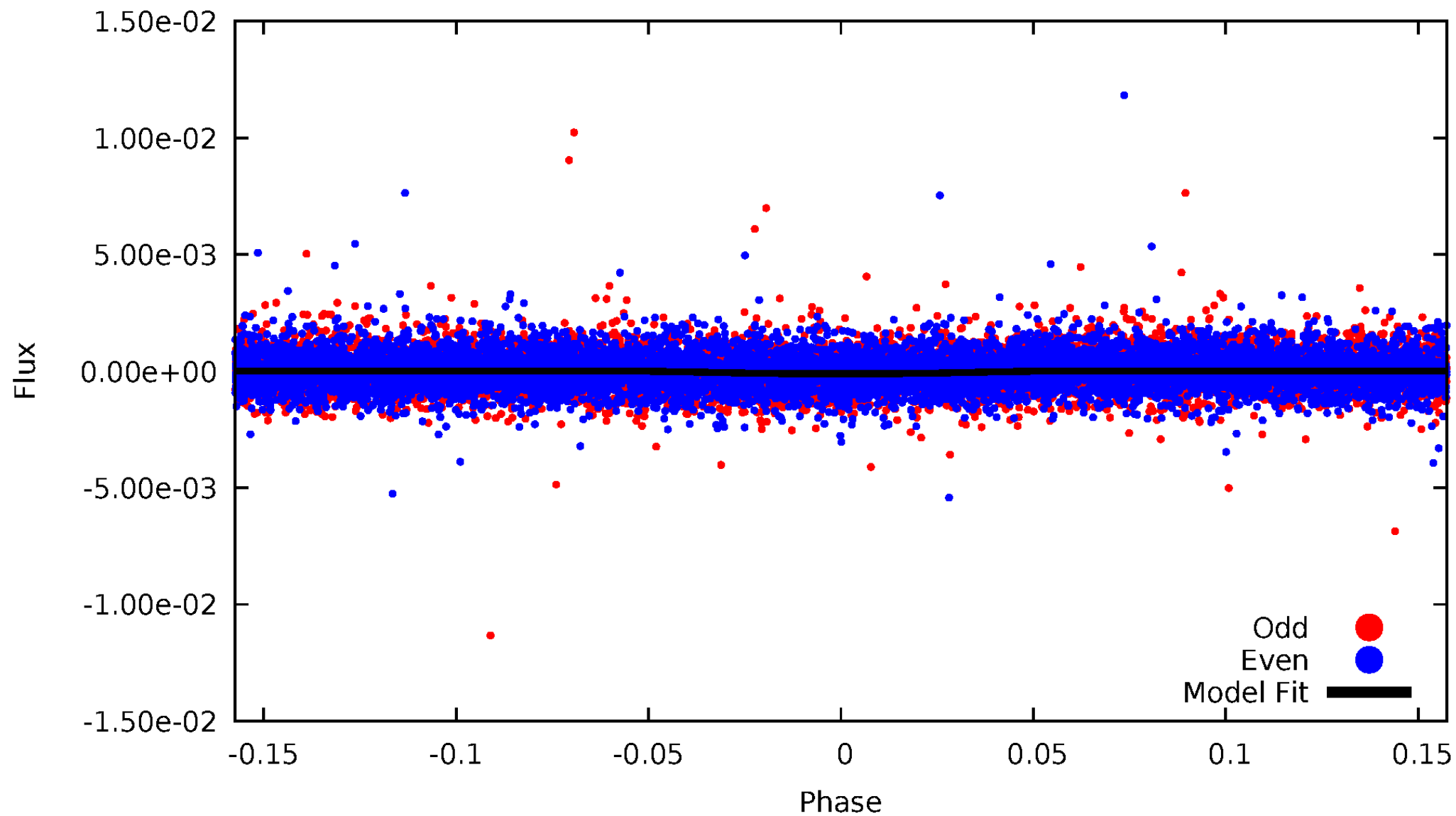


TCE 007885258-01



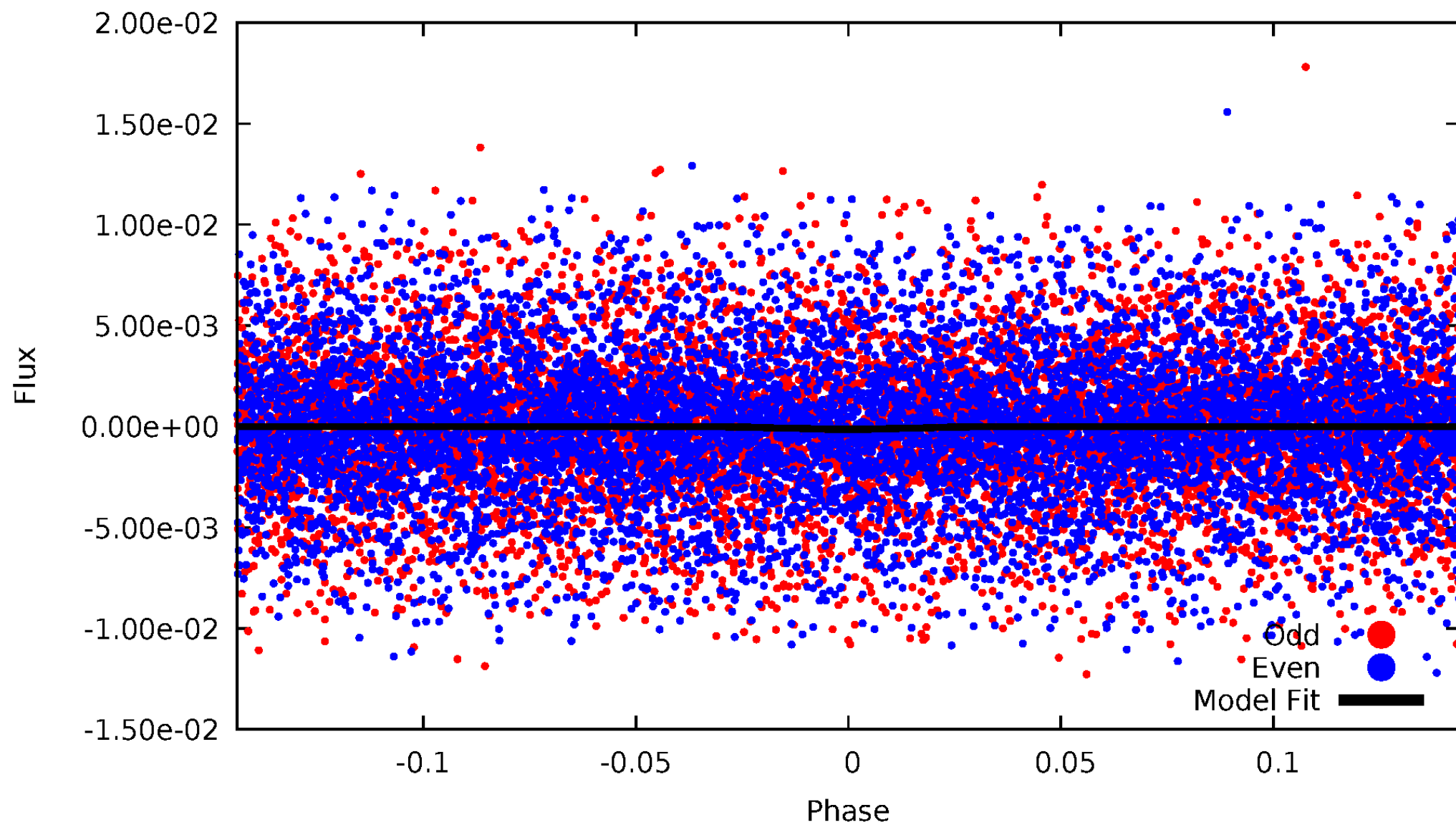
DV Odd/Even

TCE 007885258-01



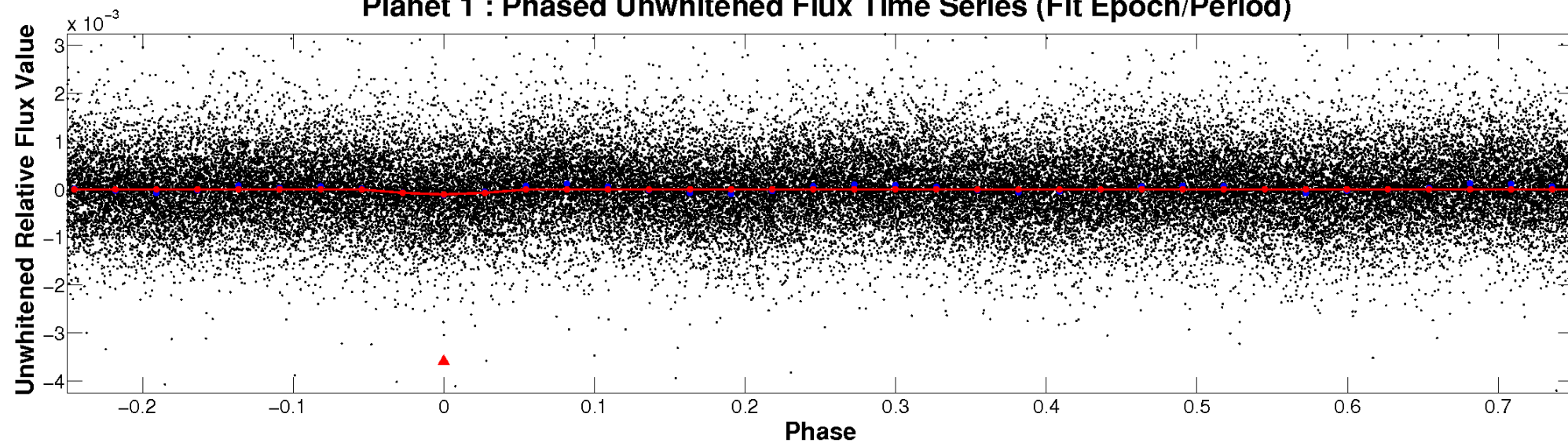
ALT Odd/Even

TCE 007885258-01

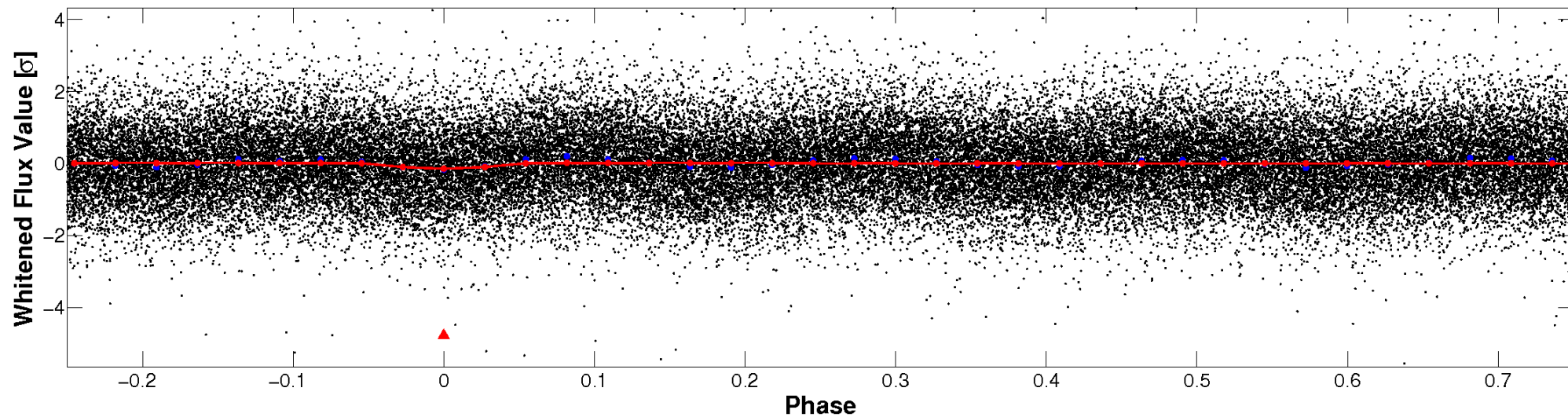


Non-Whitened Vs. Whitened Light Curve

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

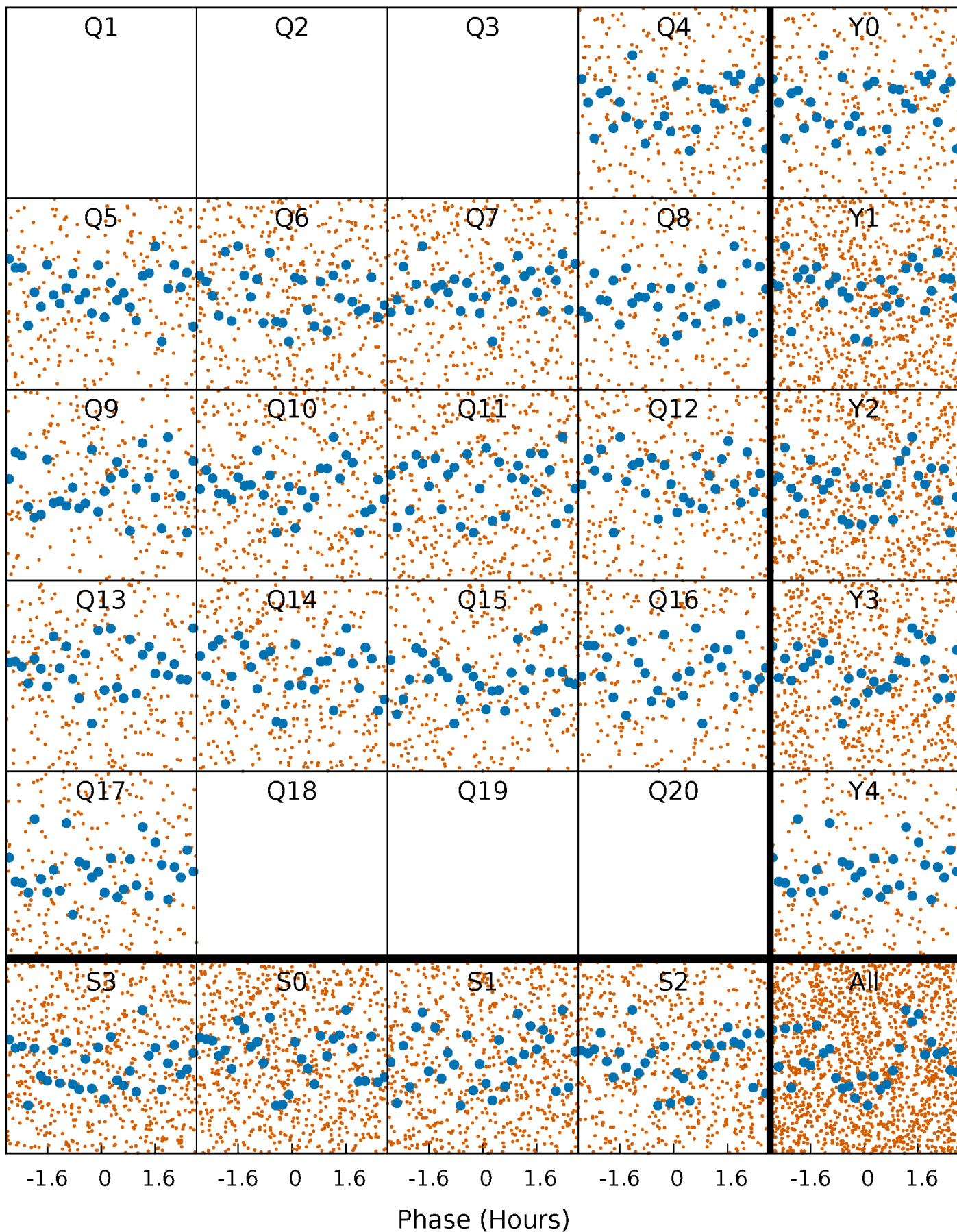


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



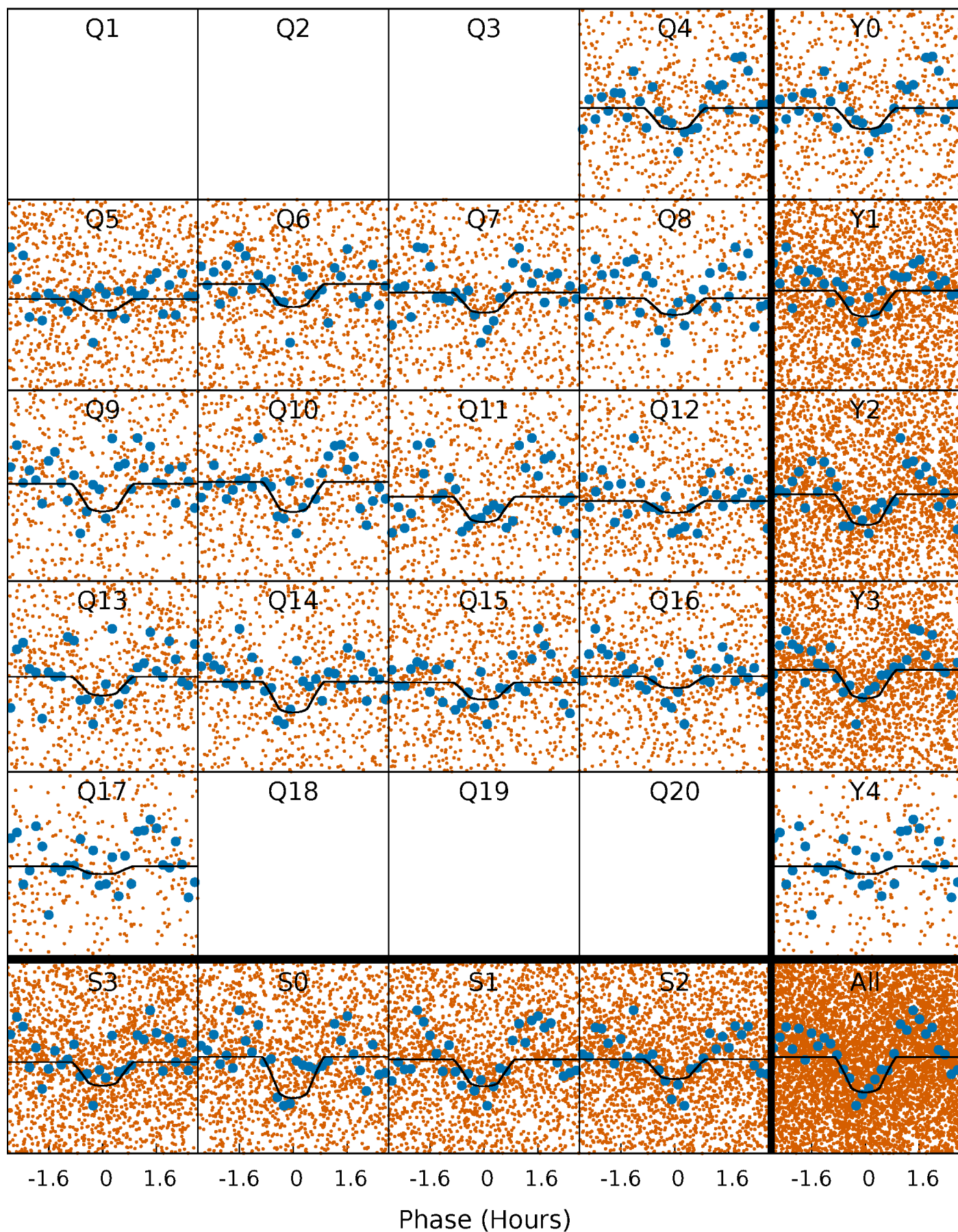
PDC Quarter-Phased Transit Curves

TCE 007885258-01 P= 0.749751 Days $T_0=132.034499$ (BKJD)



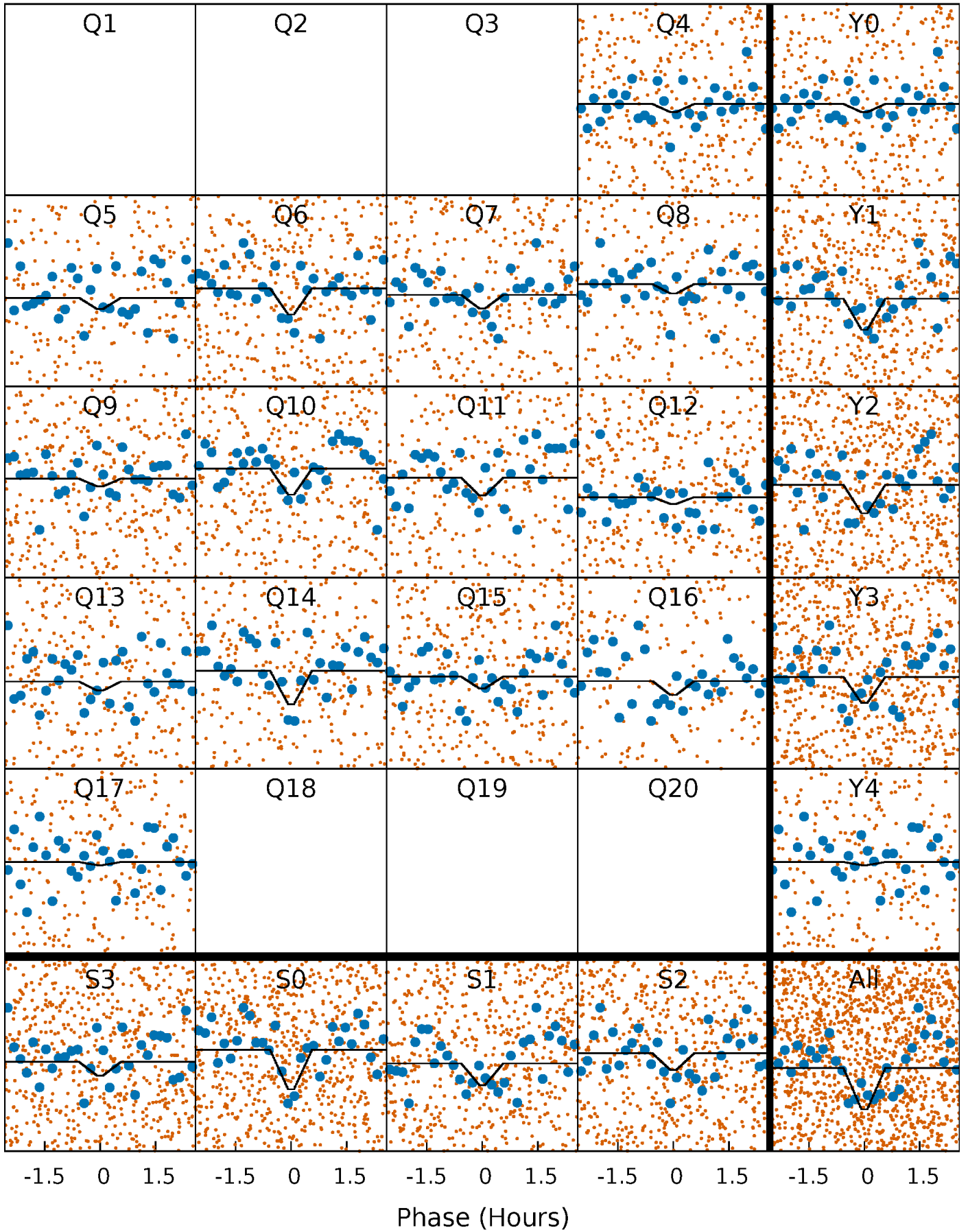
DV Quarter-Phased Transit Curves

TCE 007885258-01 P= 0.749751 Days $T_0=132.034499$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

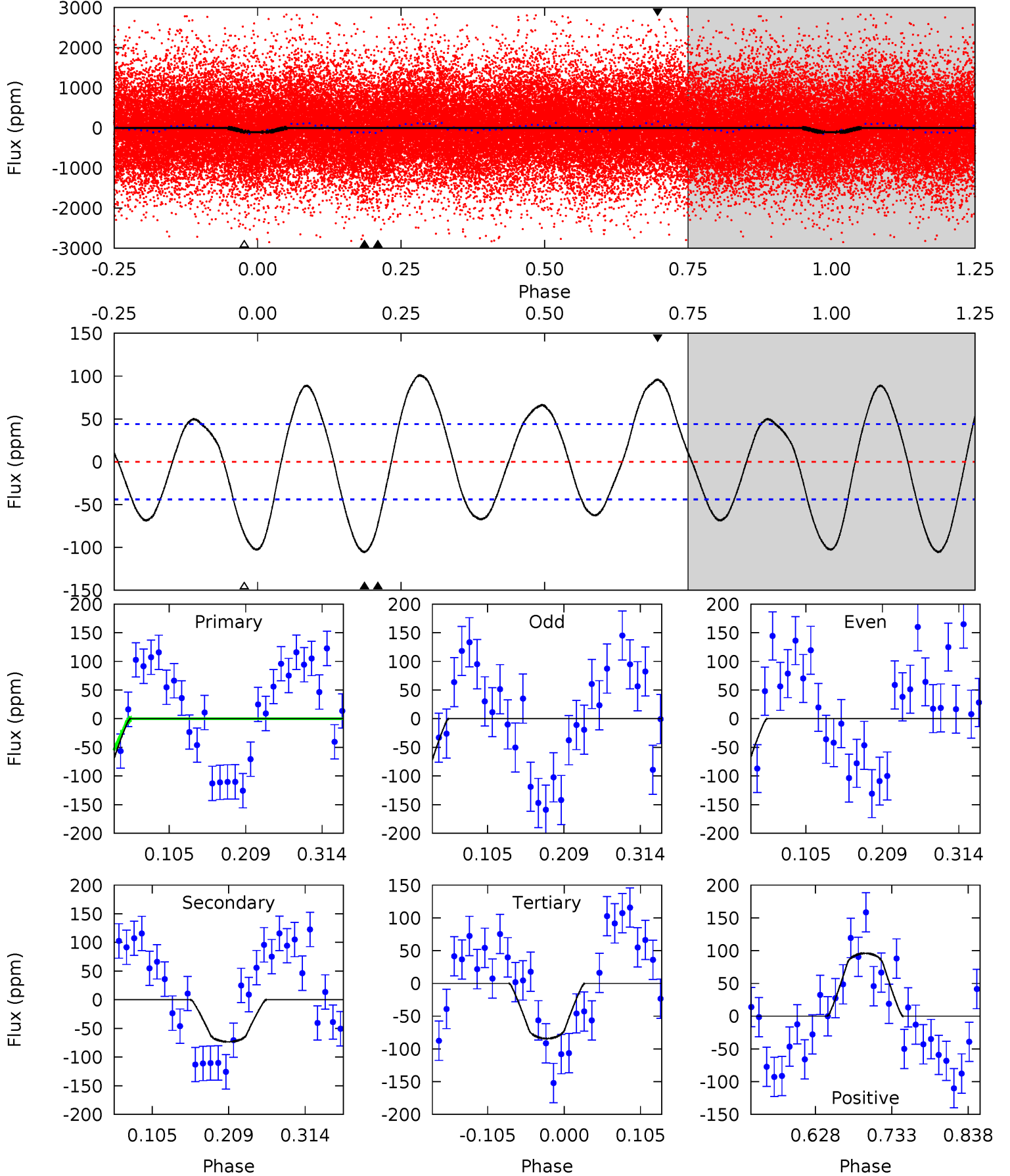
TCE 007885258-01 P= 0.749746 Days $T_0=132.029764$ (BKJD)



DV Model-Shift Uniqueness Test

007885258-01, P = 0.749751 Days, E = 132.034499 Days

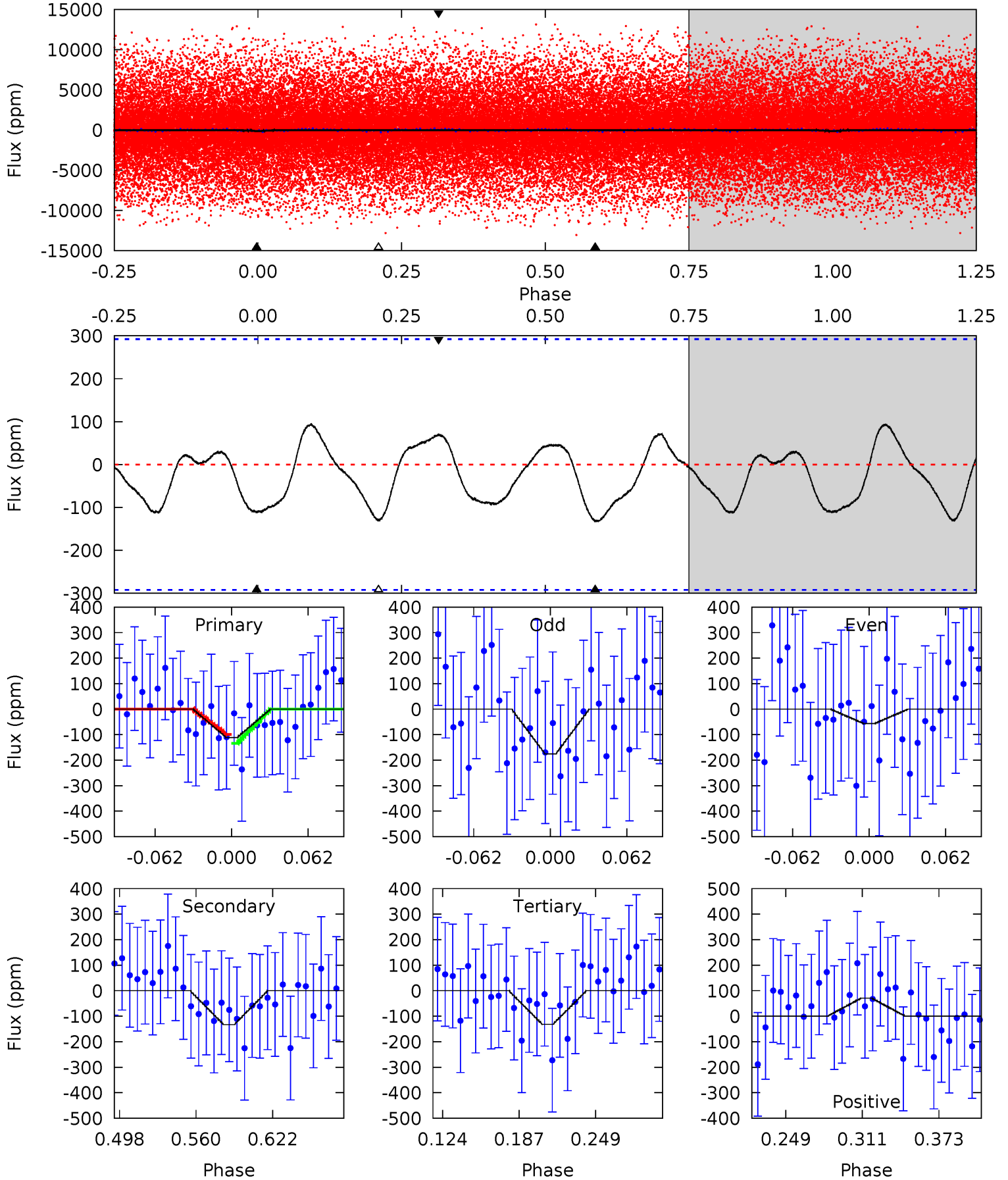
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	7.61	8.75	9.96	4.56	1.62	5.51	2.19	0.97	-1.14	-2.36	0.35	0.88	0.49	2.48



Alt Model-Shift Uniqueness Test

007885258-01, P = 0.749746 Days, E = 132.029764 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.78	2.12	2.10	1.13	4.66	1.86	0.92	-0.32	0.65	0.02	0.99	0.95	0.62	0.42	0.28



Stellar Parameters For KIC 007885258

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5484^{+199}_{-182}	$4.564^{+0.038}_{-0.143}$	$-0.200^{+0.300}_{-0.300}$	$0.798^{+0.176}_{-0.075}$	$0.852^{+0.092}_{-0.083}$	$2.362^{+0.469}_{-0.944}$
	+4%/-3%	+1%/-3%	+150%/-150%	+22%/-9%	+11%/-10%	+20%/-40%
Source	KIC0	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 007885258-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-73 ± 10	$1.21^{+0.91}_{-0.72}$	2486^{+142}_{-114}	4515^{+2152}_{-900}	$6.483^{+28.231}_{-4.433}$
Alt.	-133 ± 63	$1.19^{+0.91}_{-0.75}$	2494^{+142}_{-113}	5117^{+3403}_{-1229}	11^{+68}_{-8}

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

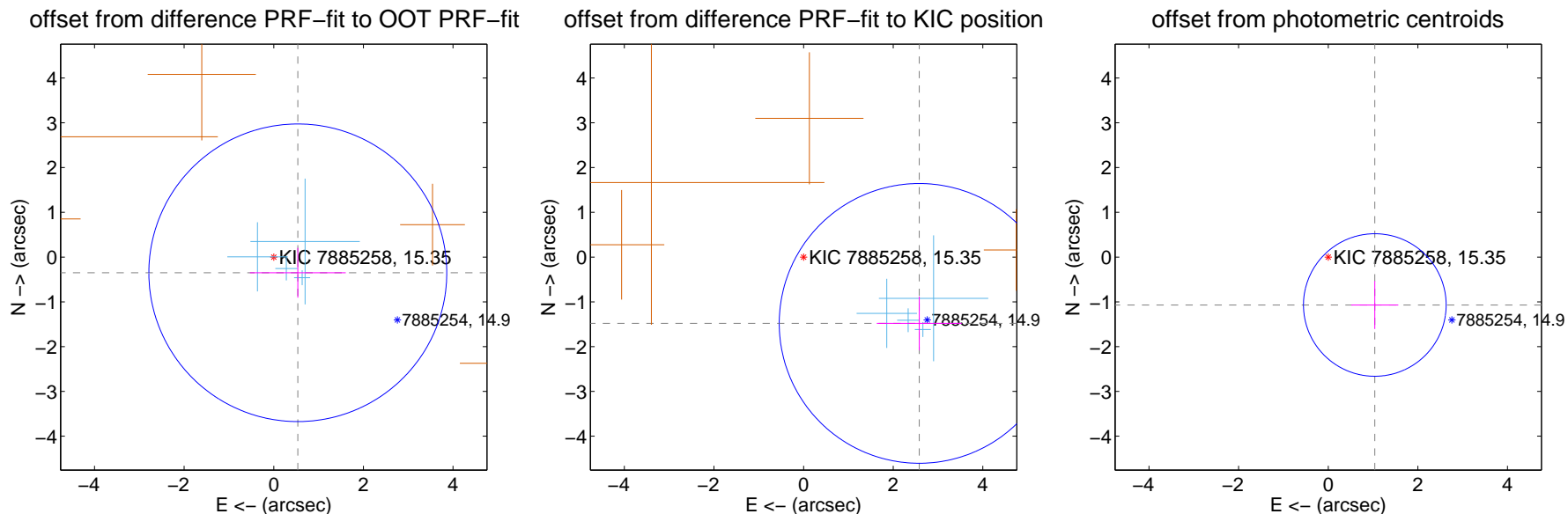
DV Centroid Data

Supplemental centroid analysis for 007885258-01. Kepler magnitude: 15.35. Transit SNR 8.31

There are 4 quarters with good PRF difference image offsets

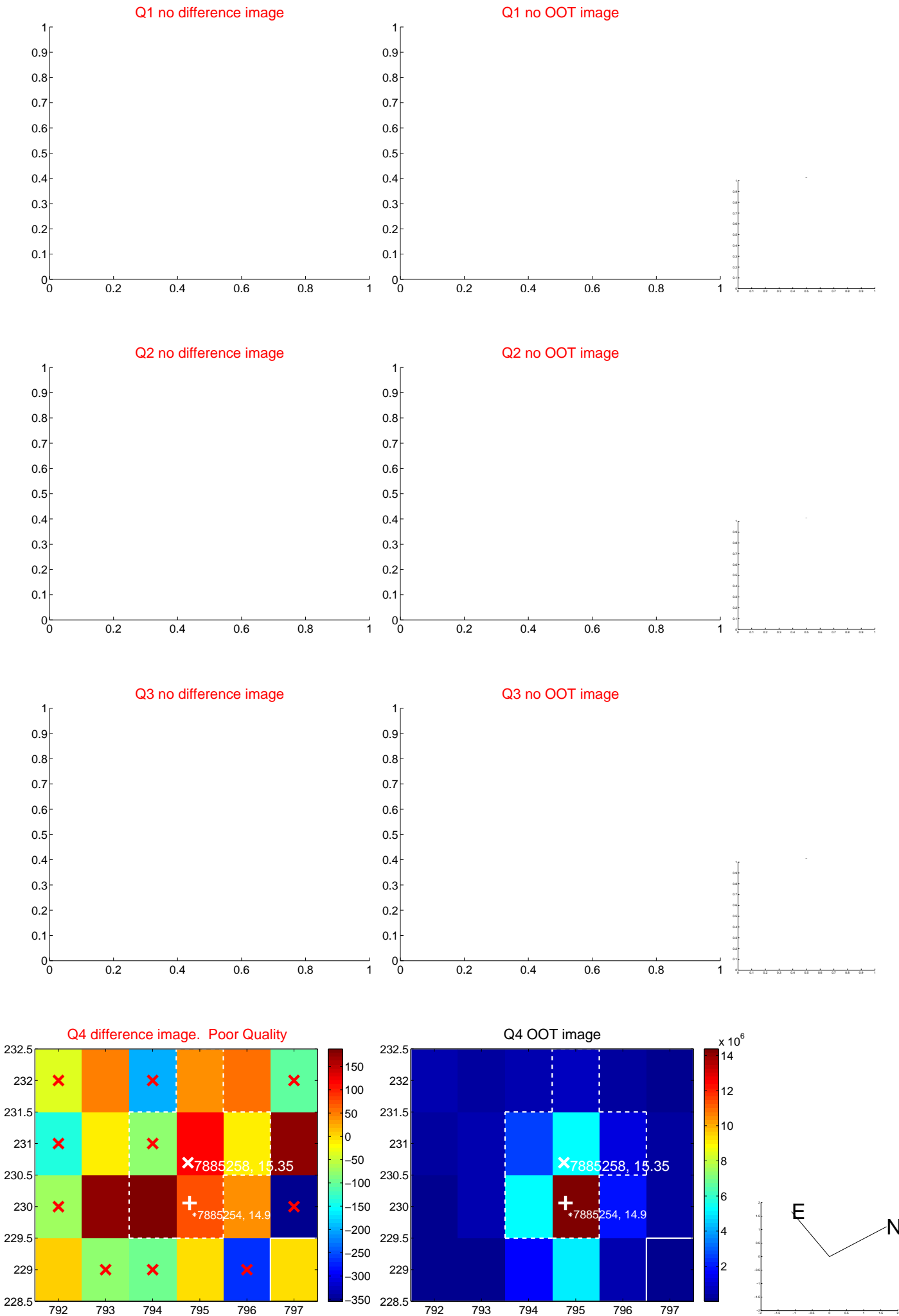
The direct PRF centroid is offset from the target star catalog position by about 1.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.641 ± 1.108	0.58	-0.537 ± 1.070	-0.350 ± 0.556
PRF-fit source offset from KIC position	2.976 ± 1.042	2.86	-2.581 ± 0.948	-1.481 ± 0.600
photometric centroid source offset	1.49 ± 0.53	2.81	-1.04 ± 0.52	-1.07 ± 0.54

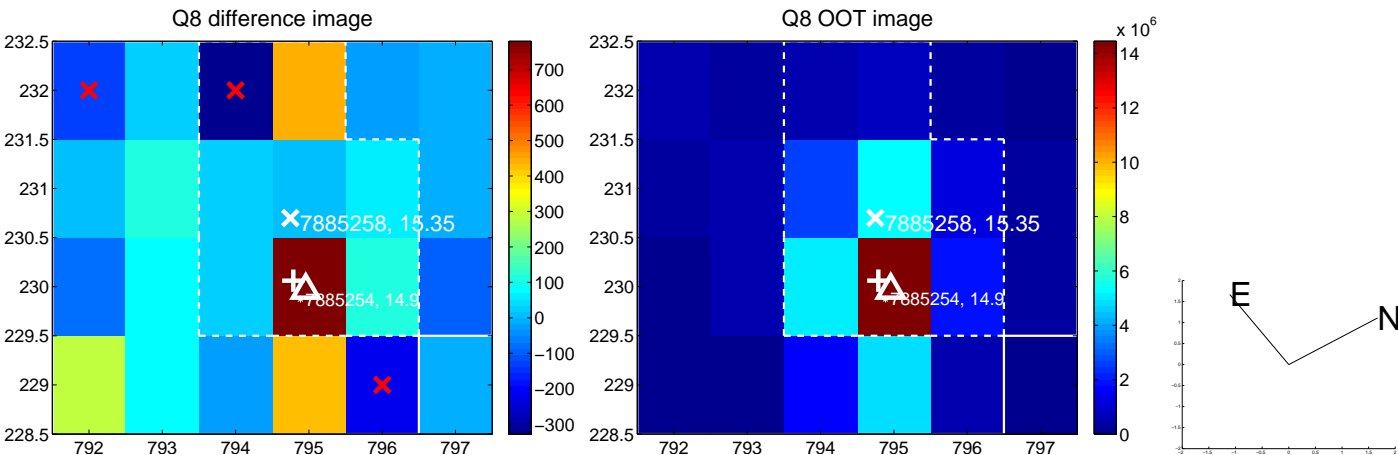
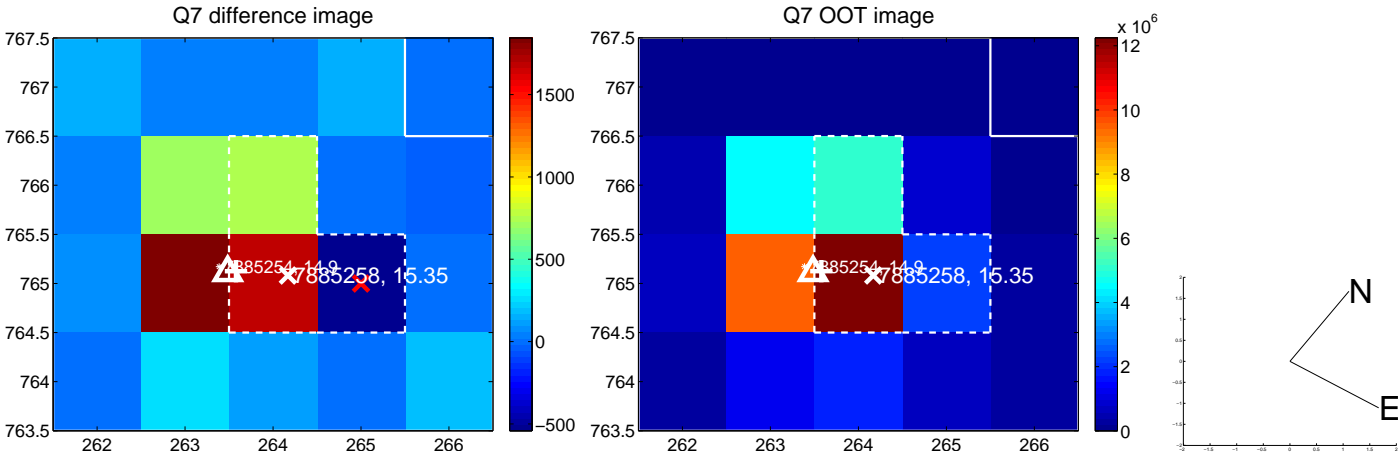
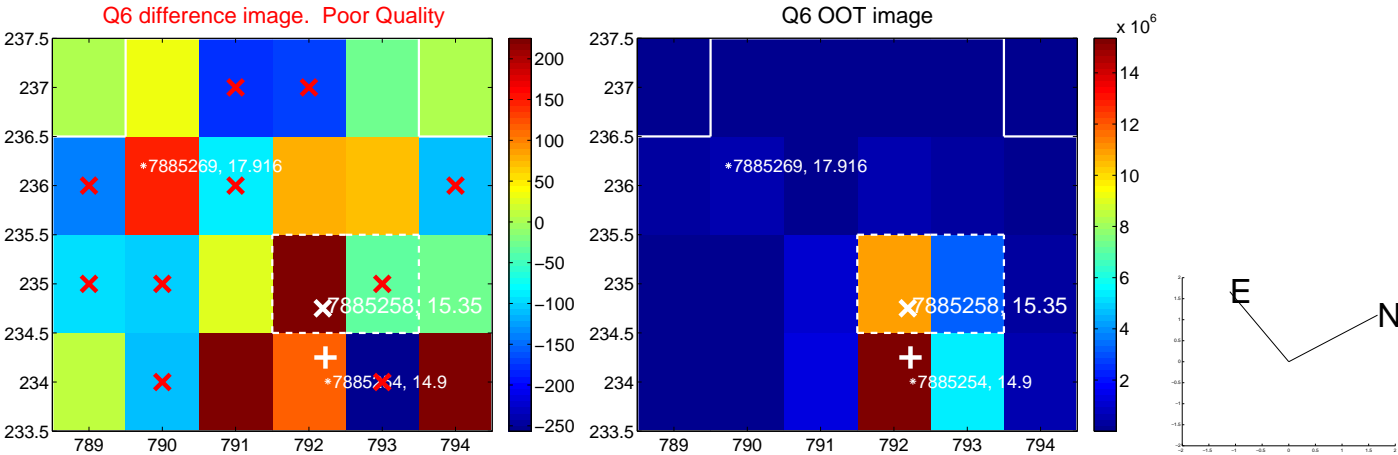
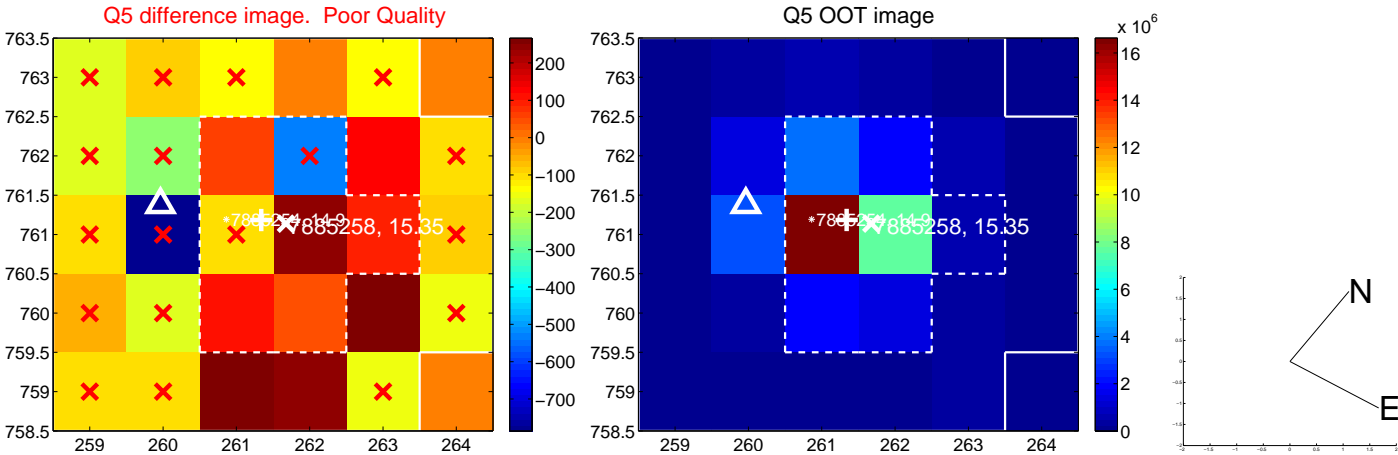


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

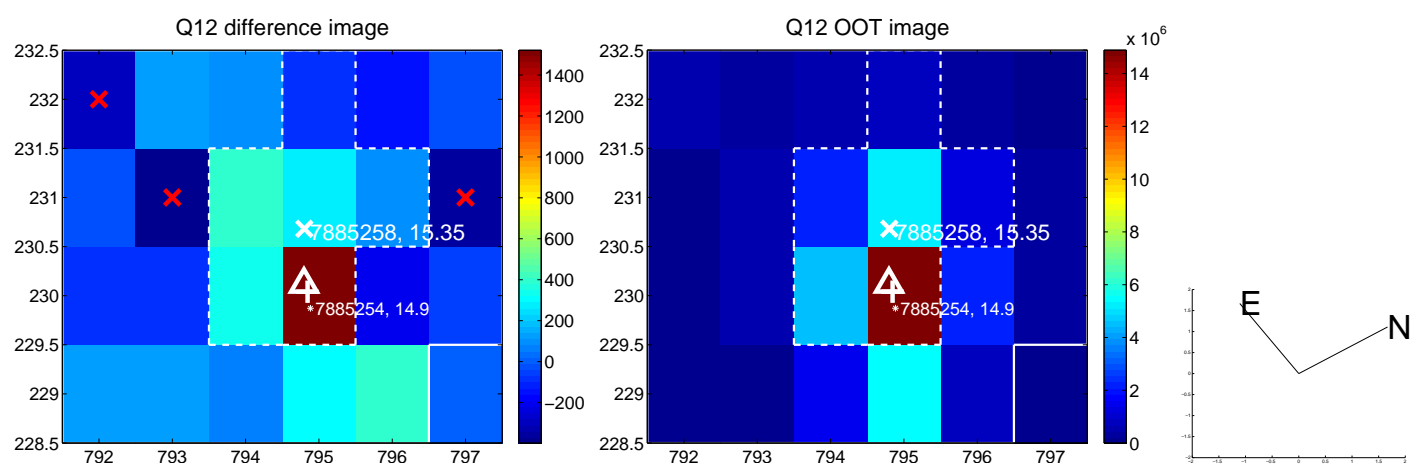
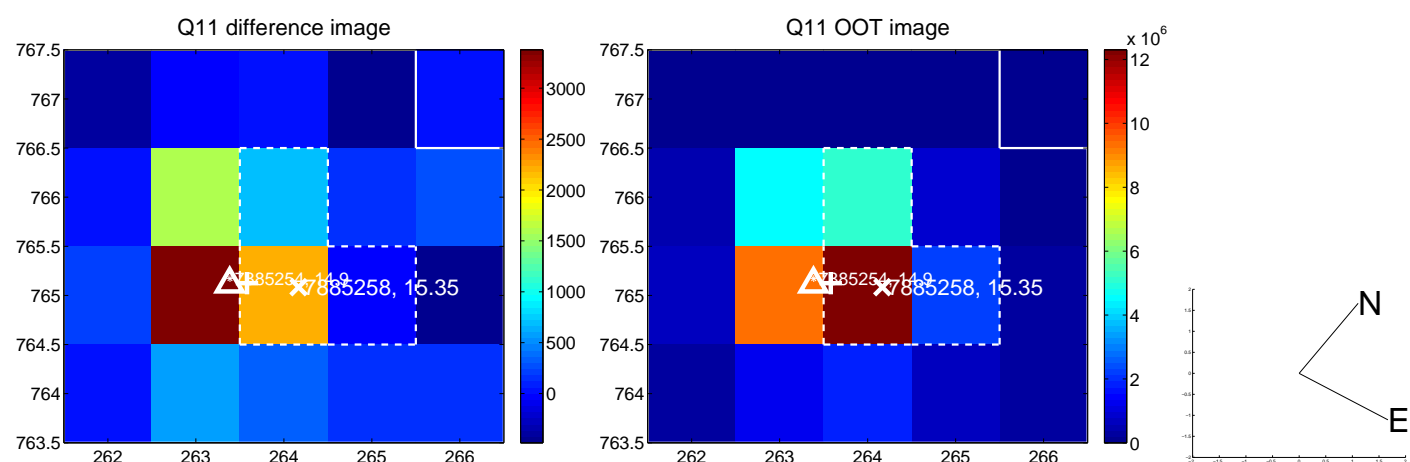
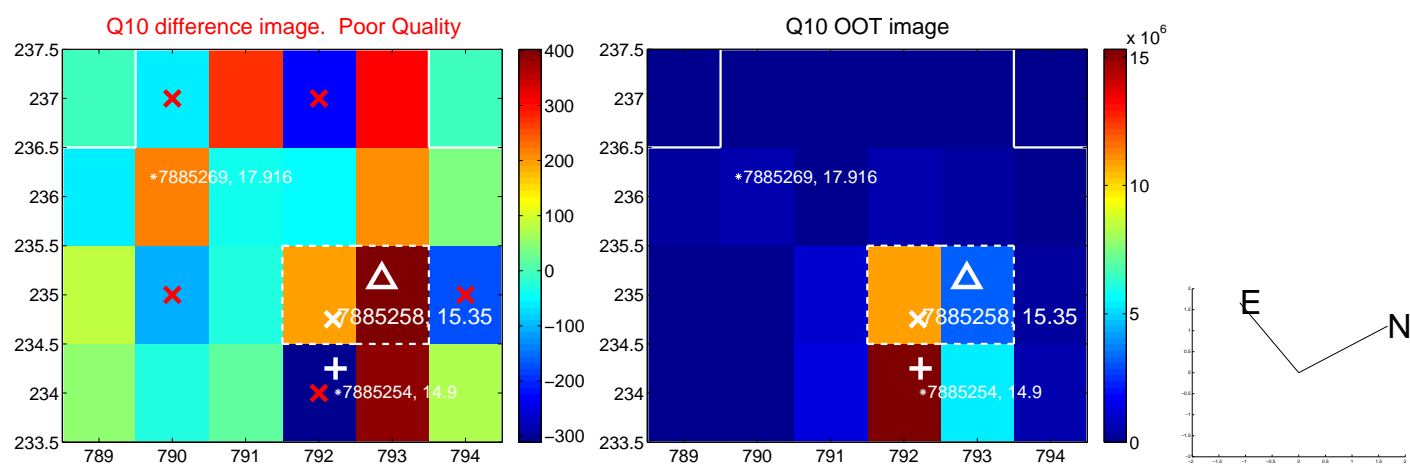
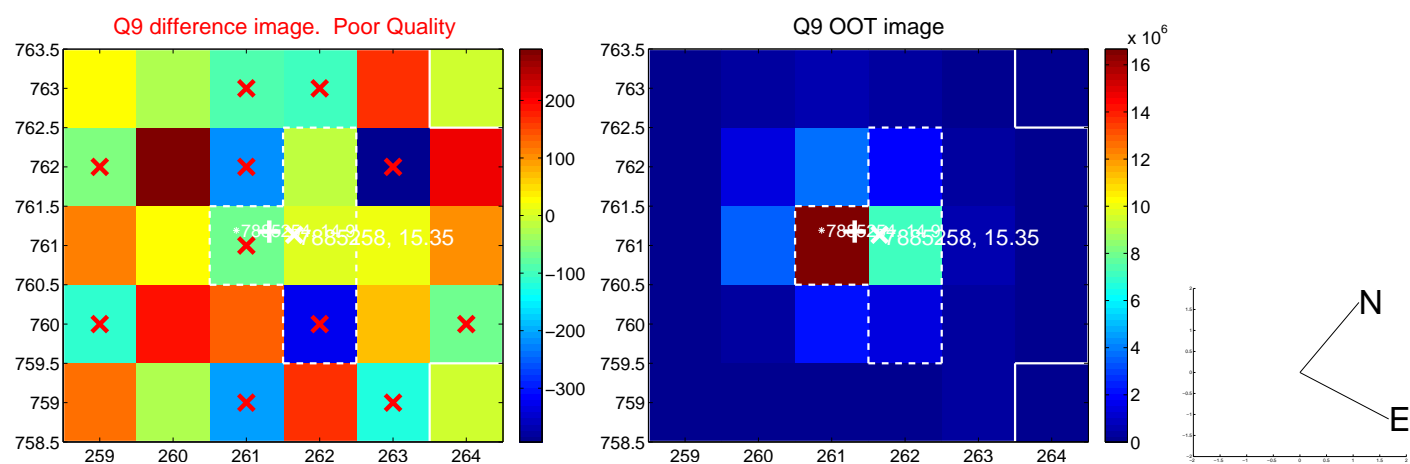
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



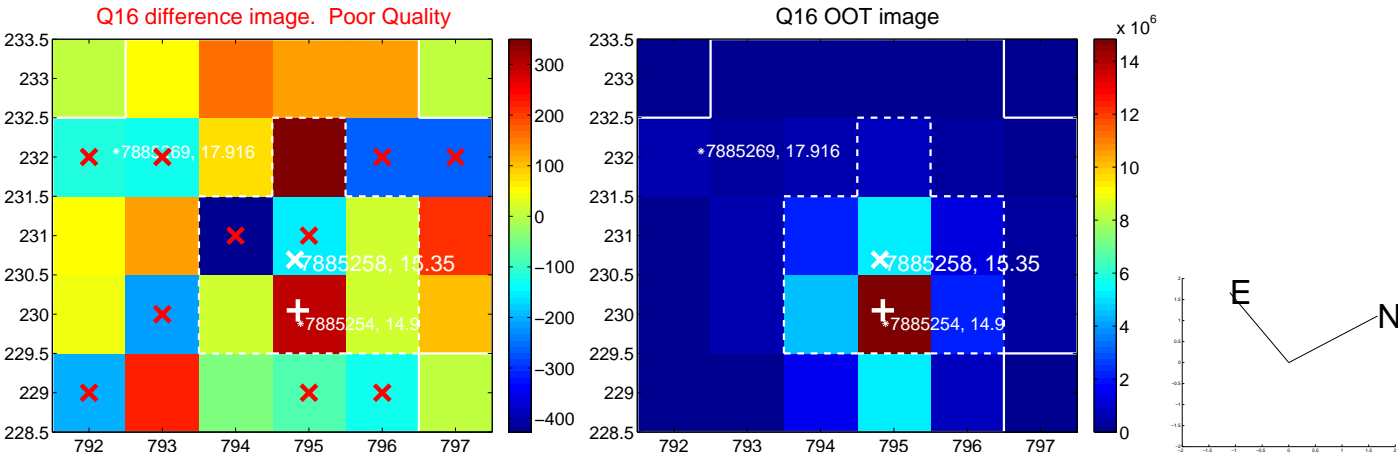
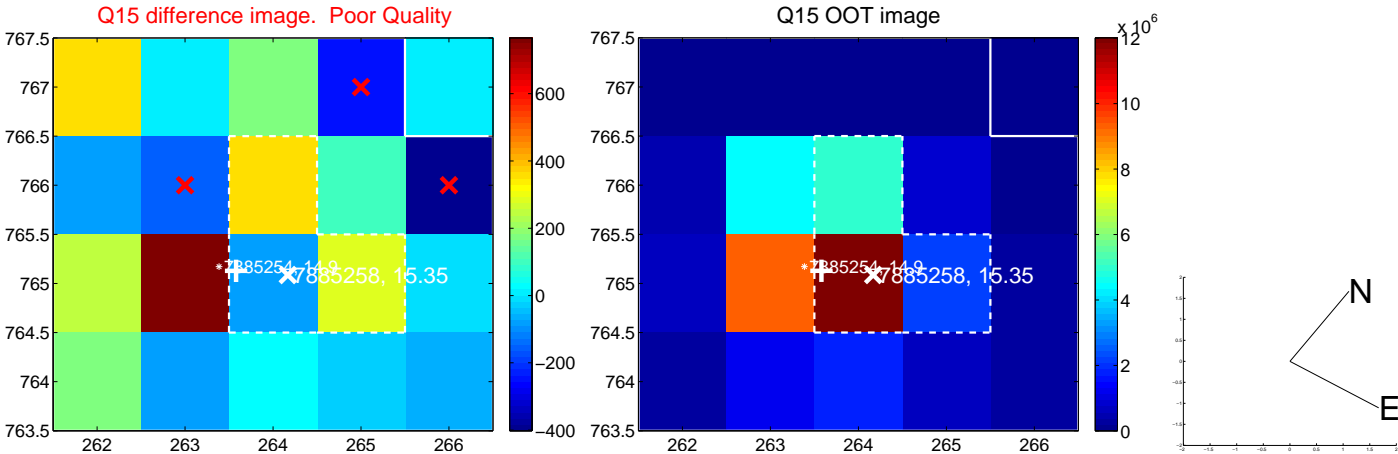
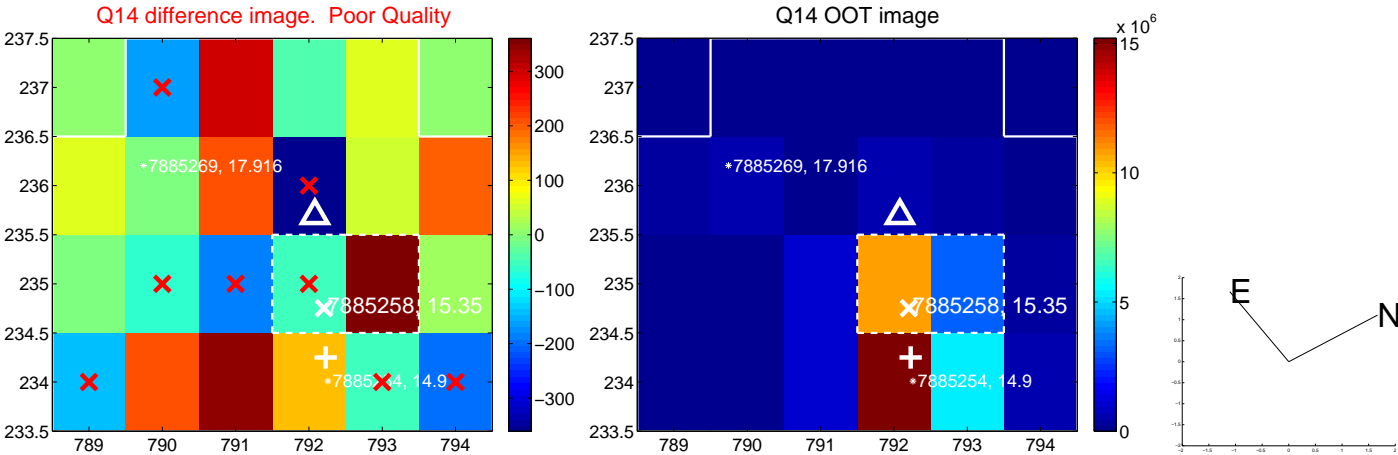
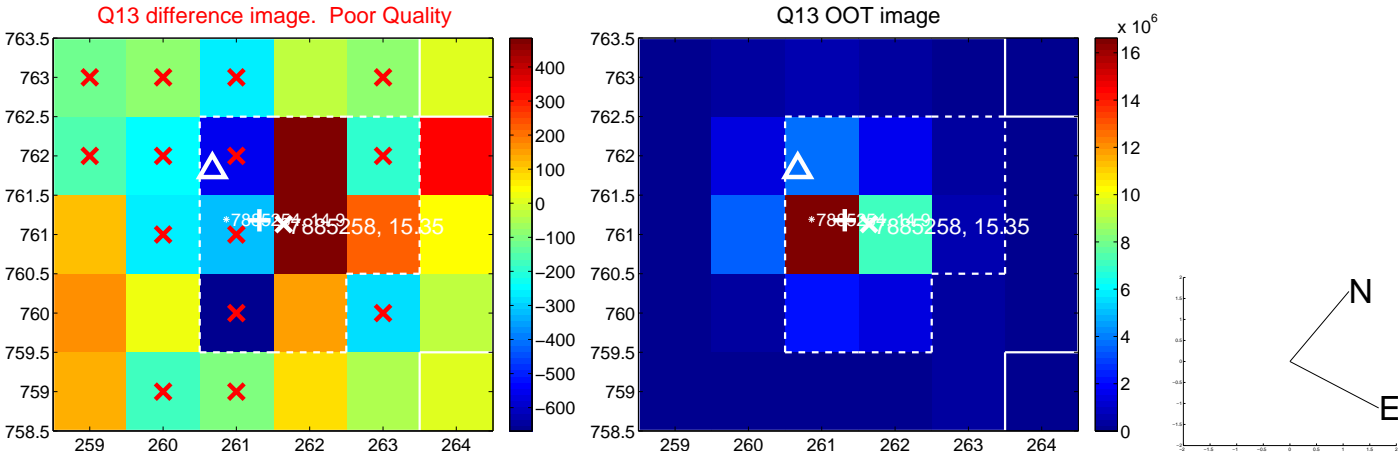
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



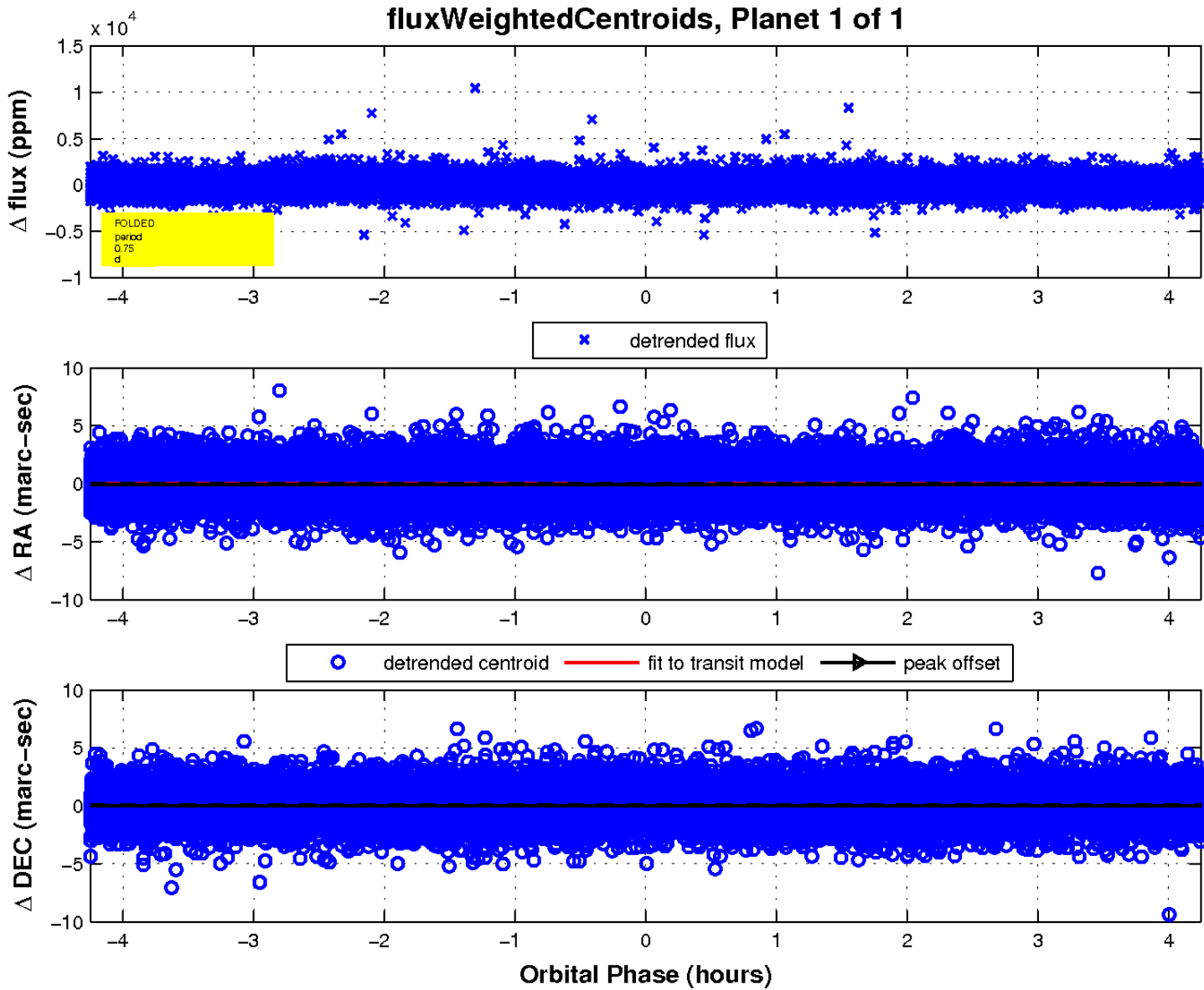
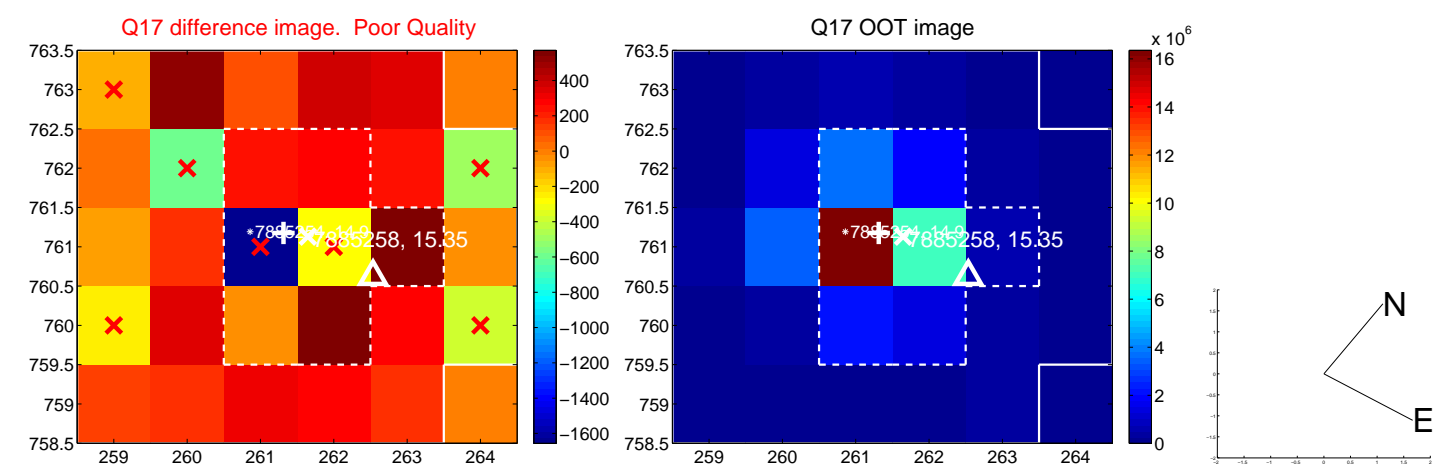
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

