

KIC 008143783

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})
008143783-01	OBS	No	0.739403	131.989275	0.4	7.644	12.8	0.0	0.77	5846	0.05	2684.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008143783-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

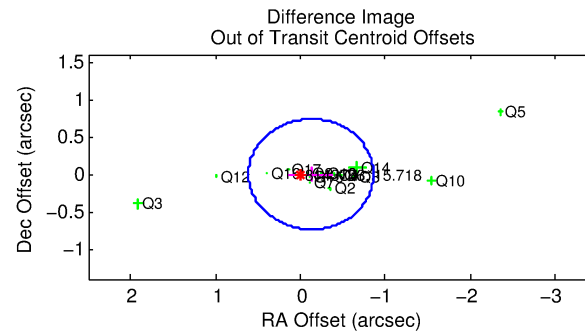
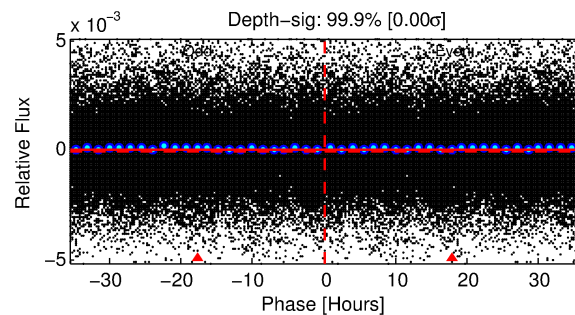
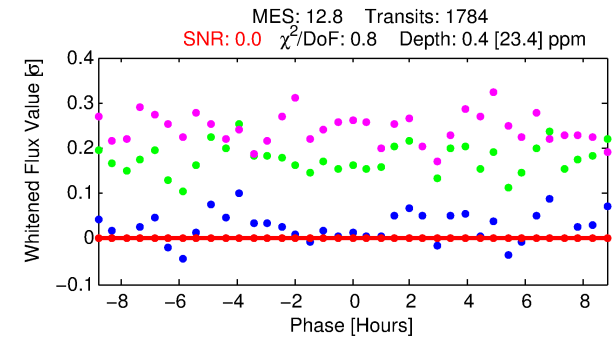
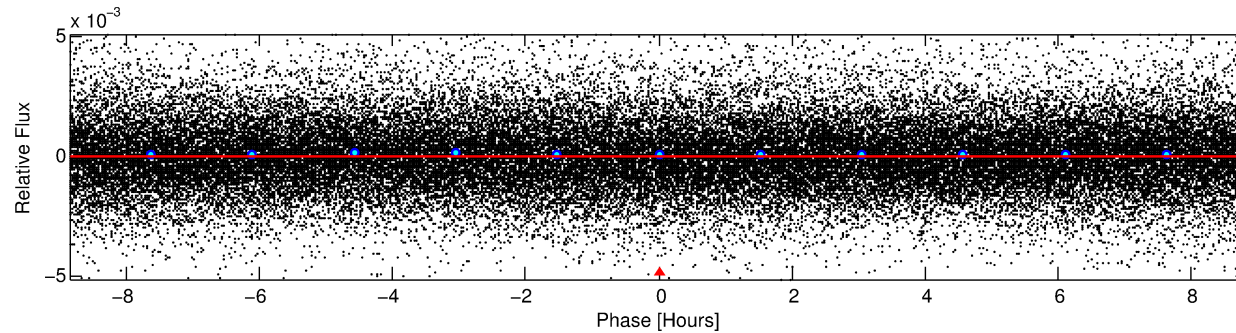
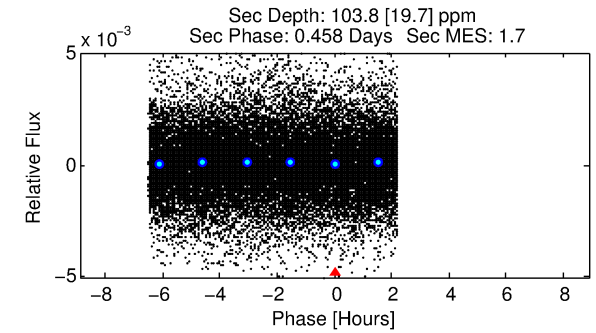
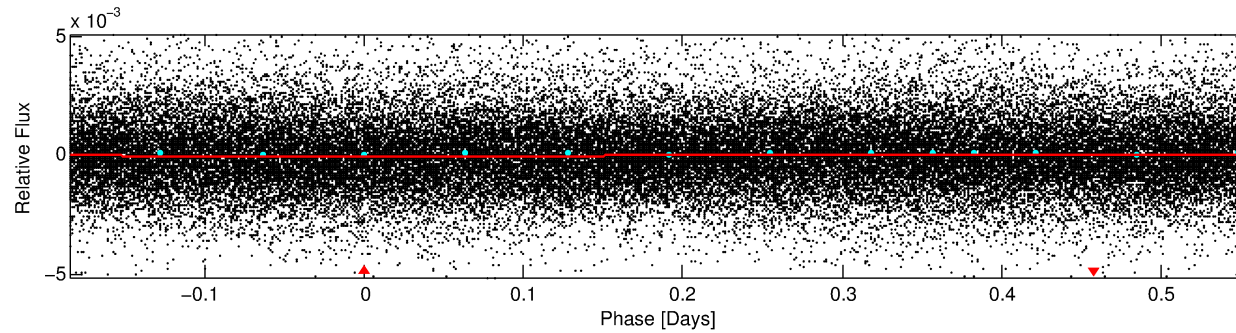
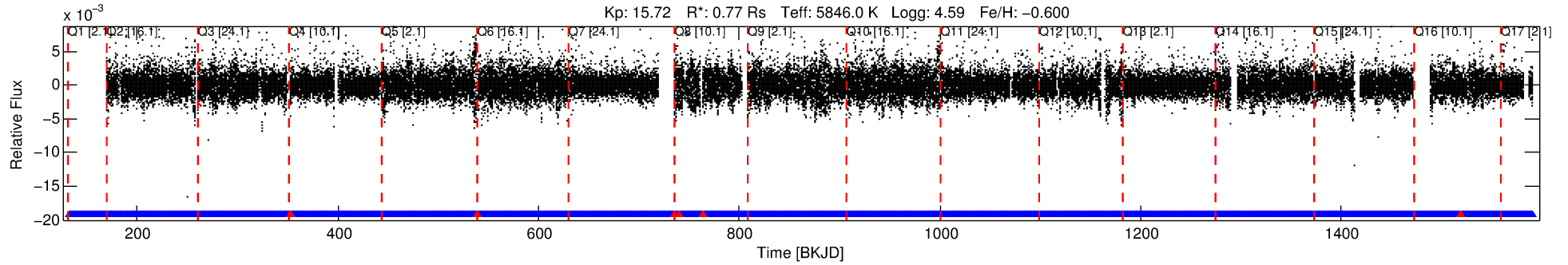
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008143783-01

No Significant Match Found

DV One-Page Summary

KIC: 8143783 Candidate: 1 of 1 Period: 0.739 d



DV Fit Results:

Period = 0.73940 [0.00533] d
Epoch = 131.9893 [1.3197] BKJD
Rp/R* = 0.0006 [0.0751]
a/R* = 1.01 [10.54]
b = 0.82 [257.75]
Seff = 2684.91 [878.33]
Teff = 1836 [150] K
Rp = 0.05 [6.27] Re
a = 0.0151 [0.0032] AU
Ag = 4449.41 [1031480.52] [0.00σ]
Teffp = 23178 [1343315] K [0.02σ]

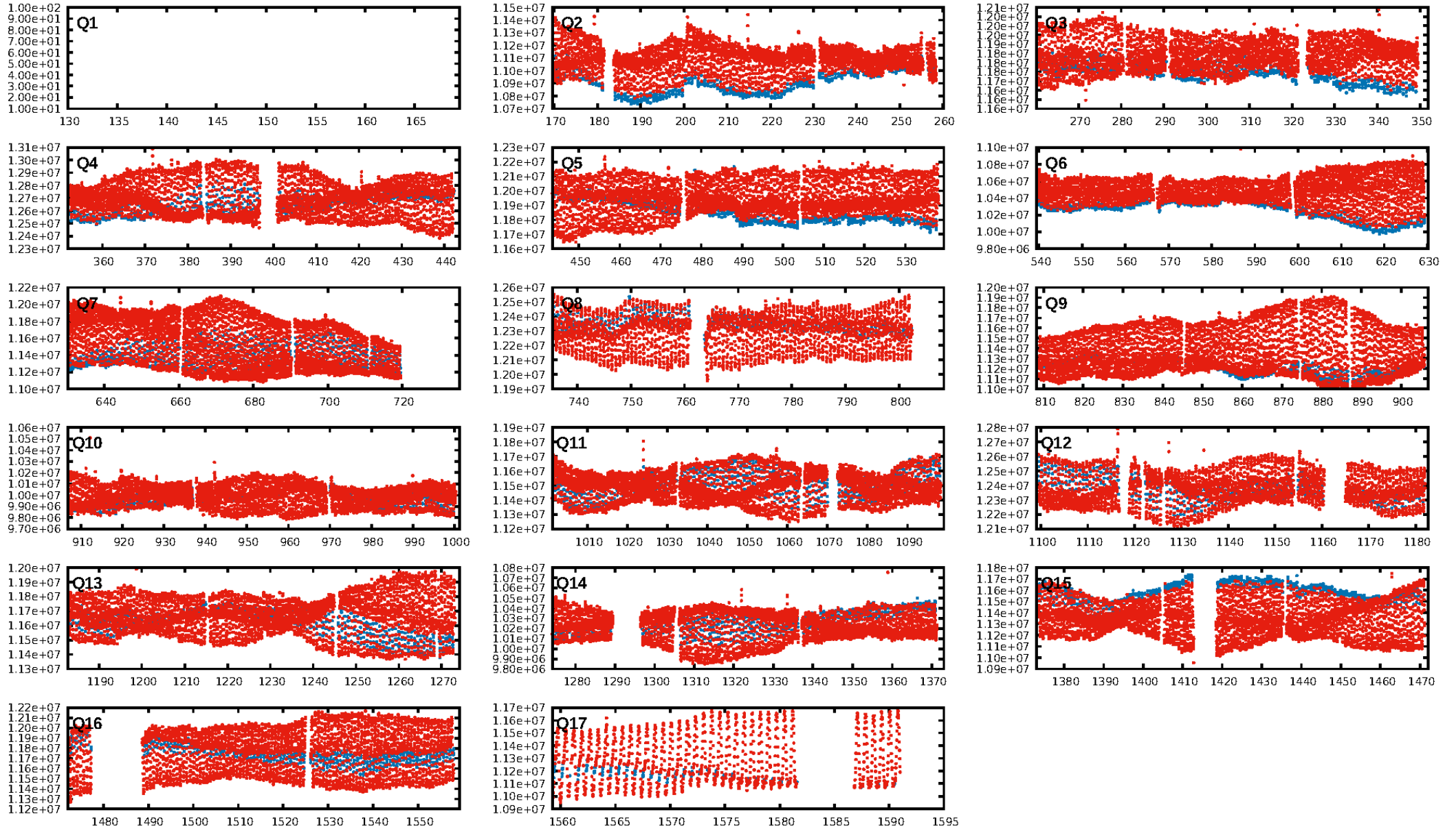
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1742/1748]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.127 arcsec [0.52σ]
KicOffset-rm: 0.162 arcsec [0.85σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.20 [3/15]
DiffImageOverlap-fno: 1.00 [16/16]

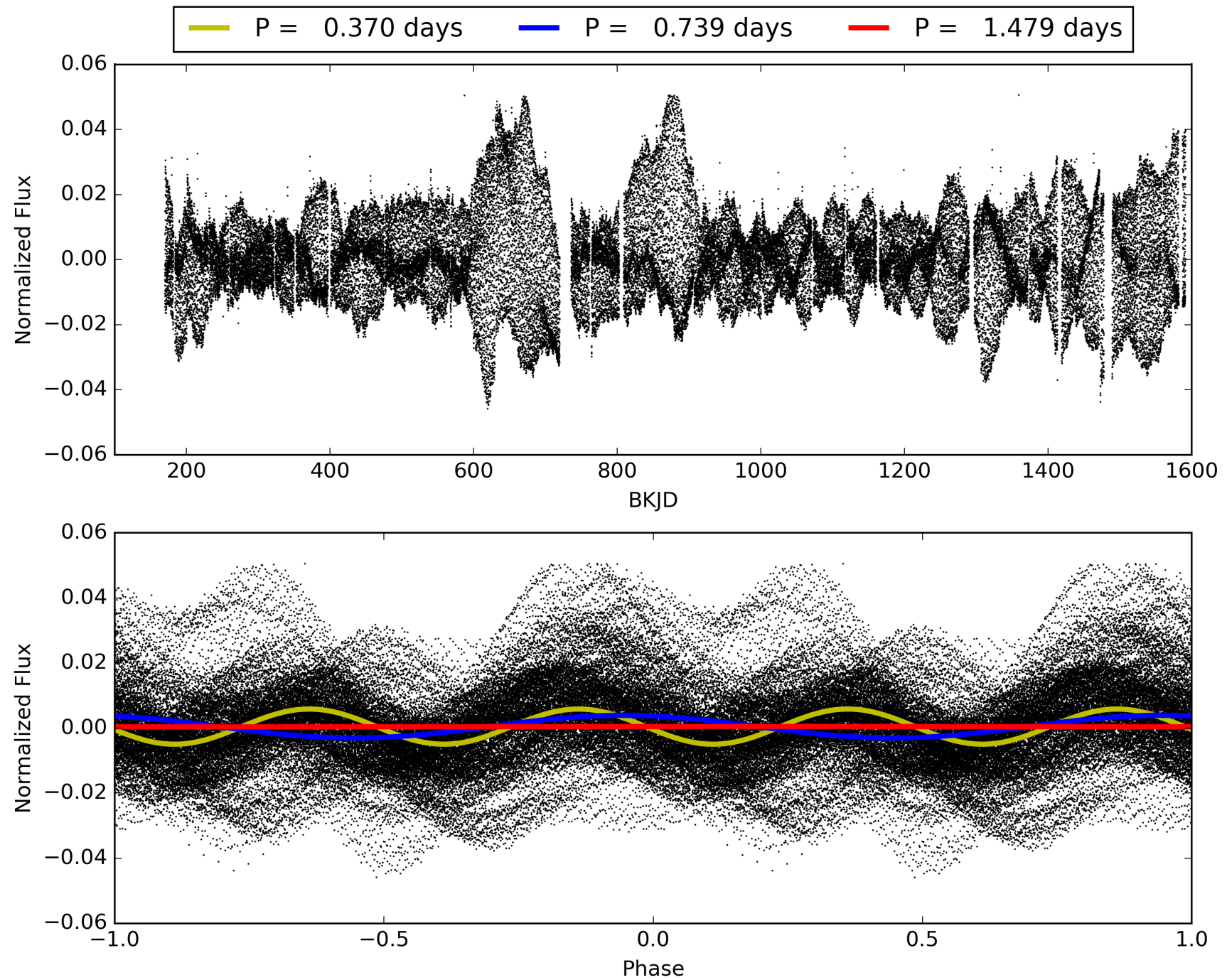
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 03:36:39 Z

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

TCE 008143783-01, PDC Light Curves

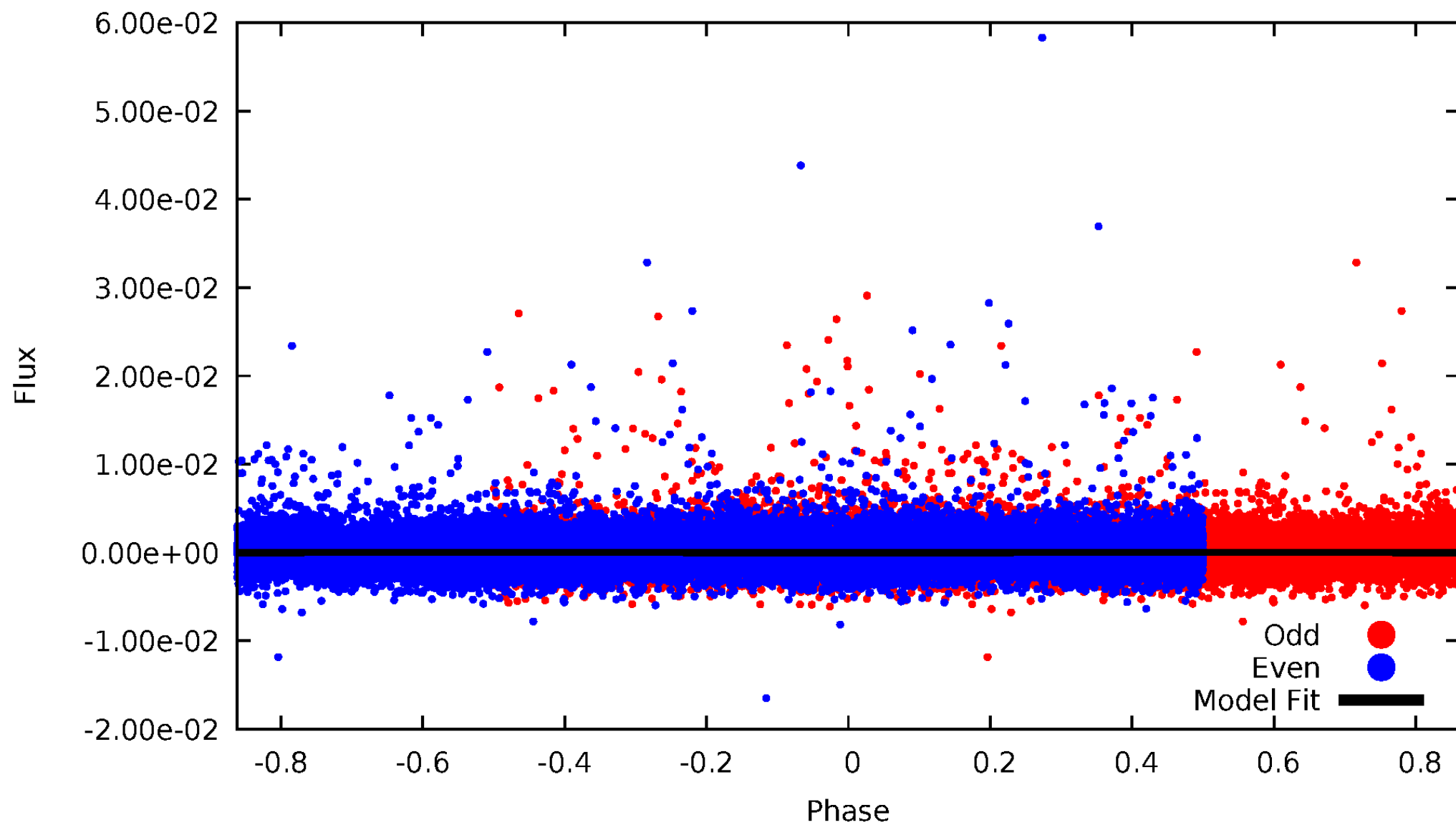


TCE 008143783-01



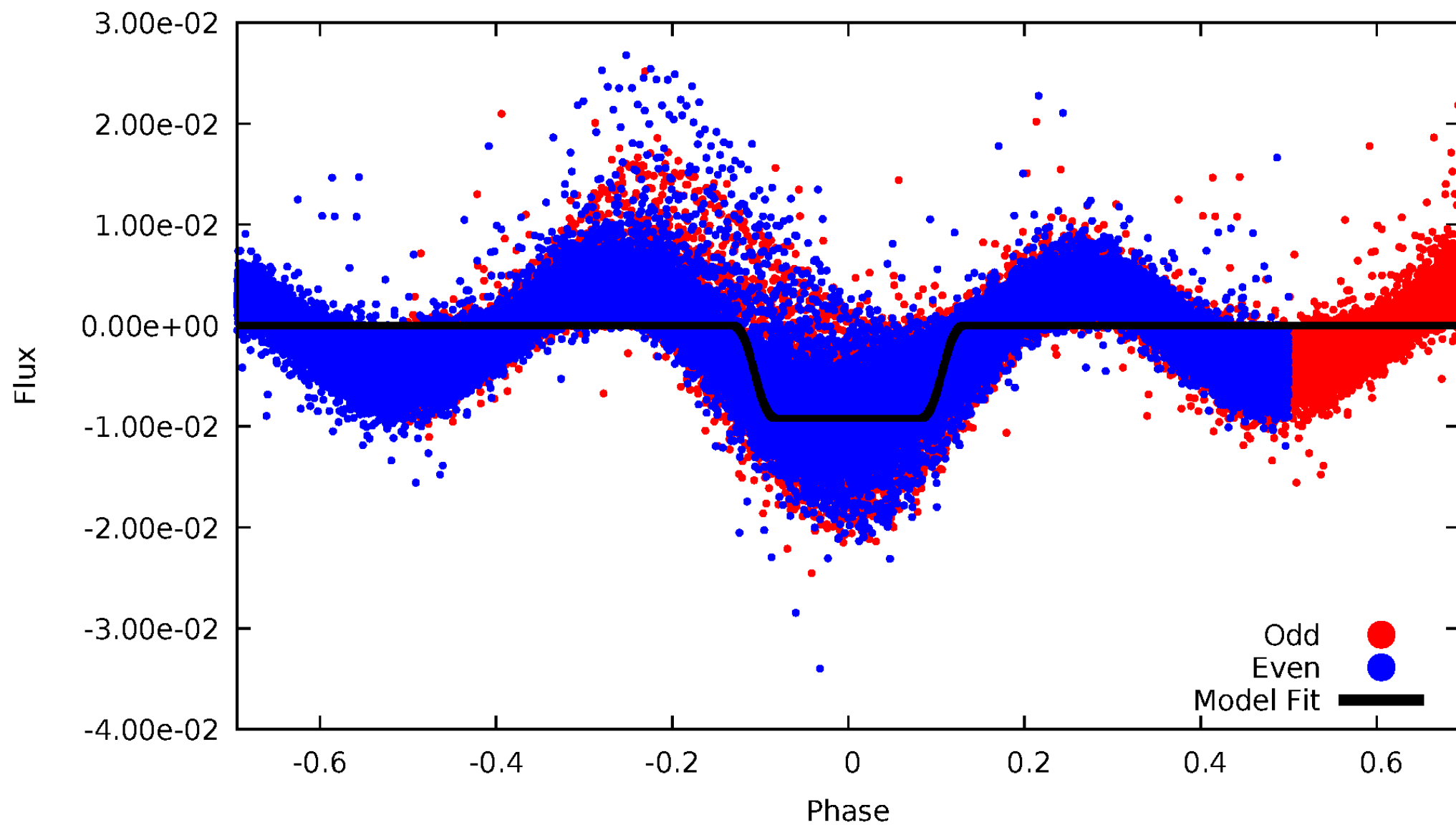
DV Odd/Even

TCE 008143783-01



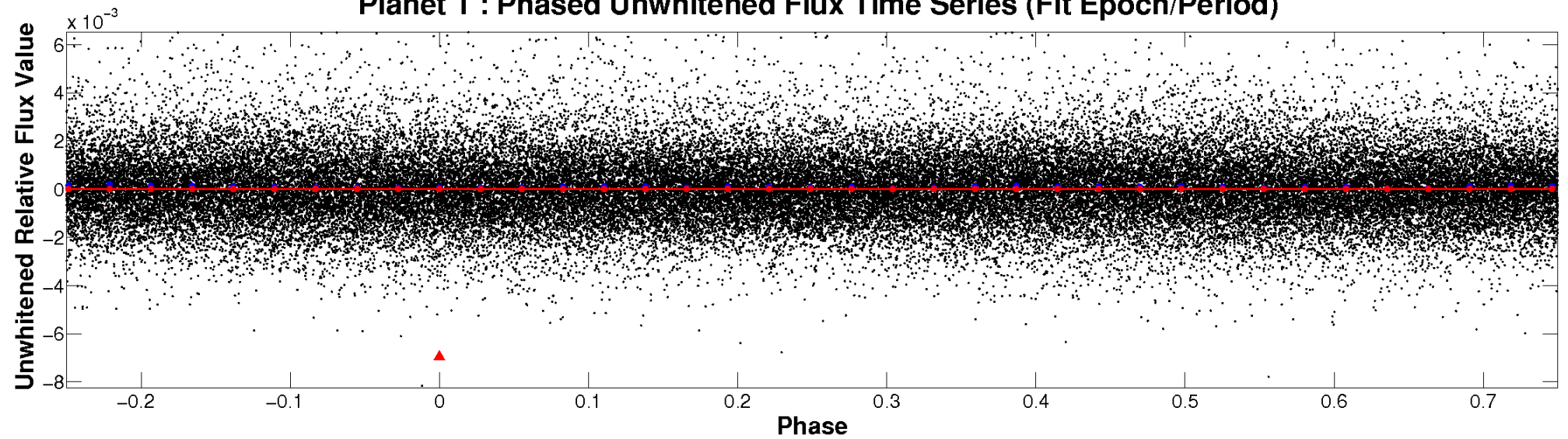
ALT Odd/Even

TCE 008143783-01

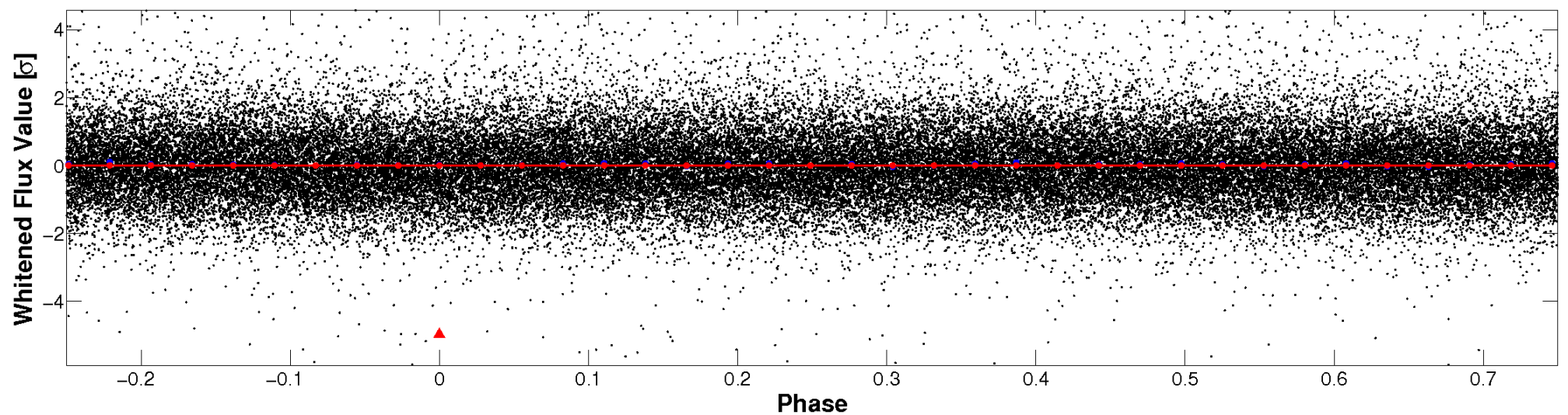


Non-Whitened Vs. Whitened Light Curve

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

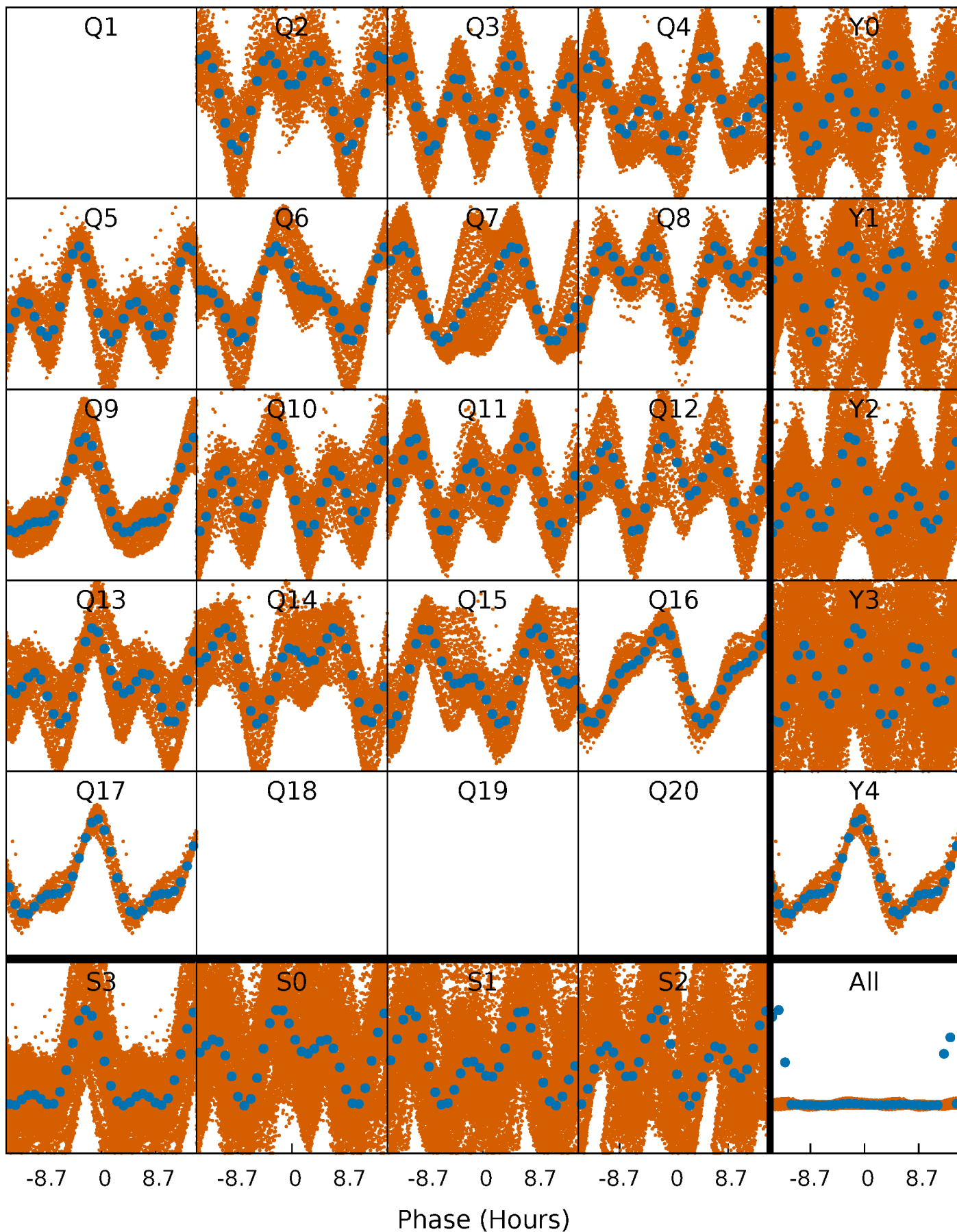


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



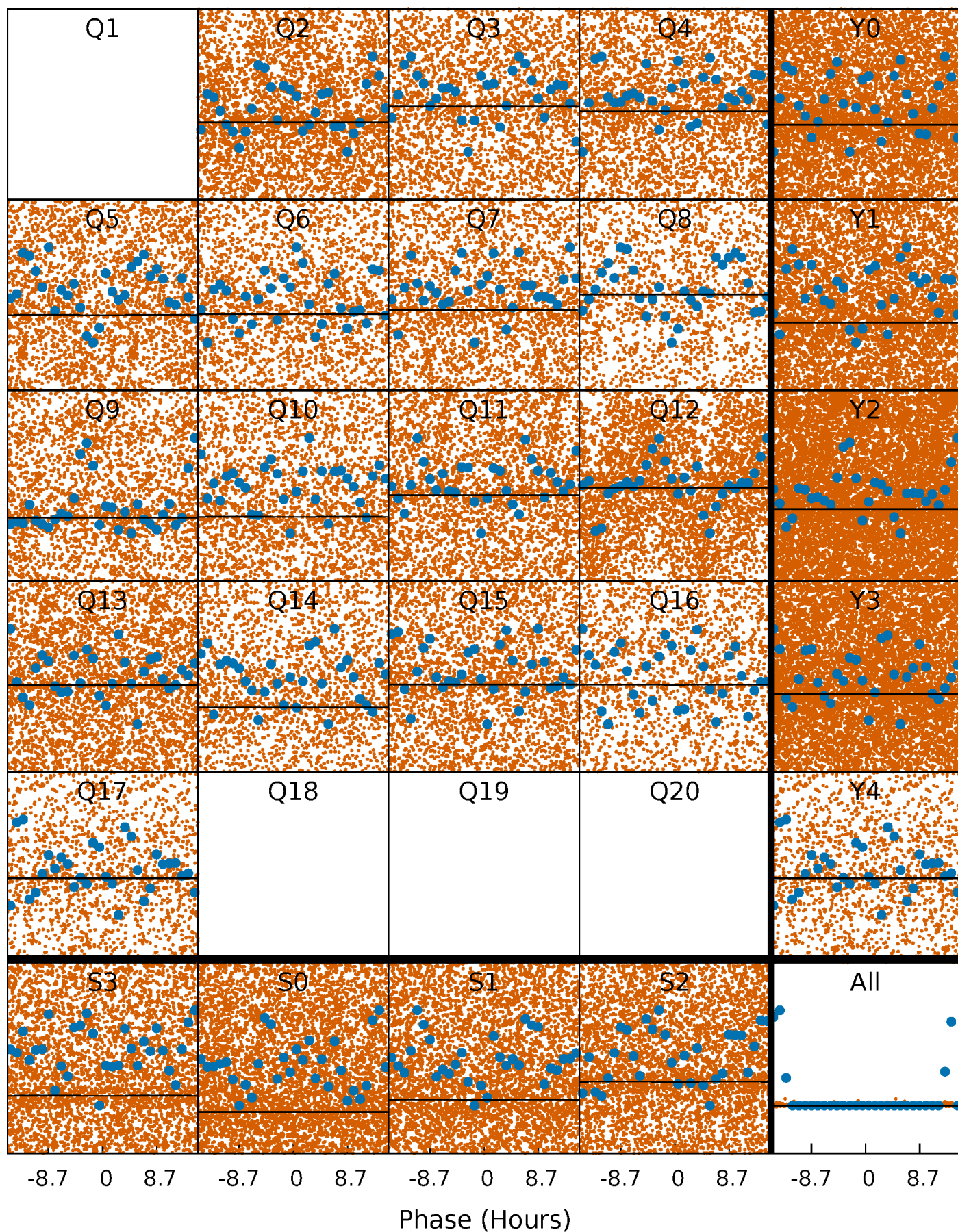
PDC Quarter-Phased Transit Curves

TCE 008143783-01 P= 0.739403 Days $T_0=131.989275$ (BKJD)



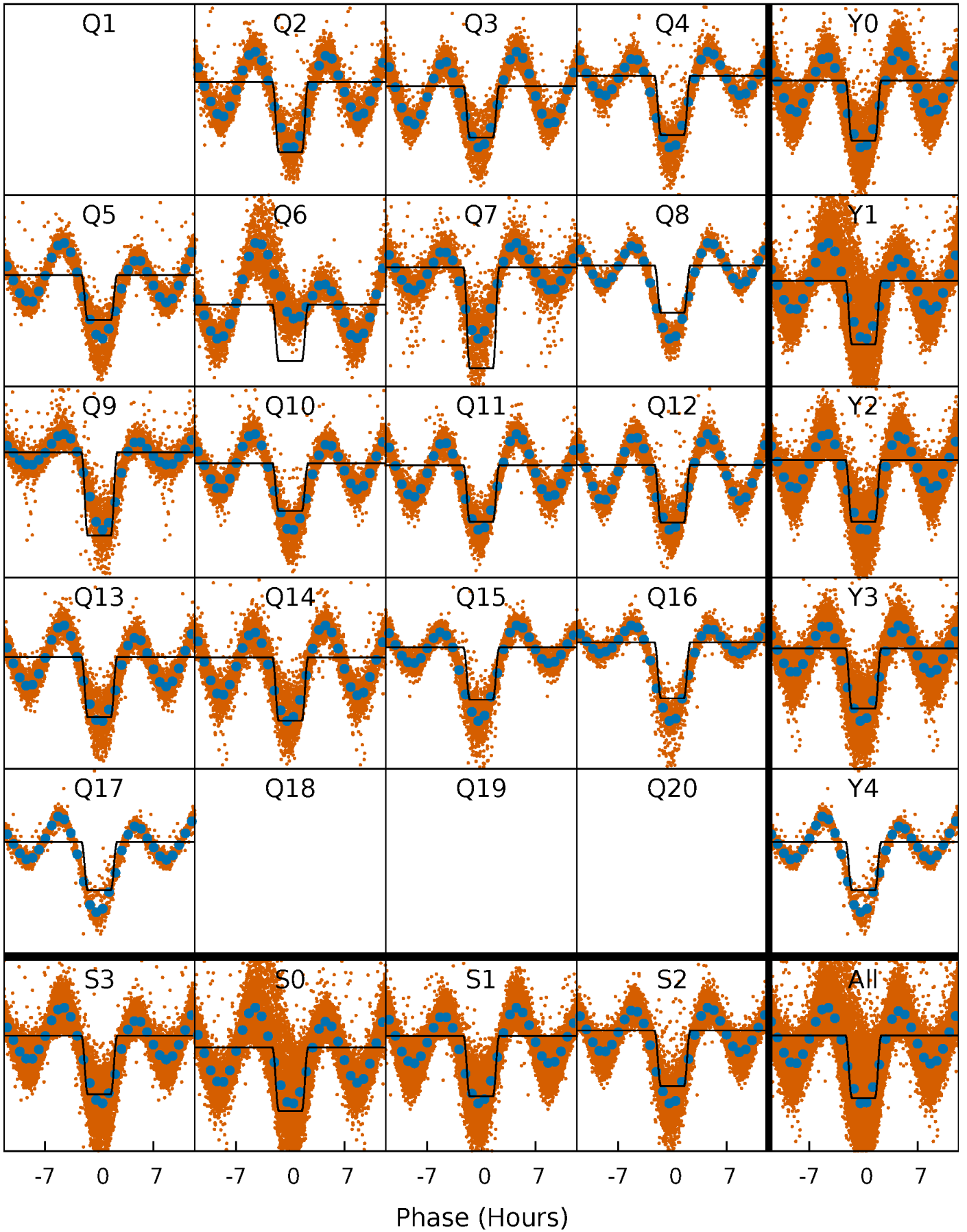
DV Quarter-Phased Transit Curves

TCE 008143783-01 P= 0.739403 Days $T_0=131.989275$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

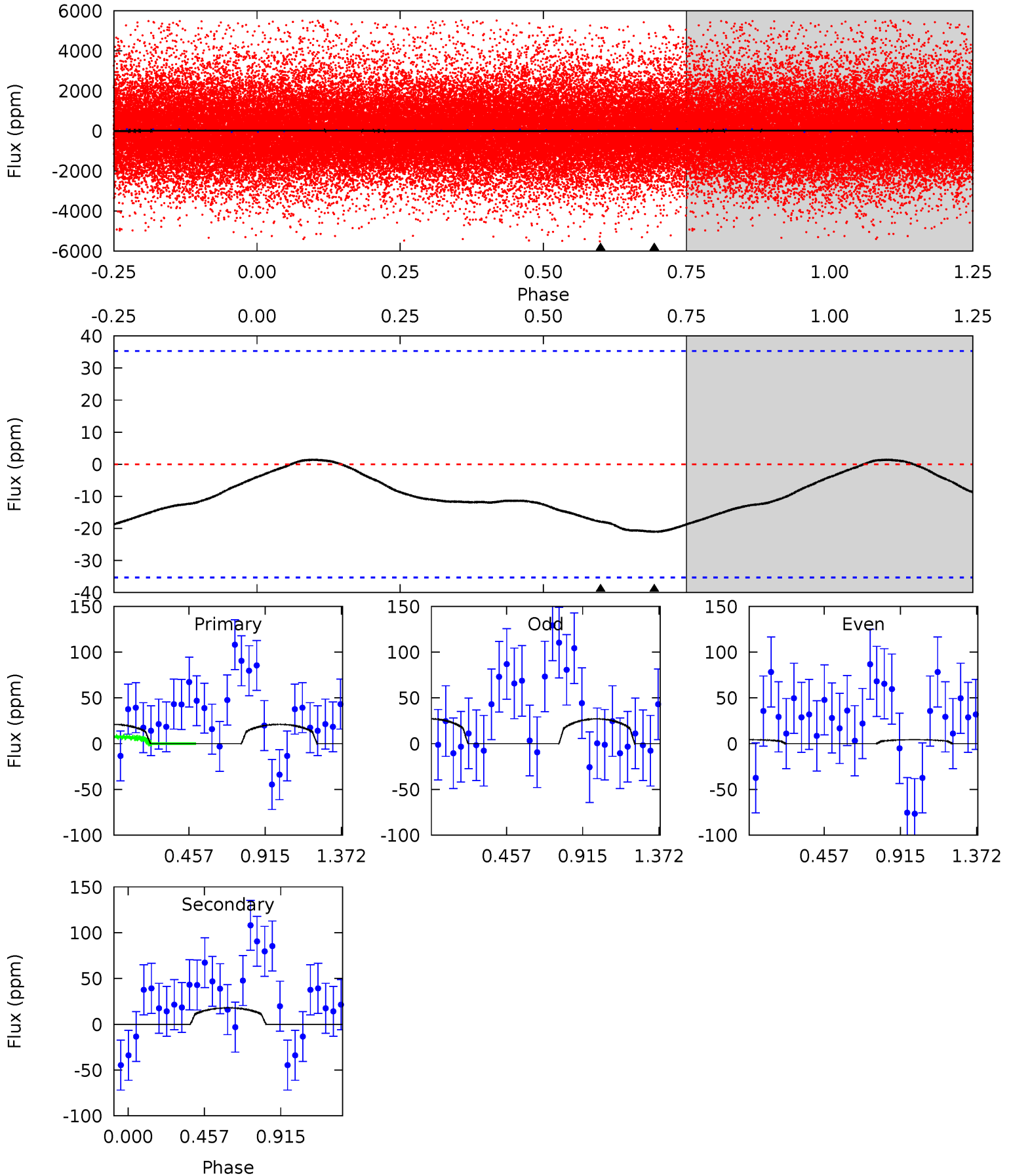
TCE 008143783-01 P= 0.739496 Days $T_0=131.980295$ (BKJD)



DV Model-Shift Uniqueness Test

008143783-01, P = 0.739403 Days, E = 131.989275 Days

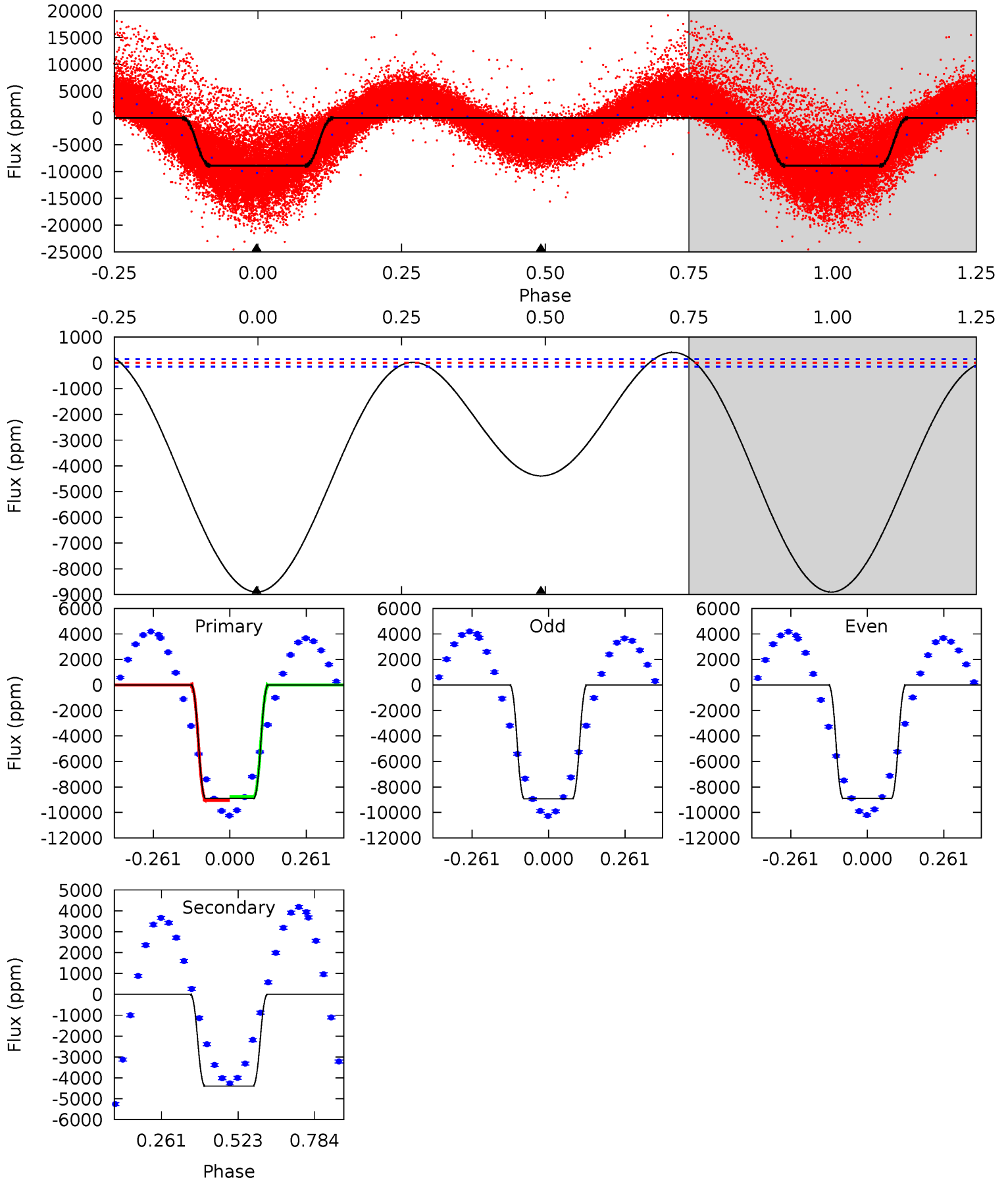
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.53	2.15	0	0	4.23	0.74	0.21	2.53	2.53	2.15	2.15	1.37	2.21	0.06	0



Alt Model-Shift Uniqueness Test

008143783-01, P = 0.739496 Days, E = 131.980295 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
263.3	129.9	0	0	4.36	1.12	7.99	263.3	263.3	129.9	129.9	0.51	0.98	0.04	4.76



Stellar Parameters For KIC 008143783

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5846^{+159}_{-159}	$4.595^{+0.042}_{-0.168}$	$-0.600^{+0.300}_{-0.300}$	$0.765^{+0.194}_{-0.061}$	$0.842^{+0.079}_{-0.088}$	$2.648^{+0.437}_{-1.213}$
	+3%/-3%	+1%/-4%	+50%/-50%	+25%/-8%	+9%/-10%	+17%/-46%
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 008143783-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-18 ± 8	$4.46^{+5.27}_{-3.03}$	2607^{+162}_{-100}	-2689^{+5940}_{-171}	$0.102^{+0.931}_{-0.083}$
Alt.	-4391 ± 34	$9.51^{+5.70}_{-5.58}$	2614^{+149}_{-106}	4678^{+2437}_{-817}	$6.165^{+30.112}_{-3.798}$

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 $A_{obs} \gg 1.0$

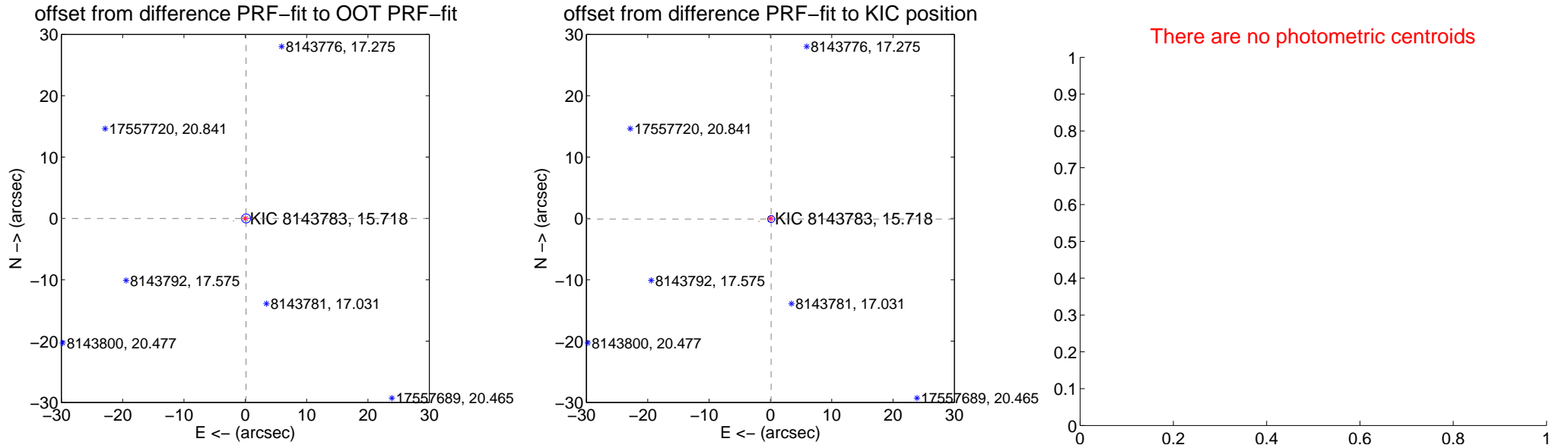
DV Centroid Data

Supplemental centroid analysis for 008143783-01. Kepler magnitude: 15.72. Transit SNR 0.02

There are 3 quarters with good PRF difference image offsets

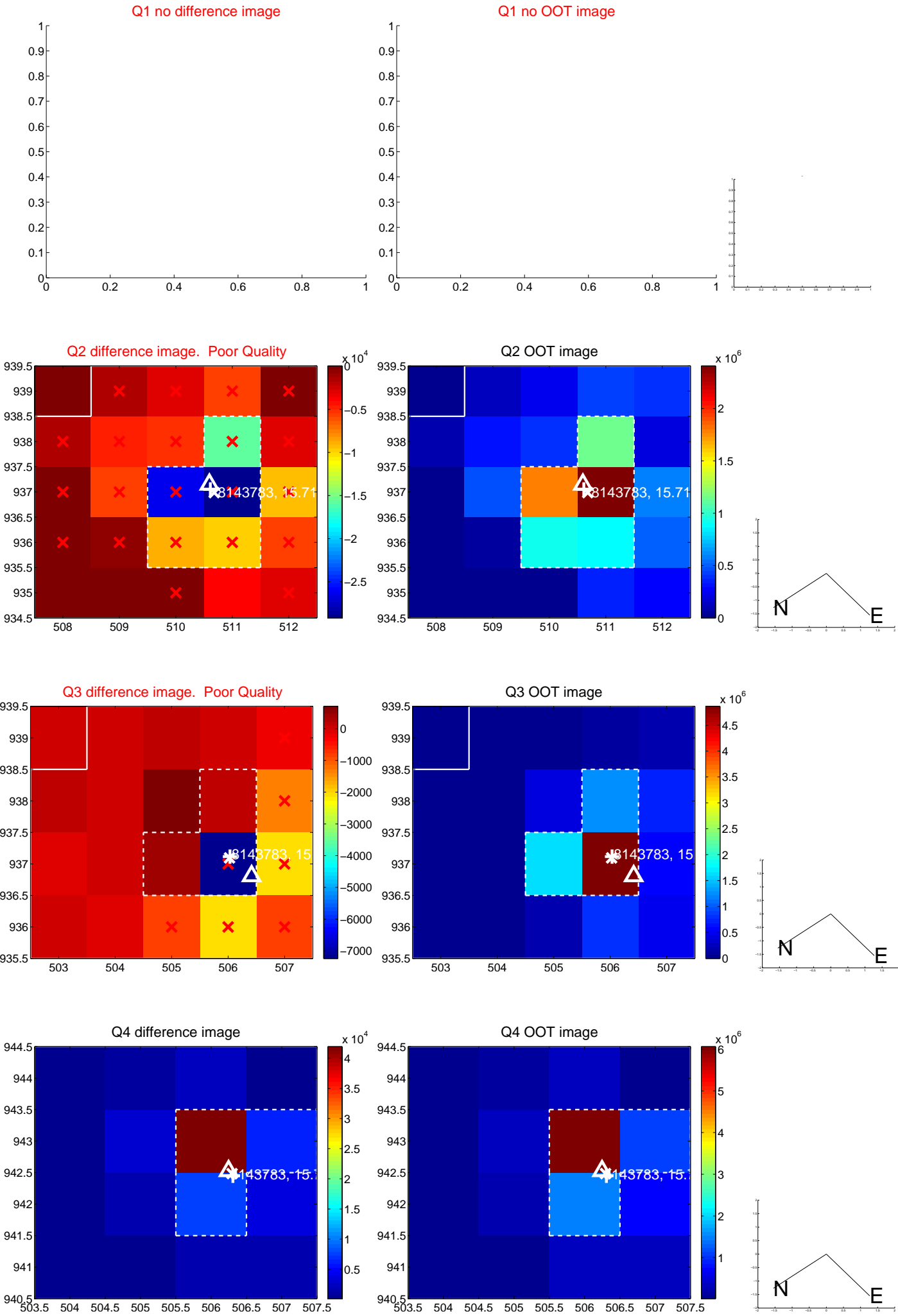
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.127 ± 0.246	0.52	-0.127 ± 0.246	-0.002 ± 0.088
PRF-fit source offset from KIC position	0.162 ± 0.190	0.85	-0.127 ± 0.269	-0.101 ± 0.094
photometric centroid source offset	—	—	—	—

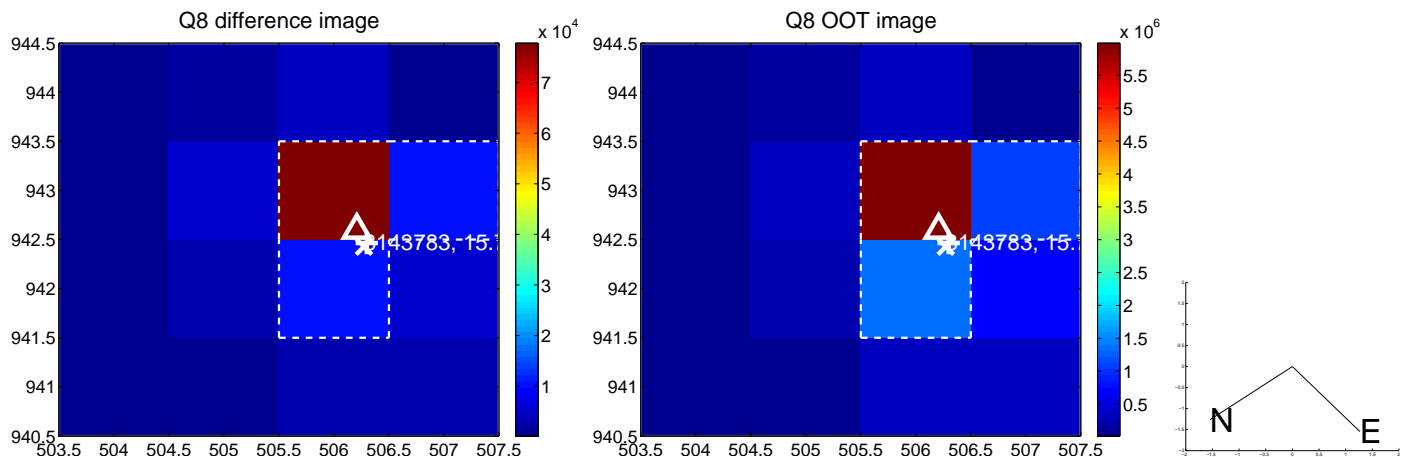
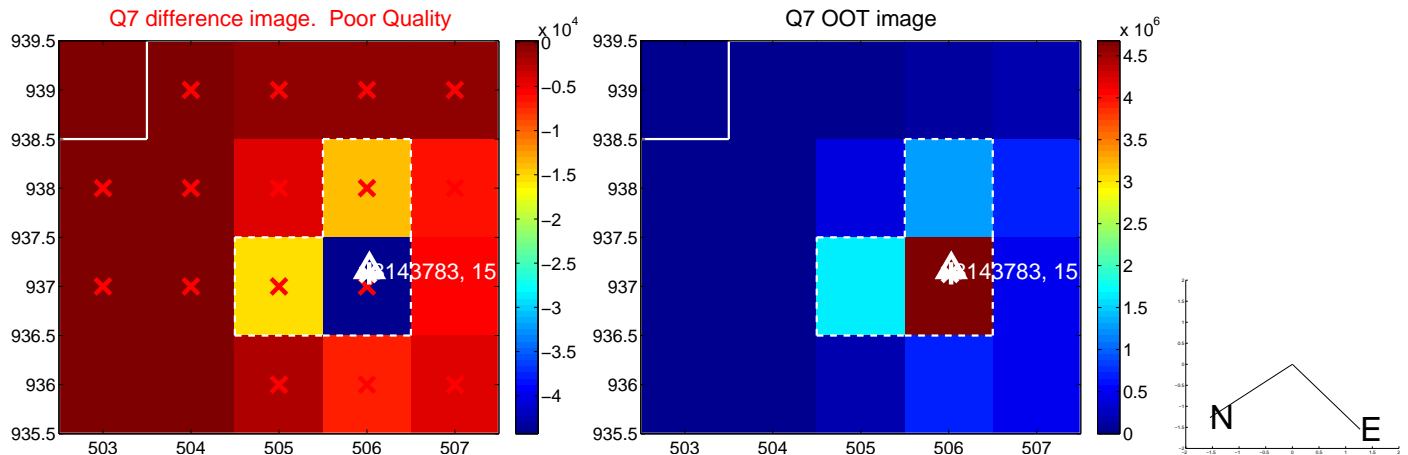
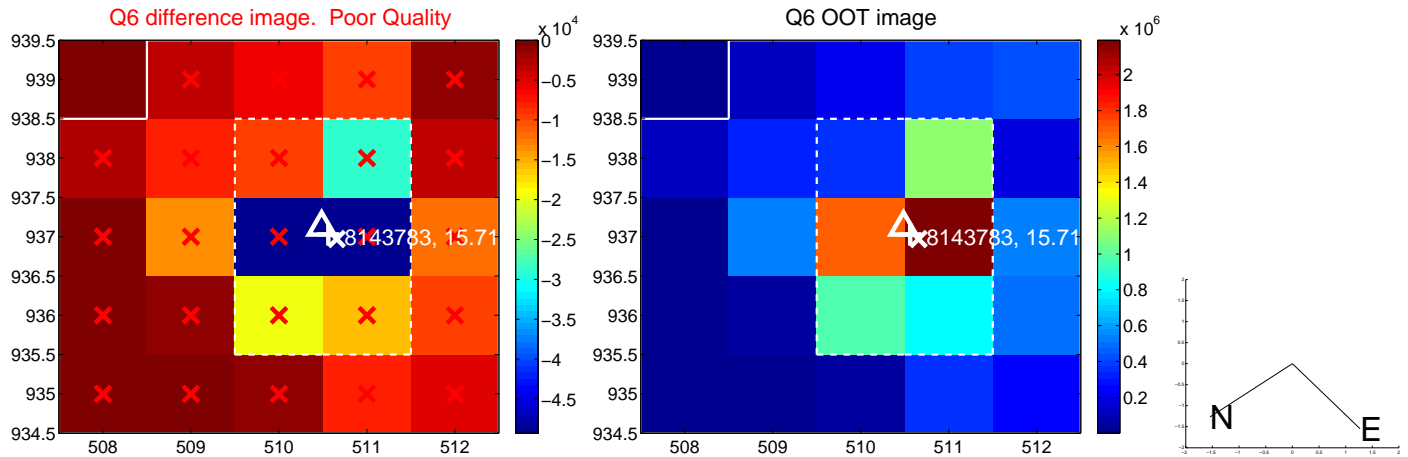
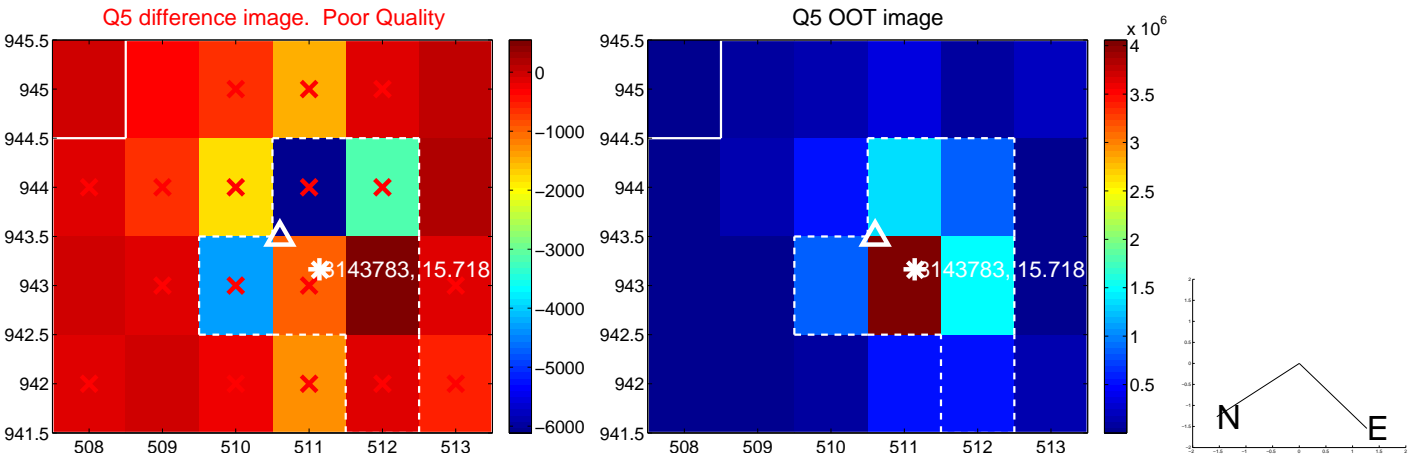


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

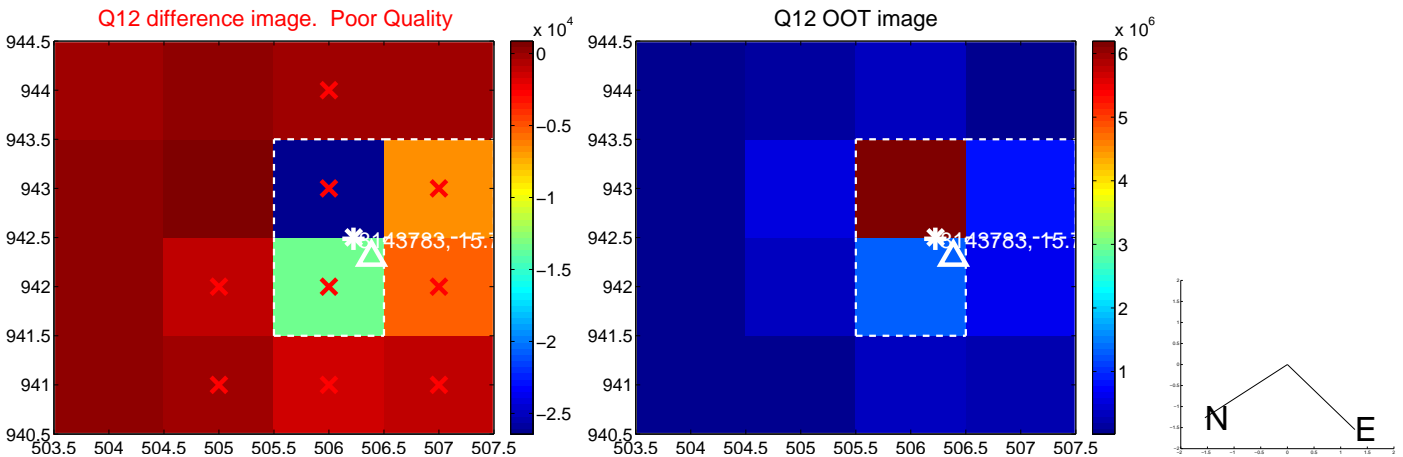
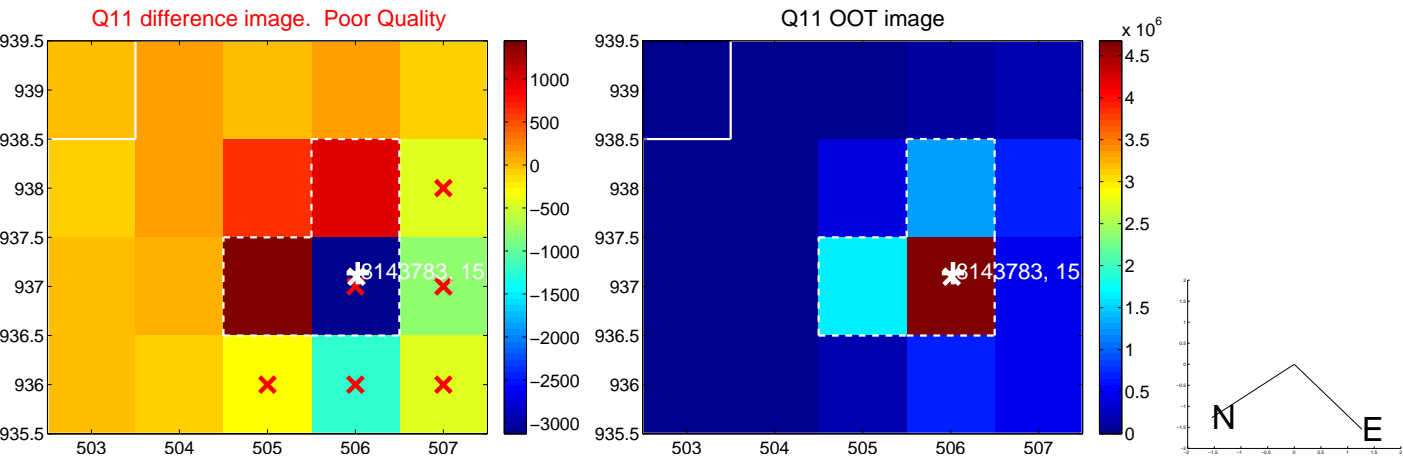
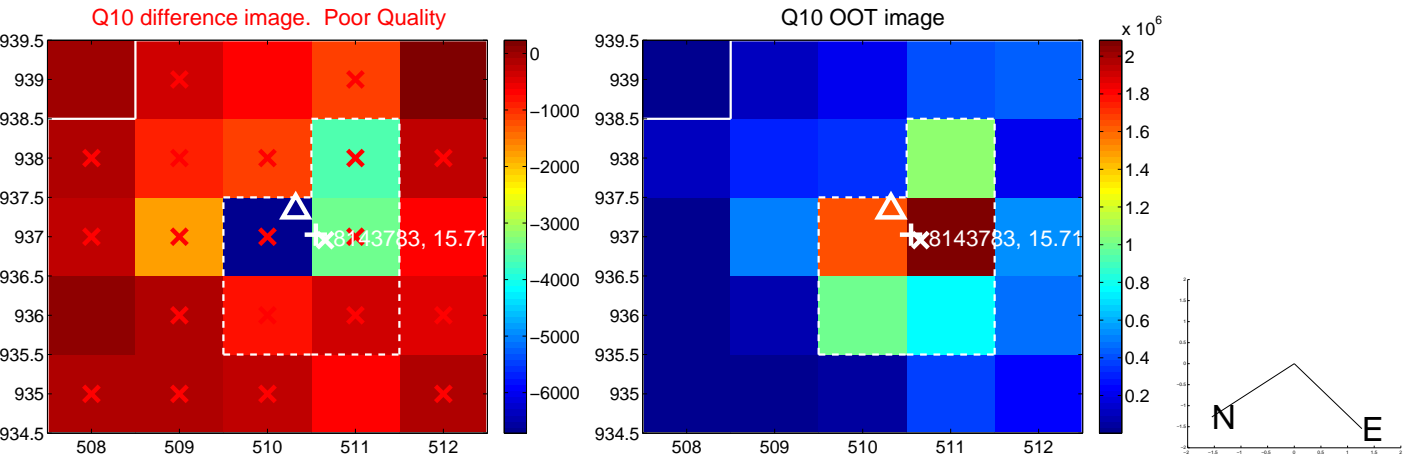
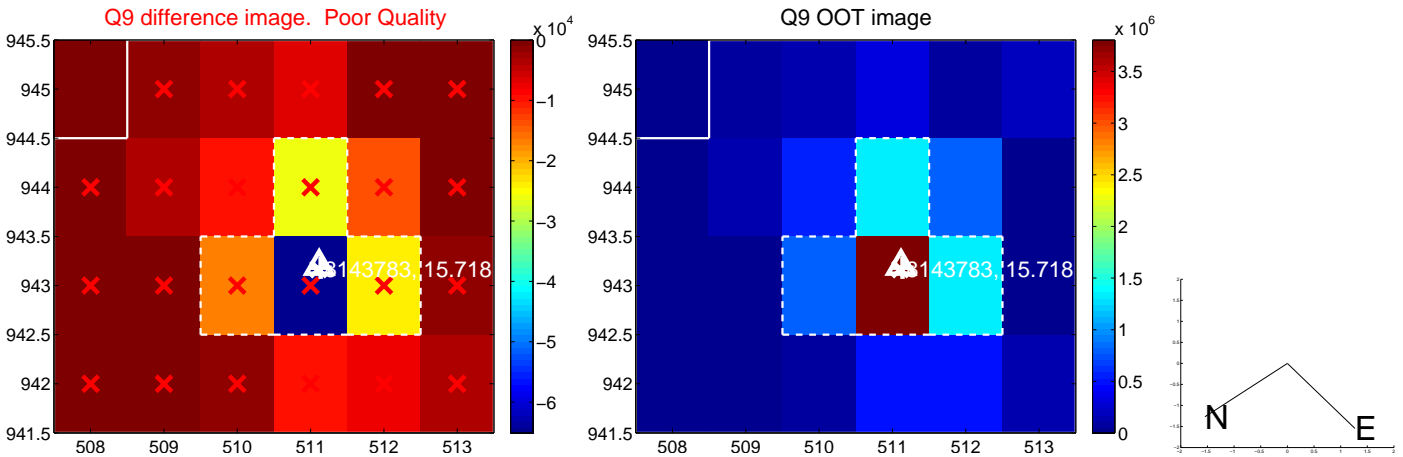
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



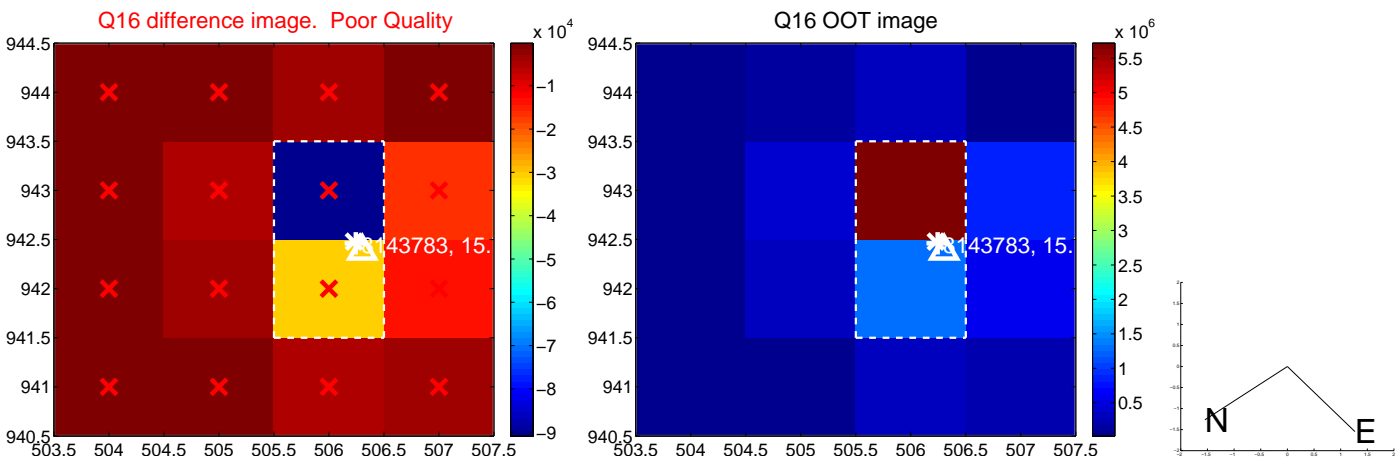
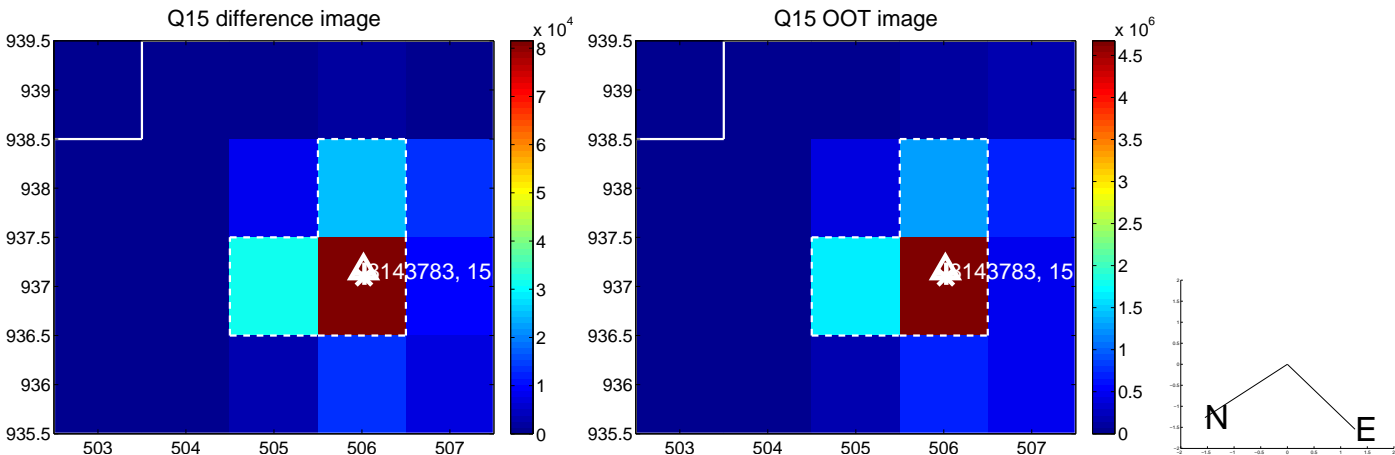
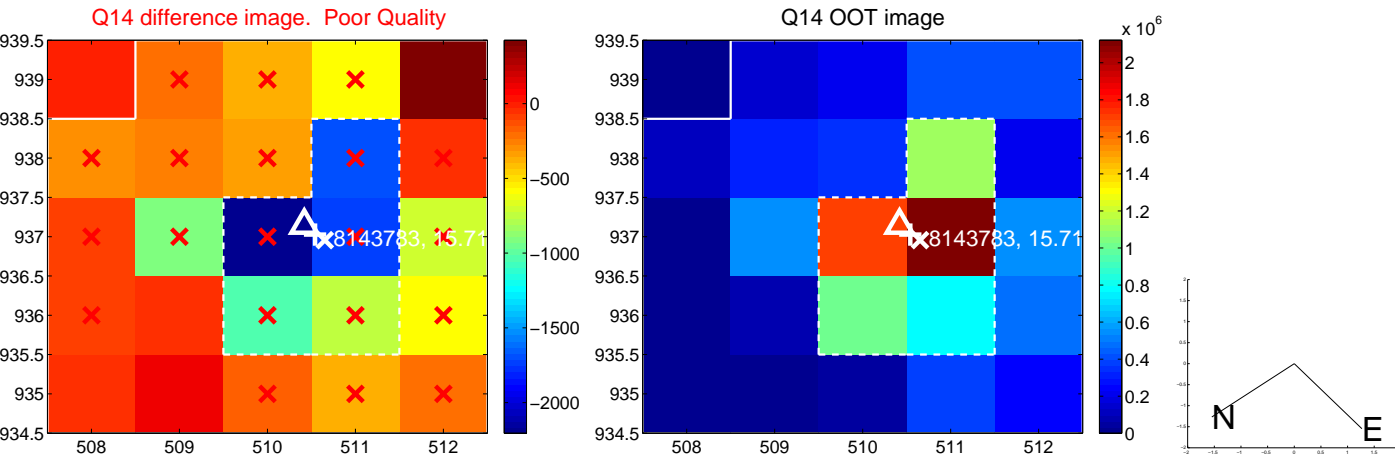
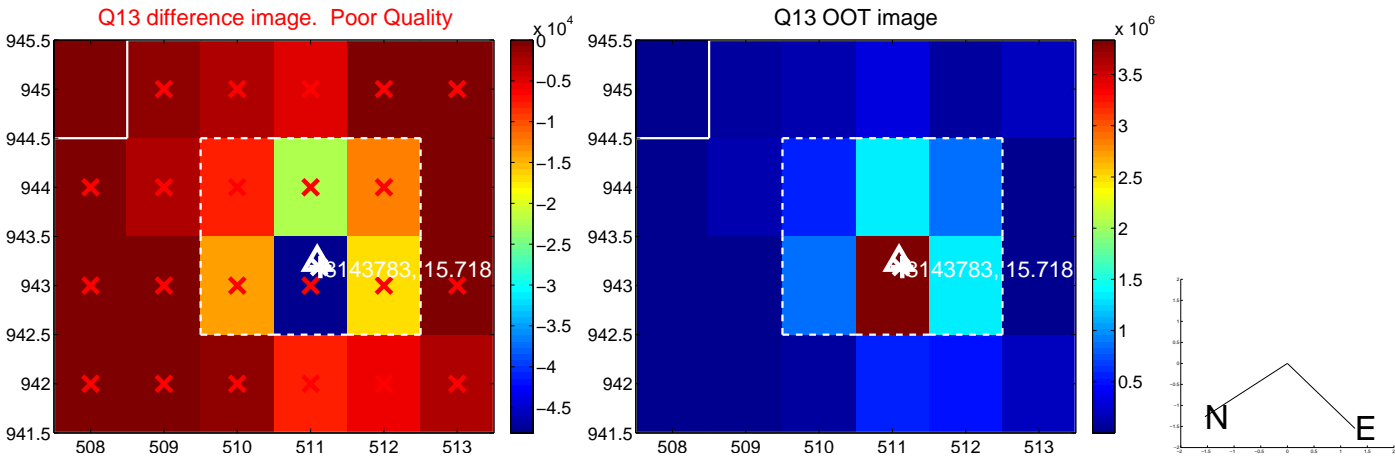
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



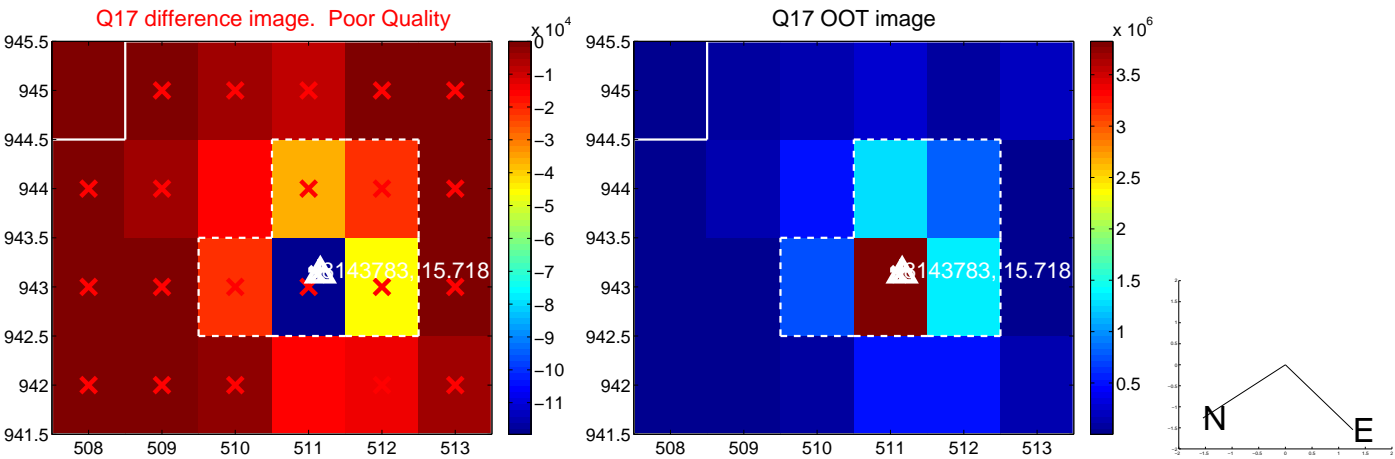
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

