

KIC 011811856

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})
011811856-01	OBS	No	10.003031	131.641413	366.0	34.718	15.6	24.2	1.33	6532	4.94	321.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011811856-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

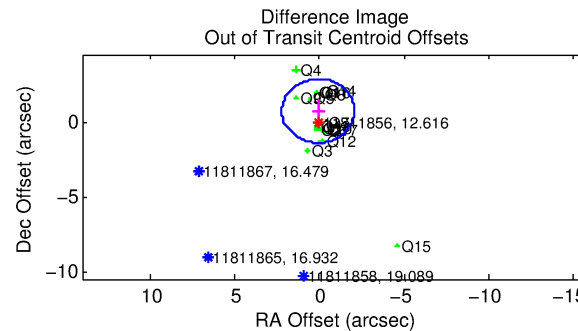
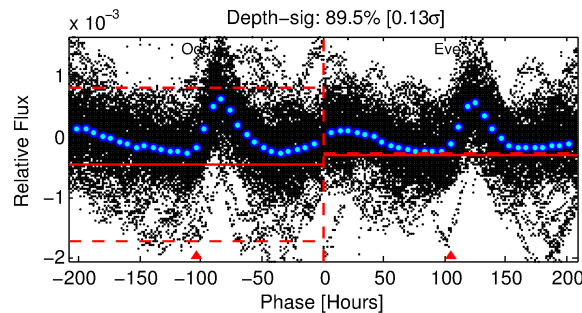
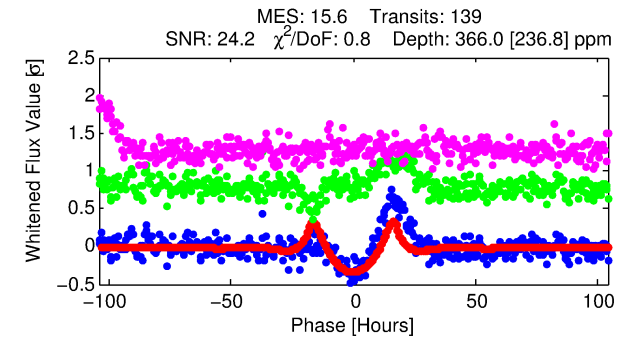
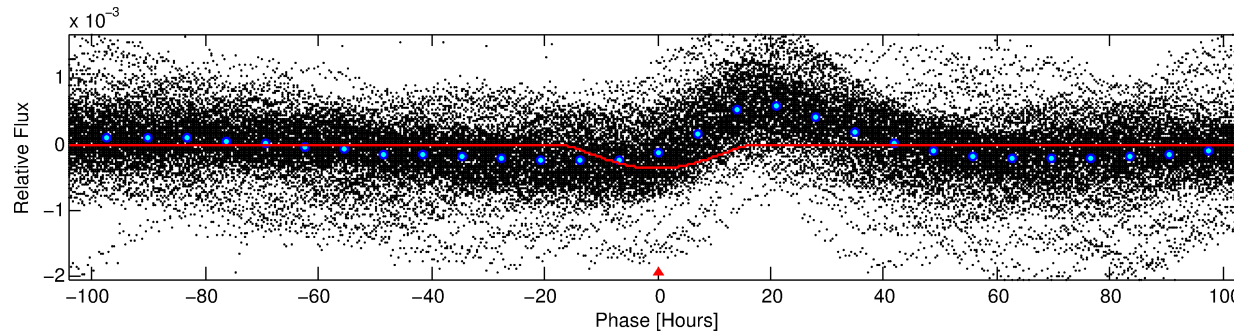
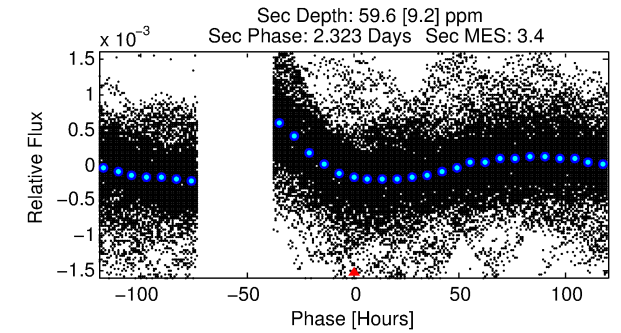
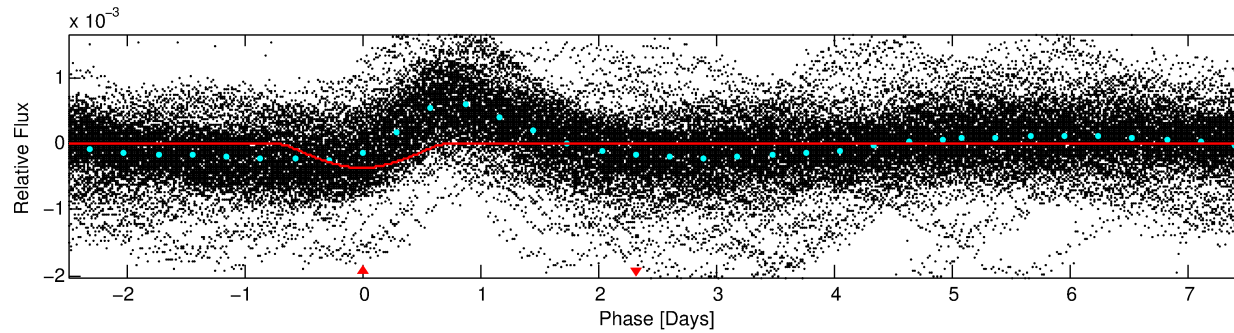
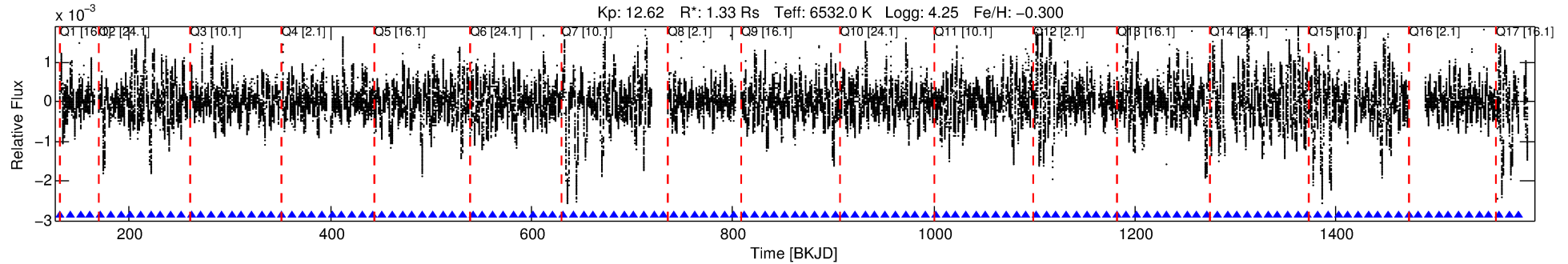
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011811856-01

No Significant Match Found

DV One-Page Summary

KIC: 11811856 Candidate: 1 of 1 Period: 10.003 d



DV Fit Results:

Period = 10.00303 [0.00018] d
Epoch = 131.6414 [0.0143] BKJD
Rp/R* = 0.0340 [0.0092]
a/R* = 1.17 [0.01]
b = 1.00 [0.03]
Seff = 321.87 [86.86]
Teq = 1080 [73] K
Rp = 4.94 [1.71] Re
a = 0.0950 [0.0166] AU
Ag = 12.11 [7.46] [1.49σ]
Teffp = 3115 [448] K [4.48σ]

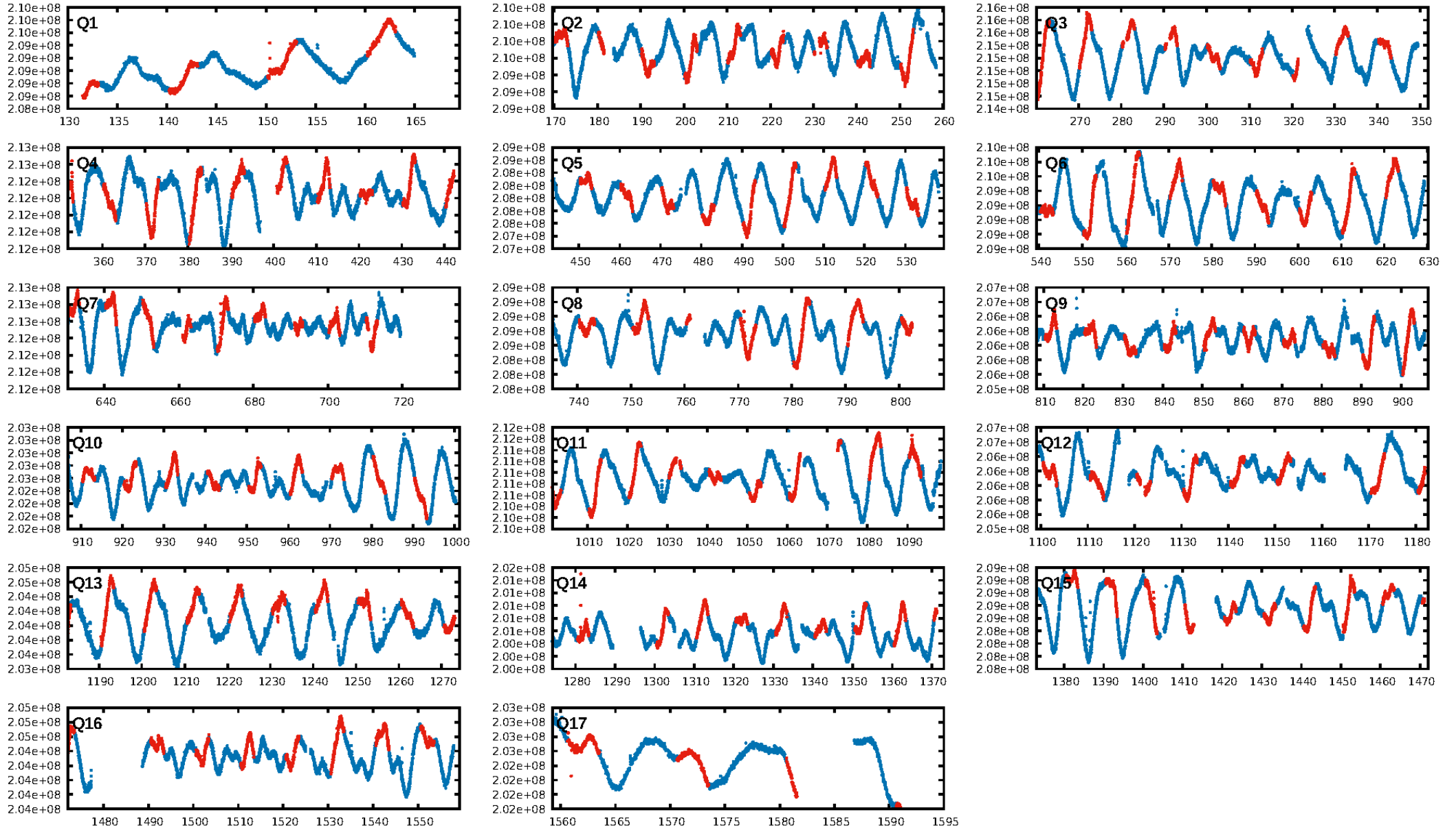
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 90.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.55e-47
RollingBand-fgt: 1.00 [132/132]
GhostDiagnostic-chr: 1.12
Centroid-sig: 94.9%
Centroid-so: 0.212 arcsec [2.73σ]
OotOffset-rm: 0.728 arcsec [1.02σ]
KicOffset-rm: 0.652 arcsec [0.88σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.31 [5/16]
DiffImageOverlap-fno: 1.00 [17/17]

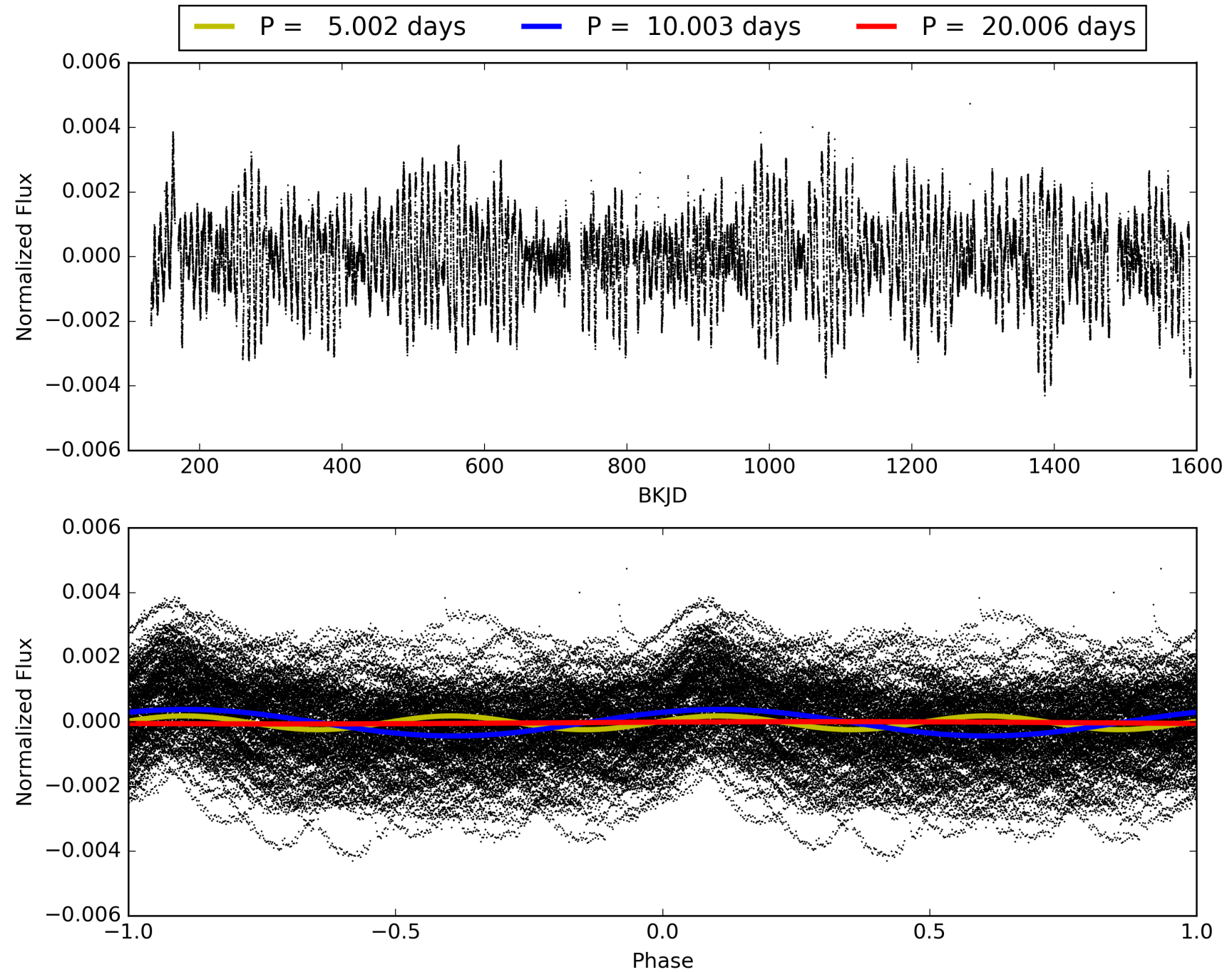
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:59:40 Z

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

TCE 011811856-01, PDC Light Curves

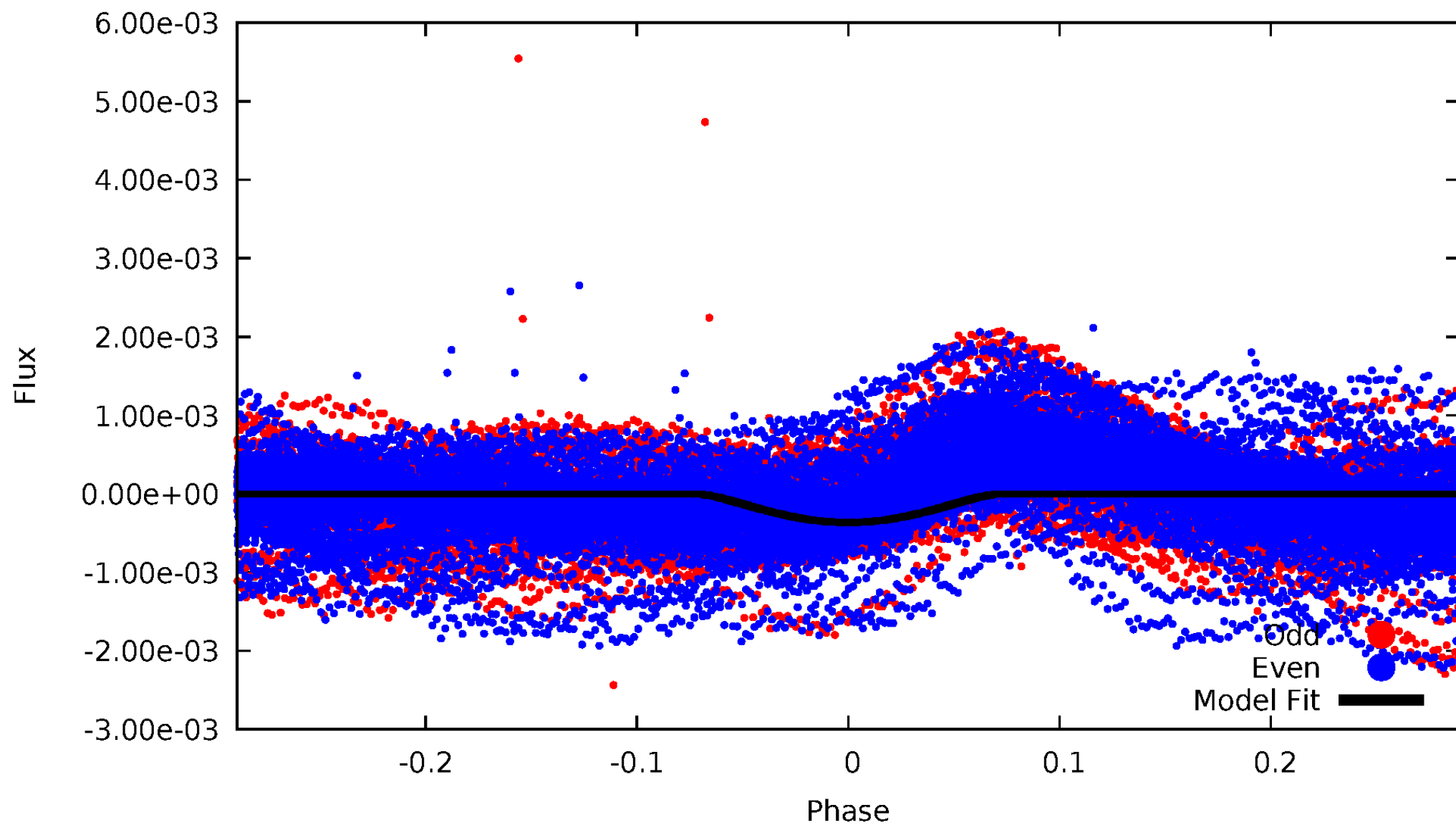


TCE 011811856-01



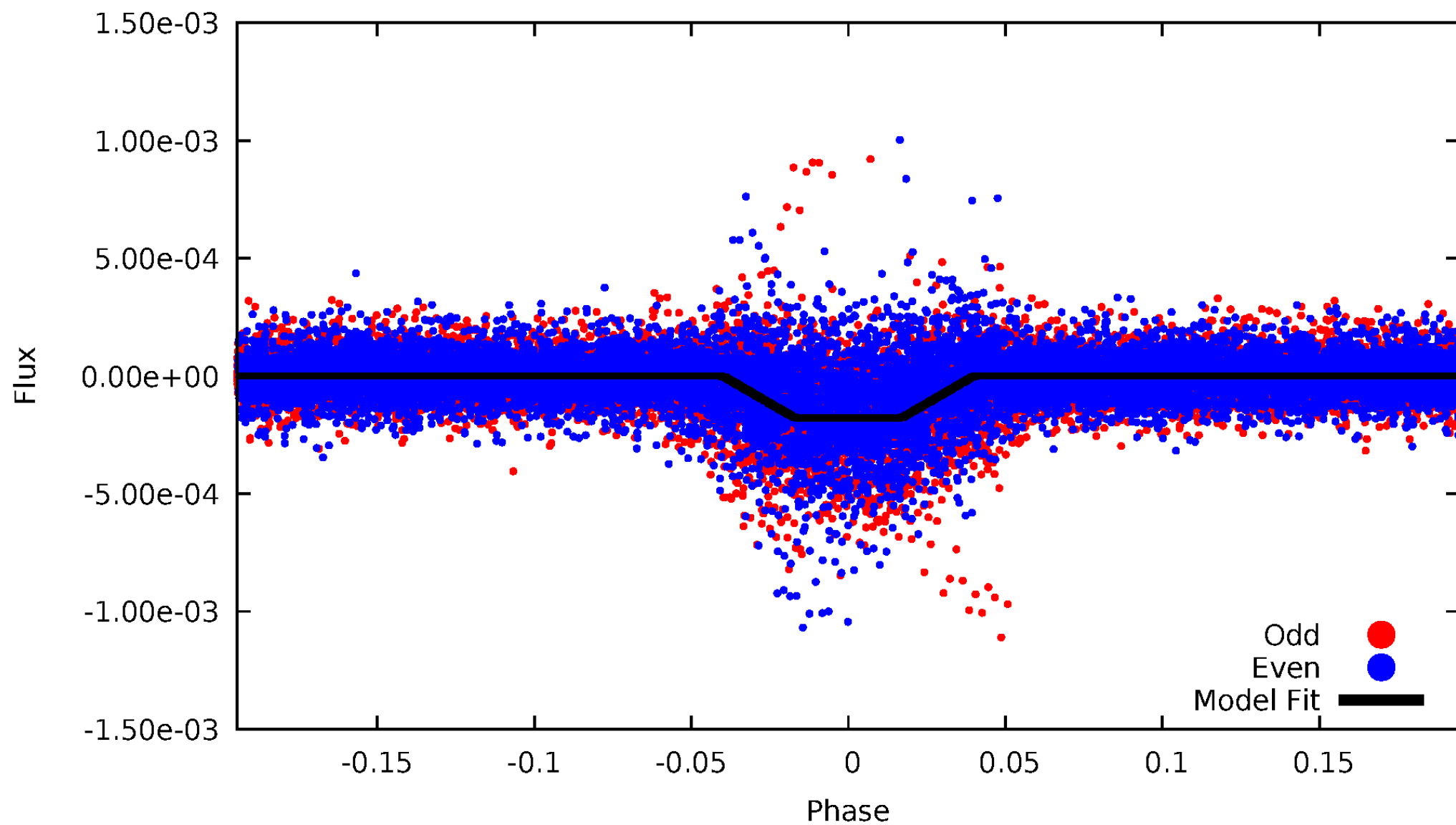
DV Odd/Even

TCE 011811856-01

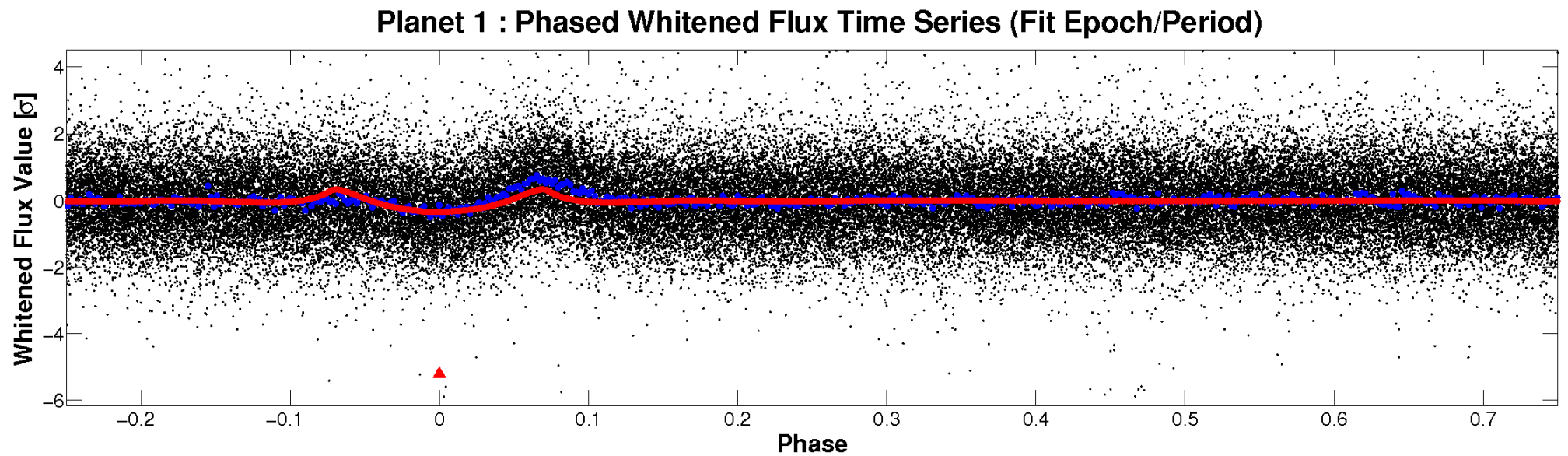
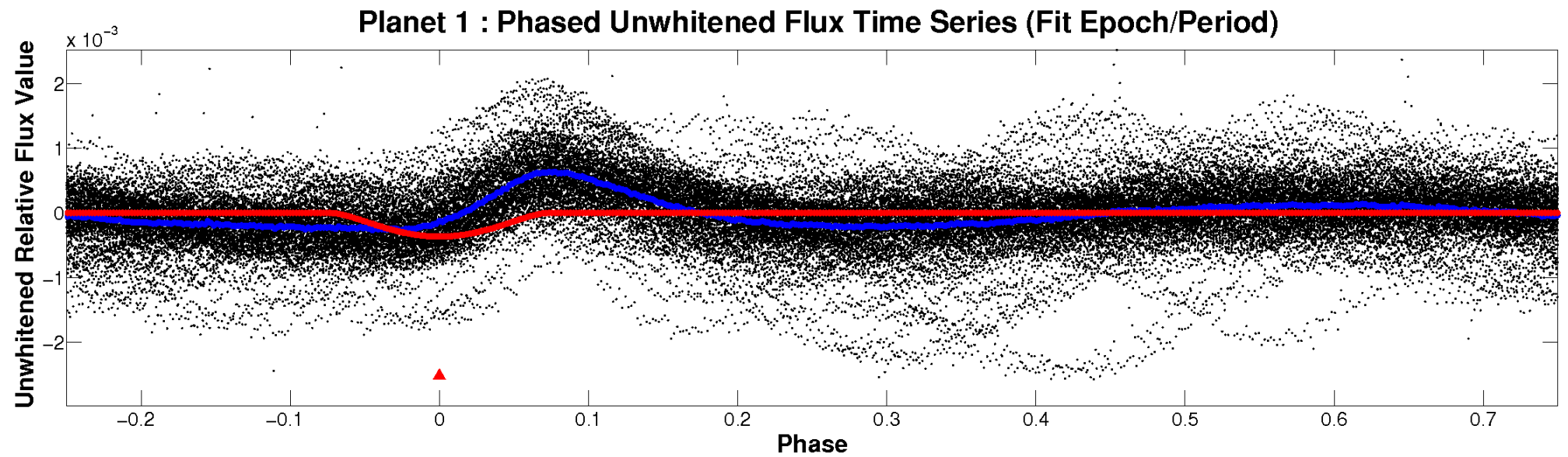


ALT Odd/Even

TCE 011811856-01

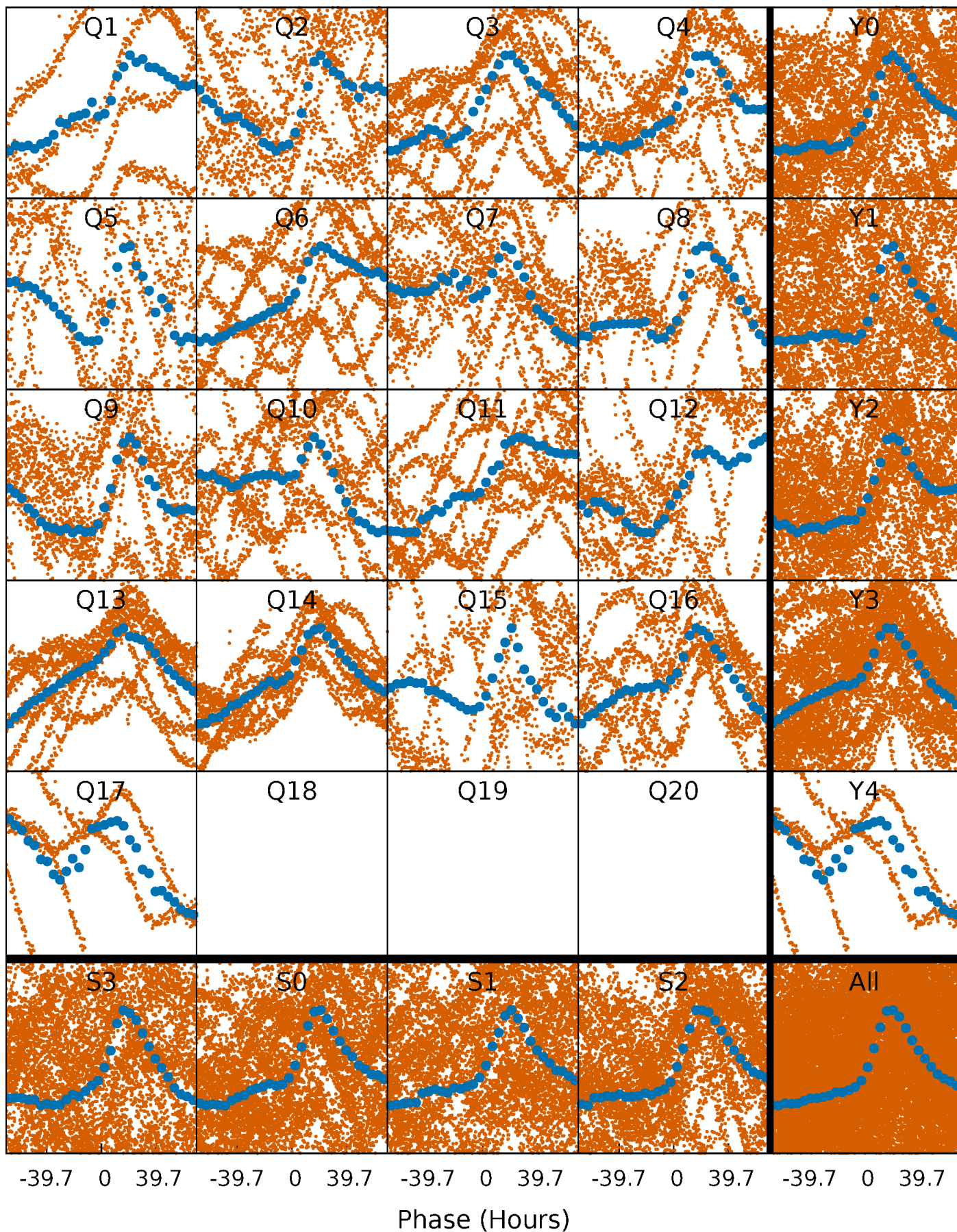


Non-Whitened Vs. Whitened Light Curve



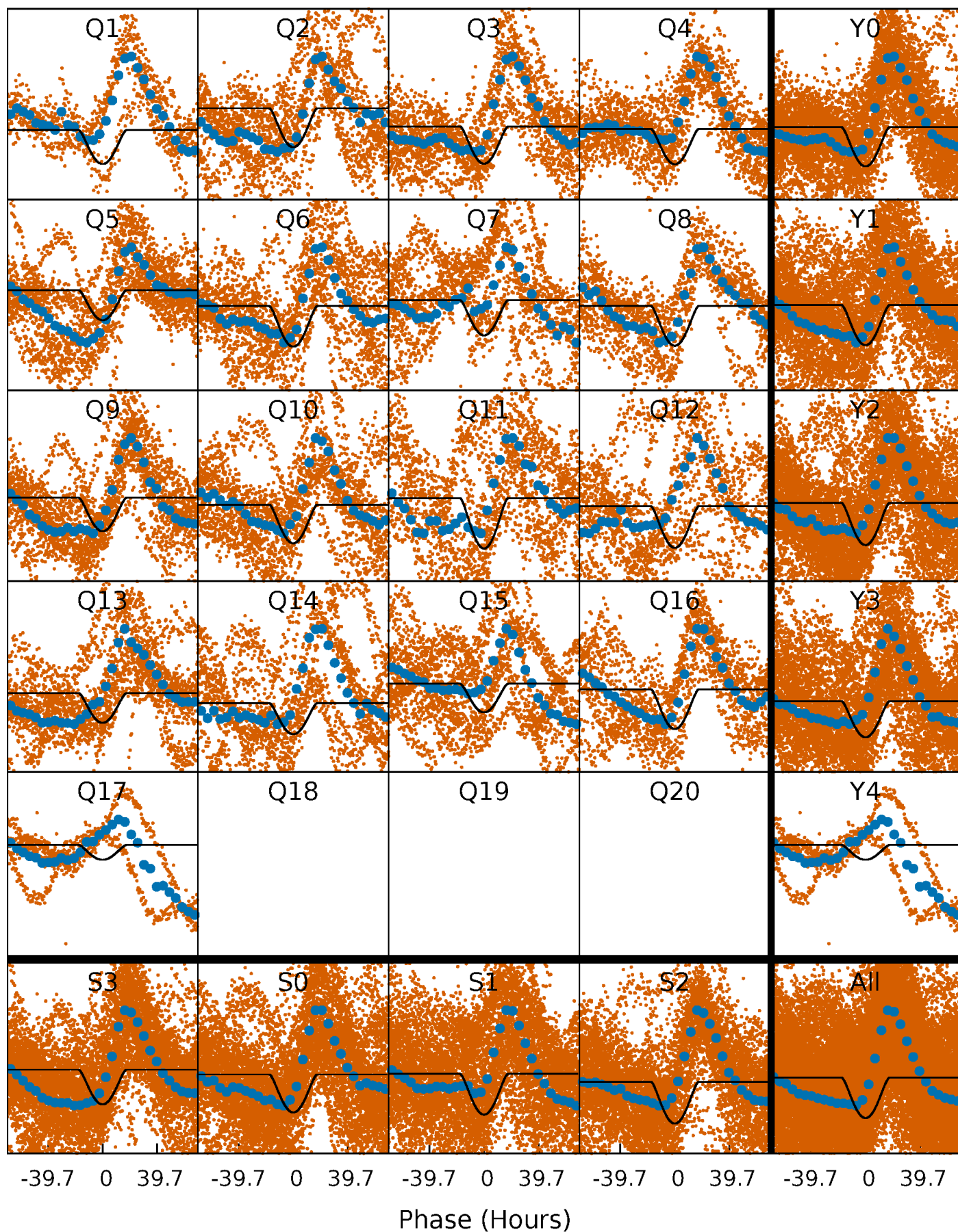
PDC Quarter-Phased Transit Curves

TCE 011811856-01 P= 10.003031 Days $T_0=131.641413$ (BKJD)



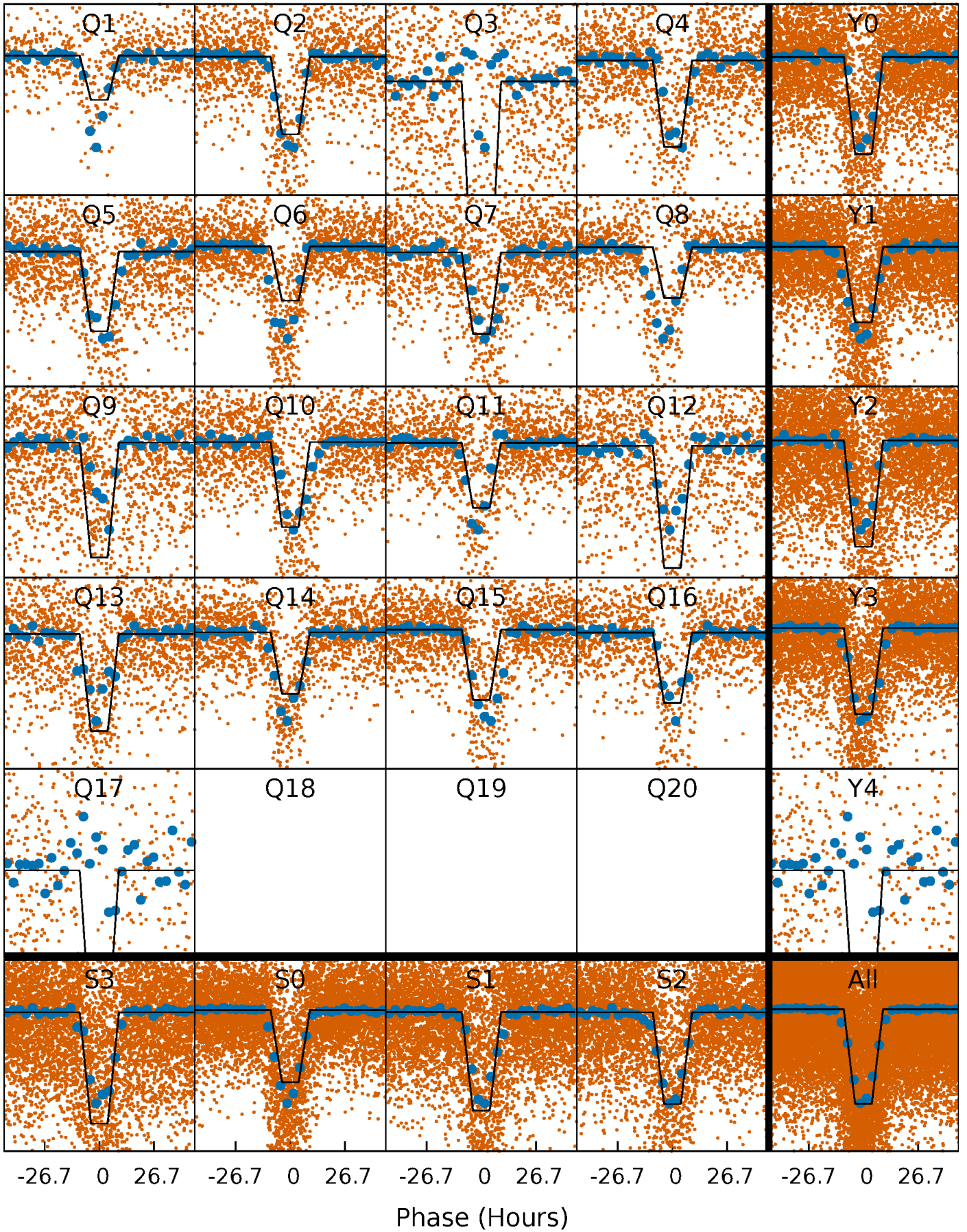
DV Quarter-Phased Transit Curves

TCE 011811856-01 P= 10.003031 Days $T_0=131.641413$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

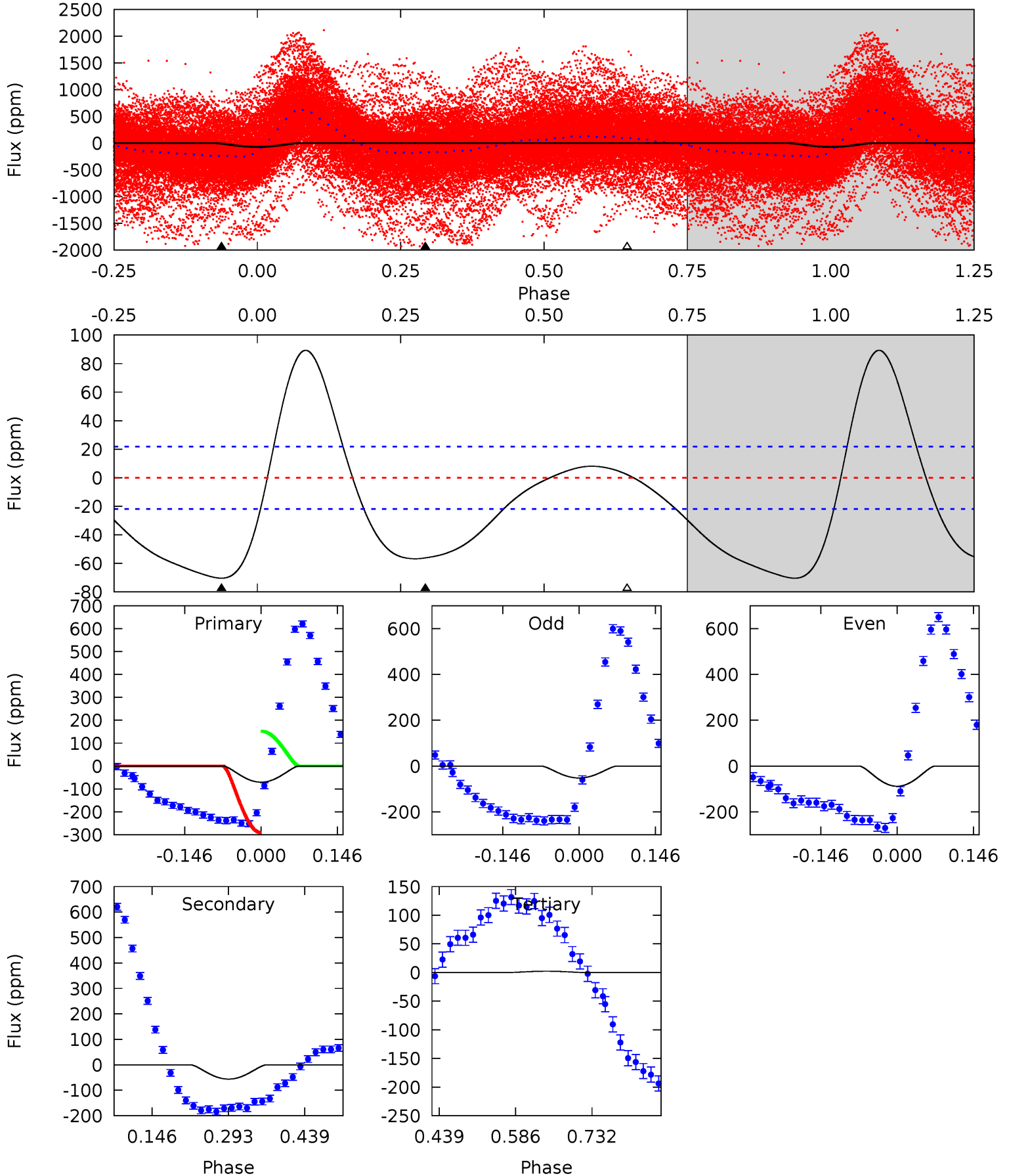
TCE 011811856-01 P= 10.002184 Days $T_0=131.738271$ (BKJD)



DV Model-Shift Uniqueness Test

011811856-01, $P = 10.003031$ Days, $E = 121.638382$ Days

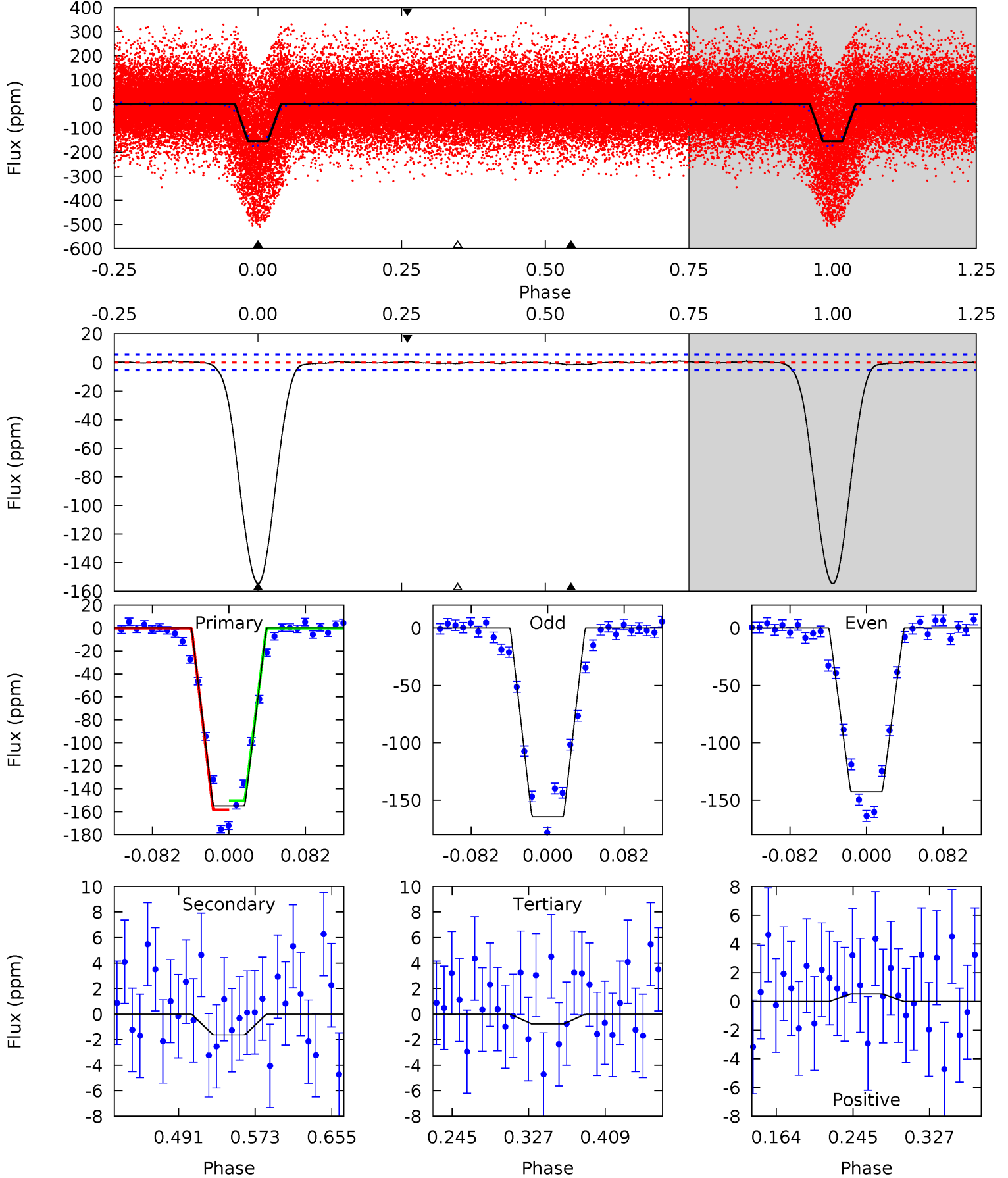
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	11.5	-0.46	0	4.48	1.45	6.15	14.9	14.5	12.0	11.5	3.69	2.71	0.56	14.1



Alt Model-Shift Uniqueness Test

011811856-01, $P = 10.002184$ Days, $E = 121.736087$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
131.9	1.38	0.65	0.44	4.61	1.74	0.39	131.3	131.5	0.73	0.94	9.28	0.95	0.01	3.42



Stellar Parameters For KIC 011811856

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6532^{+148}_{-181}	$4.245^{+0.130}_{-0.130}$	$-0.300^{+0.250}_{-0.300}$	$1.334^{+0.288}_{-0.236}$	$1.144^{+0.150}_{-0.150}$	$0.679^{+0.435}_{-0.265}$
	+2%/-3%	+3%/-3%	+83%/-100%	+22%/-18%	+13%/-13%	+64%/-39%
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 011811856-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-56 ± 5	$4.98^{+1.53}_{-1.40}$	1513^{+80}_{-81}	3525^{+396}_{-275}	11^{+10}_{-5}
Alt.	-2 ± 1	$2.01^{+1.33}_{-1.18}$	1509^{+83}_{-85}	2624^{+820}_{-926}	$1.767^{+8.540}_{-1.442}$

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 $A_{obs} \gg 1.0$

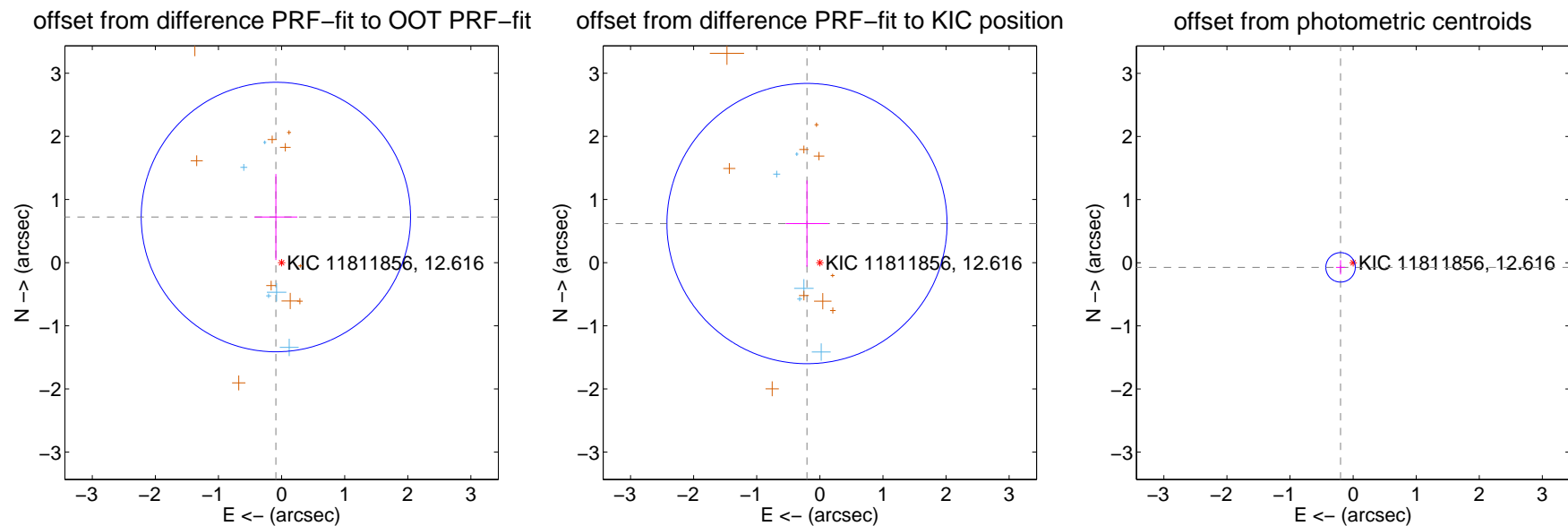
DV Centroid Data

Supplemental centroid analysis for 011811856-01. Kepler magnitude: 12.62. Transit SNR 24.19

There are 5 quarters with good PRF difference image offsets

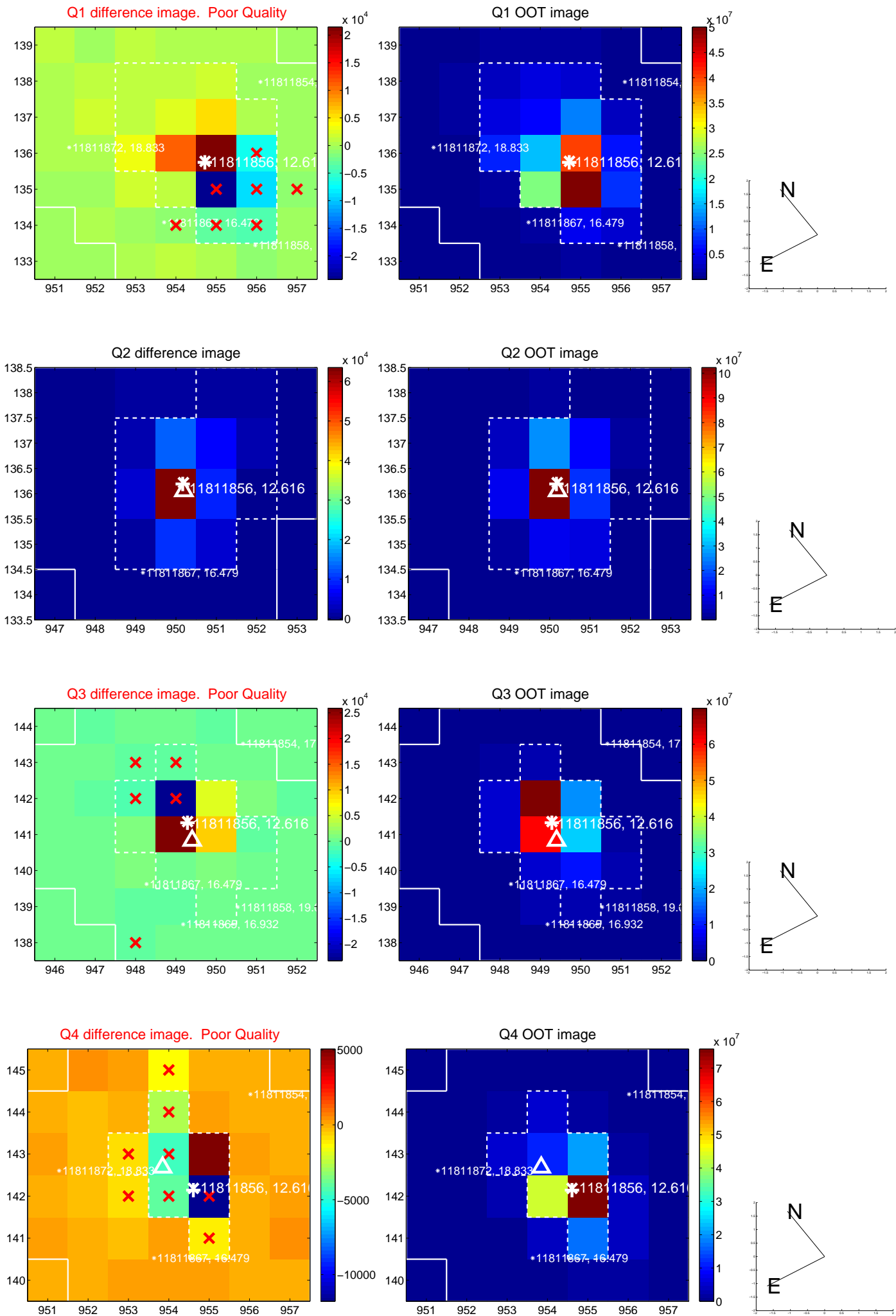
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.728 ± 0.711	1.02	0.090 ± 0.339	0.723 ± 0.681
PRF-fit source offset from KIC position	0.652 ± 0.740	0.88	0.204 ± 0.337	0.619 ± 0.683
photometric centroid source offset	0.21 ± 0.08	2.73	0.20 ± 0.07	-0.07 ± 0.11

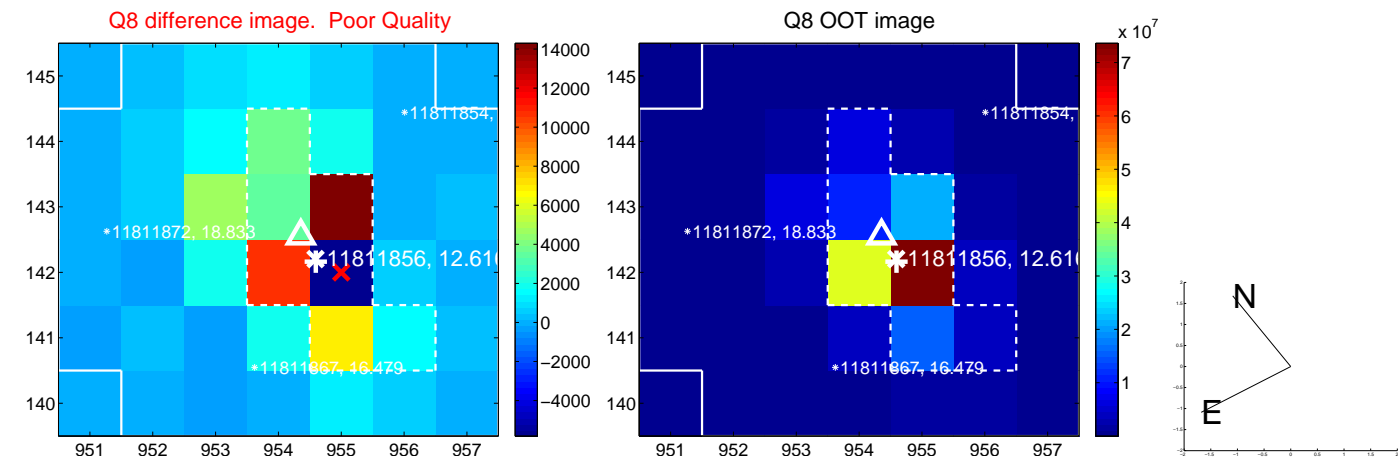
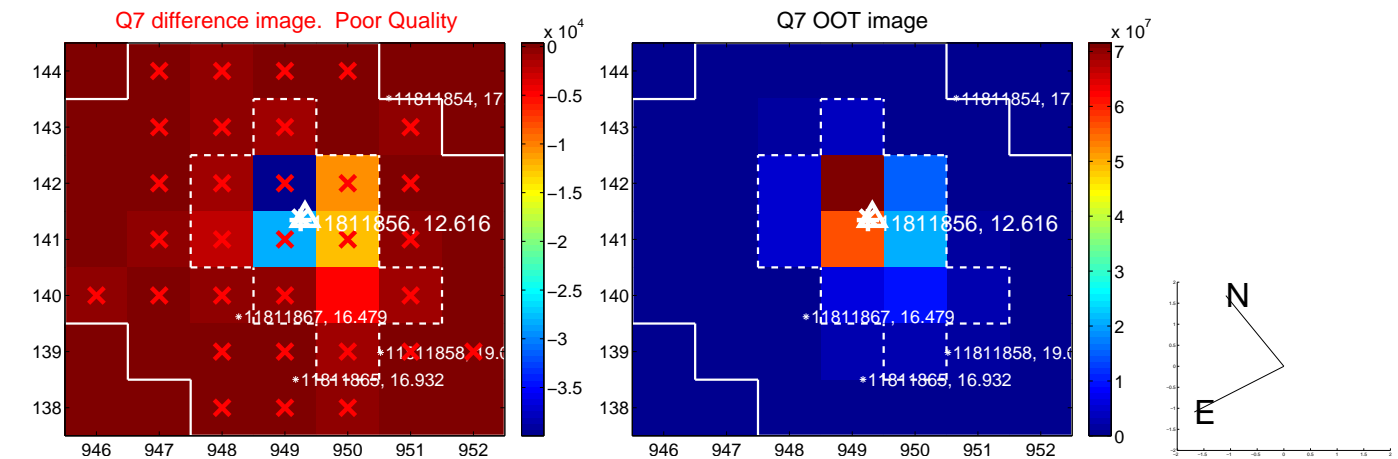
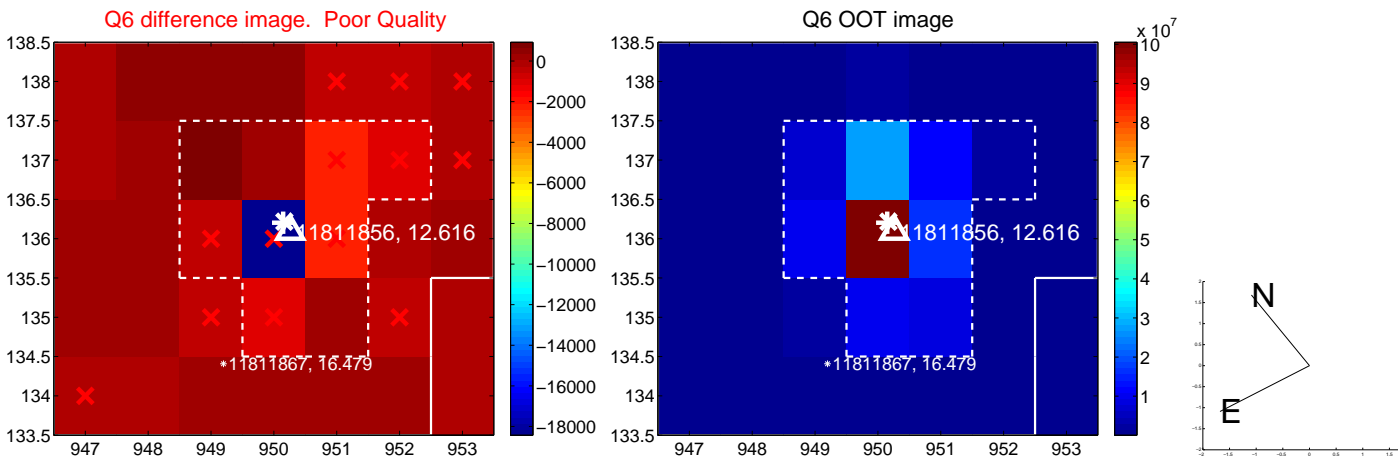
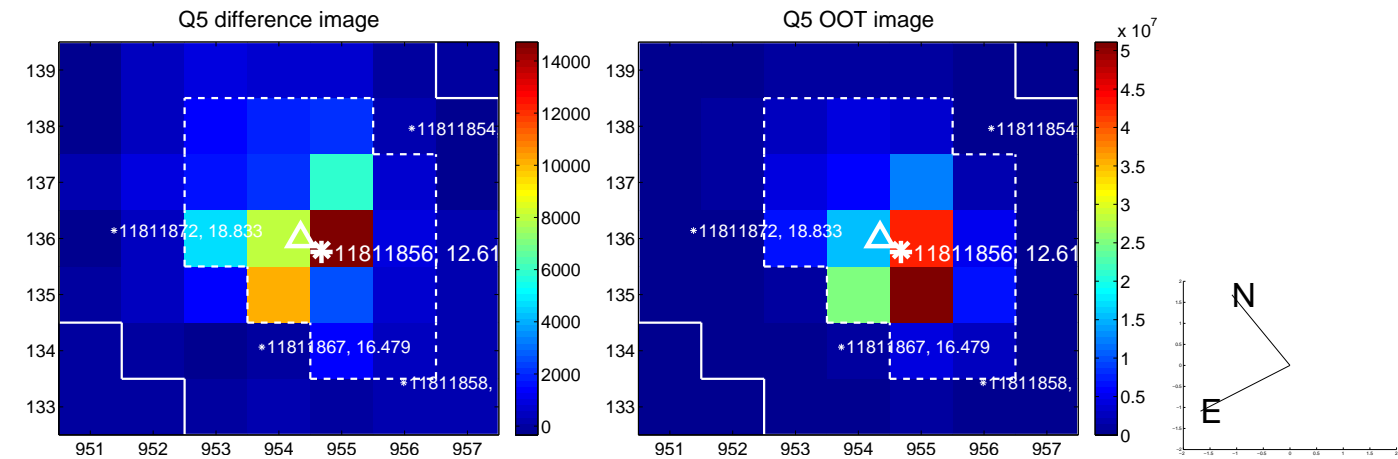


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

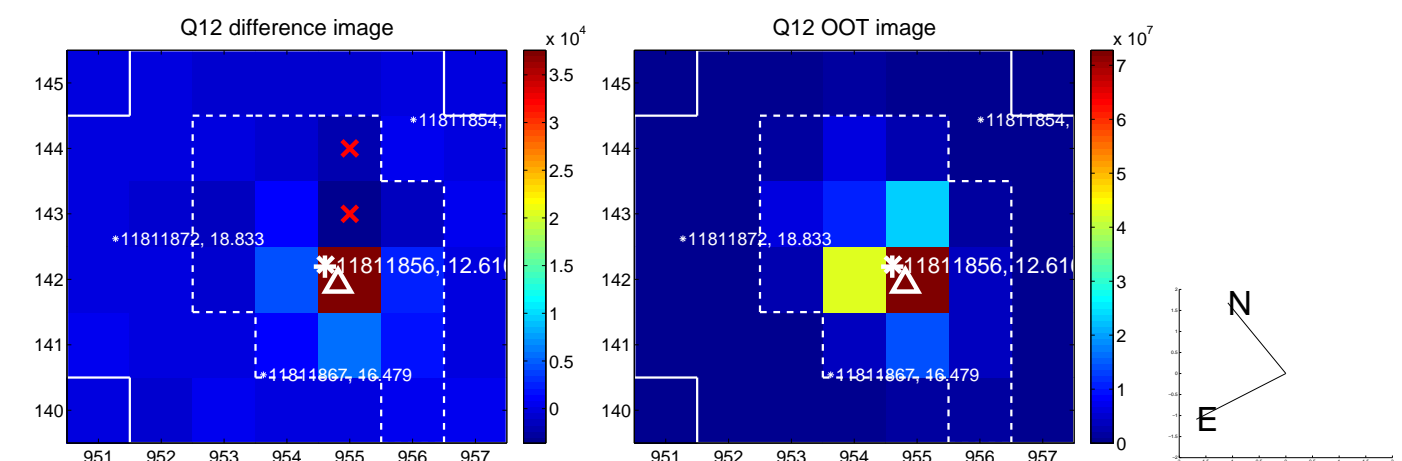
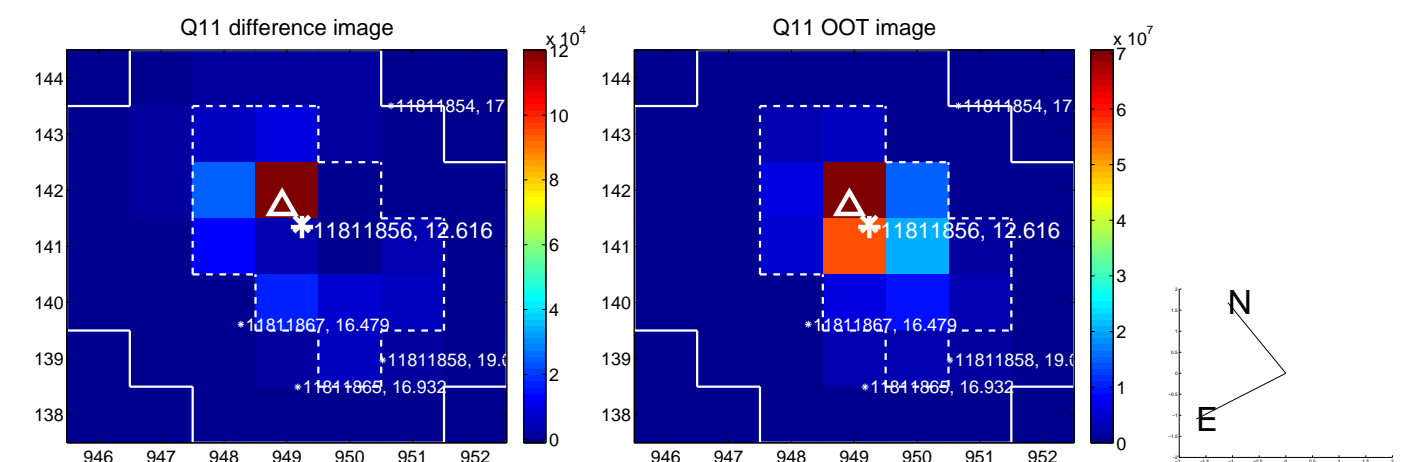
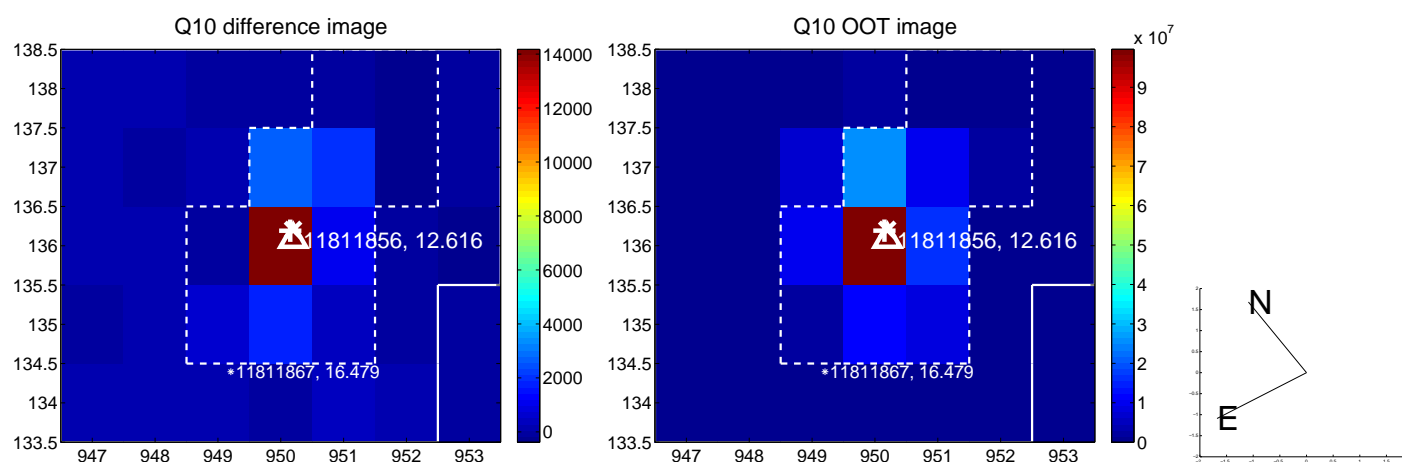
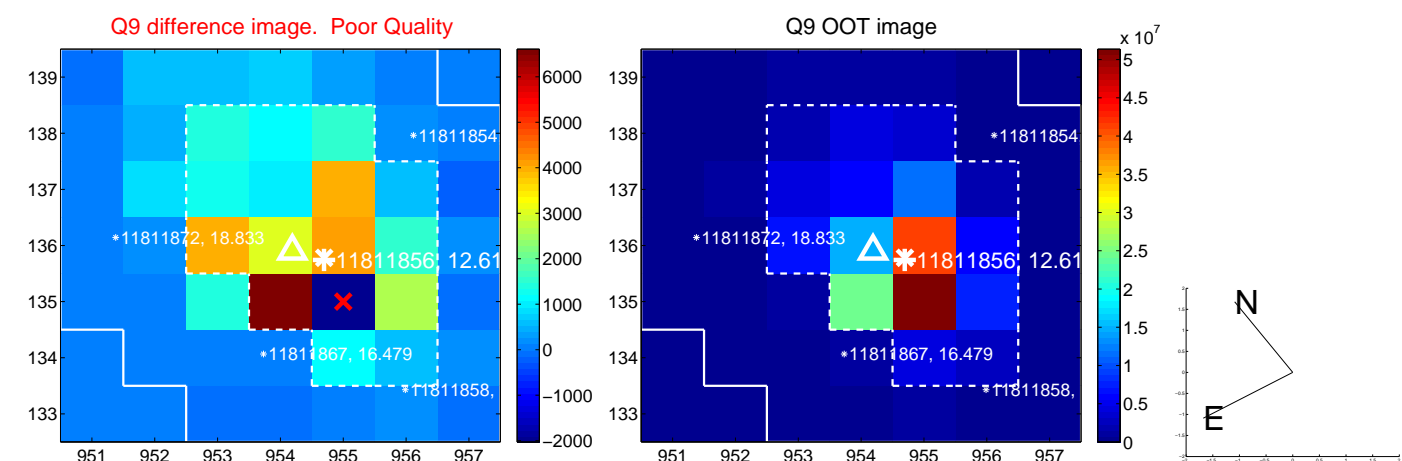
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



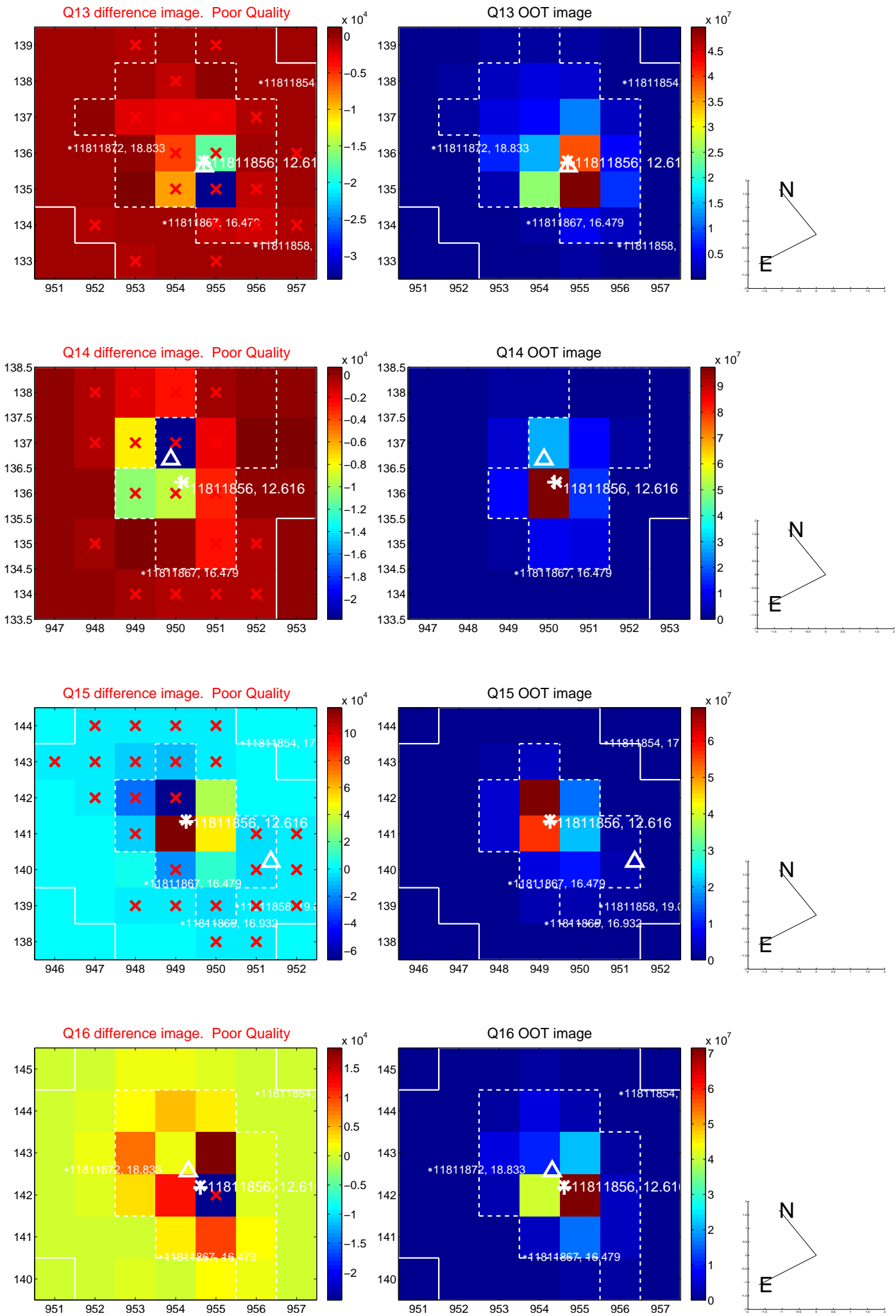
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



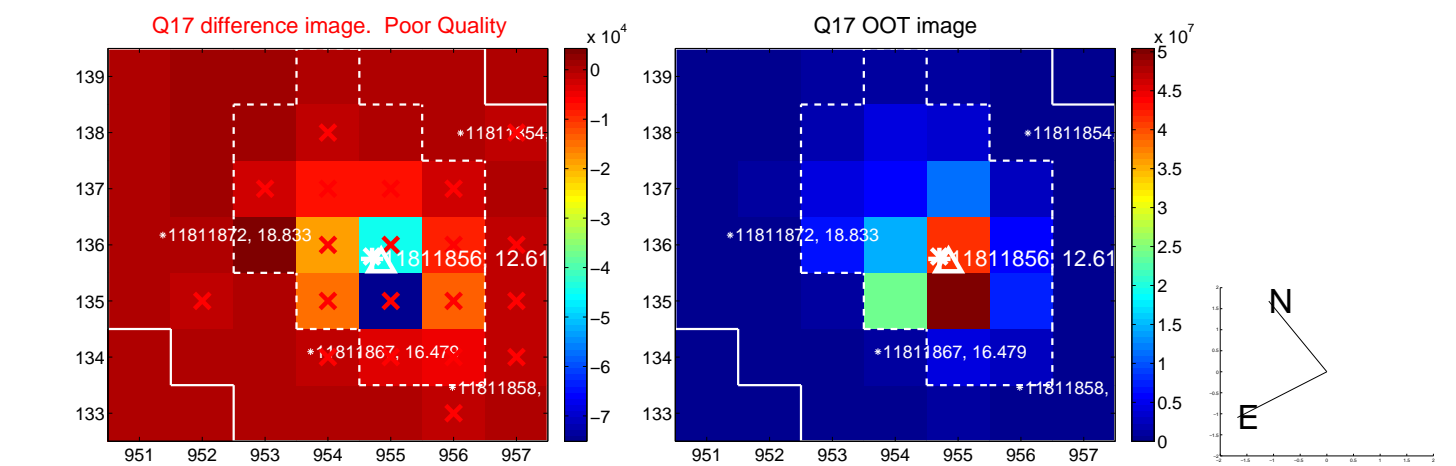
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



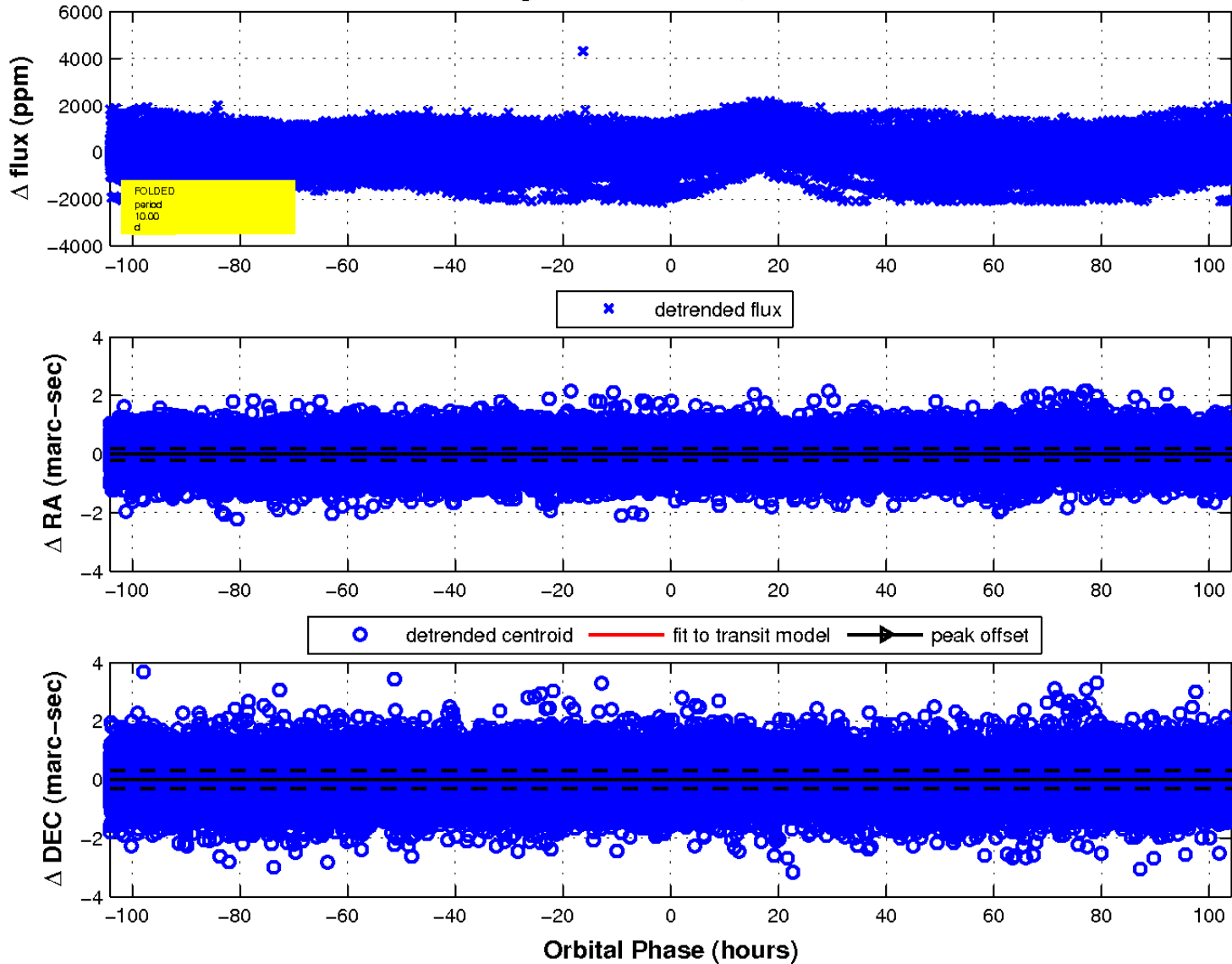
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

