

KIC 005647403

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})
005647403-01	OBS	No	0.566729	131.736139	29.3	1.210	8.3	8.1	3.78	6218	2.20	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005647403-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

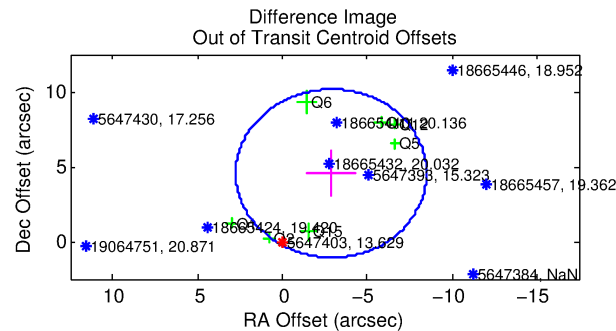
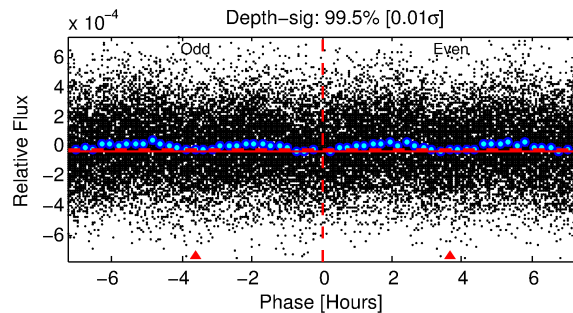
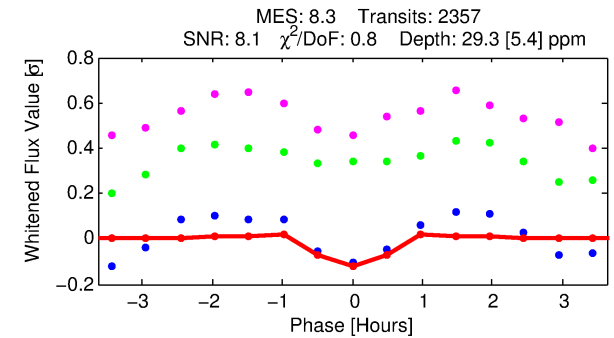
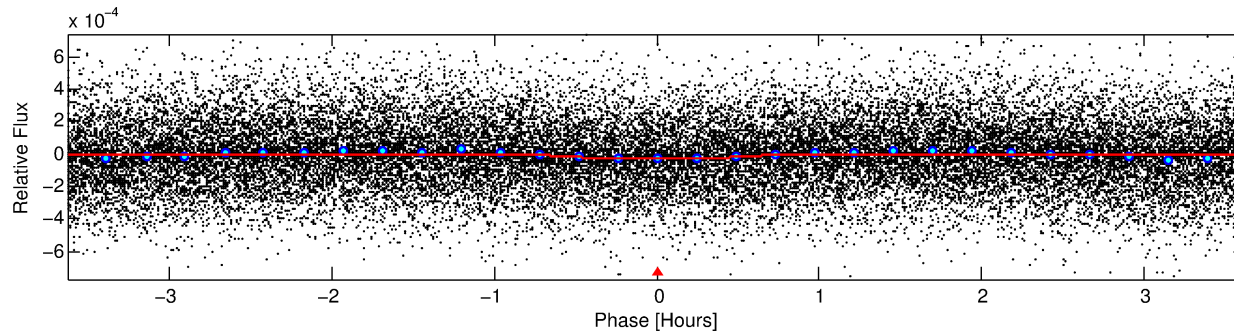
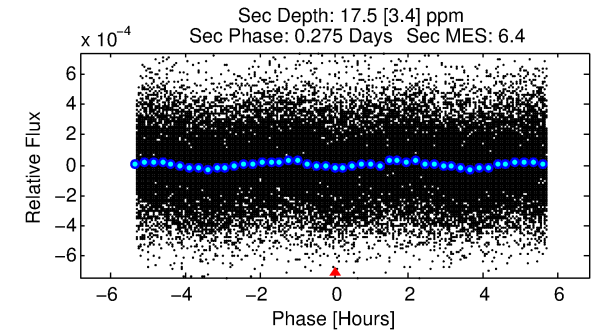
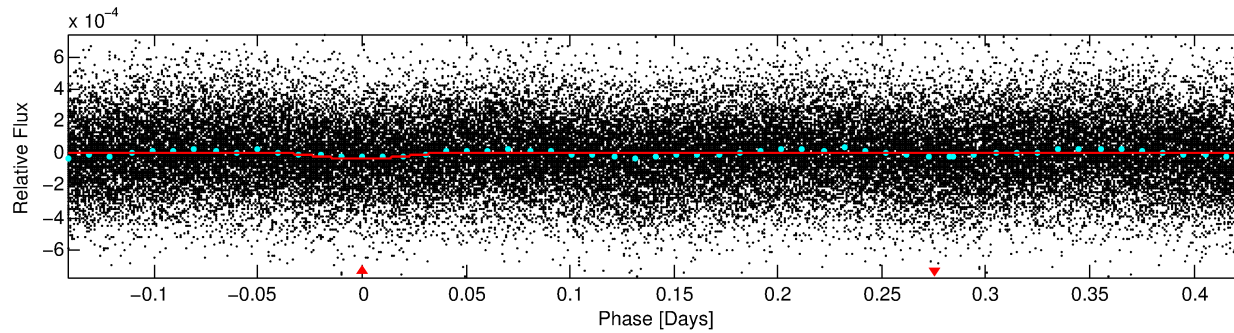
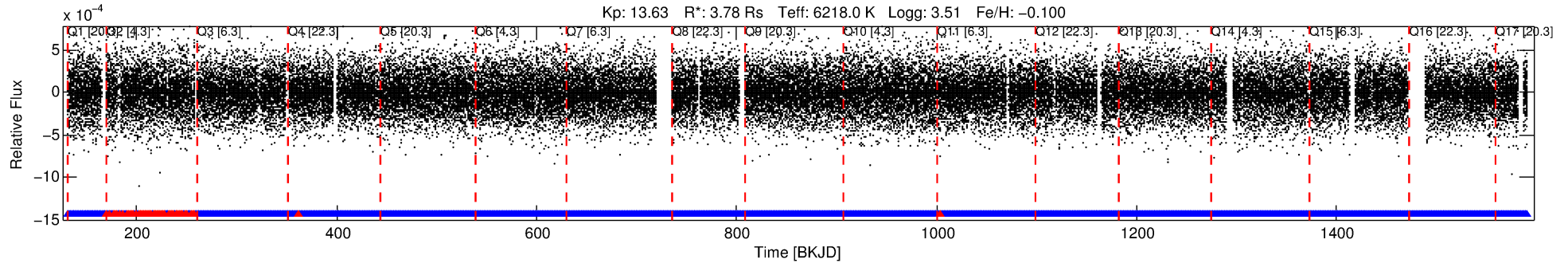
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005647403-01

No Significant Match Found

DV One-Page Summary

KIC: 5647403 Candidate: 1 of 1 Period: 0.567 d



DV Fit Results:

Period = 0.56673 [0.00001] d
Epoch = 131.7361 [0.0022] BKJD
Rp/R* = 0.0053 [0.0016]
a/R* = 2.71 [3.57]
b = 0.70 [1.12]
Seff = N/A
Teq = N/A
Rp = 2.20 [1.54] Re
a = N/A
Ag = N/A
Teffp = N/A

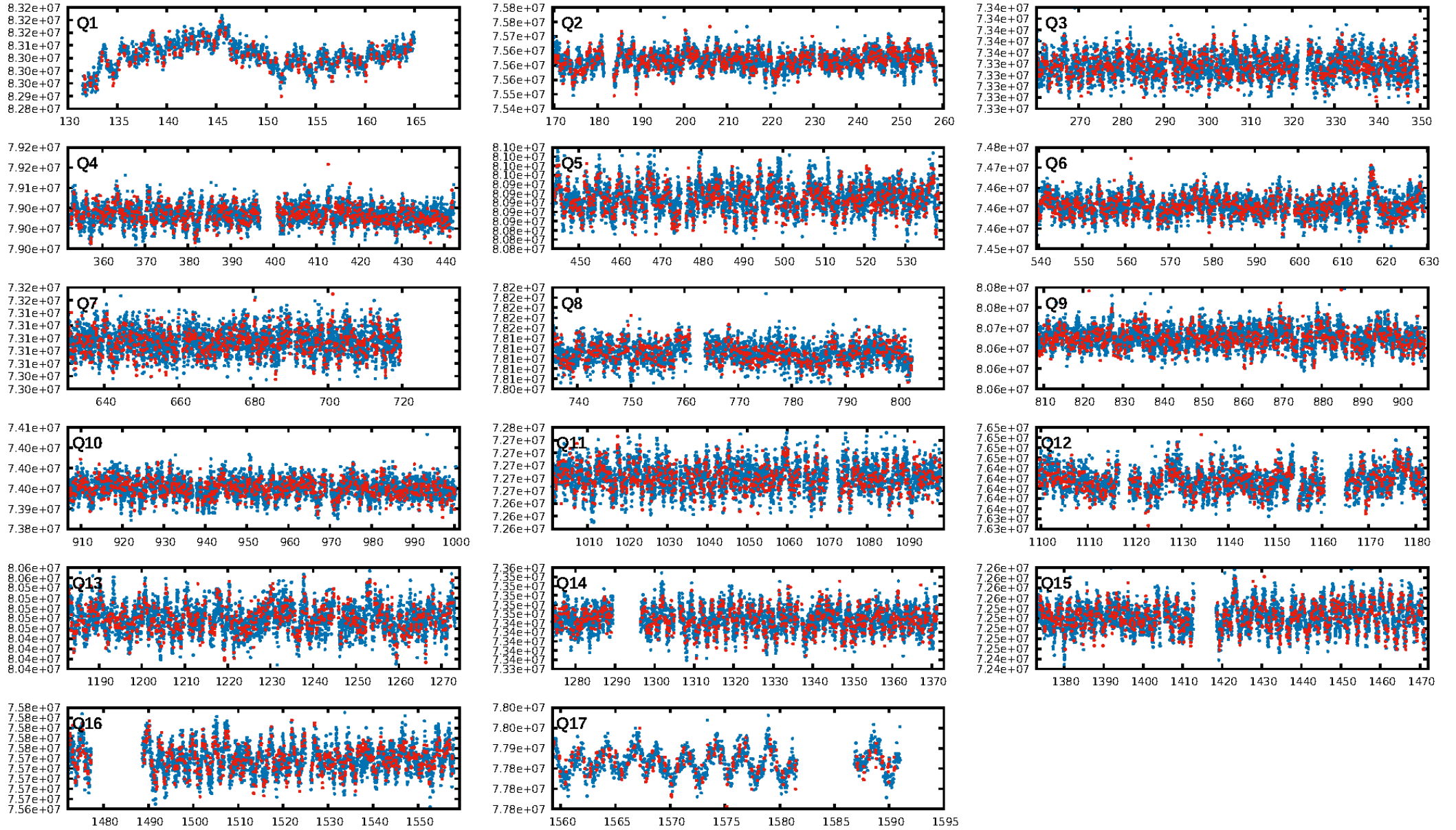
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.26e-15
RollingBand-fgt: 0.97 [2181/2251]
GhostDiagnostic-chr: 0.114
Centroid-sig: 0.0%
Centroid-so: 1.526 arcsec [1.55σ]
OotOffset-rm: 5.390 arcsec [2.88σ]
KicOffset-rm: 2.949 arcsec [1.65σ]
OotOffset-st: 2/2/1/2 [7]
KicOffset-st: 2/2/1/2 [7]
DiffImageQuality-fgm: 0.29 [2/7]
DiffImageOverlap-fno: 1.00 [17/17]

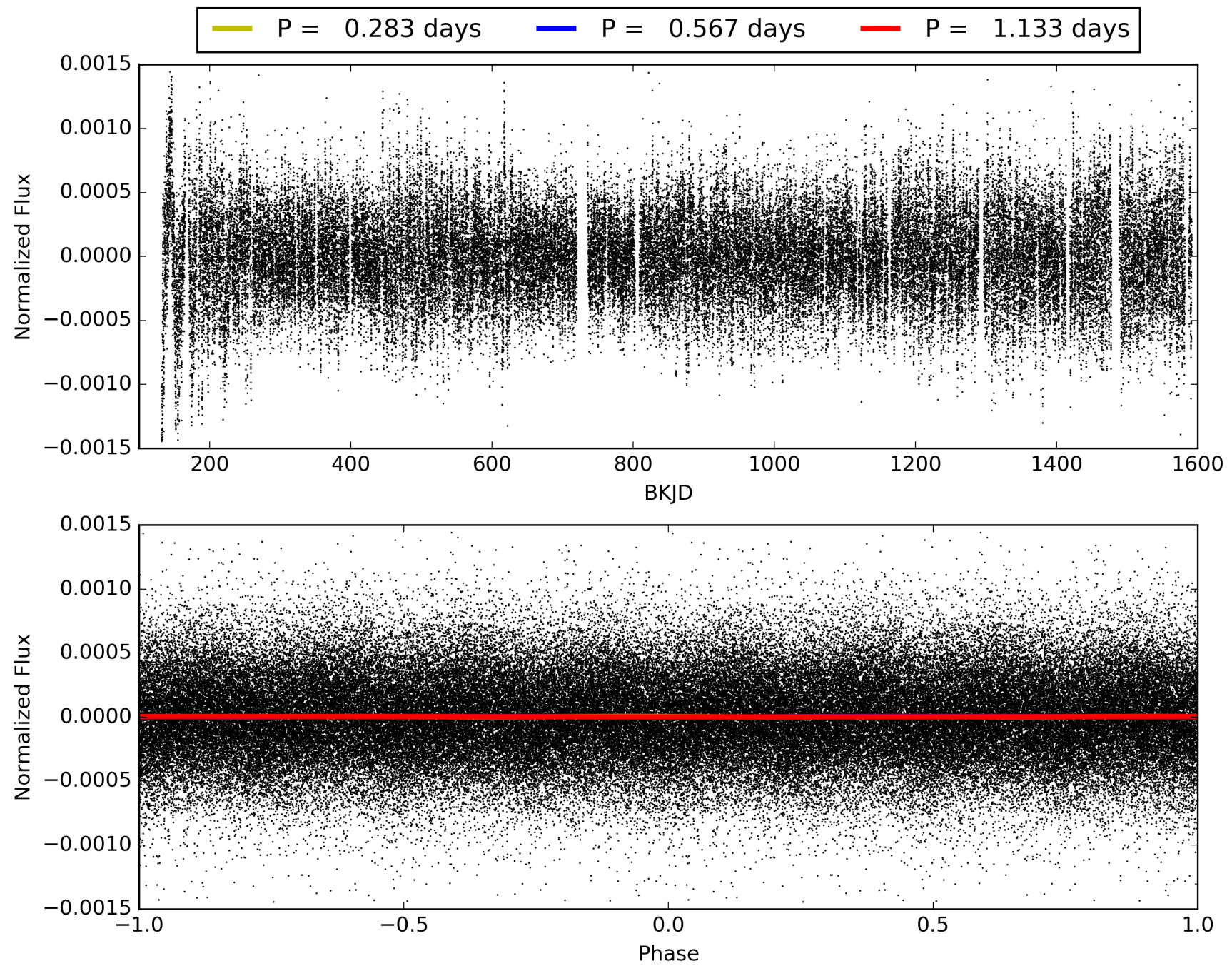
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:03:03 Z

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

TCE 005647403-01, PDC Light Curves

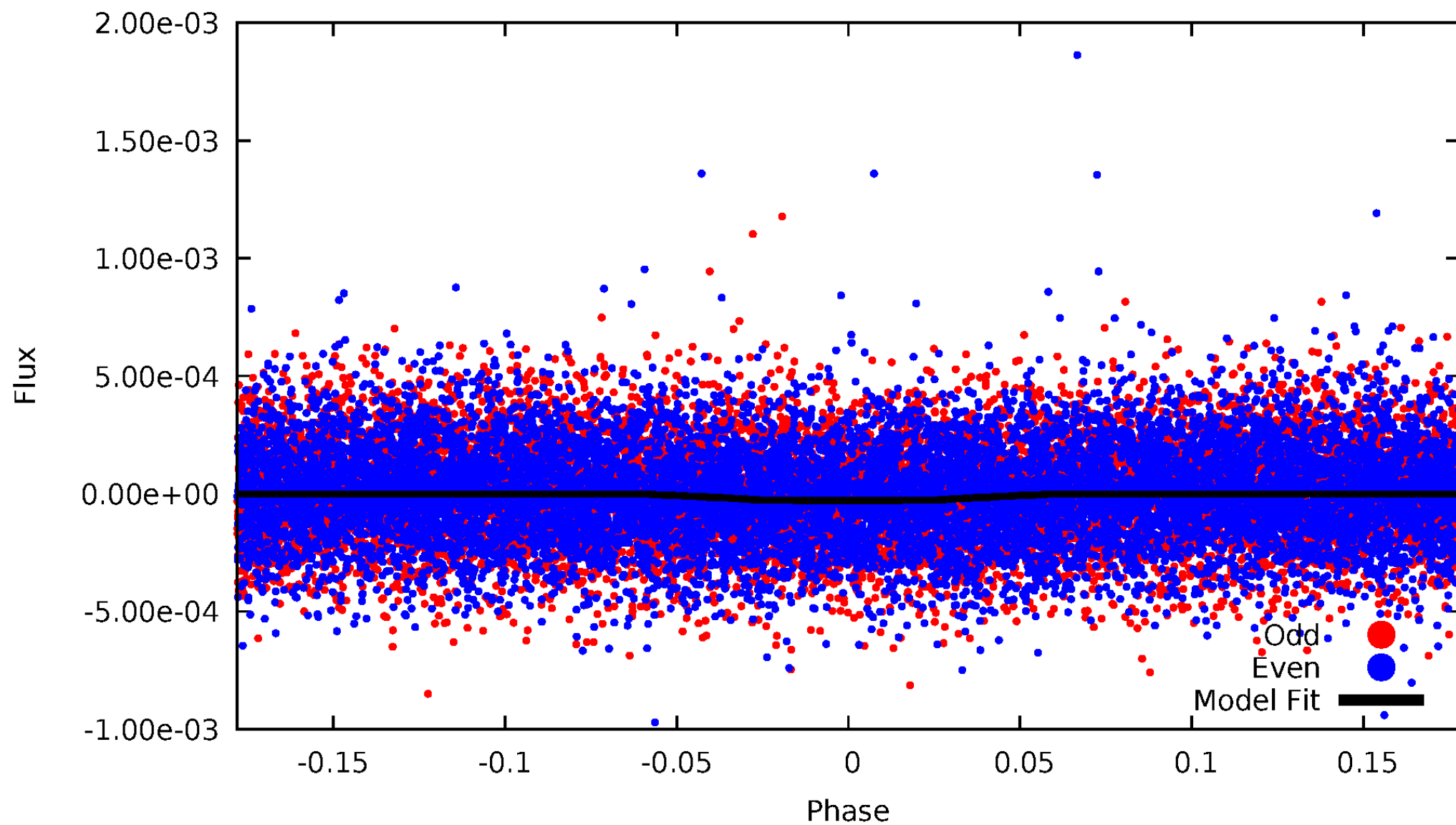


TCE 005647403-01



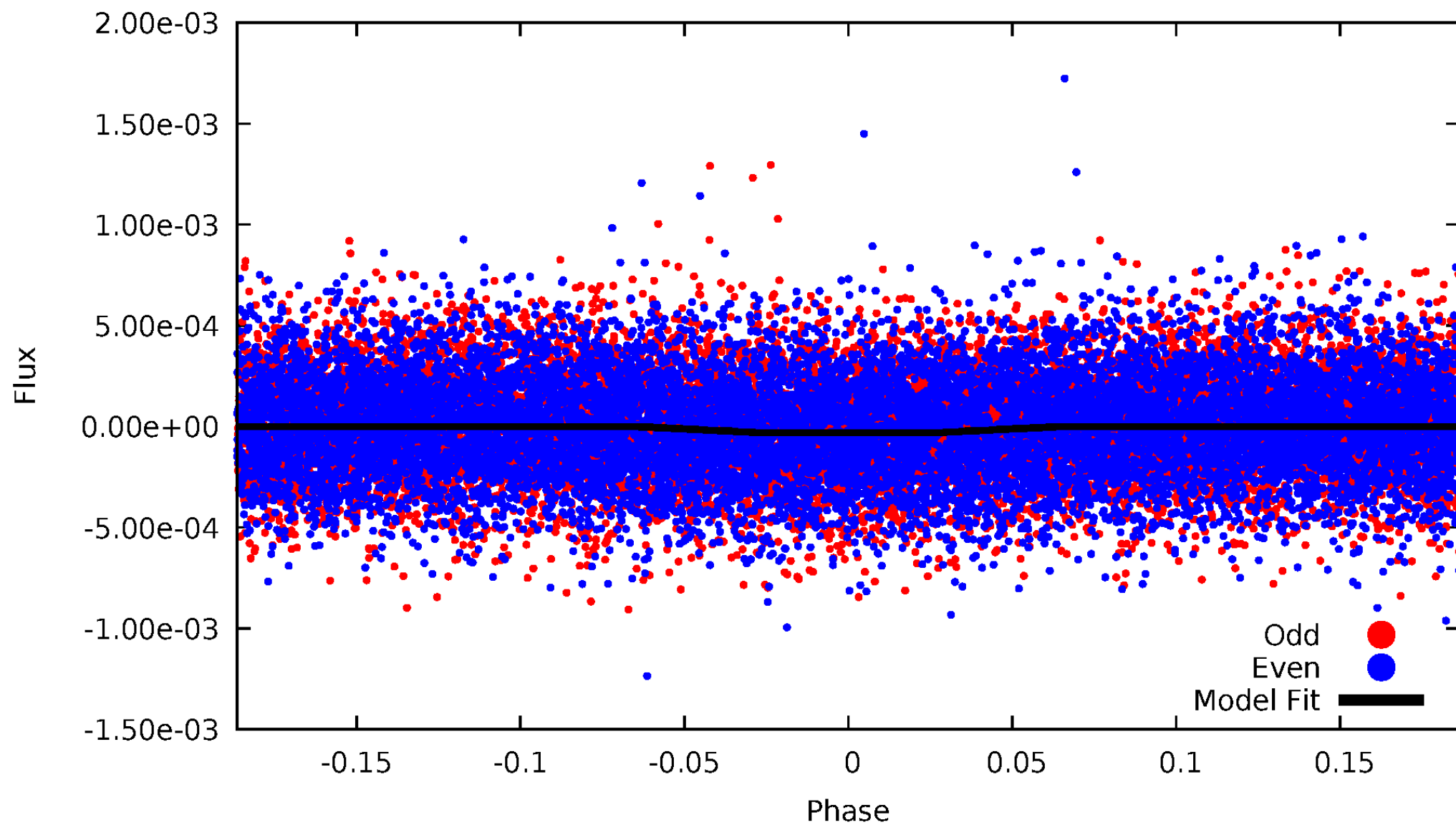
DV Odd/Even

TCE 005647403-01



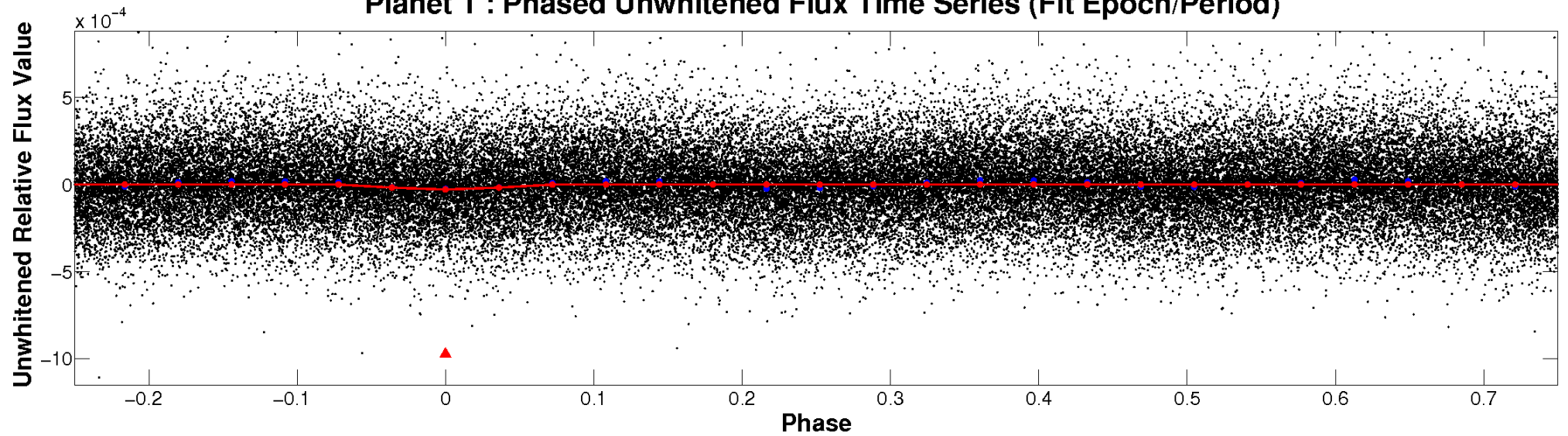
ALT Odd/Even

TCE 005647403-01

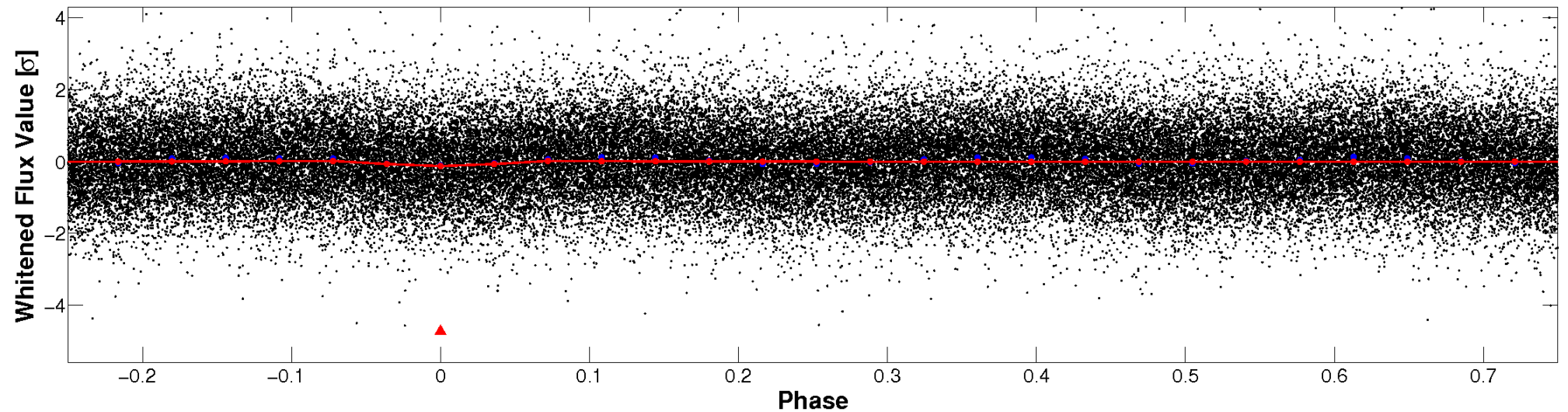


Non-Whitened Vs. Whitened Light Curve

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

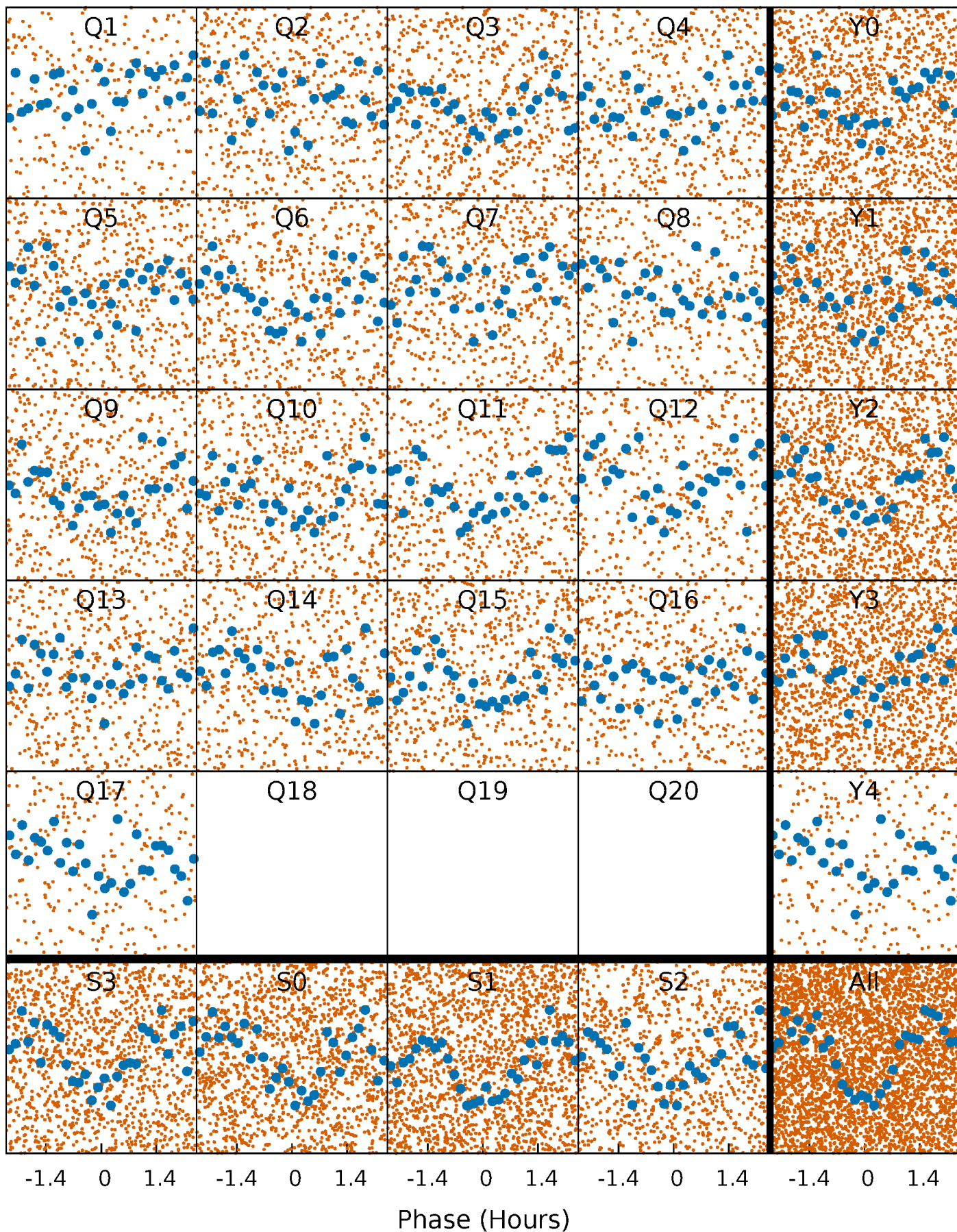


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



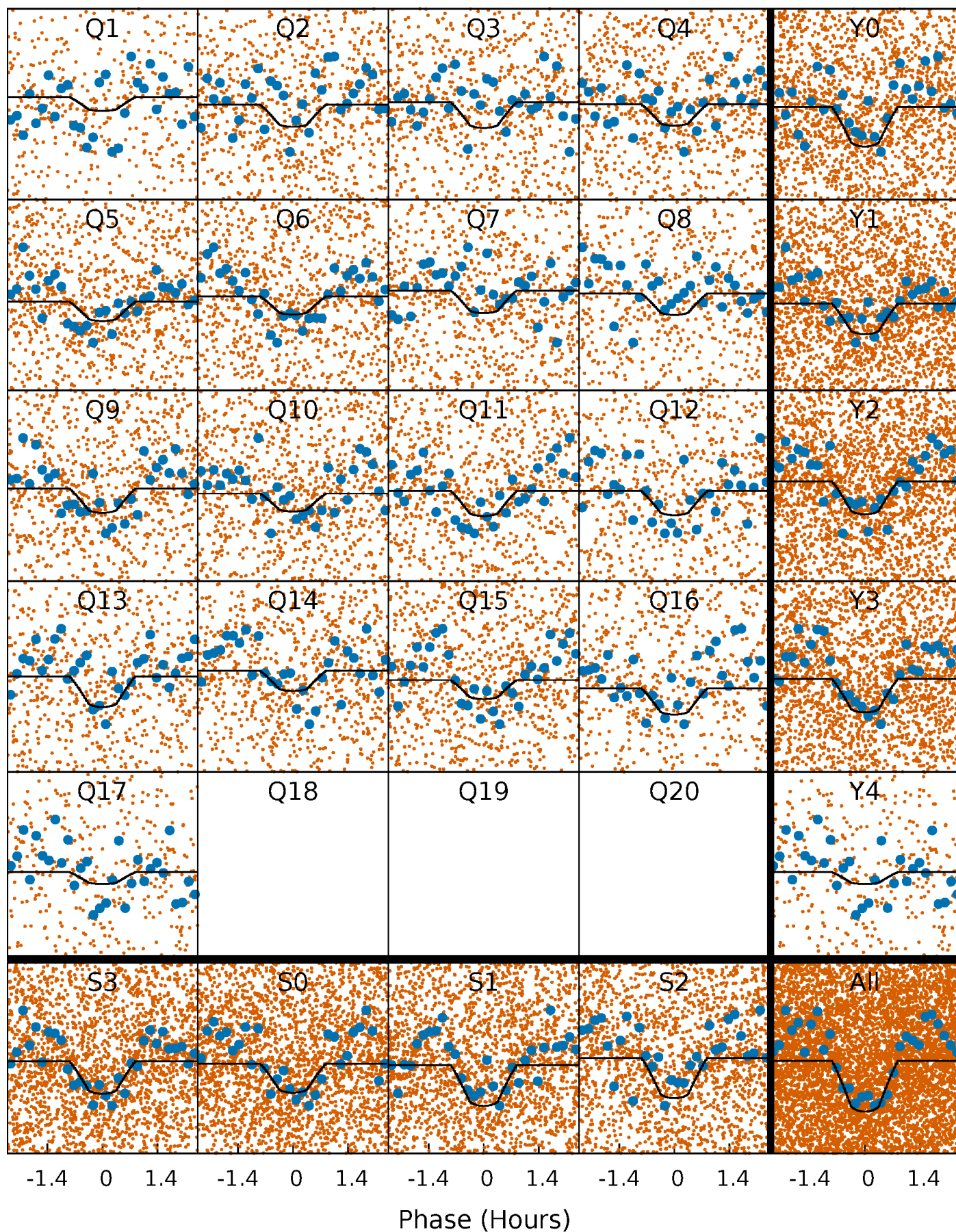
PDC Quarter-Phased Transit Curves

TCE 005647403-01 P= 0.566729 Days $T_0=131.736139$ (BKJD)



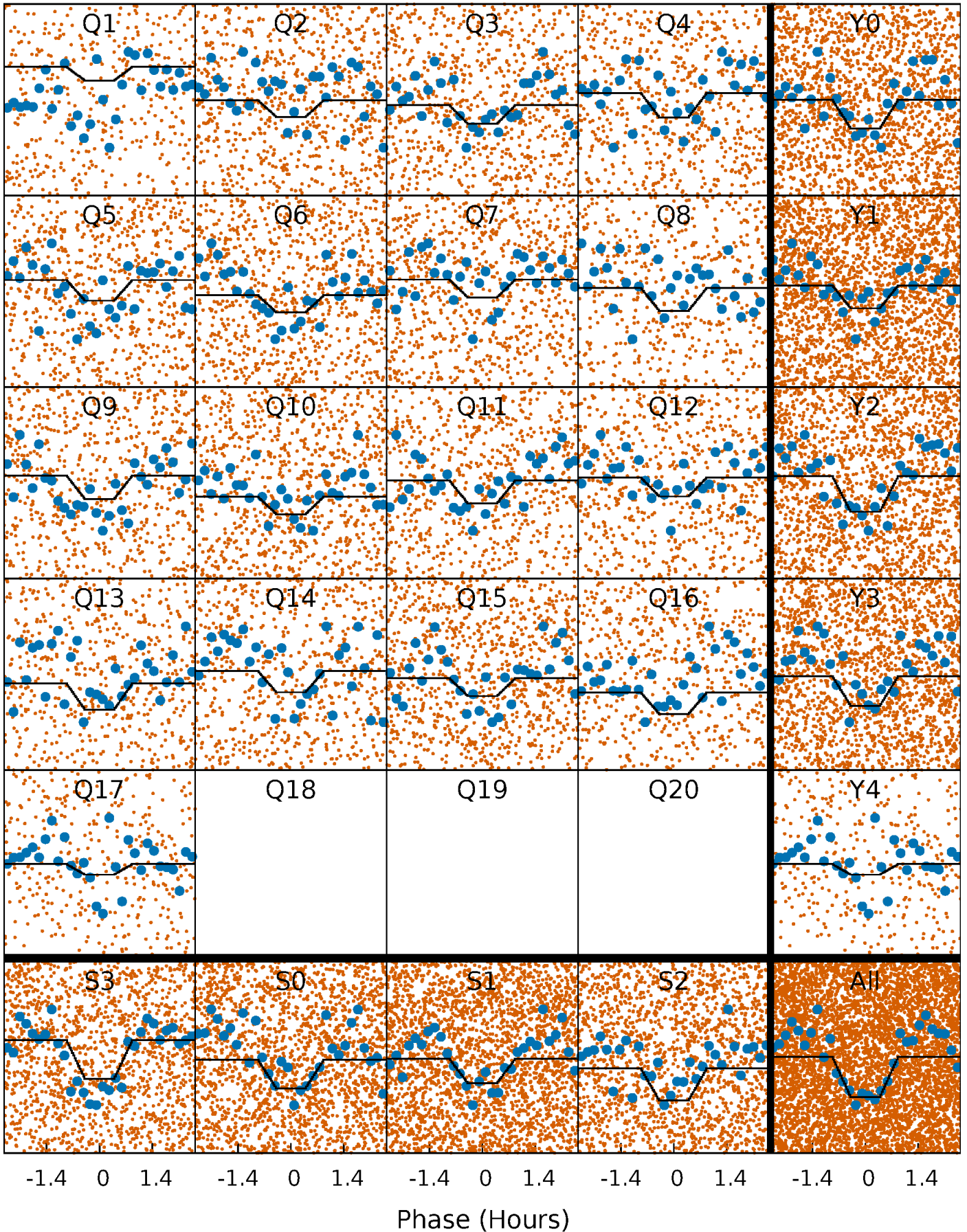
DV Quarter-Phased Transit Curves

TCE 005647403-01 P= 0.566729 Days $T_0=131.736139$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

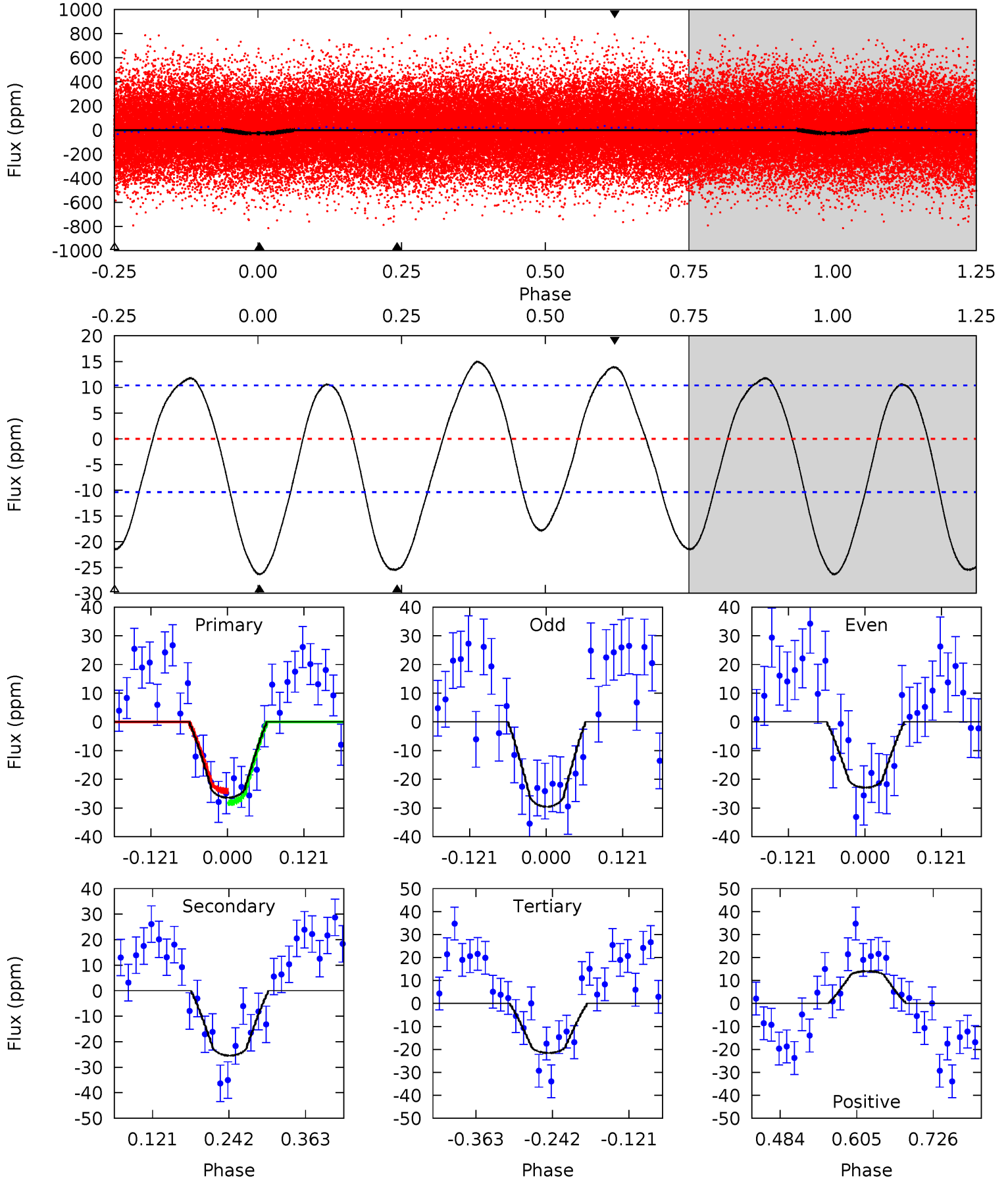
TCE 005647403-01 P= 0.566730 Days $T_0=131.736414$ (BKJD)



DV Model-Shift Uniqueness Test

005647403-01, P = 0.566729 Days, E = 131.169410 Days

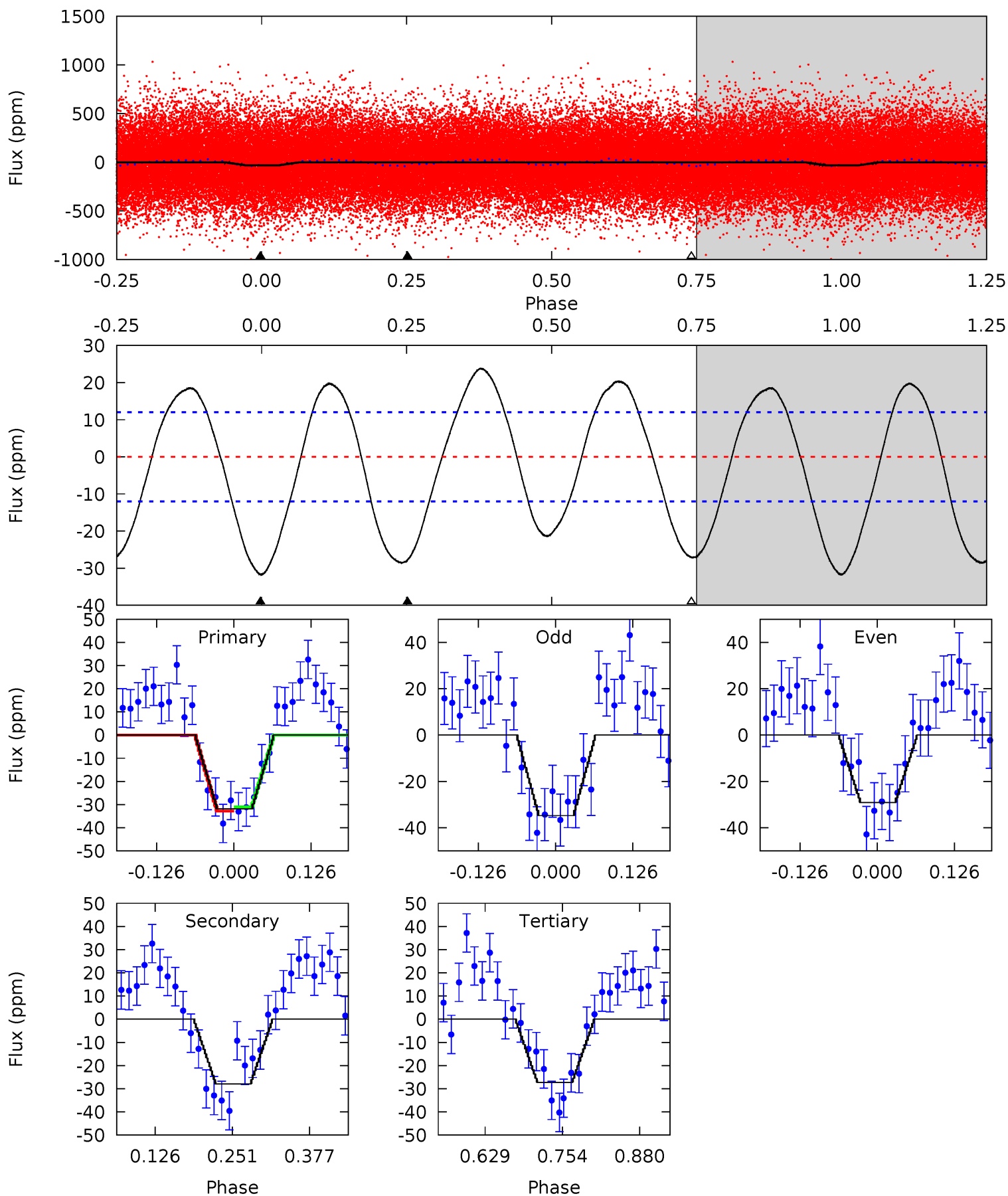
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	11.1	9.42	6.13	4.52	1.55	5.21	2.11	5.40	1.69	4.98	1.46	1.02	0.36	0.91



Alt Model-Shift Uniqueness Test

005647403-01, P = 0.566730 Days, E = 131.169684 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	10.5	10.2	0	4.52	1.53	6.05	1.72	12.0	0.23	10.5	1.08	1.14	0.43	0.32



Stellar Parameters For KIC 005647403

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6218^{+224}_{-247}	$3.511^{+0.705}_{-0.124}$	$-0.100^{+0.300}_{-0.300}$	$3.779^{+0.634}_{-2.378}$	$1.691^{+0.152}_{-0.608}$	$0.044^{+0.561}_{-0.016}$
	+4%/-4%	+20%/-4%	+300%/-300%	+17%/-63%	+9%/-36%	+1273%/-36%
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 005647403-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-25 ± 2	$1.88^{+0.88}_{-0.79}$	5698^{+489}_{-958}	5498^{+1690}_{-1206}	$0.962^{+1.848}_{-0.503}$
Alt.	-28 ± 3	$2.04^{+0.82}_{-0.81}$	5757^{+459}_{-886}	5468^{+1469}_{-1111}	$0.908^{+1.411}_{-0.431}$

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

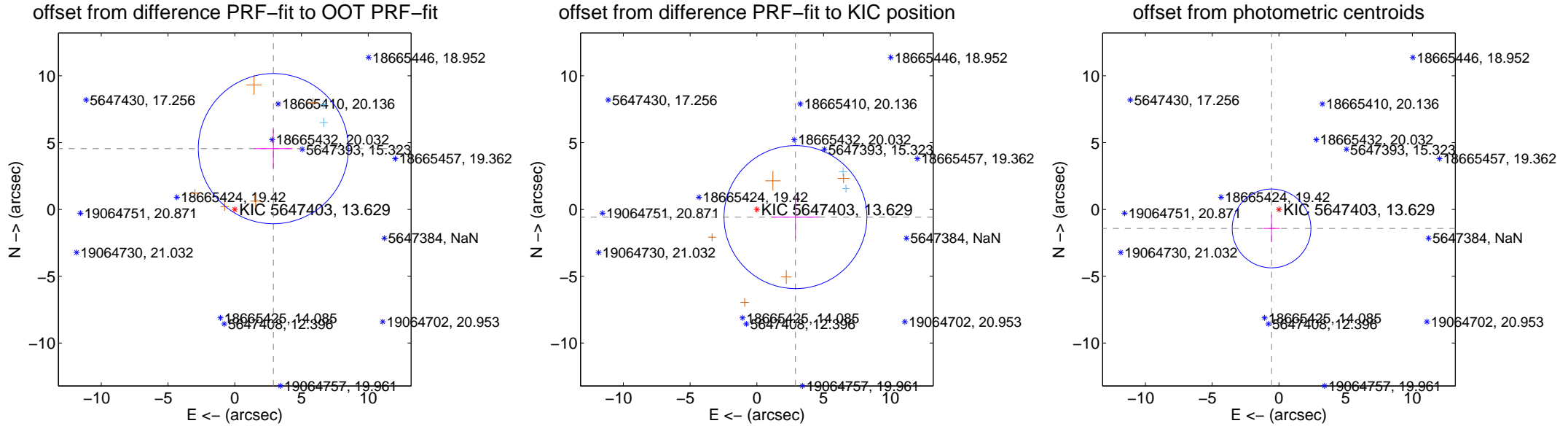
DV Centroid Data

Supplemental centroid analysis for 005647403-01. Kepler magnitude: 13.63. Transit SNR 8.08

There are 2 quarters with good PRF difference image offsets

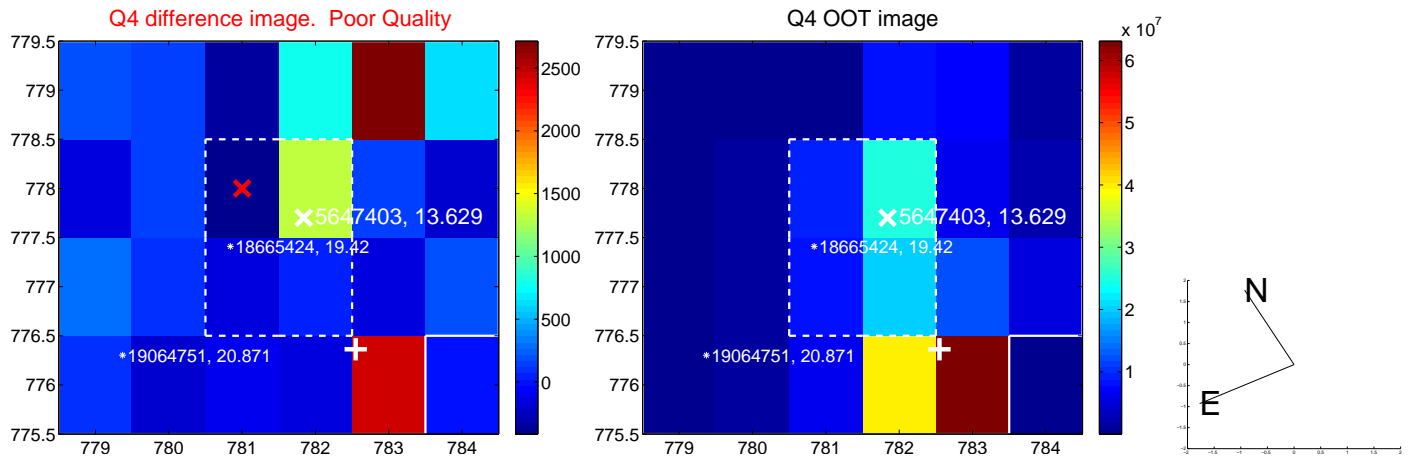
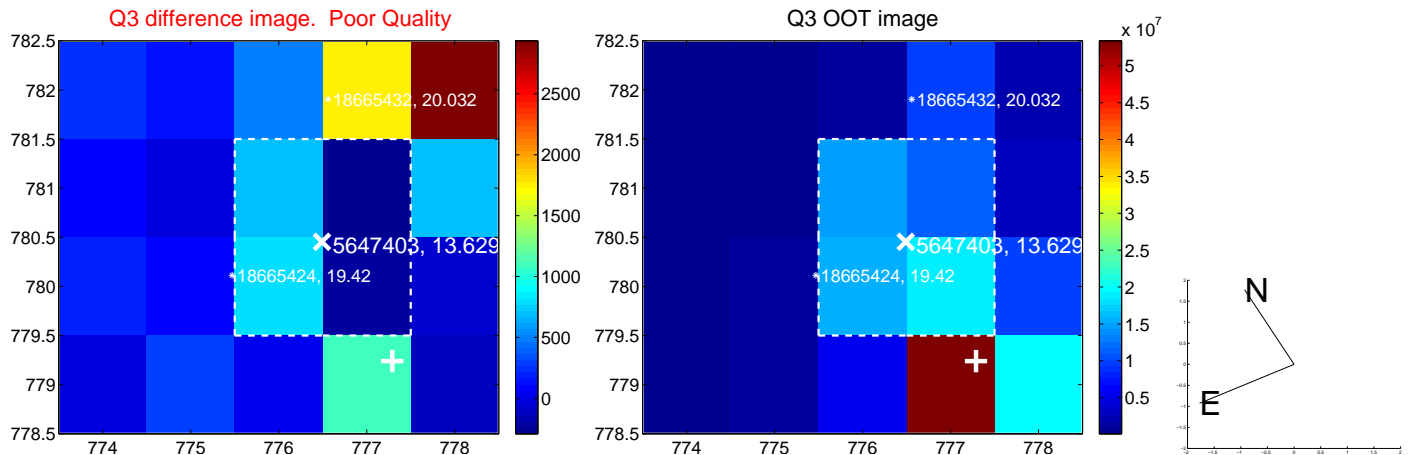
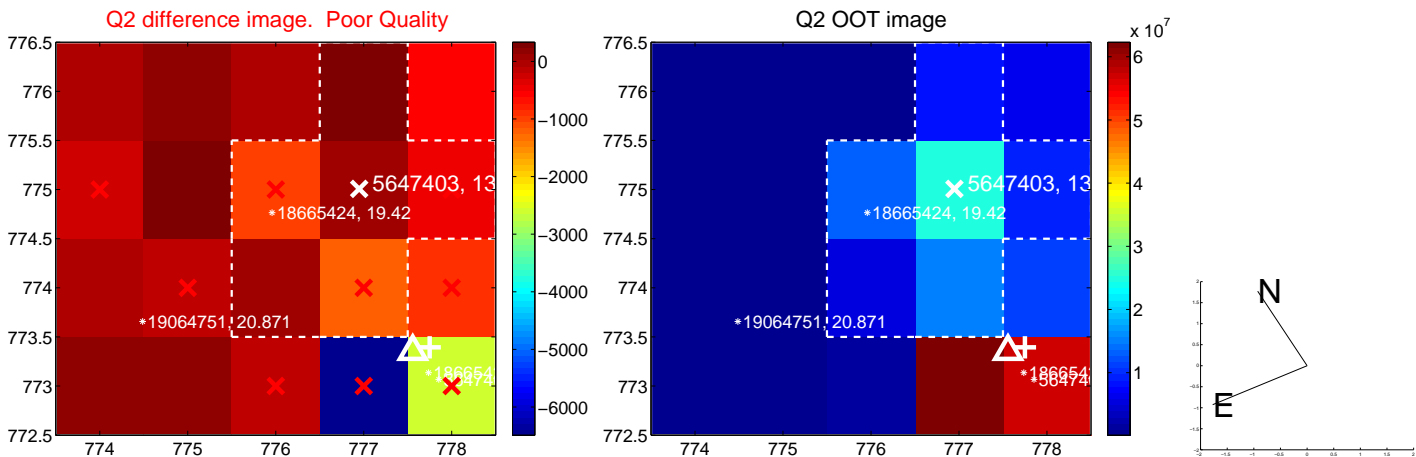
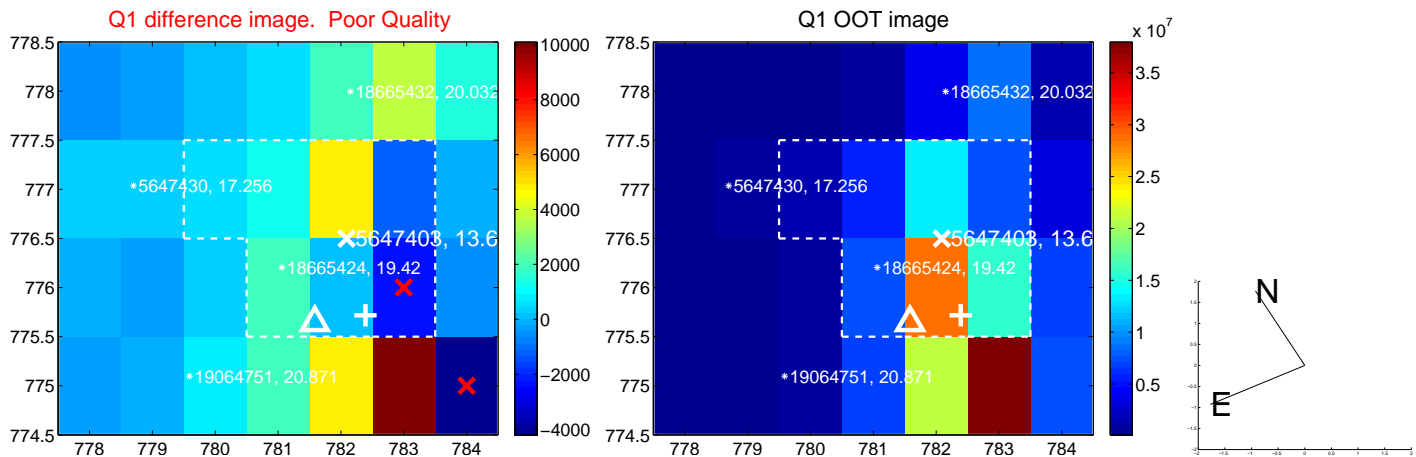
The OOT PRF centroid is offset from the target star catalog position by about 5.72 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.390 ± 1.874	2.88	-2.889 ± 1.443	4.550 ± 1.451
PRF-fit source offset from KIC position	2.949 ± 1.784	1.65	-2.892 ± 1.790	-0.576 ± 1.606
photometric centroid source offset	1.53 ± 0.98	1.55	0.55 ± 0.61	-1.42 ± 1.03

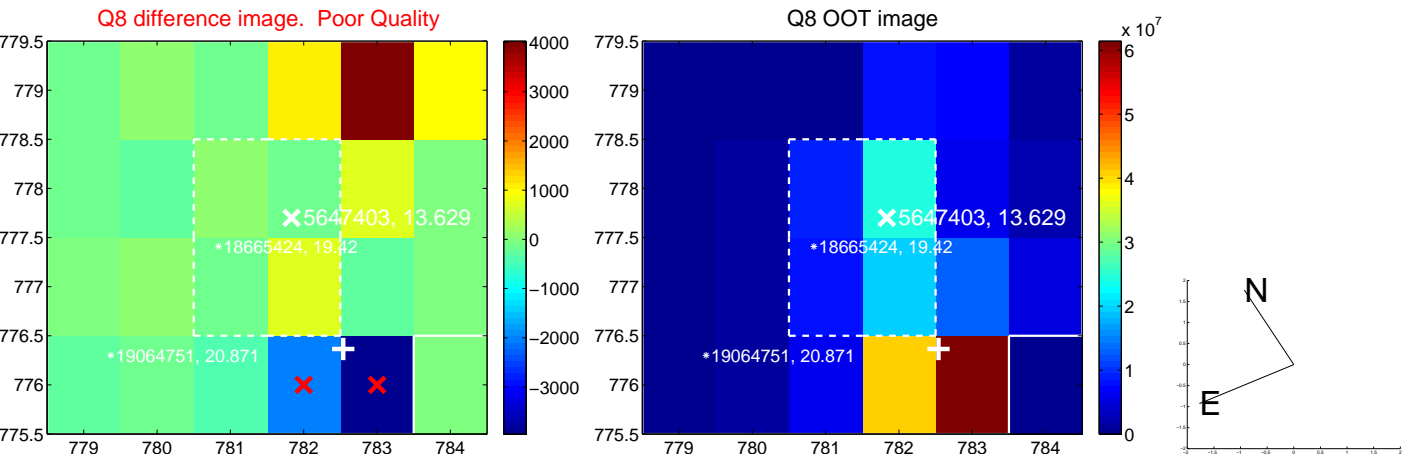
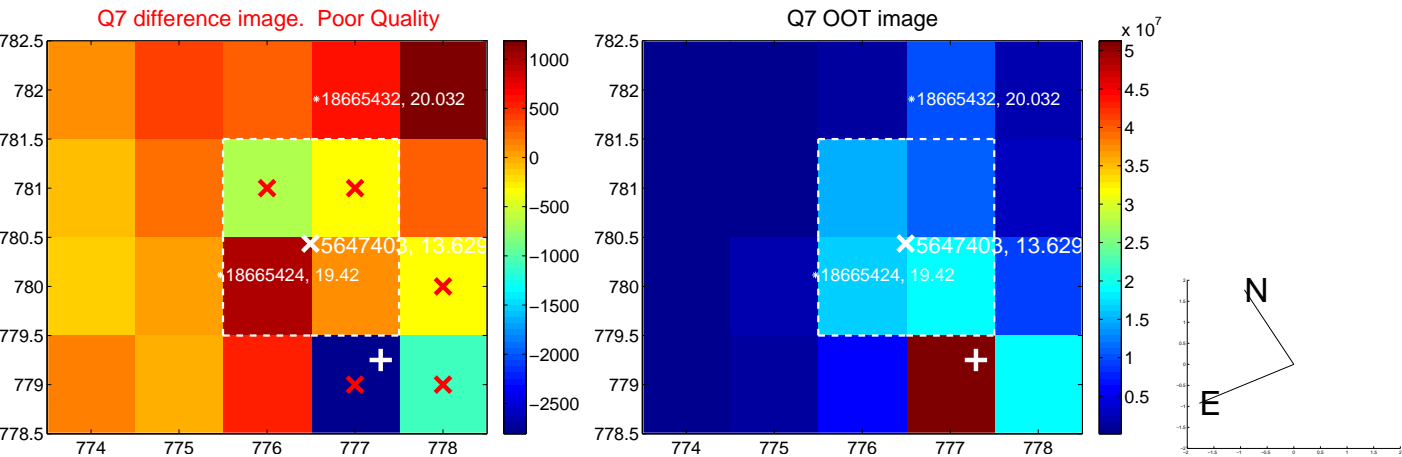
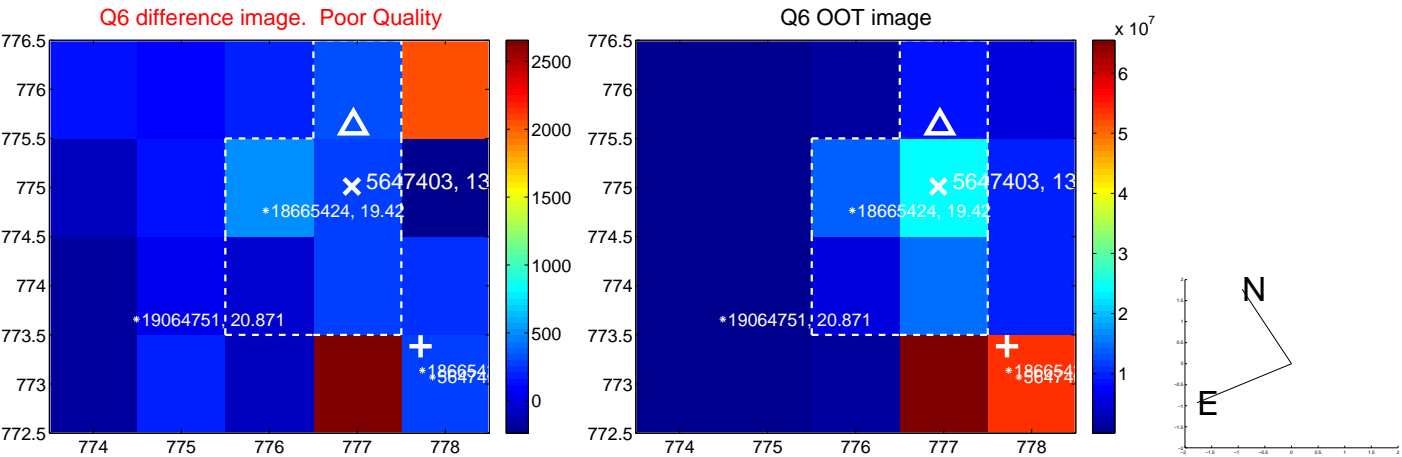
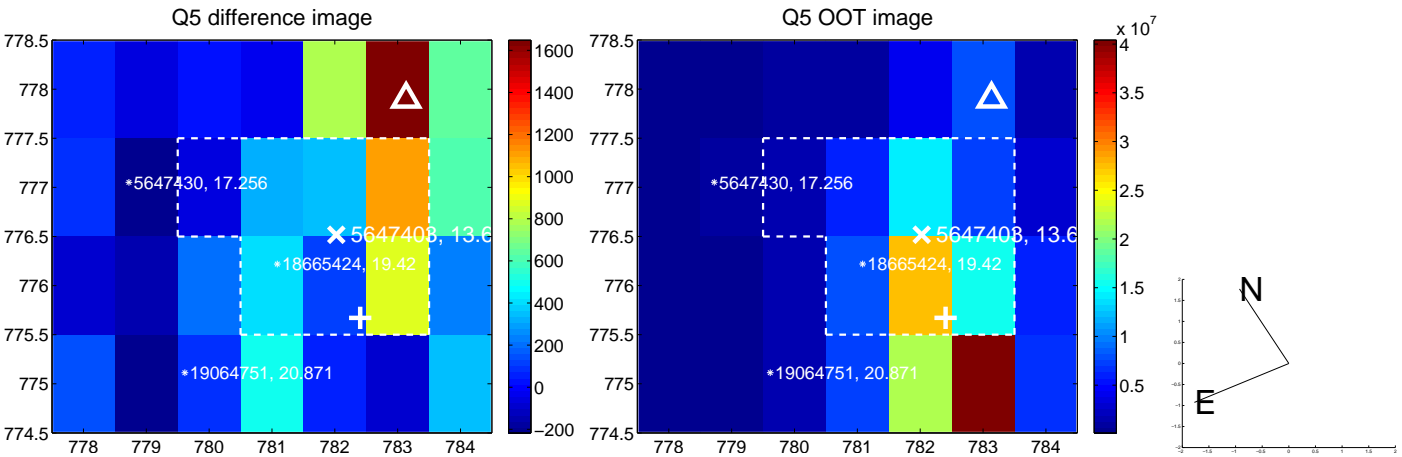


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

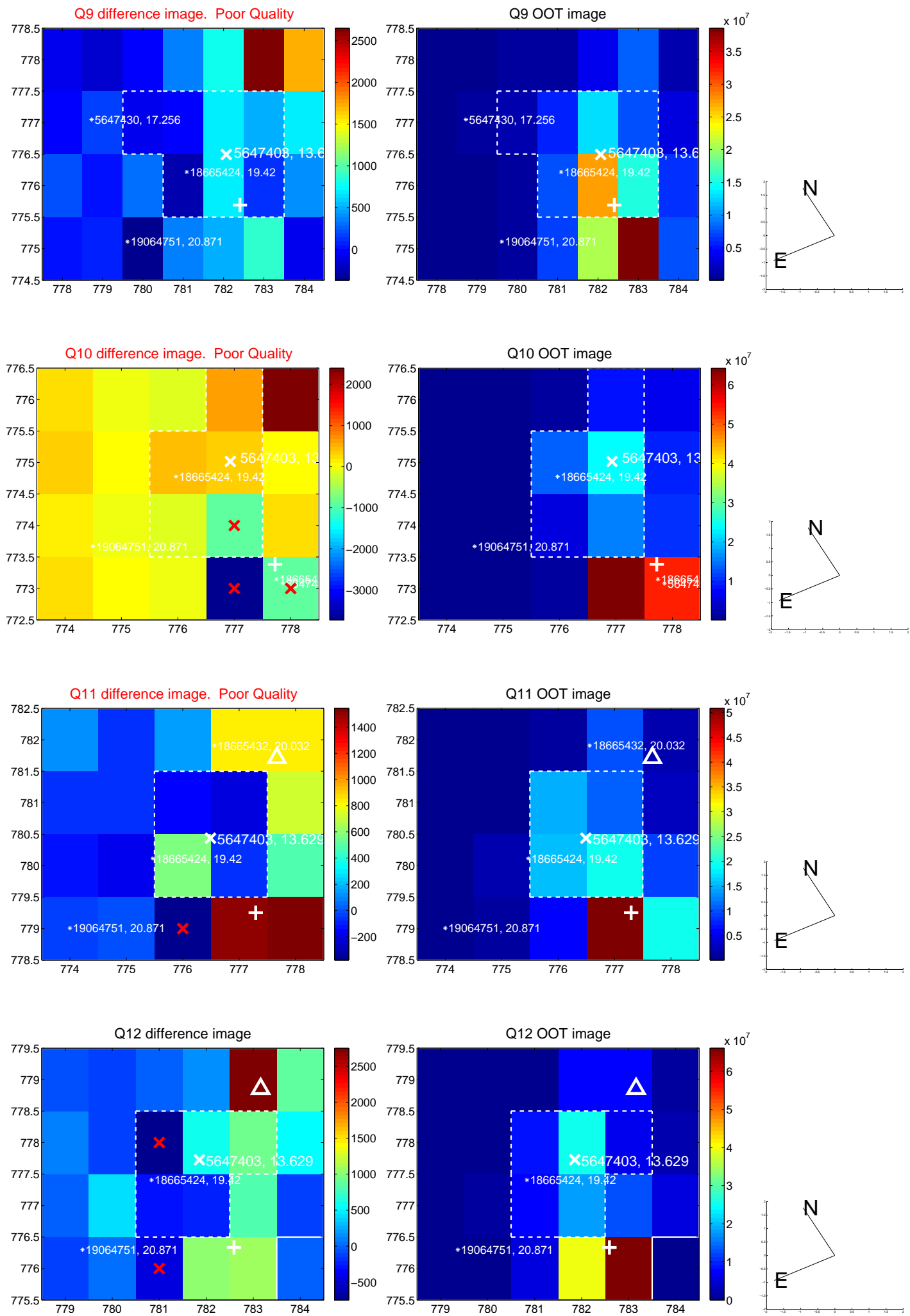
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



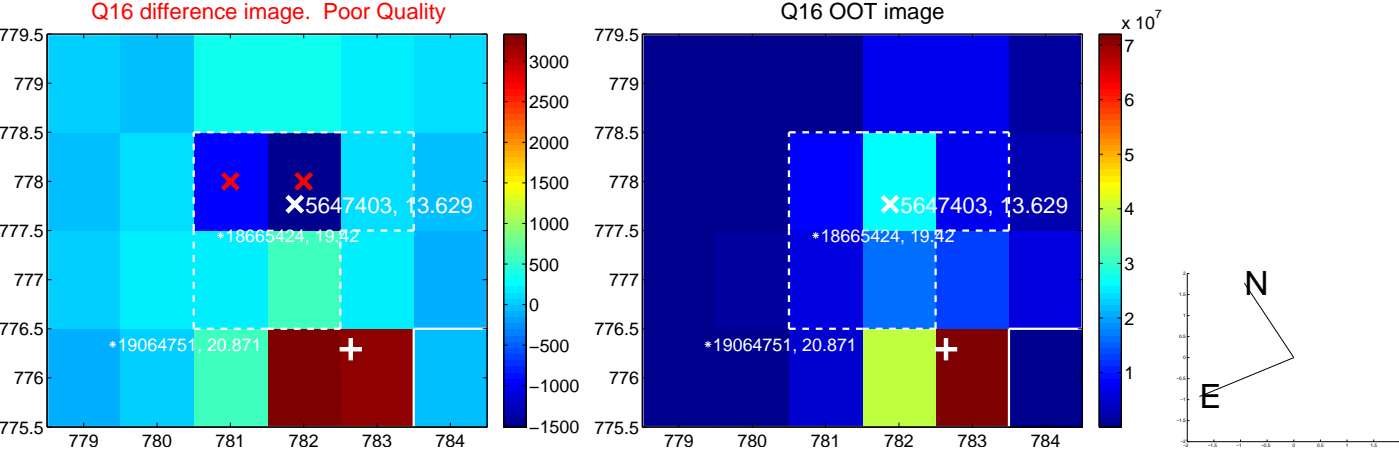
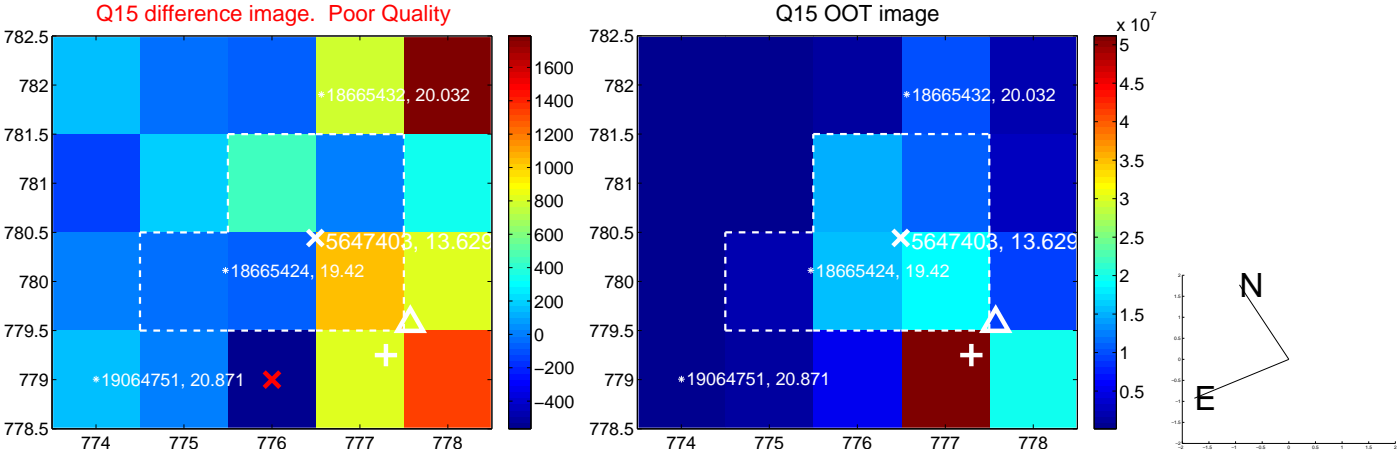
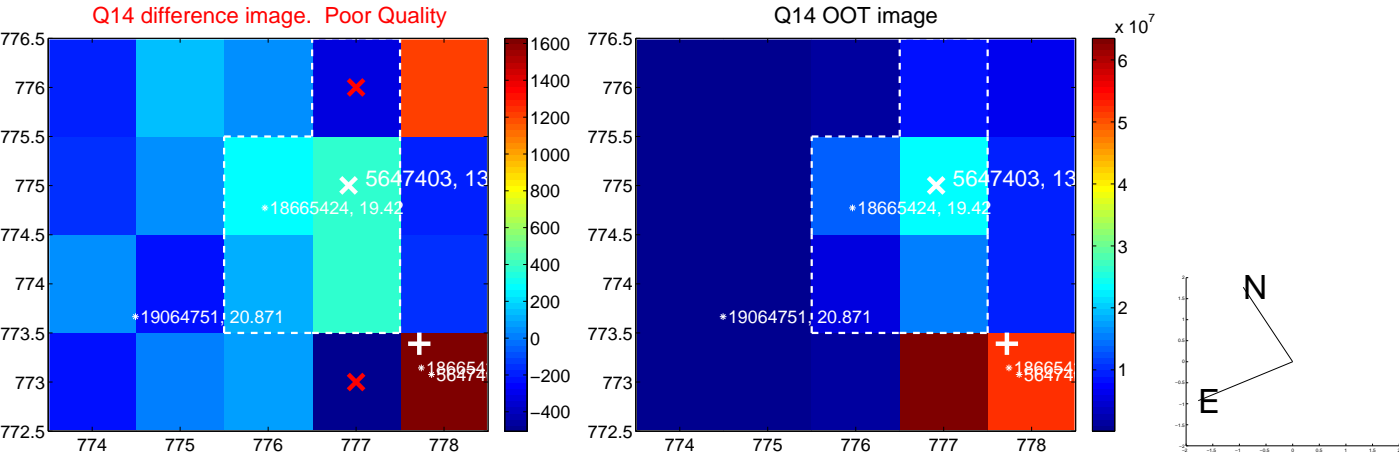
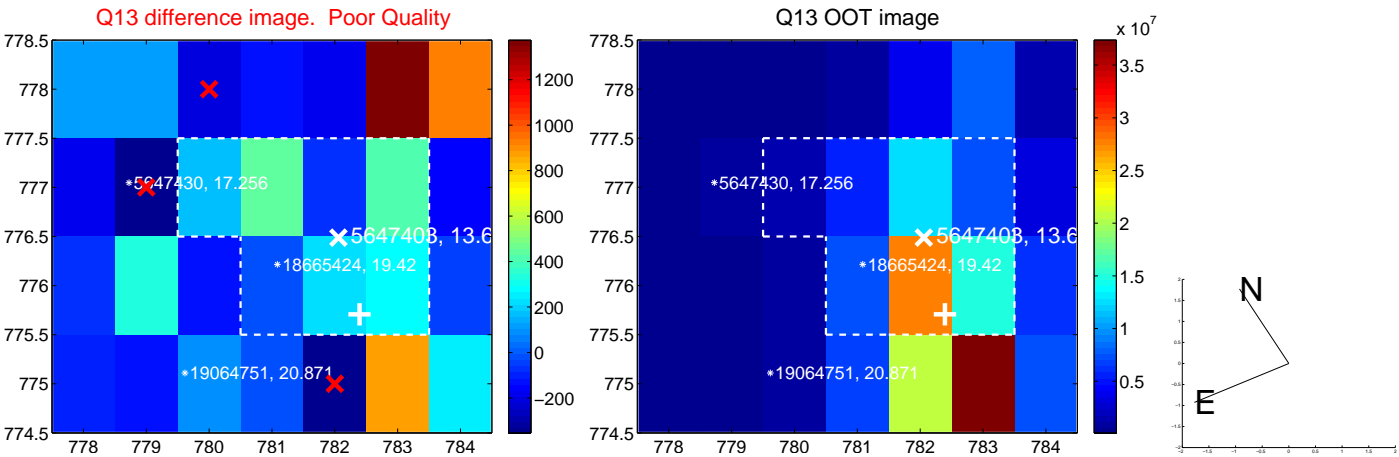
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



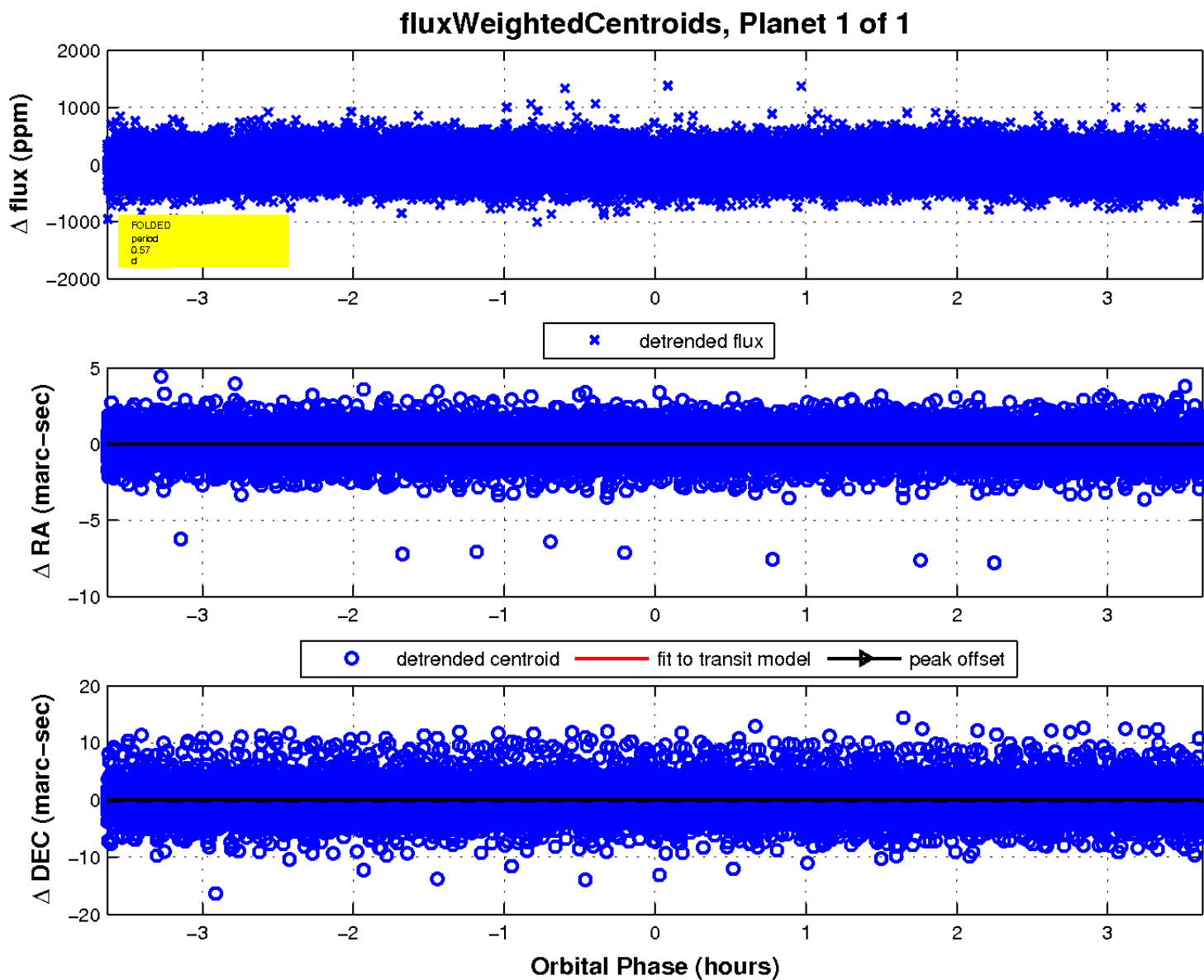
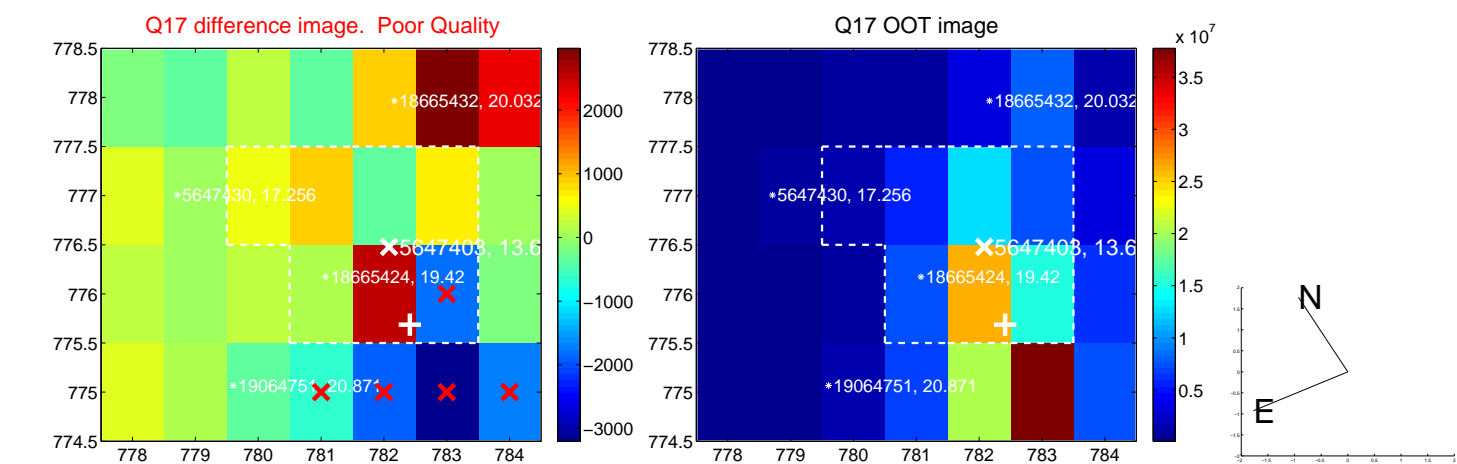
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

