

KIC 008587732

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})
008587732-01	OBS	No	0.552244	131.890381	25.6	1.423	8.4	8.5	0.81	5642	0.48	3929.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008587732-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET

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

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

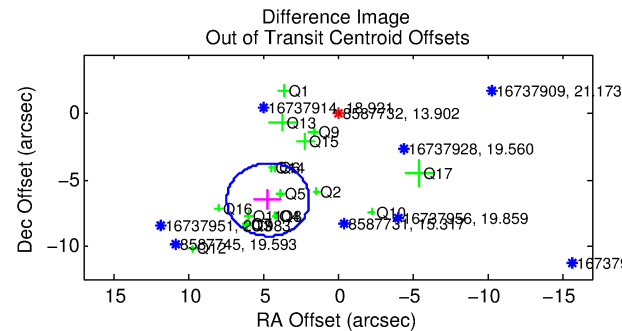
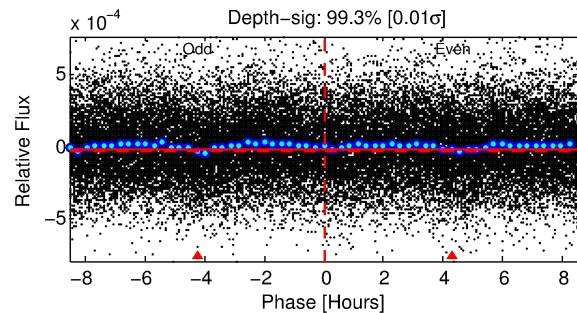
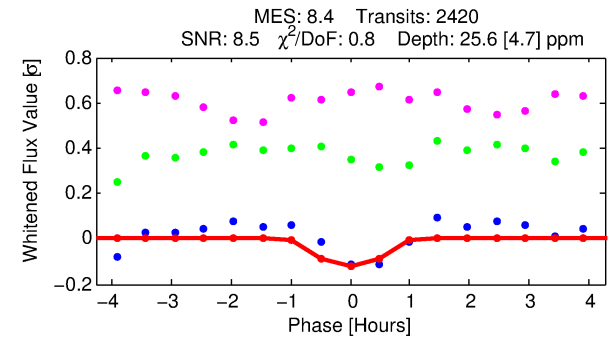
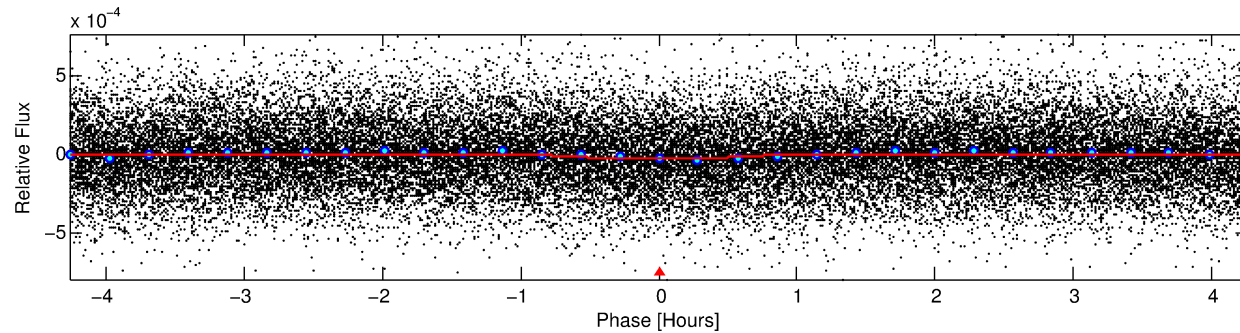
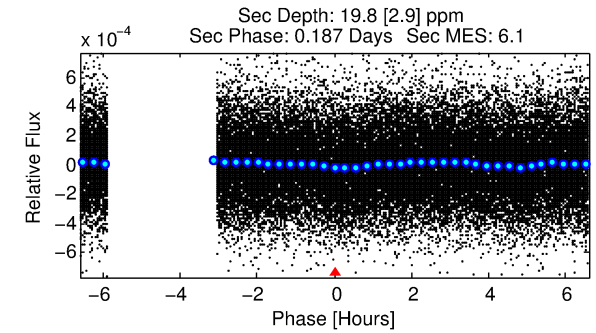
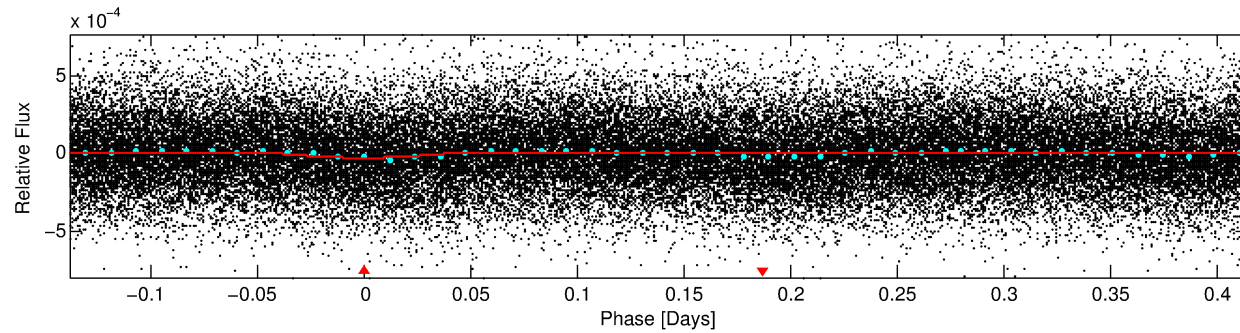
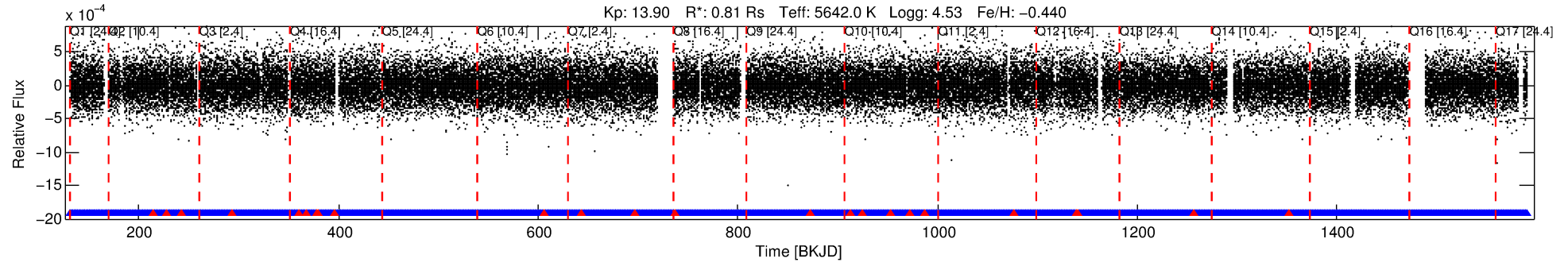
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008587732-01

No Significant Match Found

DV One-Page Summary

KIC: 8587732 Candidate: 1 of 1 Period: 0.552 d



DV Fit Results:

Period = 0.55224 [0.00001] d
Epoch = 131.8904 [0.0026] BKJD
Rp/R* = 0.0055 [0.0021]
a/R* = 1.63 [1.80]
b = 0.90 [0.38]
Seff = 3929.31 [1113.55]
Teff = 2019 [143] K
Rp = 0.48 [0.21] Re
a = 0.0122 [0.0022] AU
Ag = 6.94 [5.56] [1.07σ]
Teffp = 5066 [973] K [3.10σ]

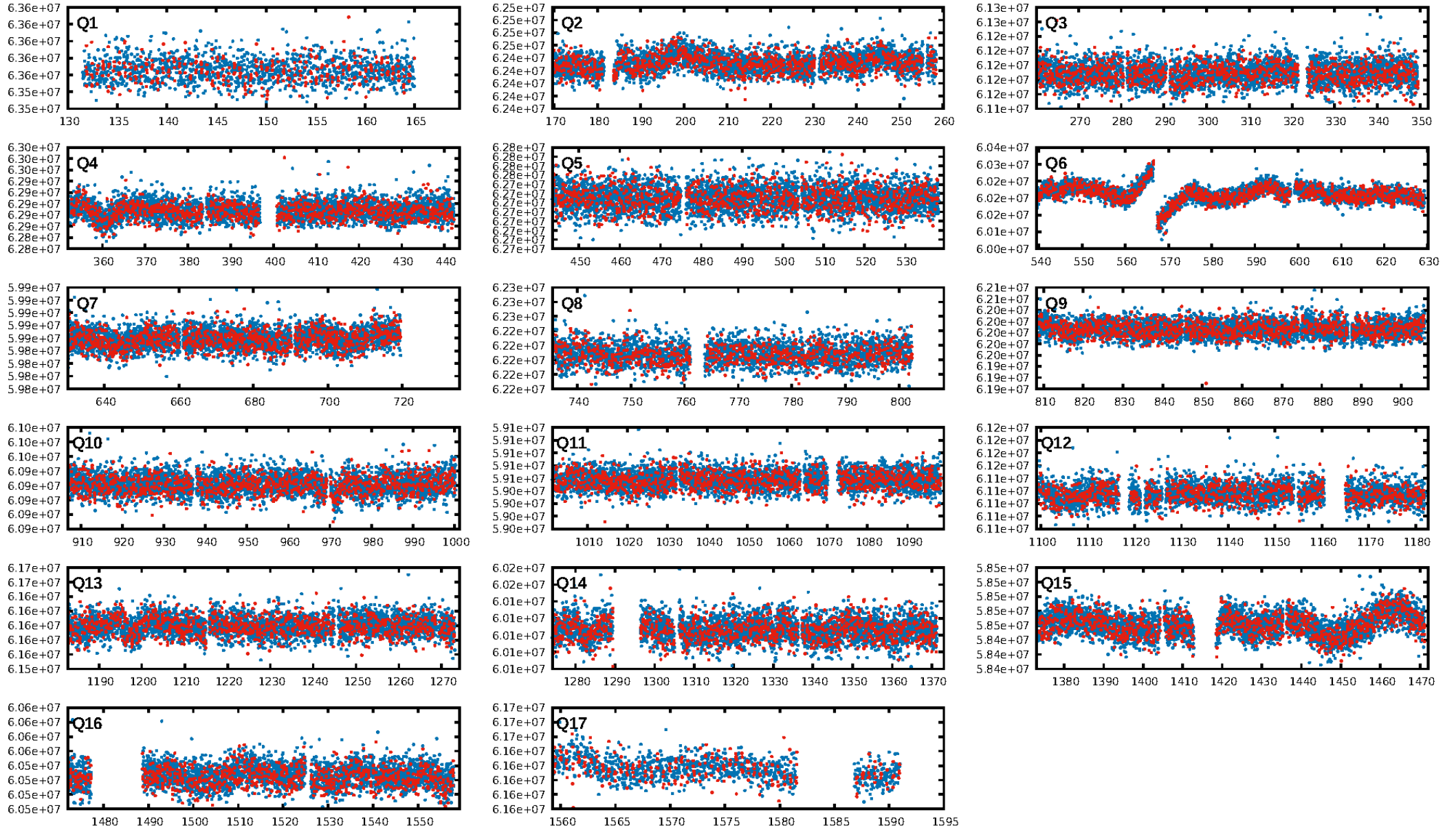
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.04e-16
RollingBand-fgt: 0.99 [2287/2311]
GhostDiagnostic-chr: -0.7339
Centroid-sig: 0.0%
Centroid-so: 6.233 arcsec [3.72σ]
OotOffset-rm: 7.983 arcsec [8.66σ]
KicOffset-rm: 8.304 arcsec [8.27σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.06 [1/17]
DiffImageOverlap-fno: 1.00 [17/17]

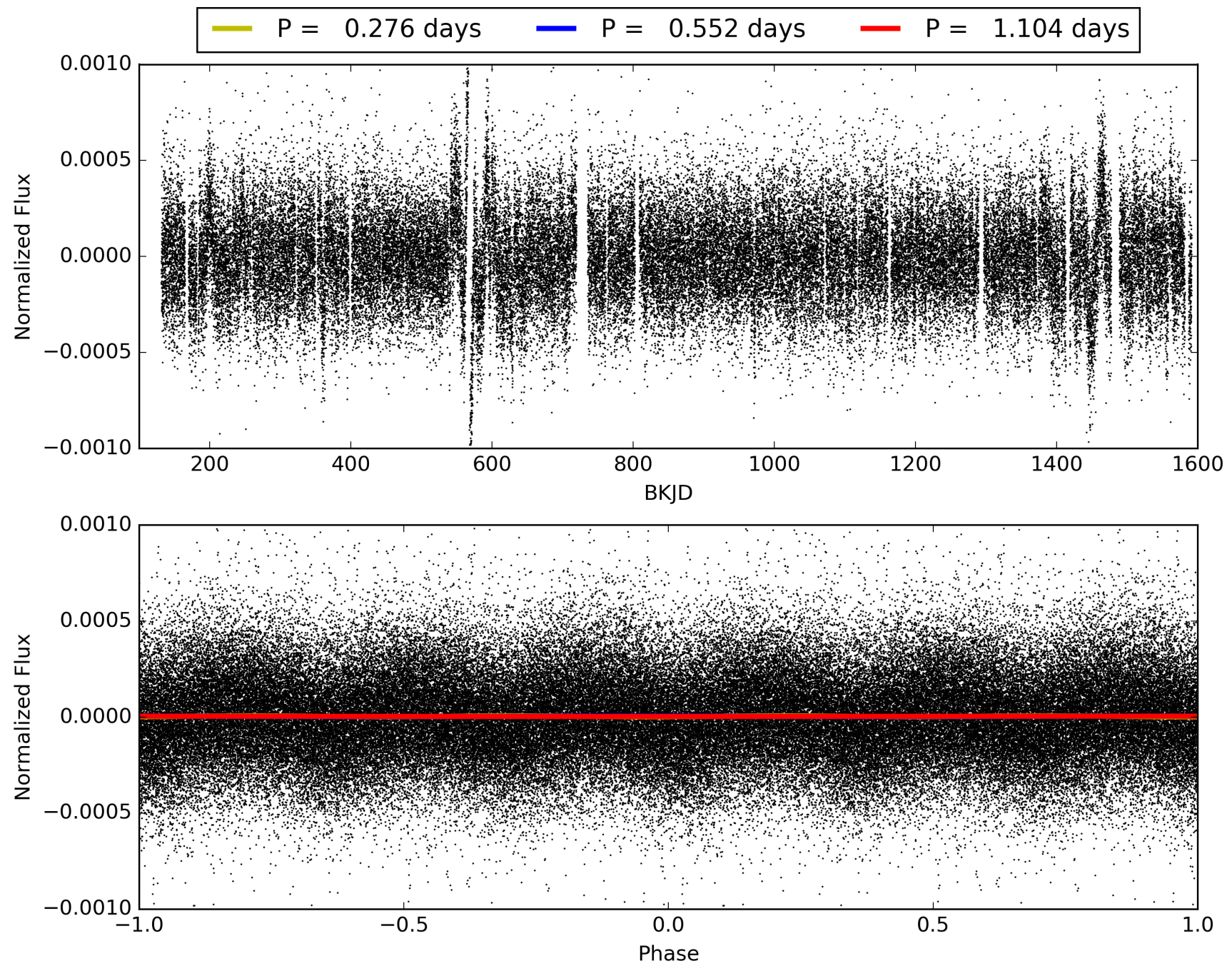
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:09:38 Z

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

TCE 008587732-01, PDC Light Curves

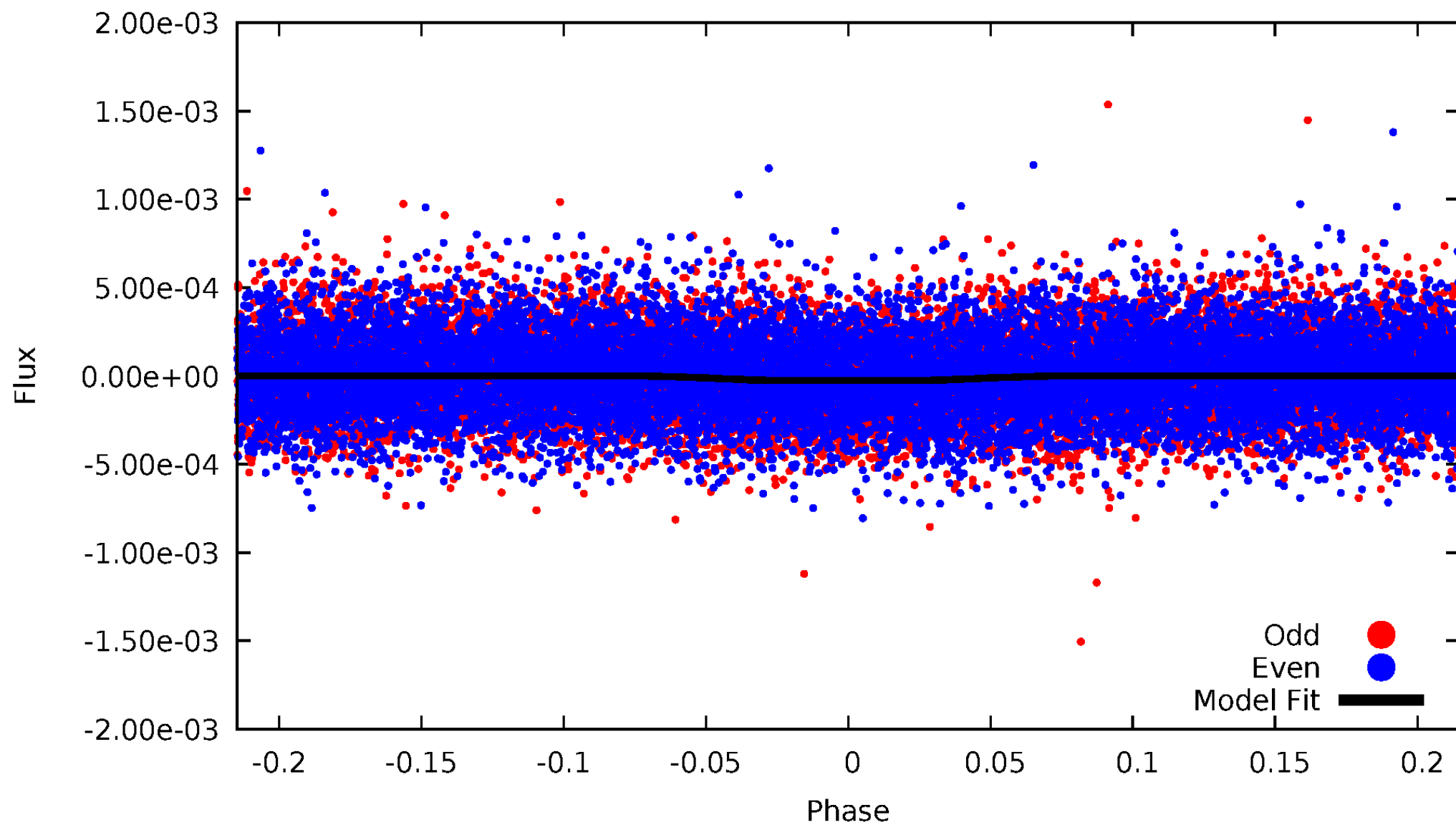


TCE 008587732-01



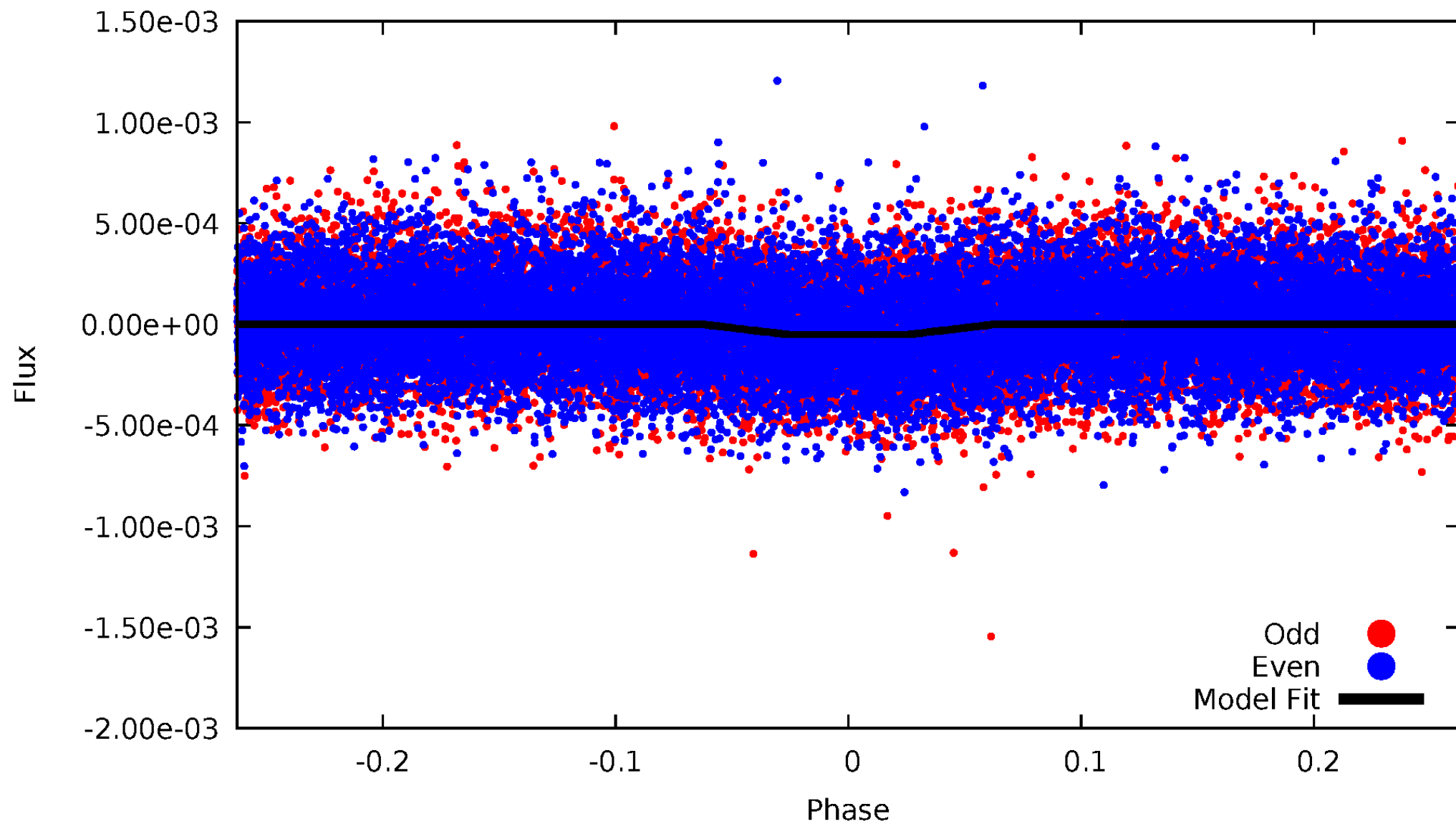
DV Odd/Even

TCE 008587732-01



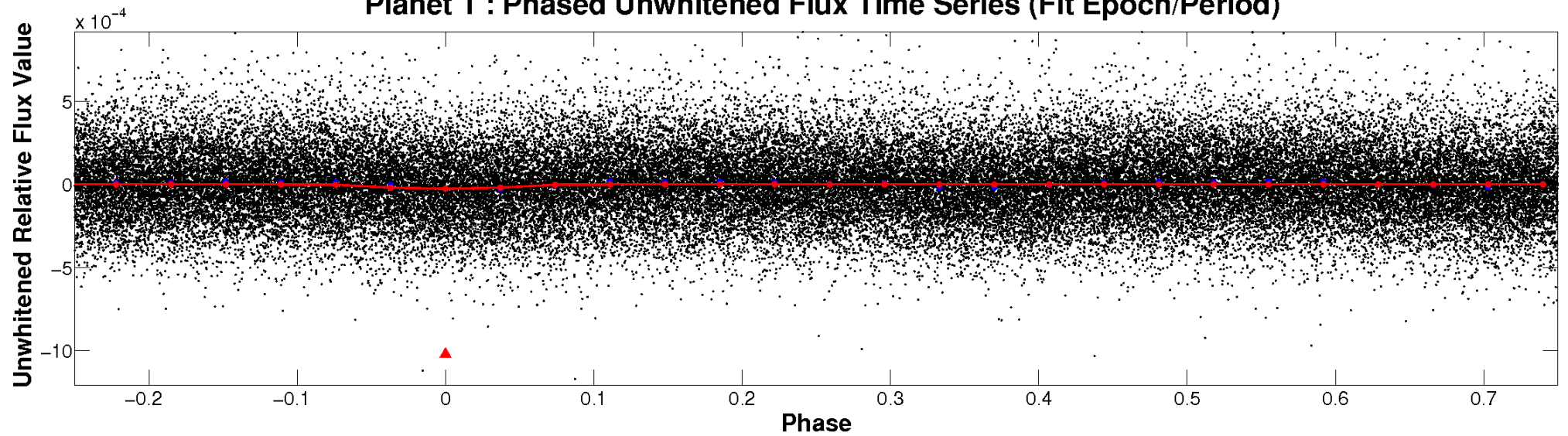
ALT Odd/Even

TCE 008587732-01

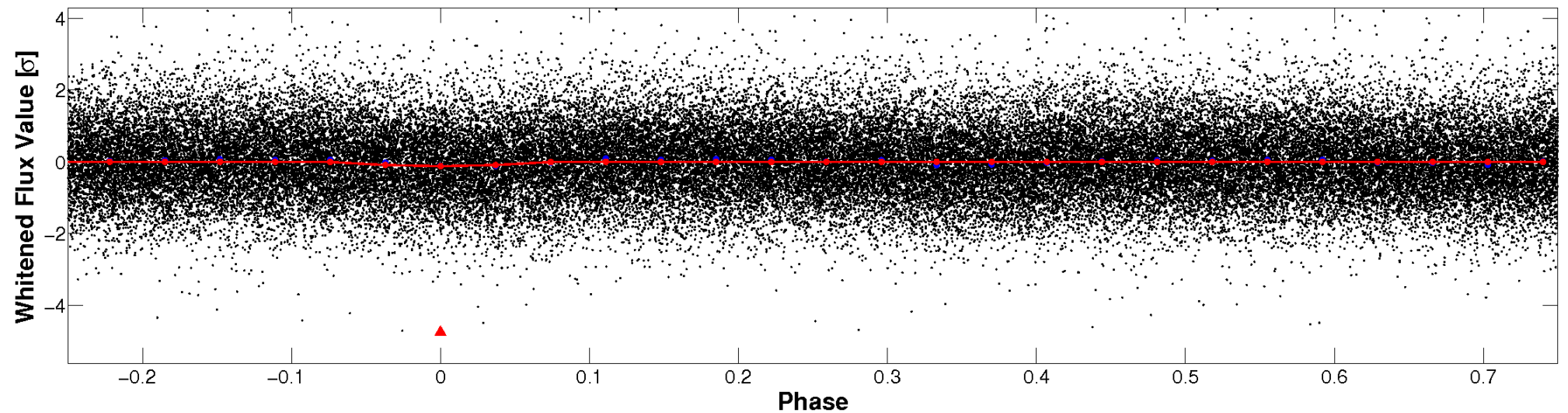


Non-Whitened Vs. Whitened Light Curve

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

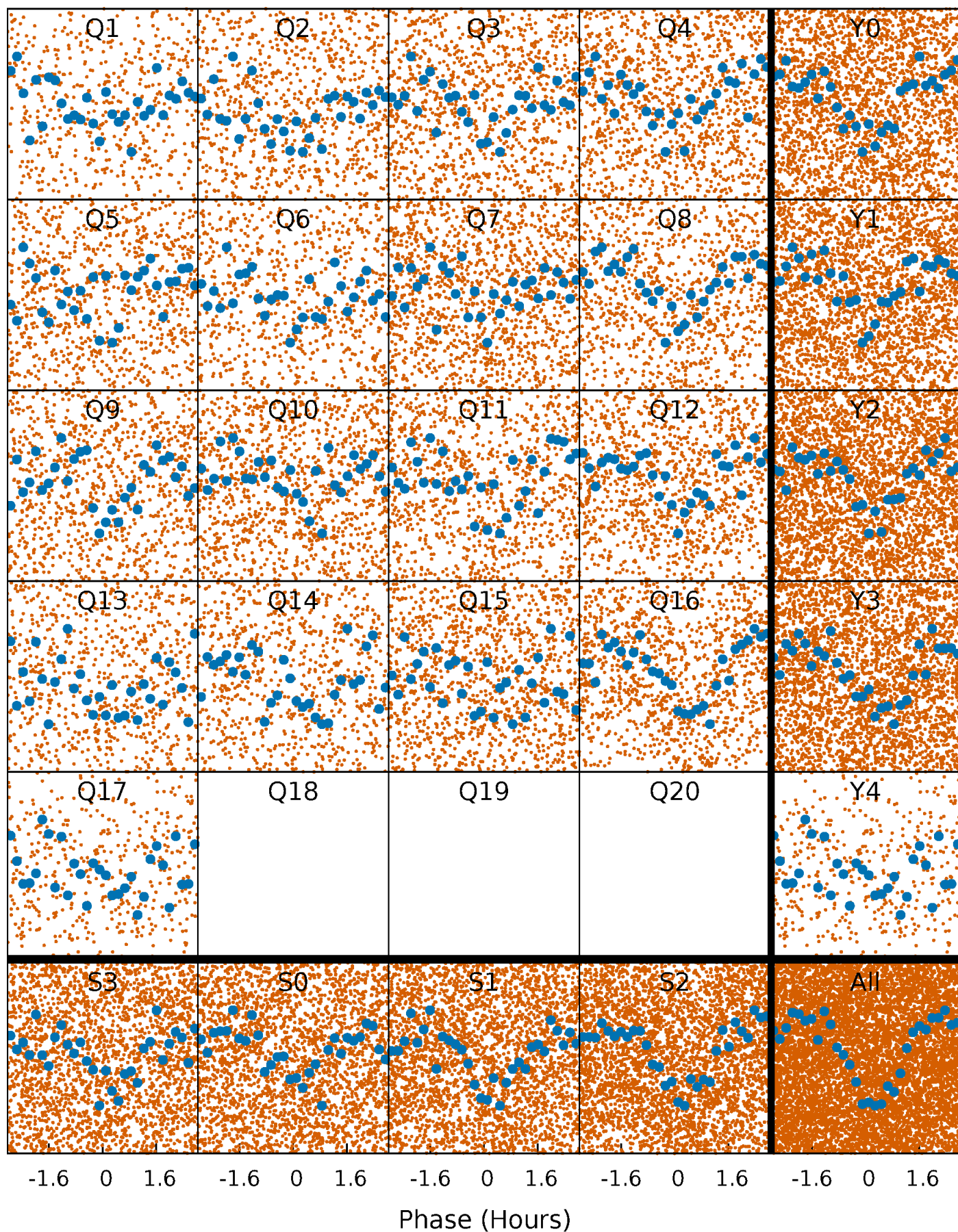


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



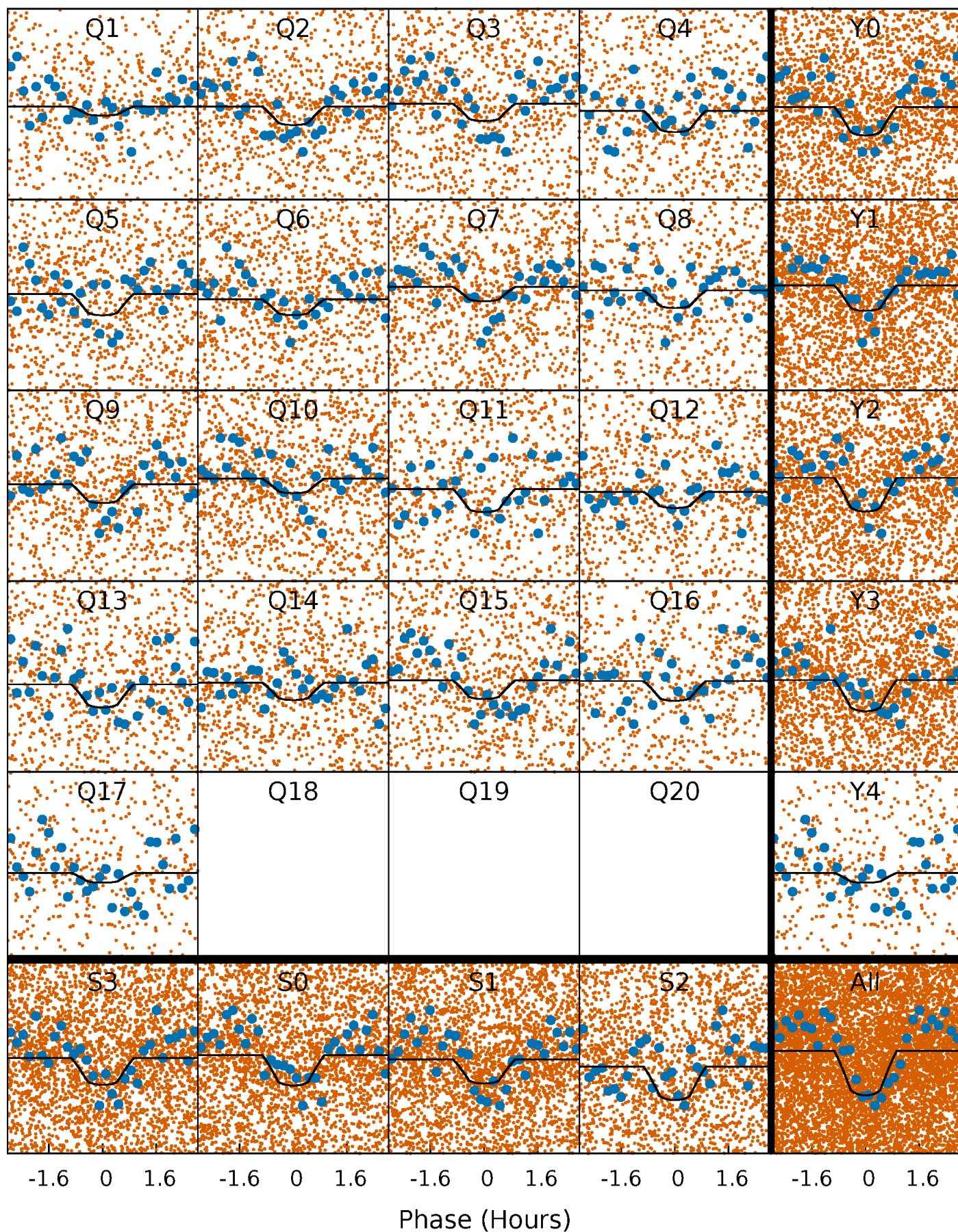
PDC Quarter-Phased Transit Curves

TCE 008587732-01 P= 0.552244 Days $T_0=131.890381$ (BKJD)



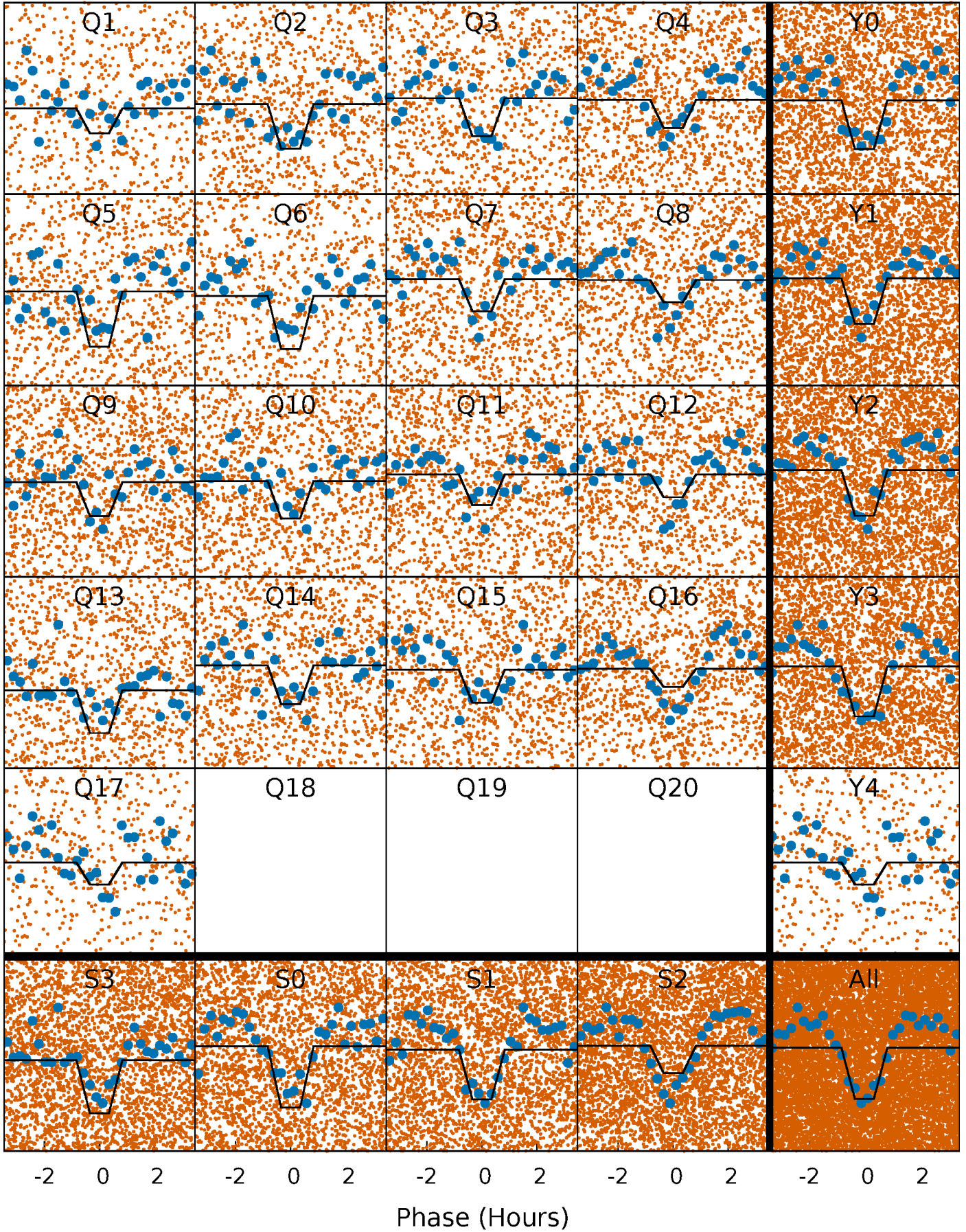
DV Quarter-Phased Transit Curves

TCE 008587732-01 P= 0.552244 Days $T_0=131.890381$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

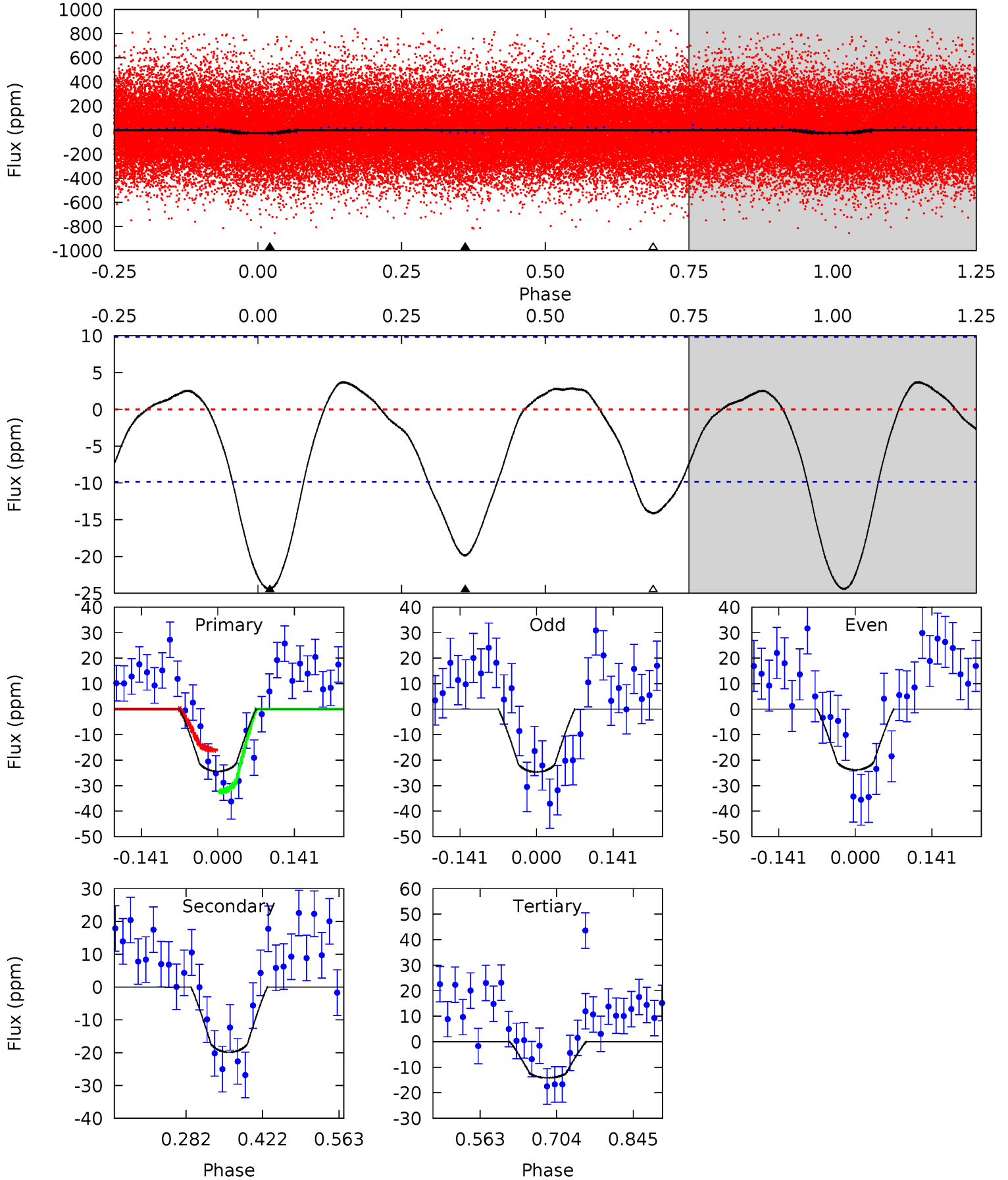
TCE 008587732-01 P= 0.552253 Days $T_0=131.889600$ (BKJD)



DV Model-Shift Uniqueness Test

008587732-01, P = 0.552244 Days, E = 131.338137 Days

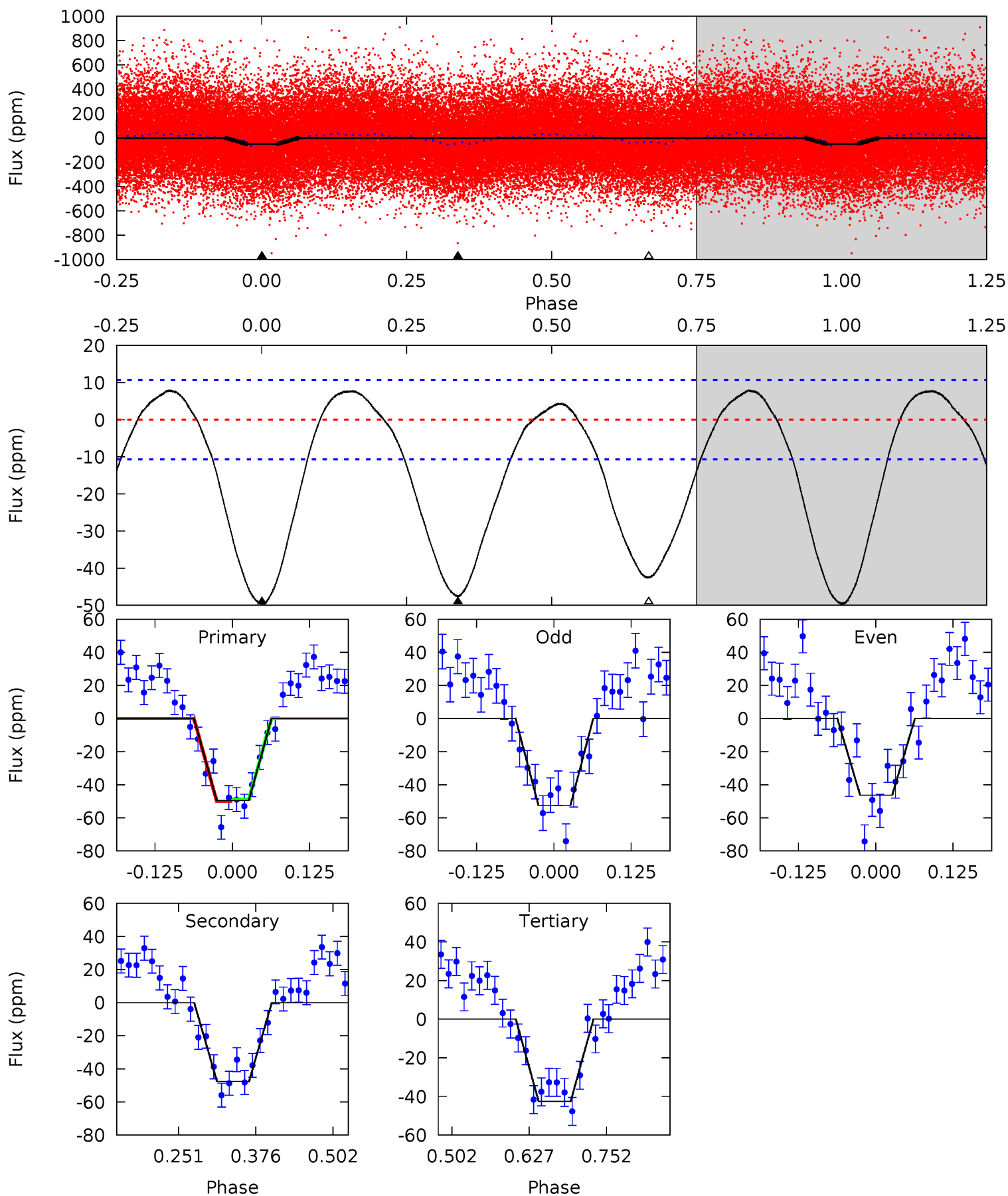
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	9.05	6.44	0	4.49	1.47	2.62	4.69	11.1	2.61	9.05	0.19	1.09	0.13	3.73



Alt Model-Shift Uniqueness Test

008587732-01, P = 0.552253 Days, E = 131.337347 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.0	20.1	18.0	0	4.52	1.53	7.15	2.98	21.0	2.14	20.1	1.30	0.93	0.14	0.26



Stellar Parameters For KIC 008587732

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5642^{+169}_{-152}	$4.530^{+0.074}_{-0.137}$	$-0.440^{+0.300}_{-0.300}$	$0.805^{+0.178}_{-0.082}$	$0.801^{+0.106}_{-0.062}$	$2.162^{+0.671}_{-0.848}$
	+3%/-3%	+2%/-3%	+68%/-68%	+22%/-10%	+13%/-8%	+31%/-39%
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 008587732-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-20 ± 2	$0.48^{+0.21}_{-0.17}$	2845^{+156}_{-132}	5145^{+1266}_{-731}	$7.195^{+9.968}_{-3.728}$
Alt.	-48 ± 2	$0.63^{+0.20}_{-0.18}$	2844^{+162}_{-119}	5557^{+1015}_{-601}	$9.793^{+10.033}_{-4.083}$

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

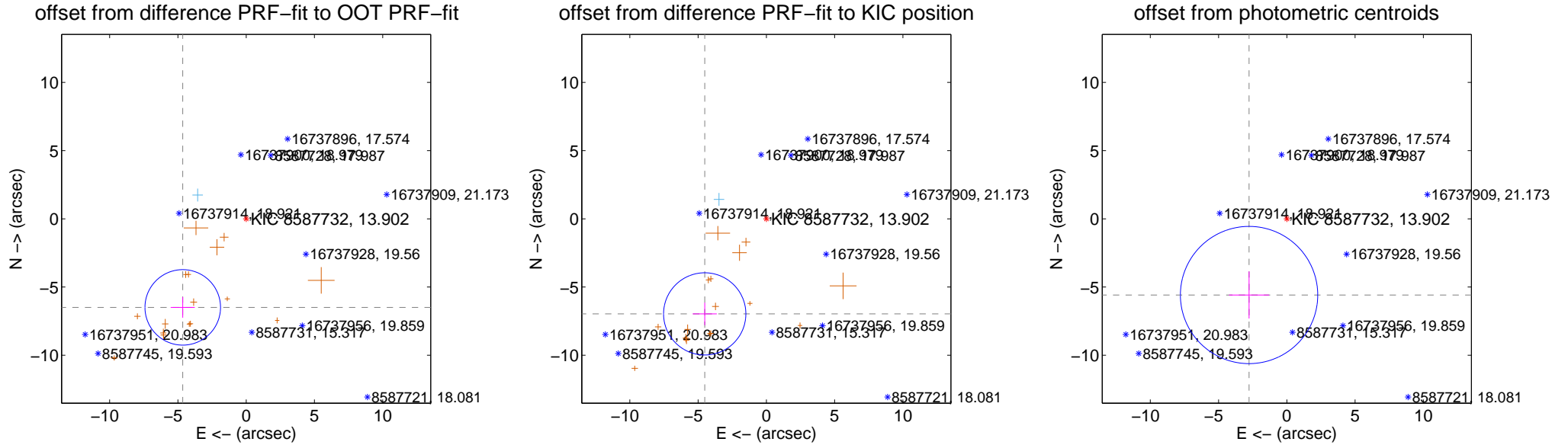
DV Centroid Data

Supplemental centroid analysis for 008587732-01. Kepler magnitude: 13.90. Transit SNR 8.47

There are 1 quarters with good PRF difference image offsets

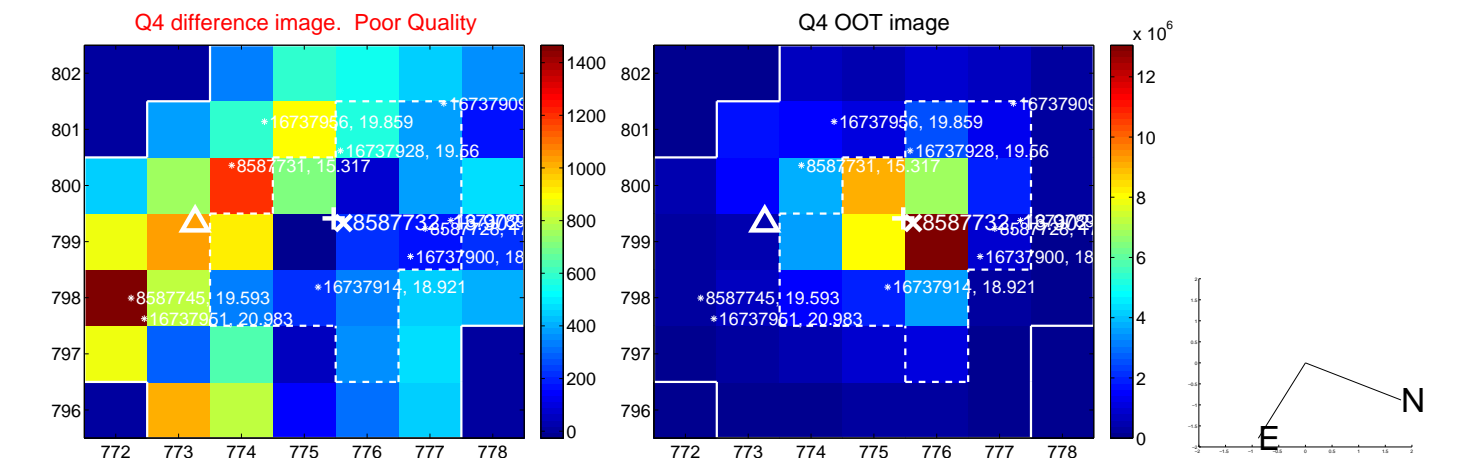
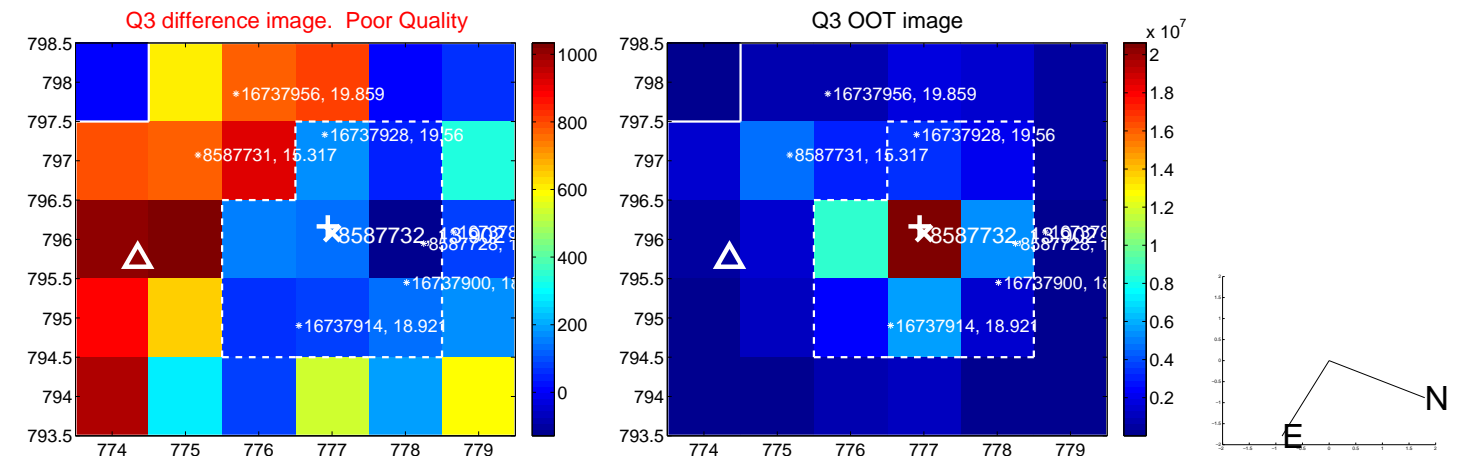
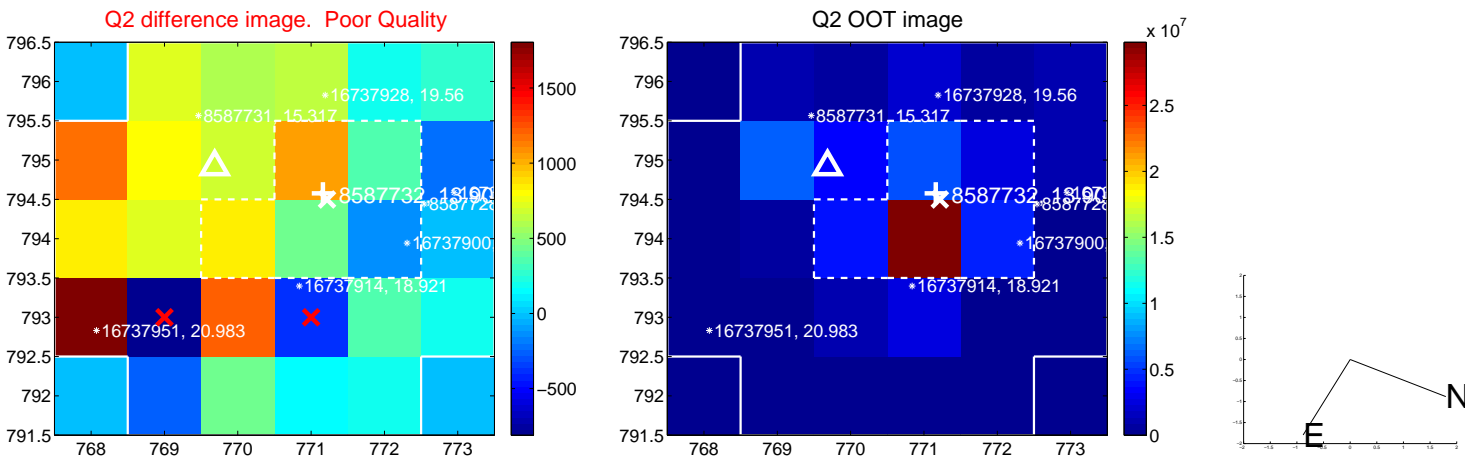
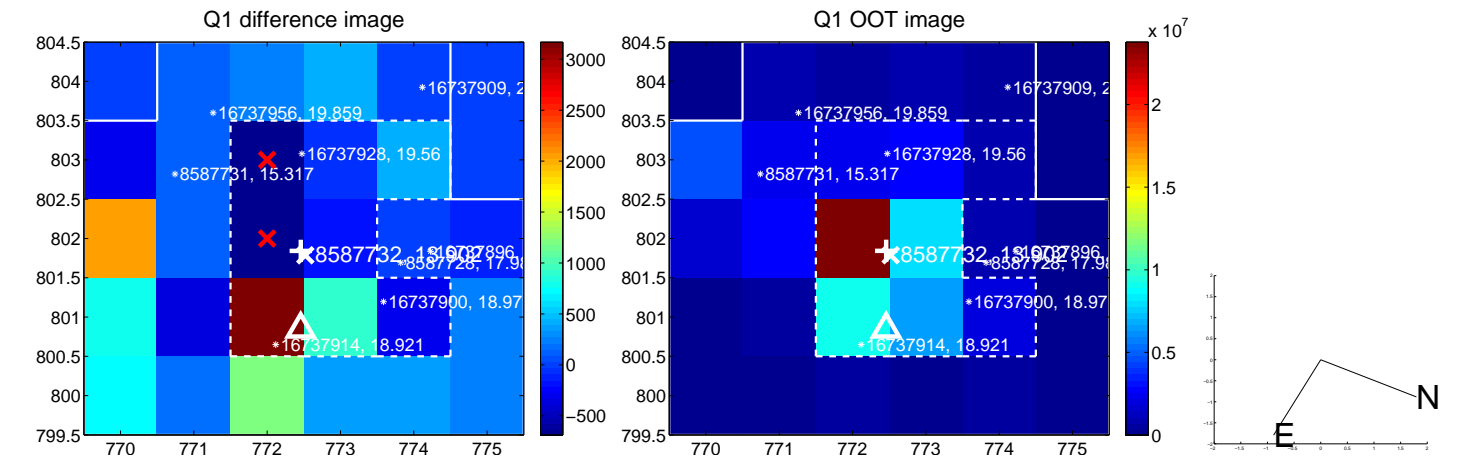
The direct PRF centroid is offset from the target star catalog position by about 0.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.983 ± 0.922	8.66	4.646 ± 0.883	-6.492 ± 0.757
PRF-fit source offset from KIC position	8.304 ± 1.004	8.27	4.515 ± 0.887	-6.969 ± 0.828
photometric centroid source offset	6.23 ± 1.68	3.72	2.77 ± 1.47	-5.59 ± 1.72

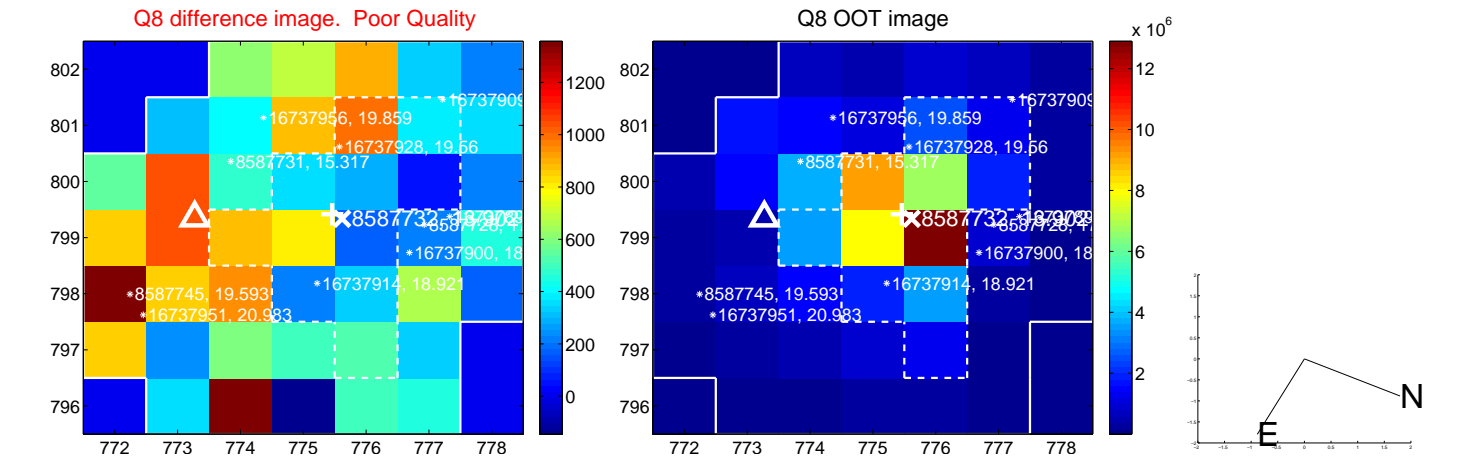
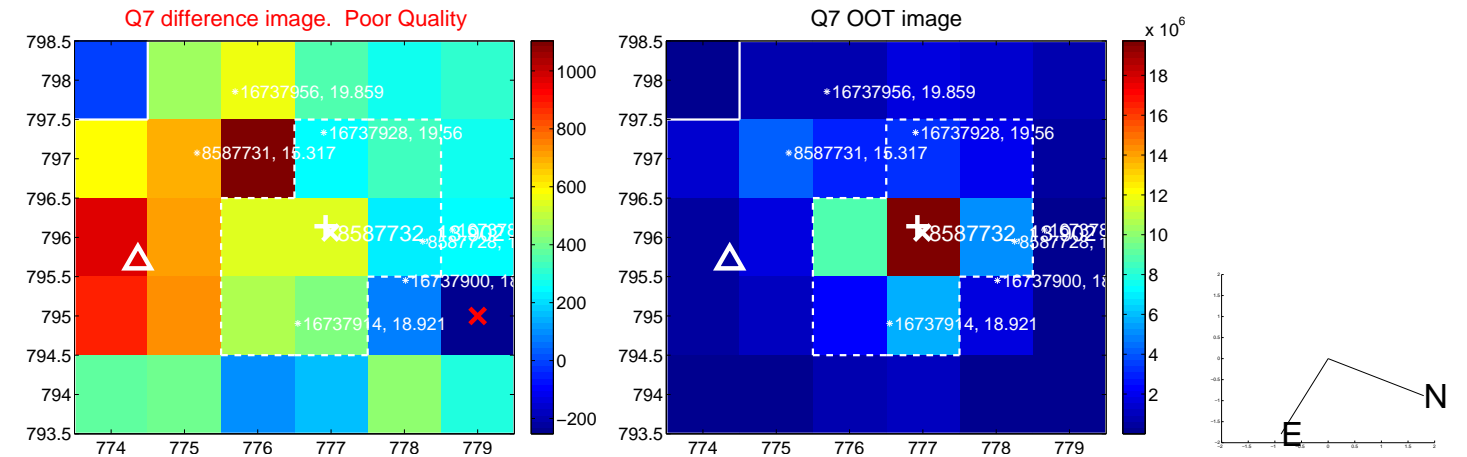
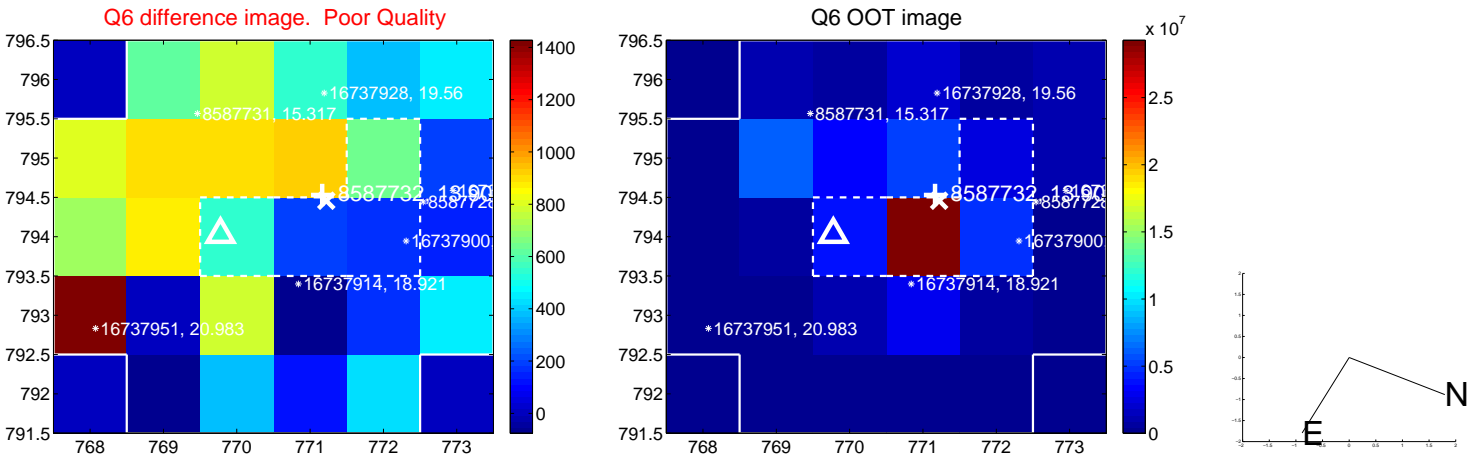
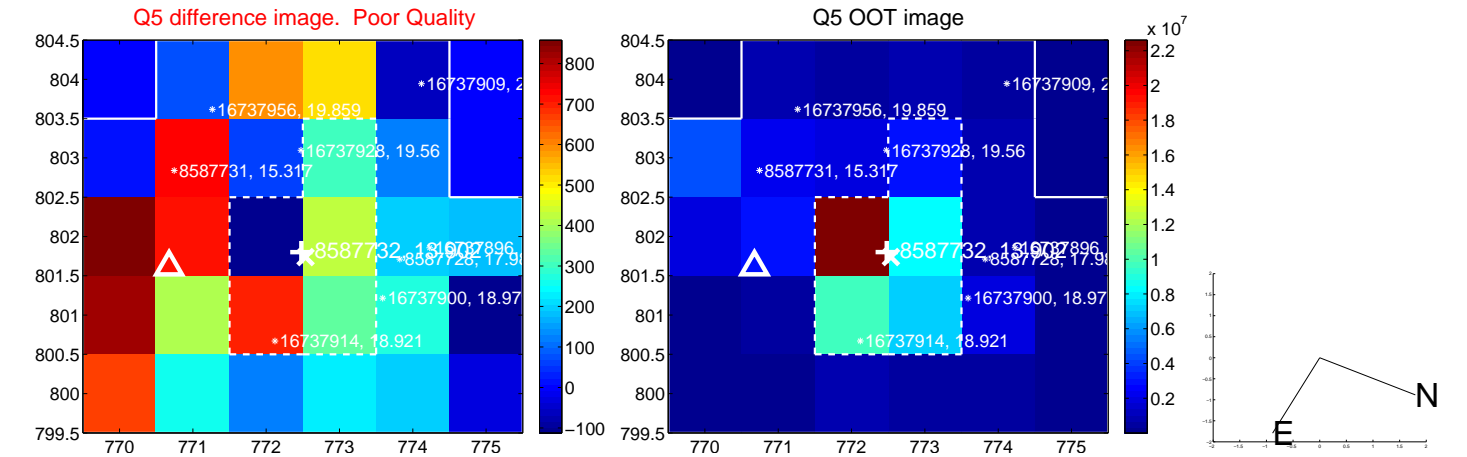


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

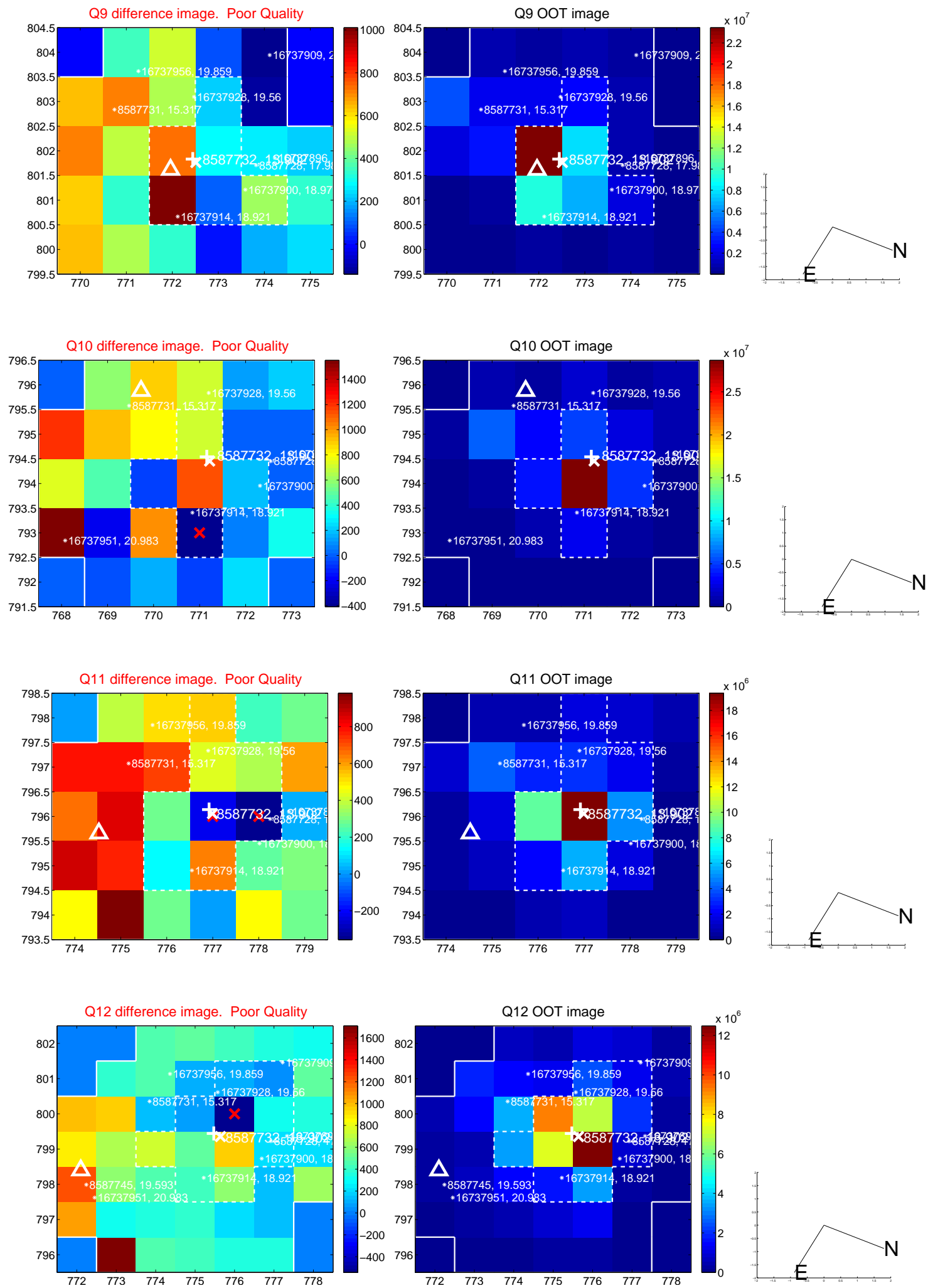
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



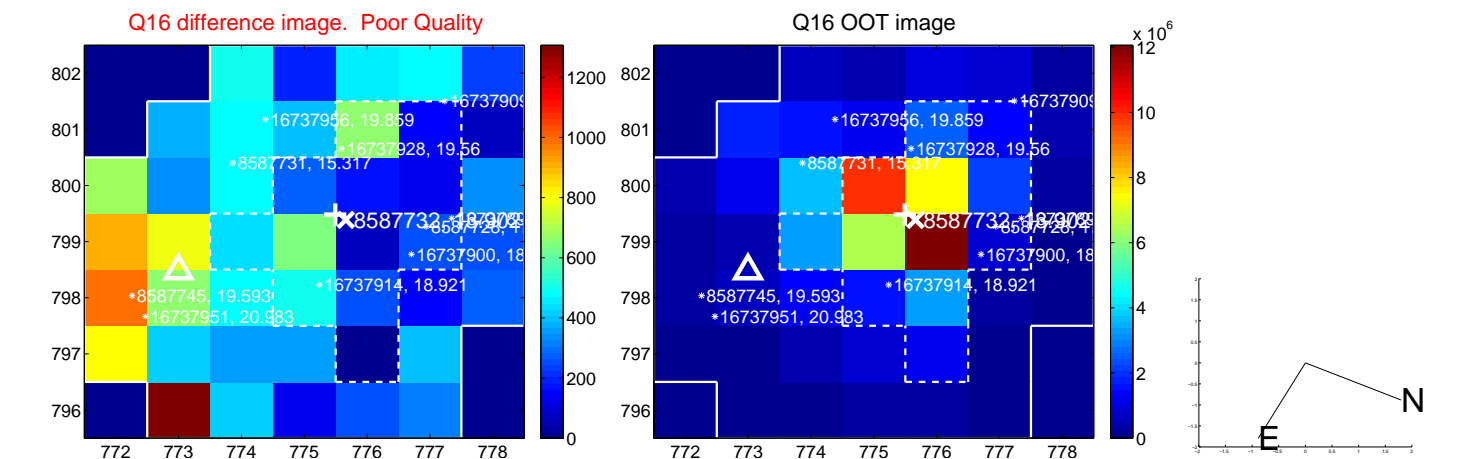
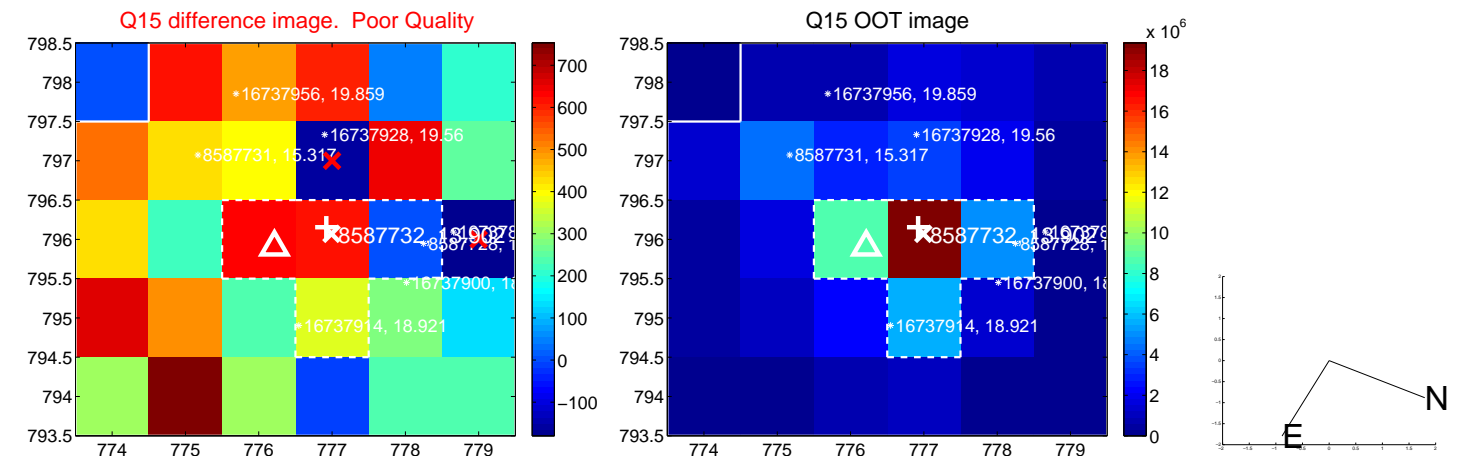
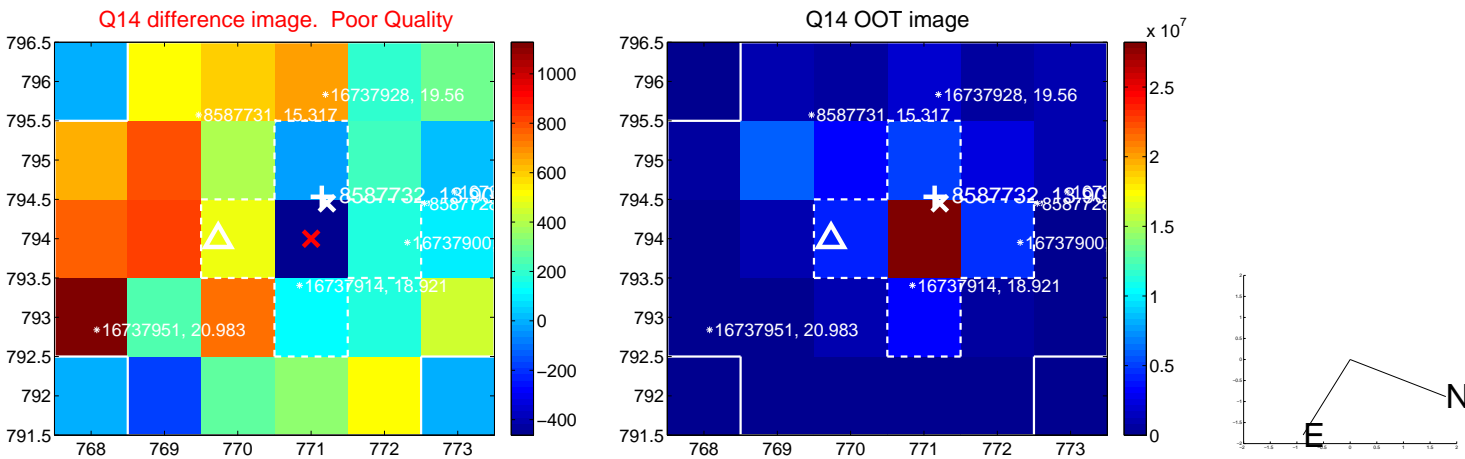
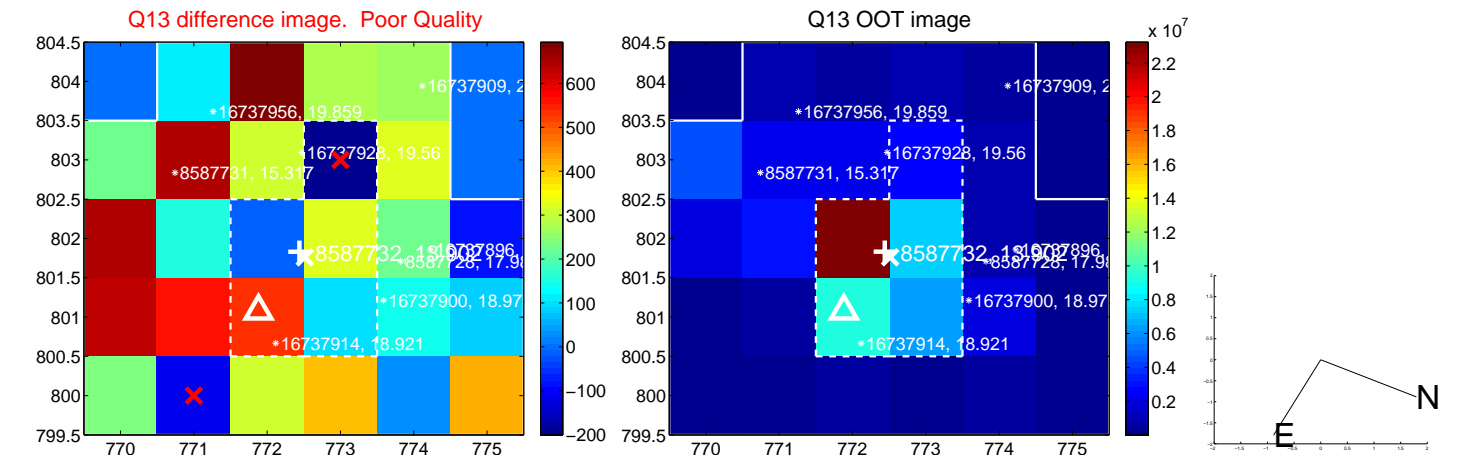
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



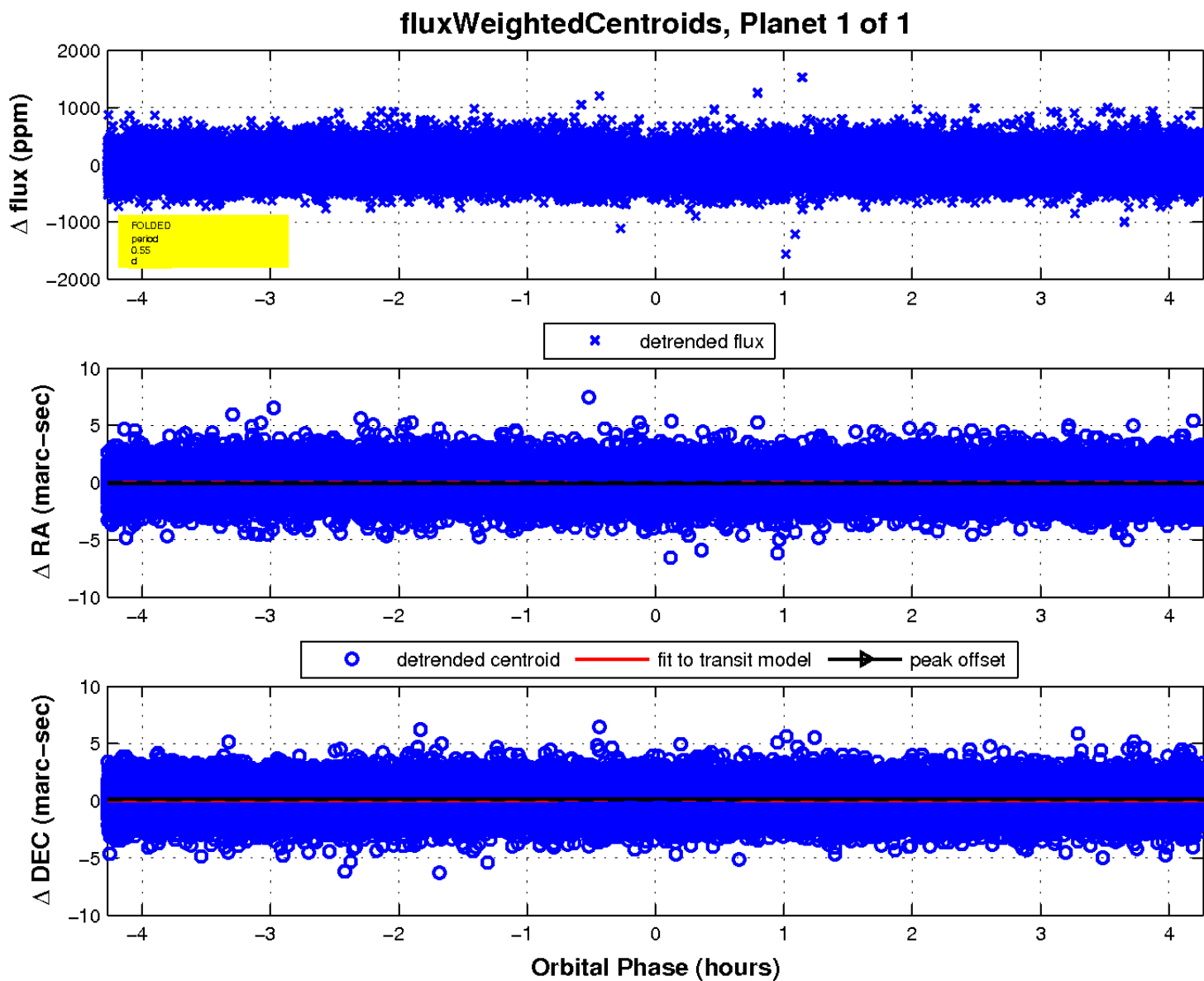
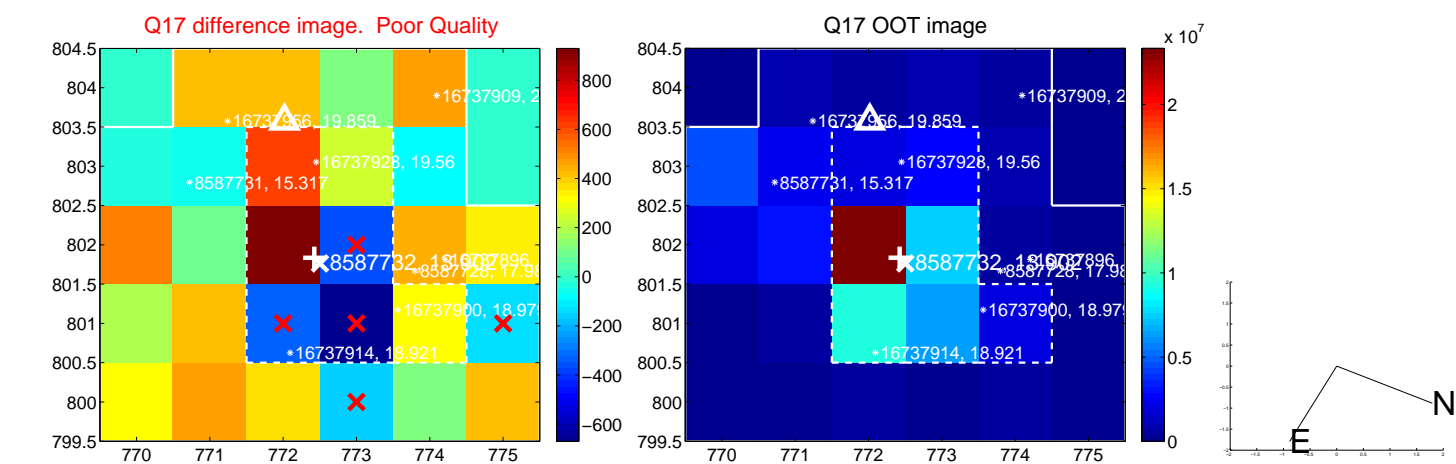
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

