

KIC 005257082

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})
005257082-01	OBS	3368.01	10.085324	140.973495	213.5	1.847	8.9	10.6	0.94	5947	1.48	119.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005257082-01	OBS	PC	0.95	0	0	0	0	NO_COMMENT

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.

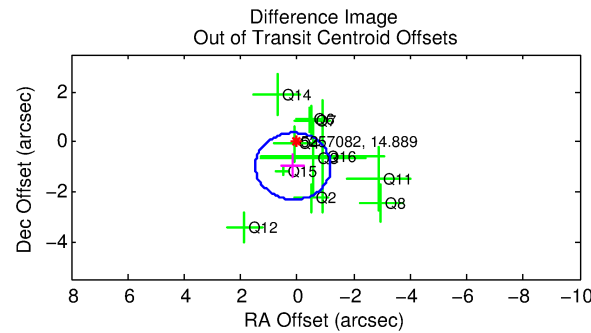
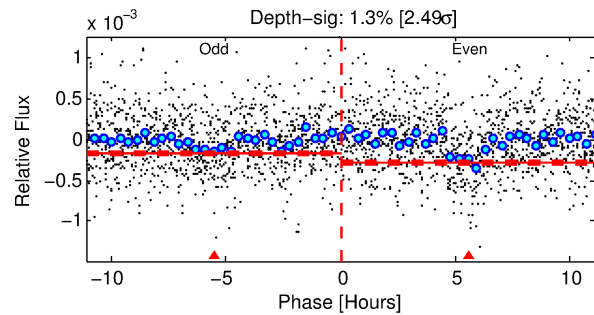
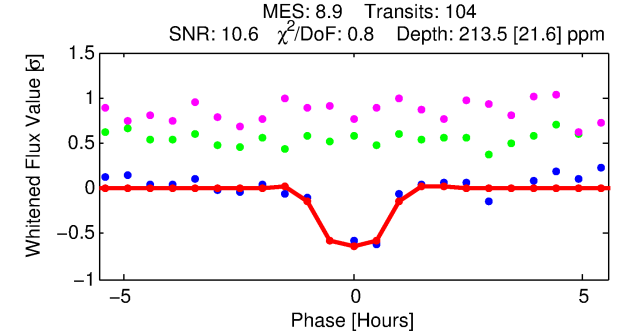
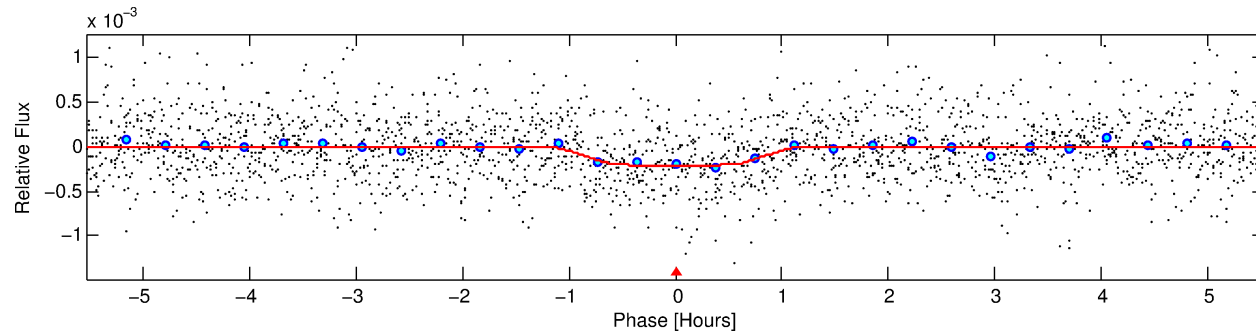
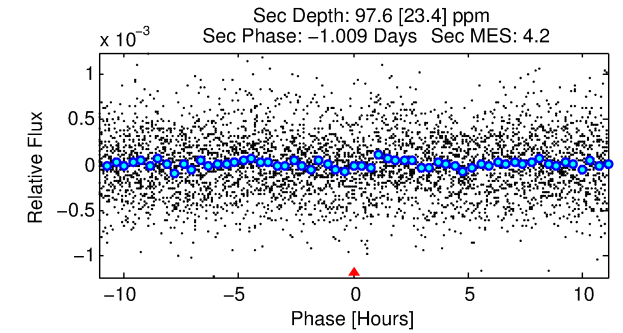
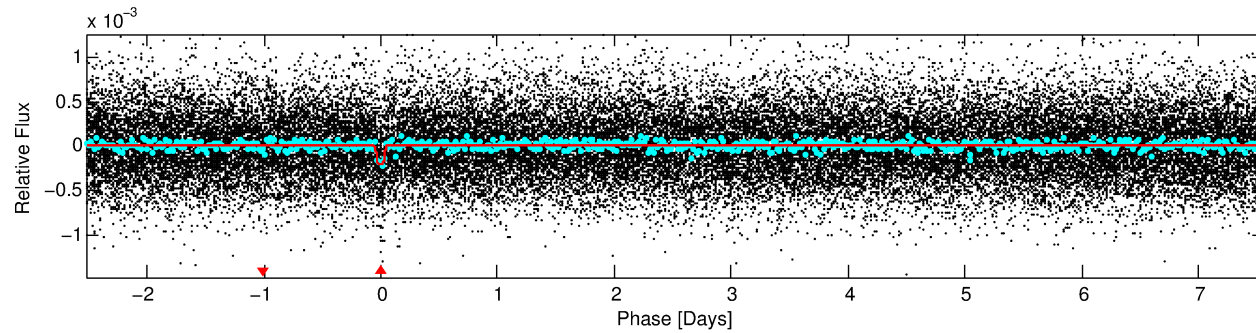
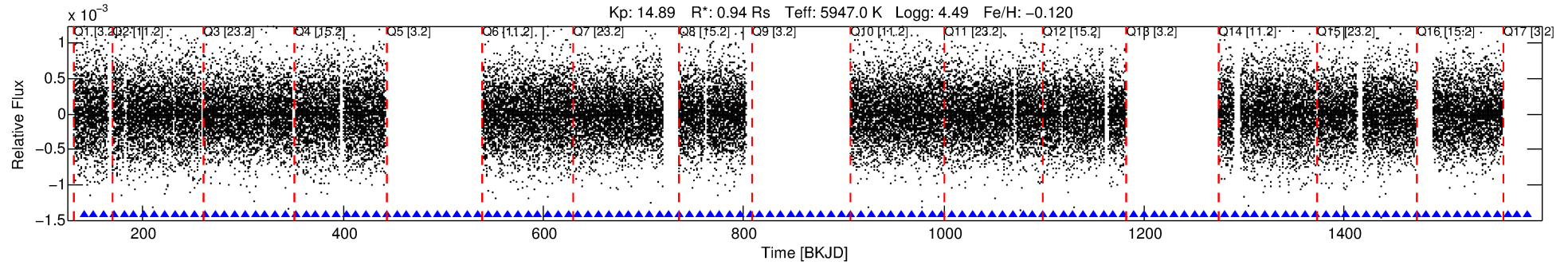
Ephemeris Match Information For 005257082-01

No Significant Match Found

DV One-Page Summary

KIC: 5257082 Candidate: 1 of 1 Period: 10.085 d

KOI: K03368.01 Corr: 0.953



DV Fit Results:

Period = 10.08532 [0.00006] d
Epoch = 140.9735 [0.0044] BKJD
Rp/R* = 0.0143 [0.0100]
a/R* = 30.94 [101.65]
b = 0.69 [2.51]
Seff = 119.89 [47.44]
Teq = 844 [83] K
Rp = 1.48 [1.13] Re
a = 0.0914 [0.0237] AU
Ag = 206.03 [302.59] [0.68σ]
Teffp = 4942 [1763] K [2.32σ]

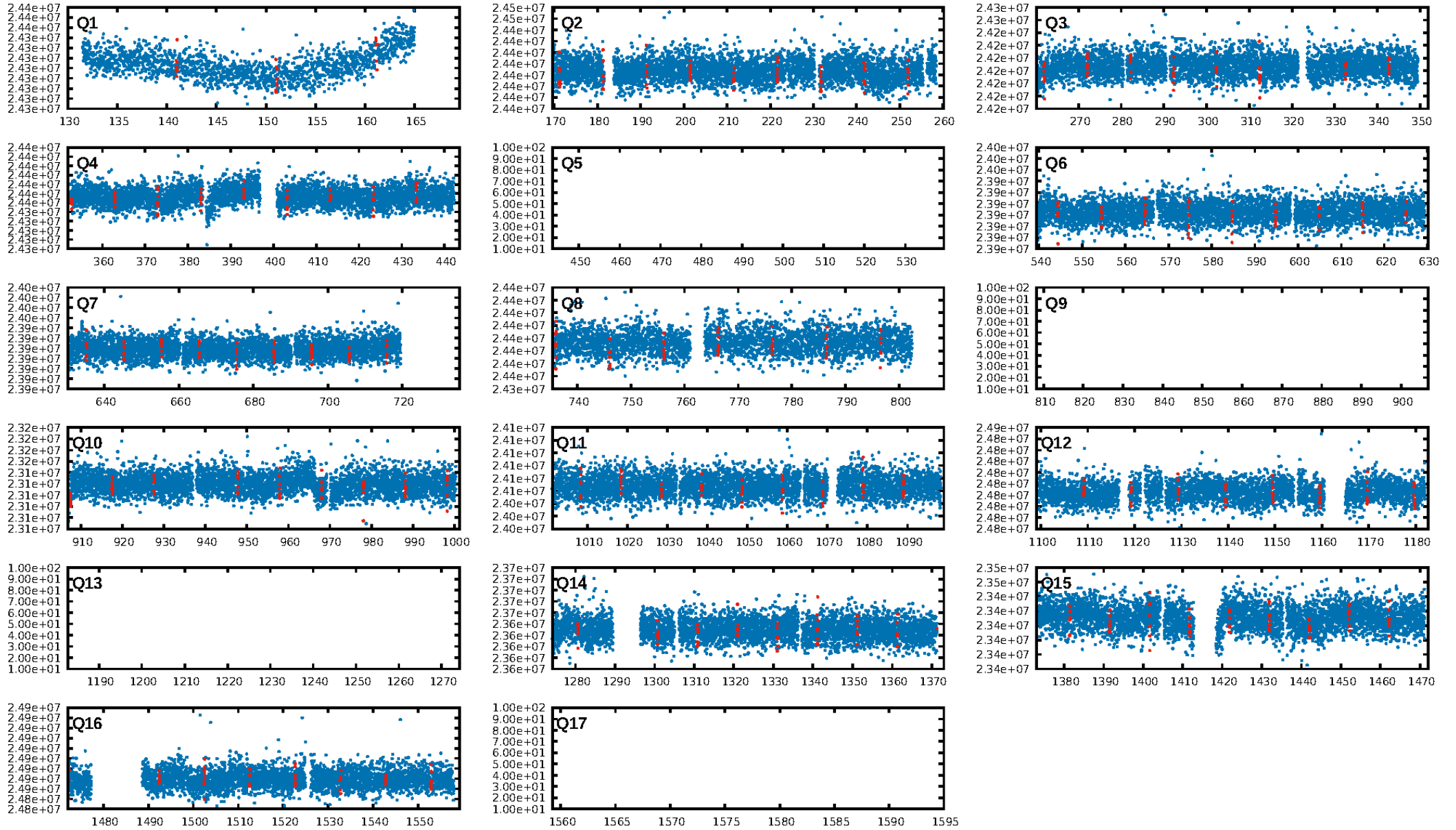
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.09e-19
RollingBand-fgt: 1.00 [101/101]
GhostDiagnostic-chr: 9.011
Centroid-sig: 2.5%
Centroid-so: 2.586 arcsec [1.84σ]
OotOffset-rm: 0.992 arcsec [2.22σ]
KicOffset-rm: 1.110 arcsec [2.55σ]
OotOffset-st: 3/4/4/0 [11]
KicOffset-st: 3/4/4/0 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 1.00 [13/13]

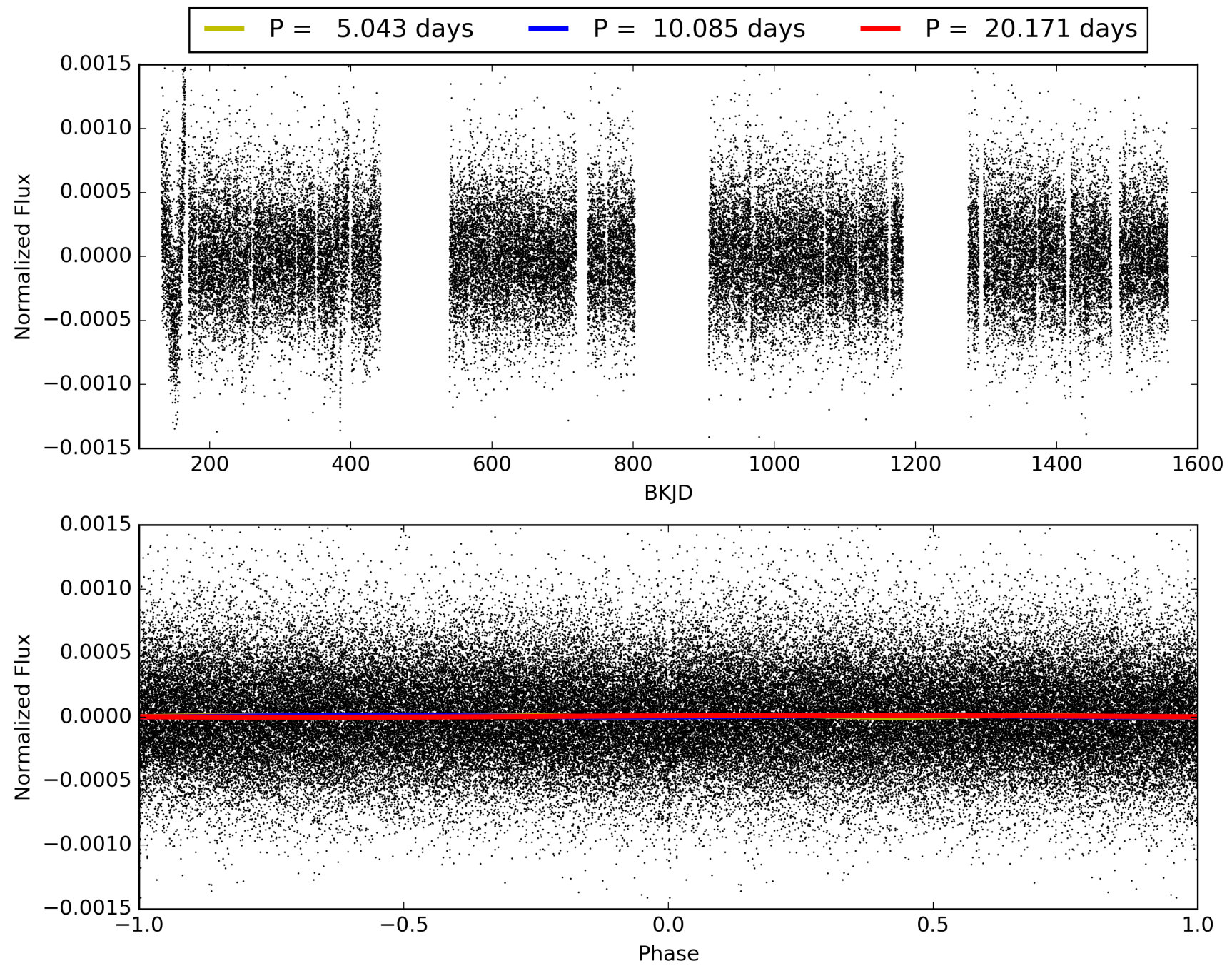
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:45:31 Z

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

TCE 005257082-01, PDC Light Curves

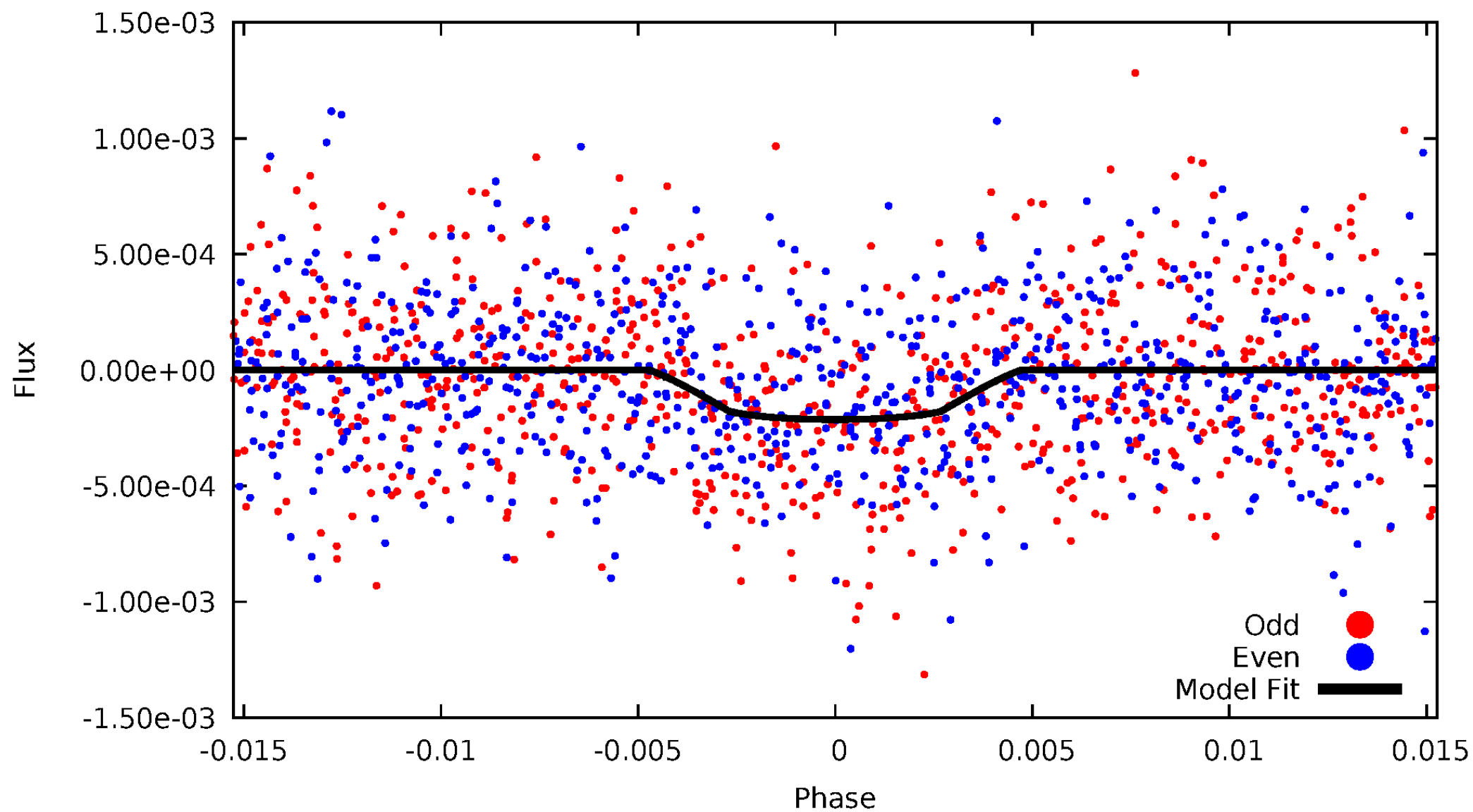


TCE 005257082-01



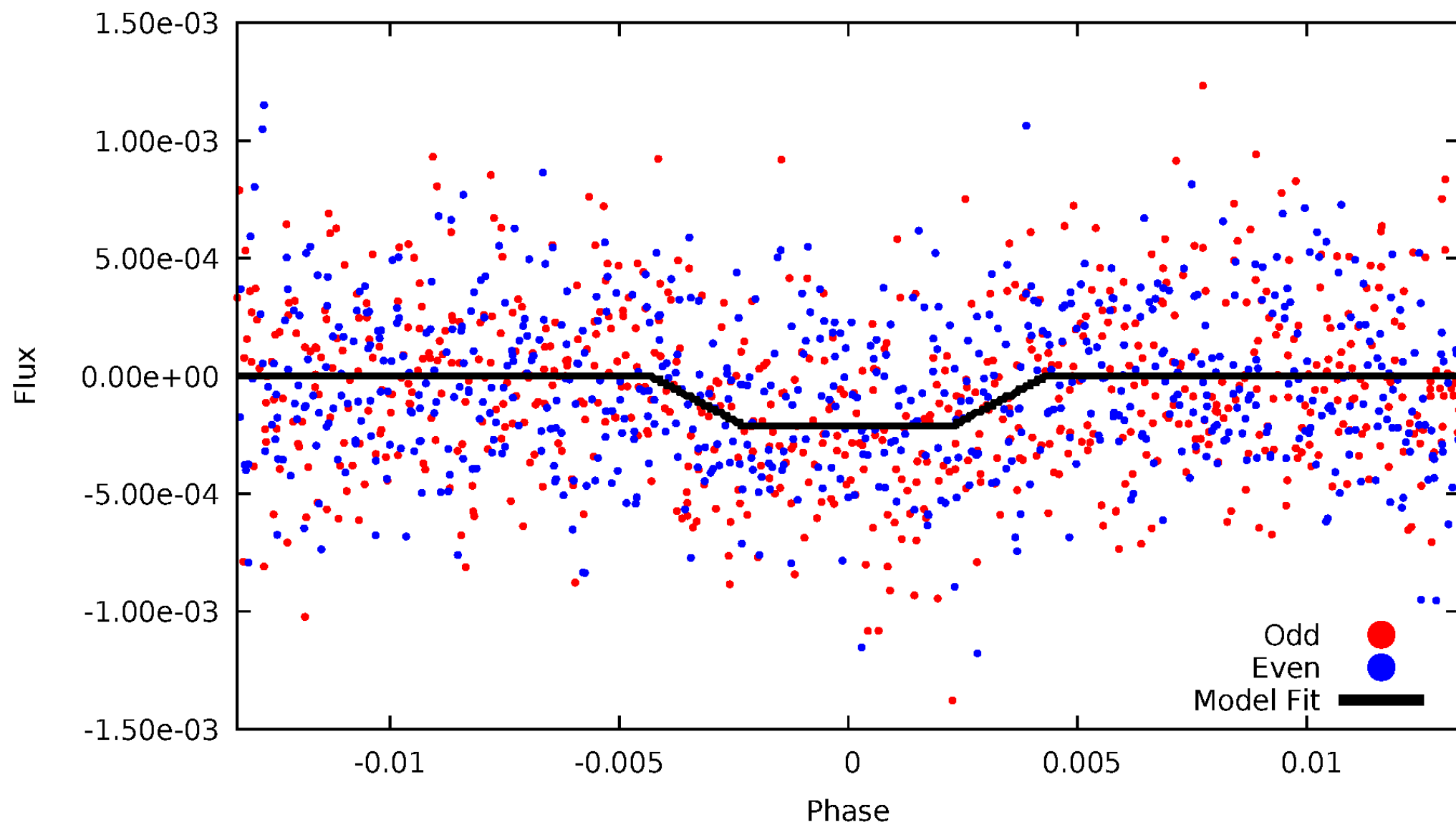
DV Odd/Even

TCE 005257082-01

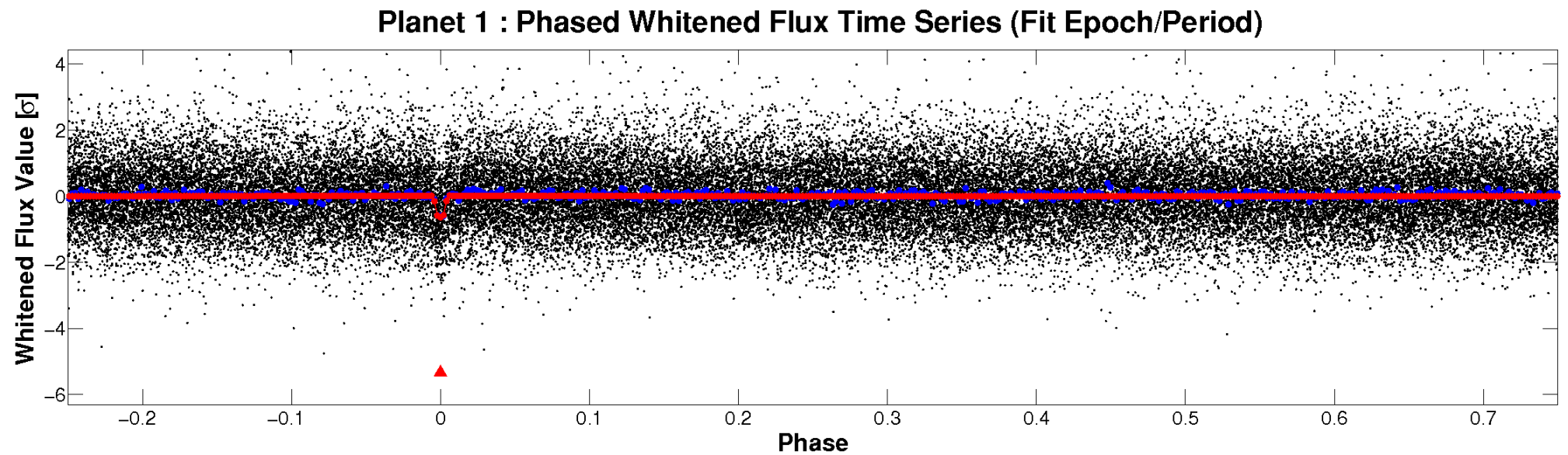
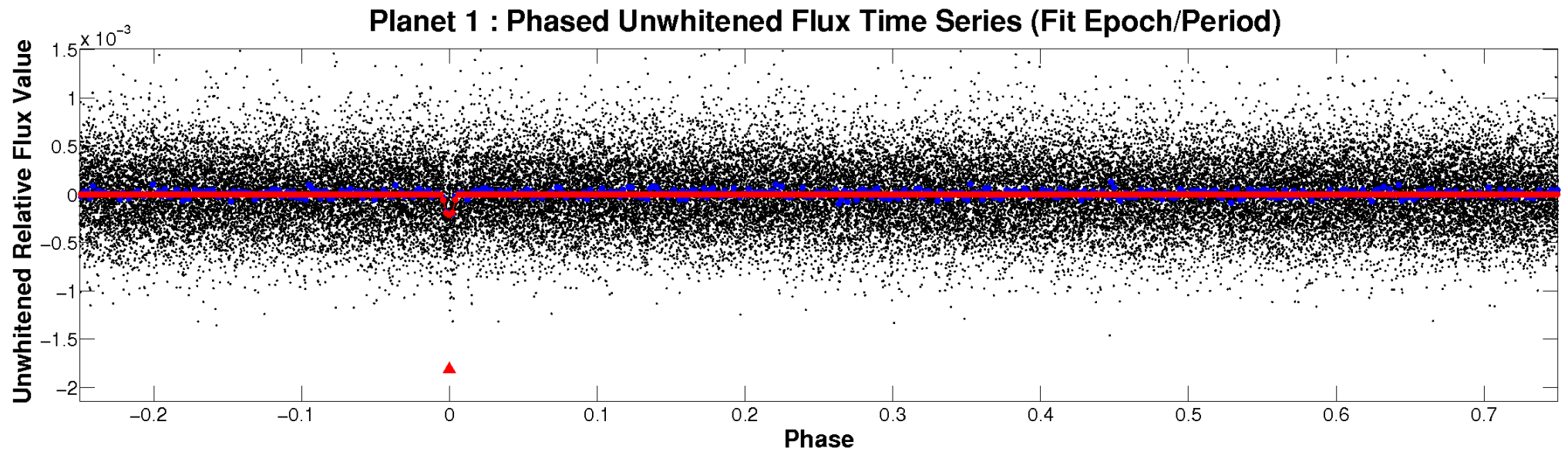


ALT Odd/Even

TCE 005257082-01

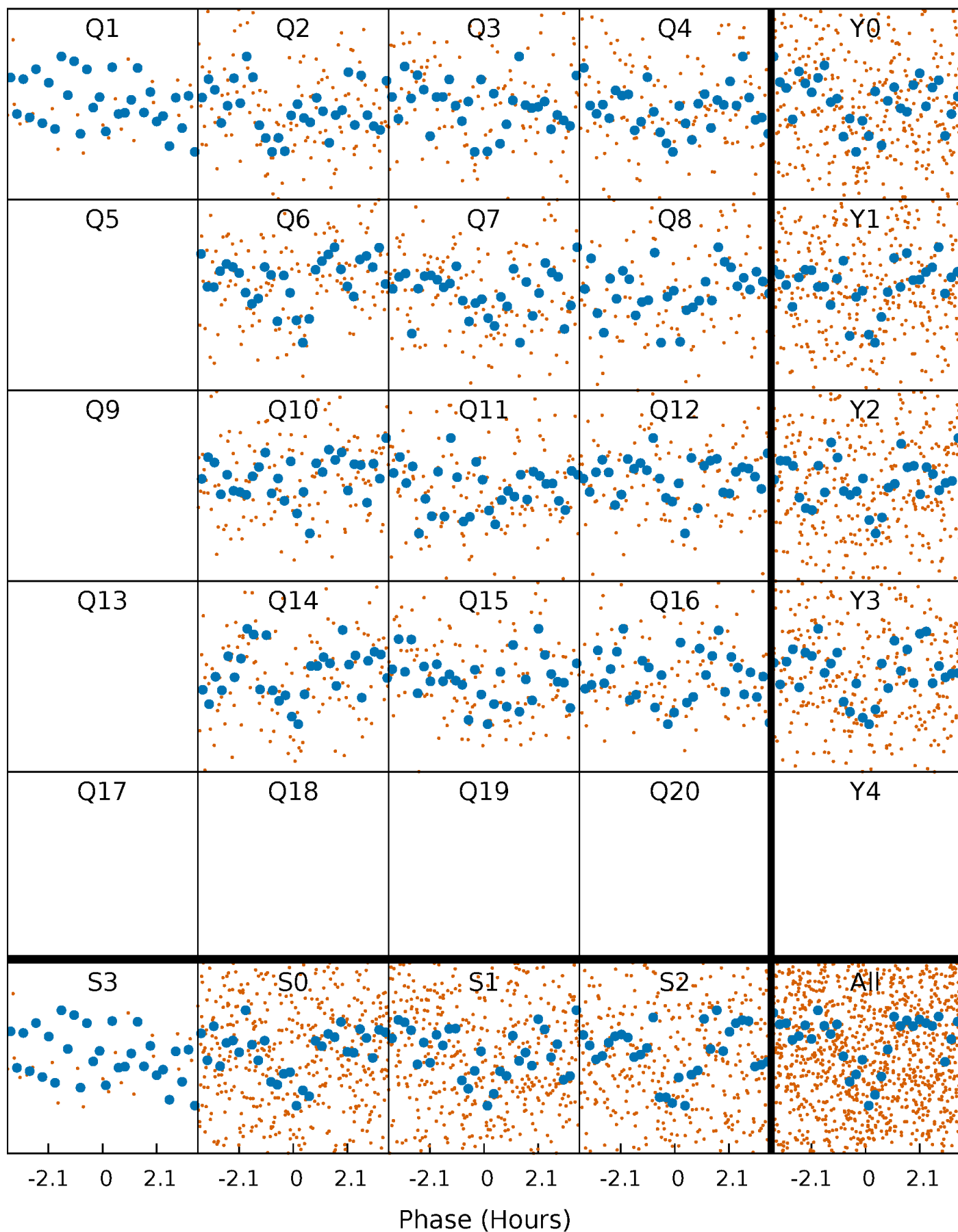


Non-Whitened Vs. Whitened Light Curve



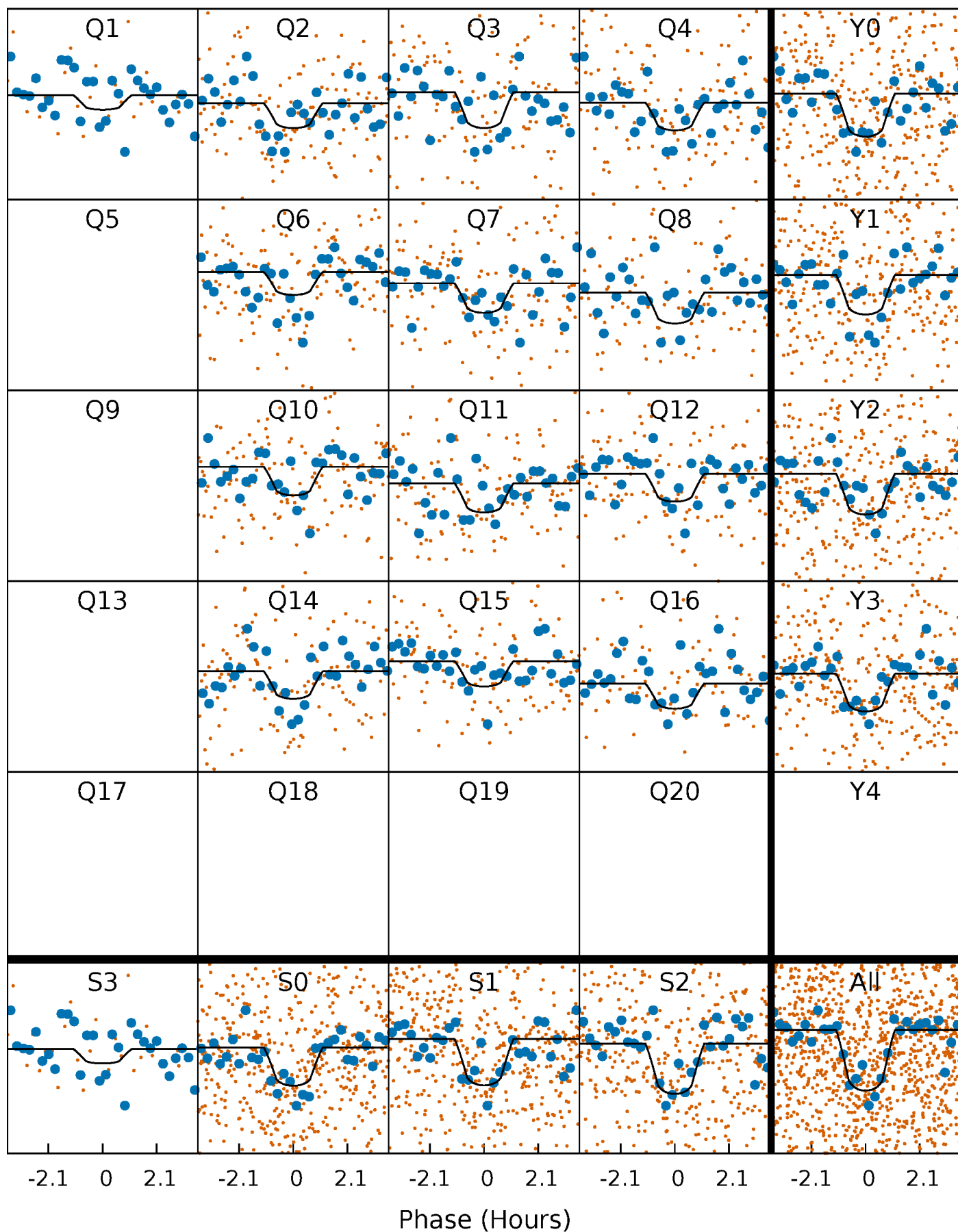
PDC Quarter-Phased Transit Curves

TCE 005257082-01 P= 10.085324 Days $T_0=140.973494$ (BKJD)



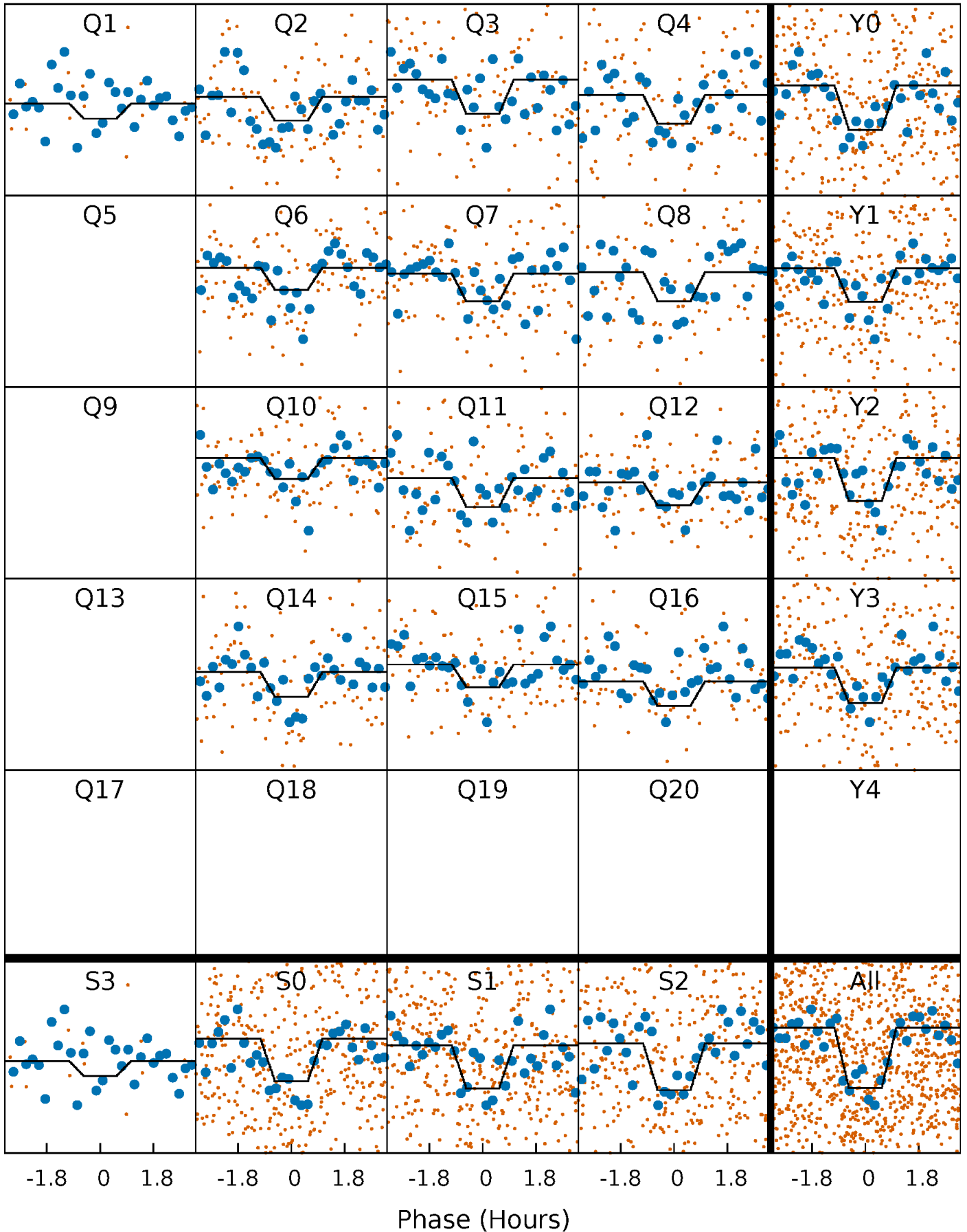
DV Quarter-Phased Transit Curves

TCE 005257082-01 P= 10.085324 Days $T_0=140.973494$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

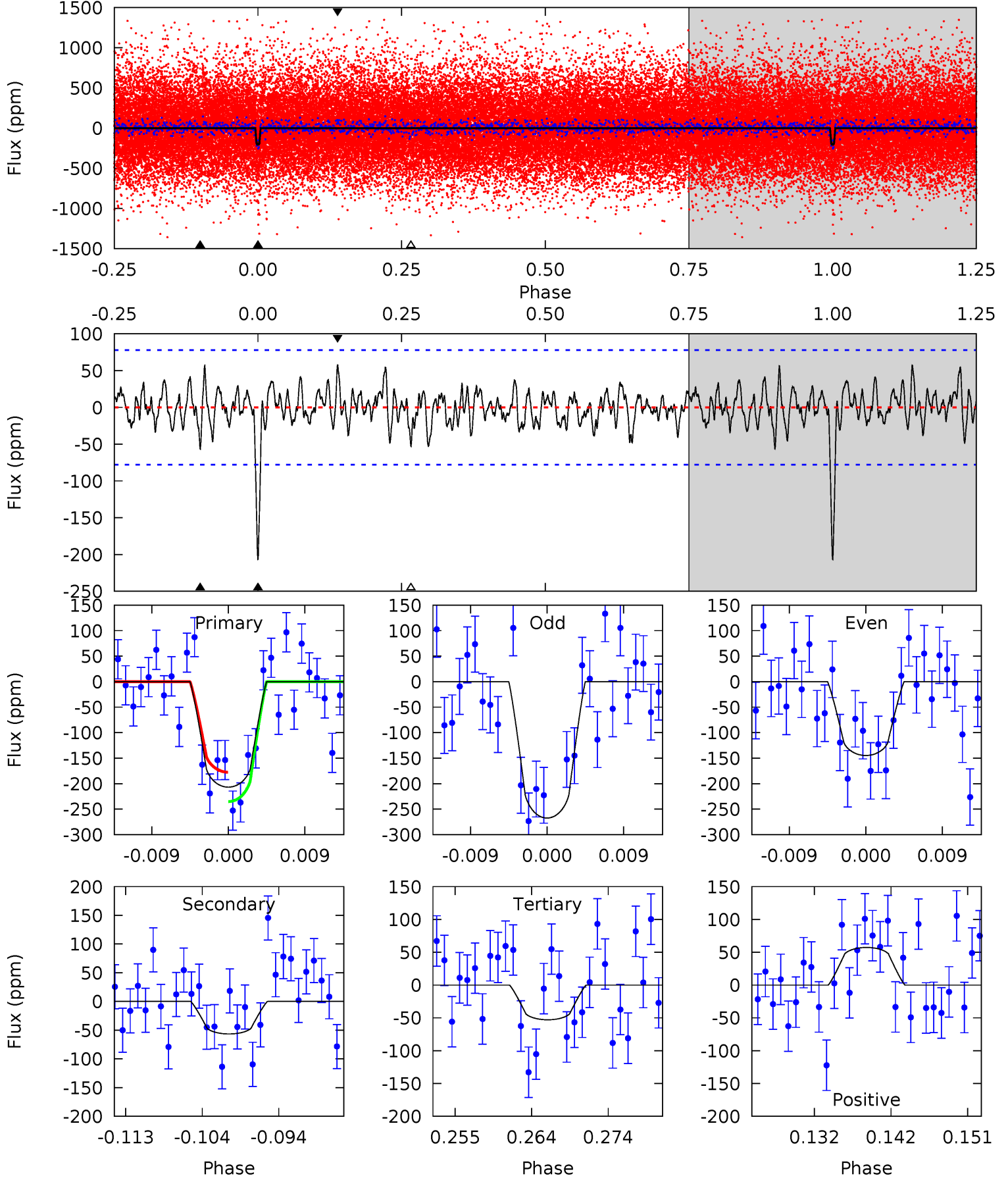
TCE 005257082-01 P= 10.085295 Days $T_0=140.975775$ (BKJD)



DV Model-Shift Uniqueness Test

005257082-01, $P = 10.085324$ Days, $E = 130.888170$ Days

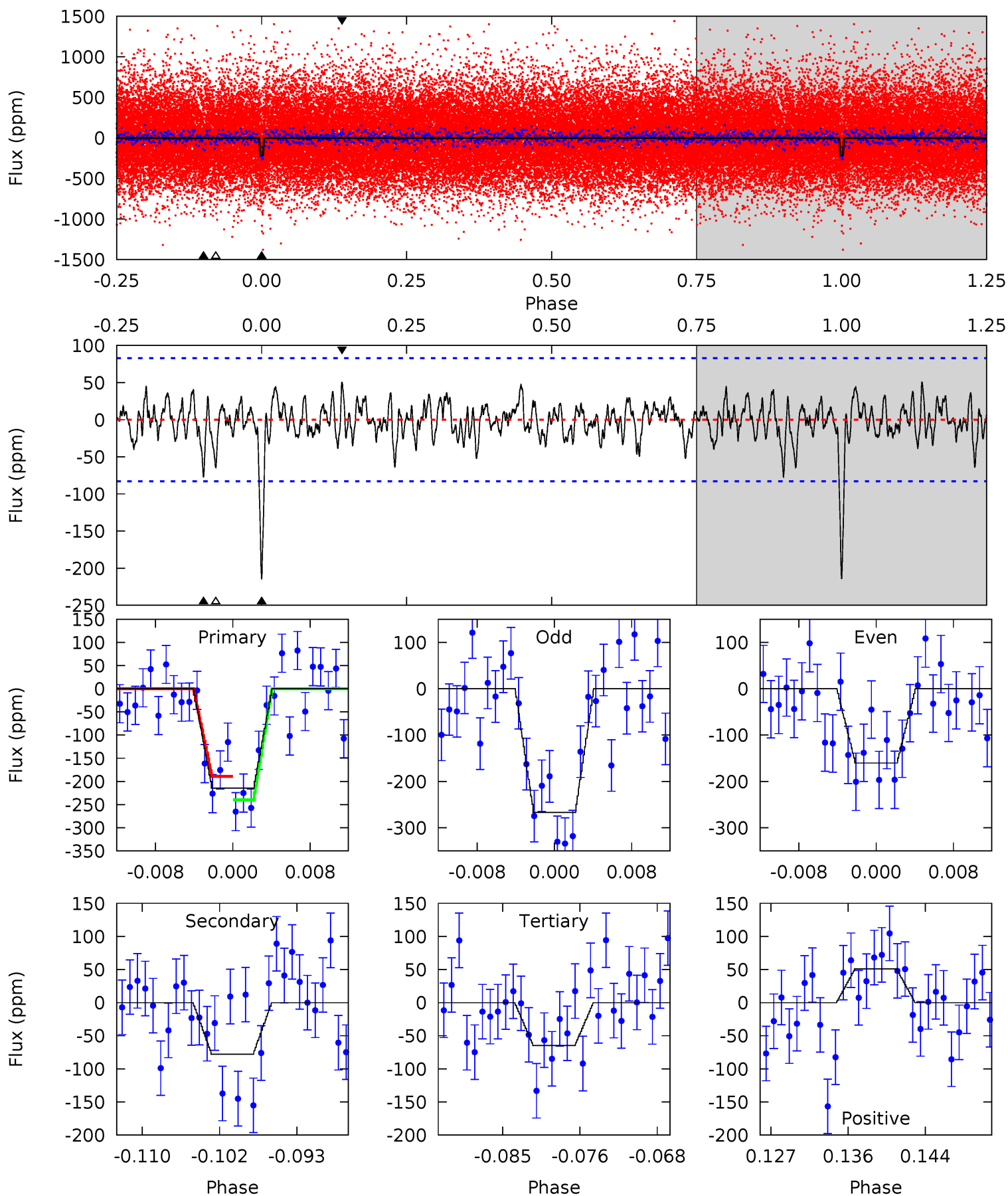
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	3.66	3.43	3.71	5.04	2.60	1.20	9.96	9.68	0.24	-0.04	3.98	1.06	0.22	1.87



Alt Model-Shift Uniqueness Test

005257082-01, P = 10.085295 Days, E = 130.890480 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	4.74	3.95	3.11	5.06	2.63	1.16	9.12	9.96	0.79	1.63	3.27	0.97	0.19	1.55



Stellar Parameters For KIC 005257082

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5947^{+160}_{-196}	$4.487^{+0.054}_{-0.202}$	$-0.120^{+0.300}_{-0.300}$	$0.945^{+0.294}_{-0.098}$	$1.000^{+0.132}_{-0.132}$	$1.668^{+0.477}_{-0.891}$
	+3%/-3%	+1%/-5%	+250%/-250%	+31%/-10%	+13%/-13%	+29%/-53%
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 005257082-01 / KOI 3368.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-57 ± 15	$1.59^{+1.06}_{-0.91}$	1199^{+84}_{-56}	4380^{+2223}_{-703}	95^{+456}_{-61}
Alt.	-78 ± 16	$1.63^{+1.06}_{-0.91}$	1204^{+75}_{-60}	4644^{+2087}_{-800}	129^{+535}_{-81}

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 $A_{obs} \gg 1.0$

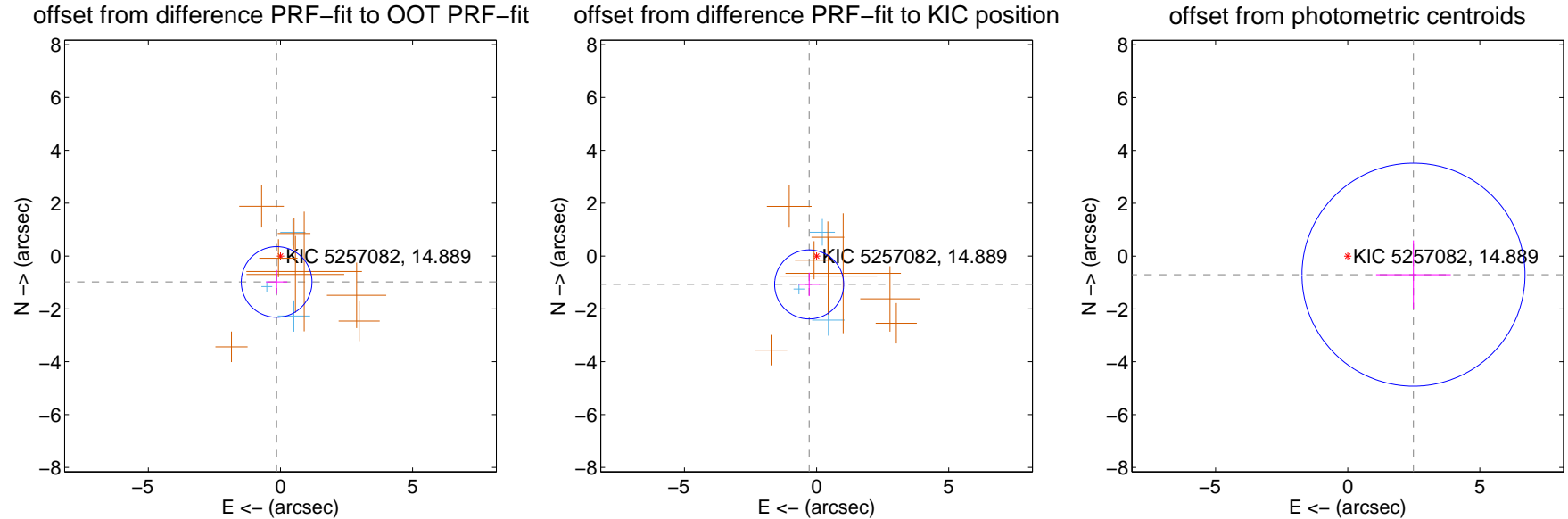
DV Centroid Data

Supplemental centroid analysis for 005257082-01. Kepler magnitude: 14.89. Transit SNR 10.62

There are 3 quarters with good PRF difference image offsets

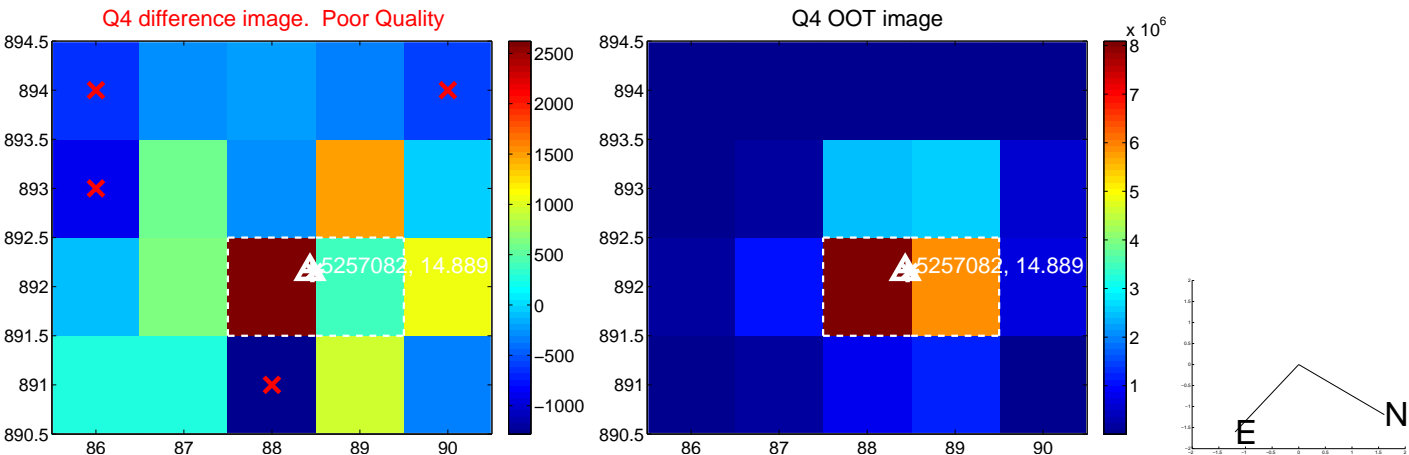
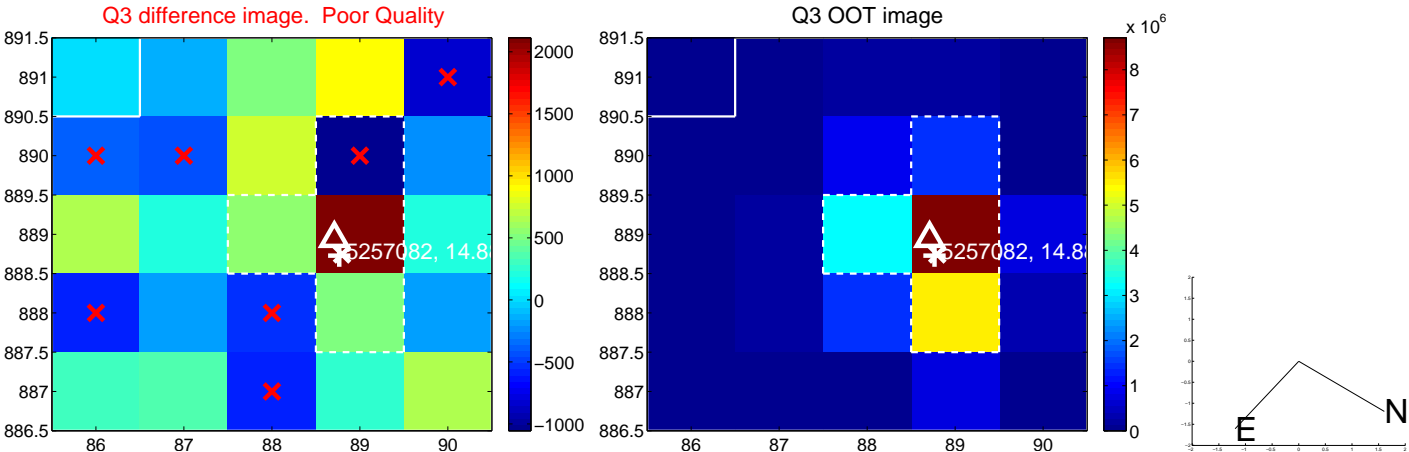
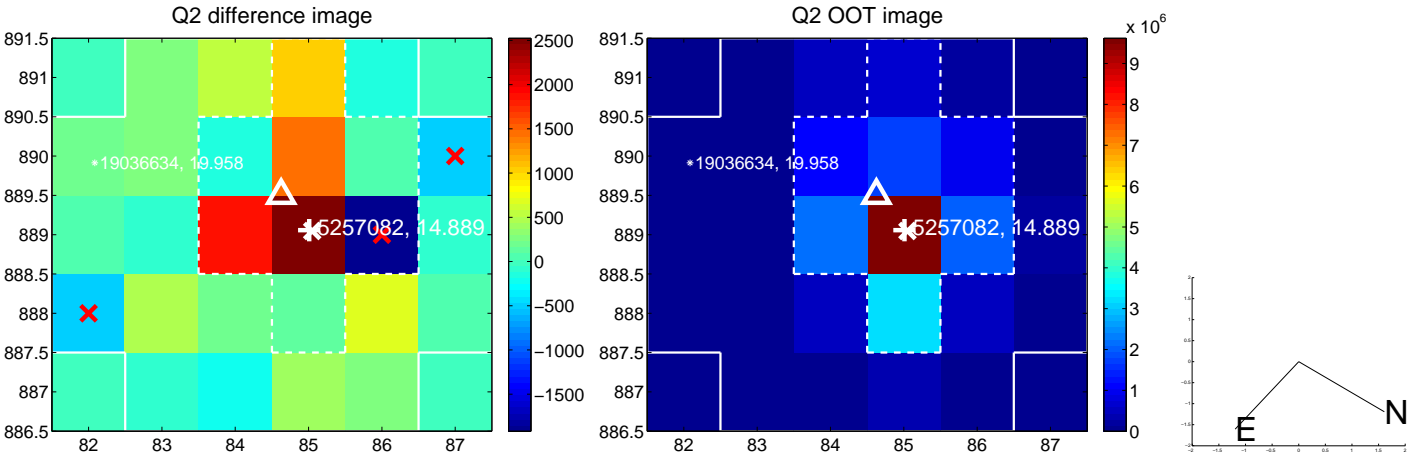
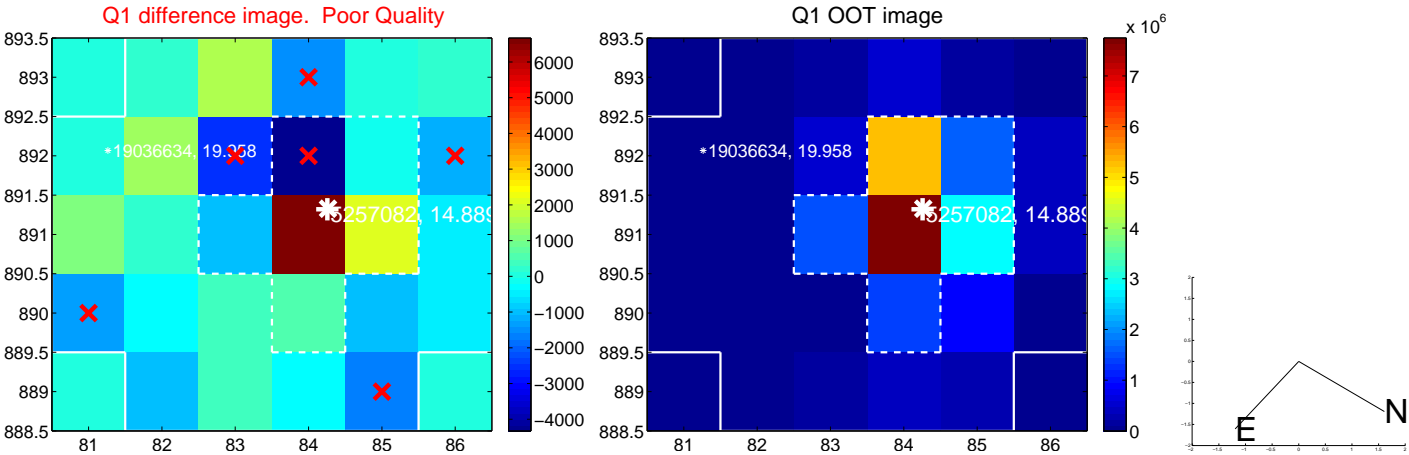
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.992 ± 0.446	2.22	0.144 ± 0.405	-0.981 ± 0.455
PRF-fit source offset from KIC position	1.110 ± 0.436	2.55	0.281 ± 0.399	-1.074 ± 0.442
photometric centroid source offset	2.59 ± 1.41	1.84	-2.49 ± 1.42	-0.70 ± 1.30

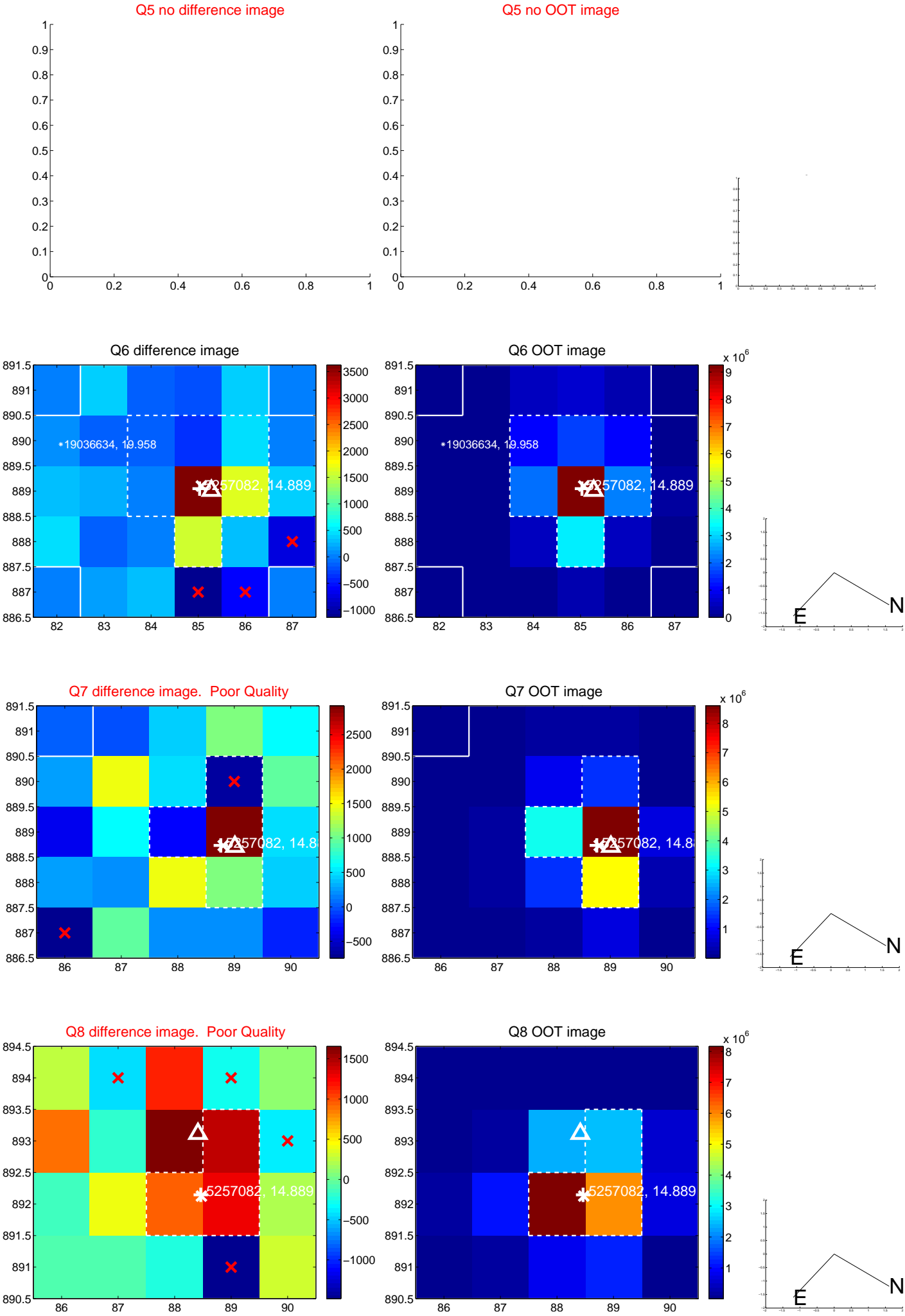


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

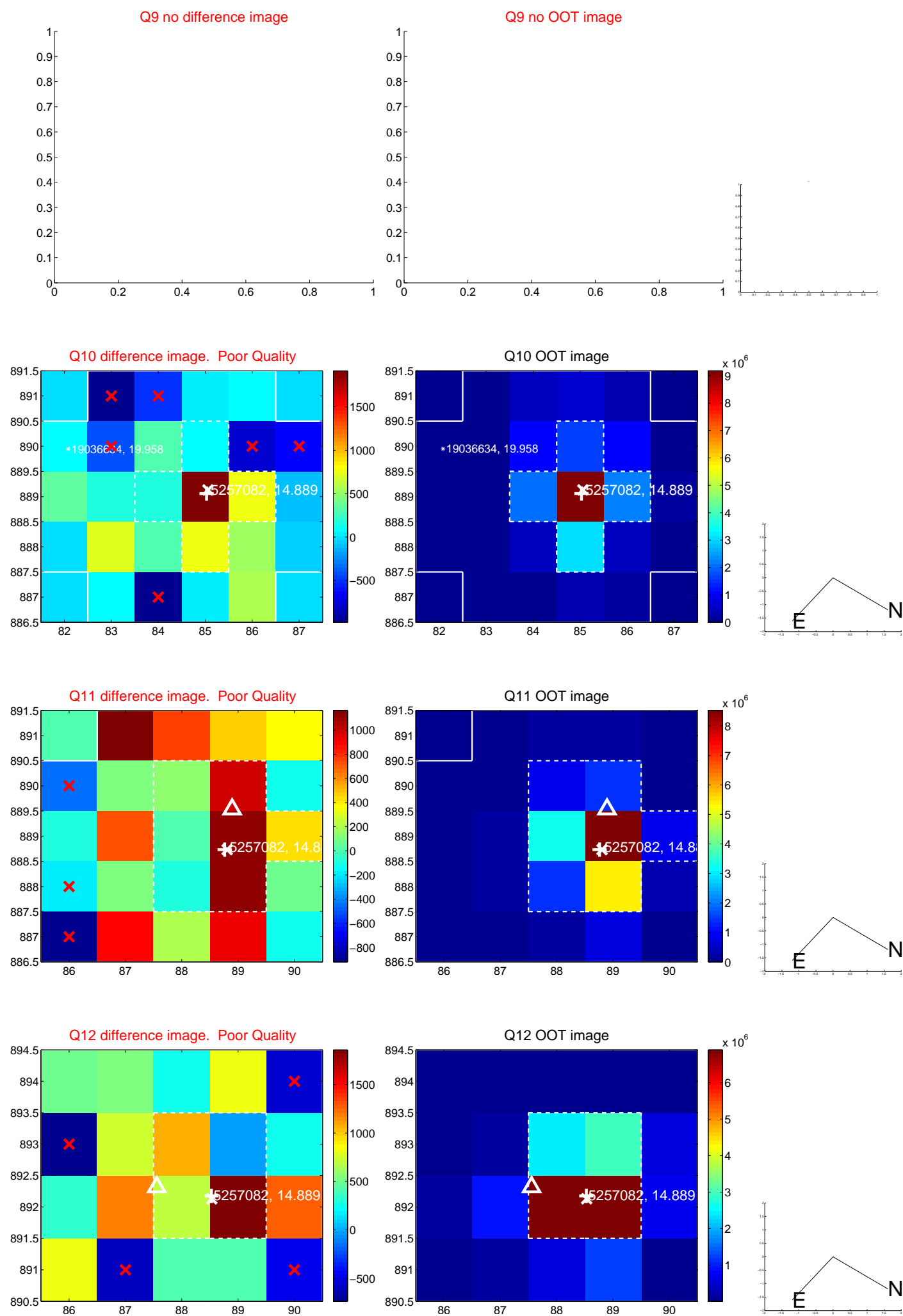
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



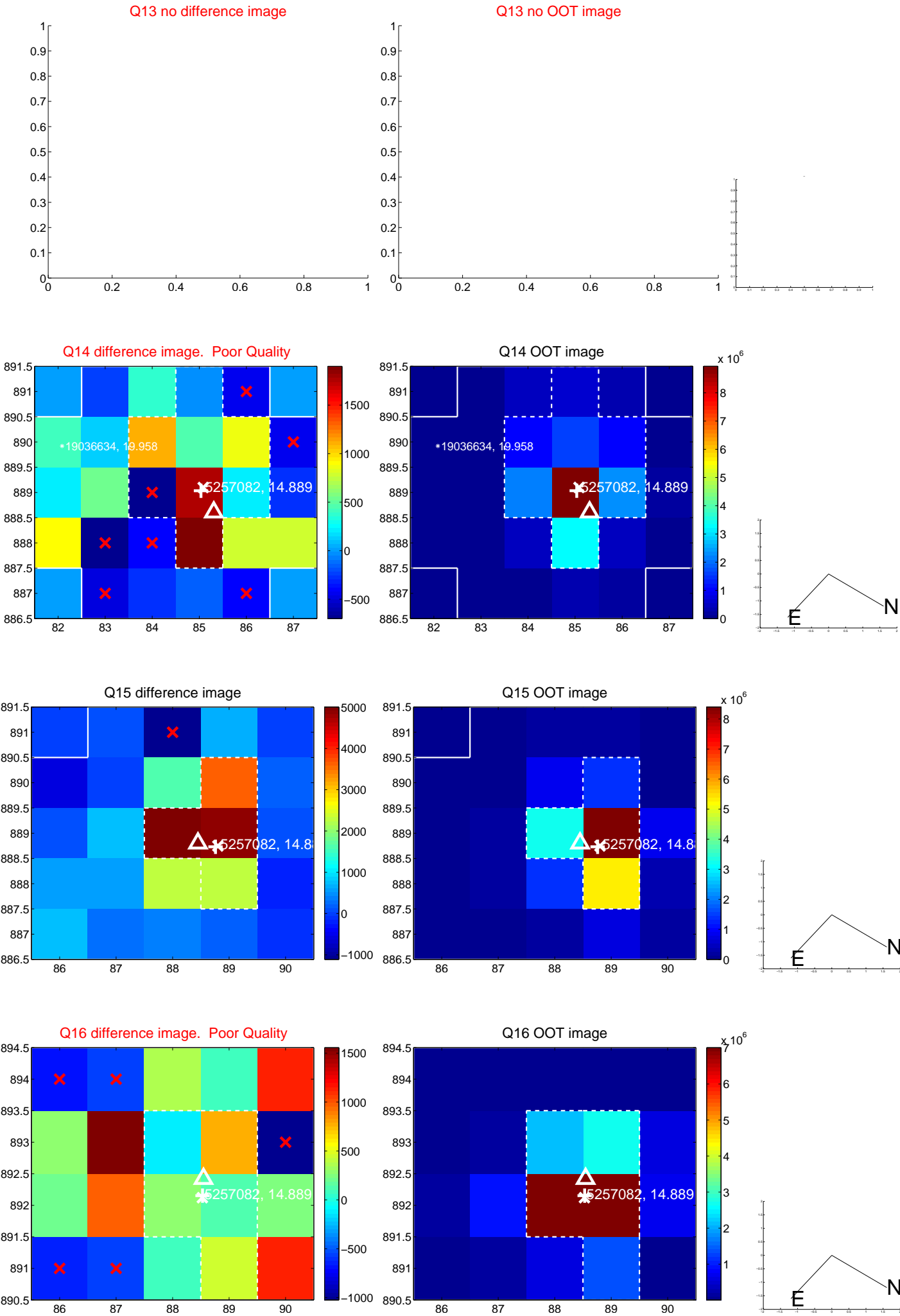
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



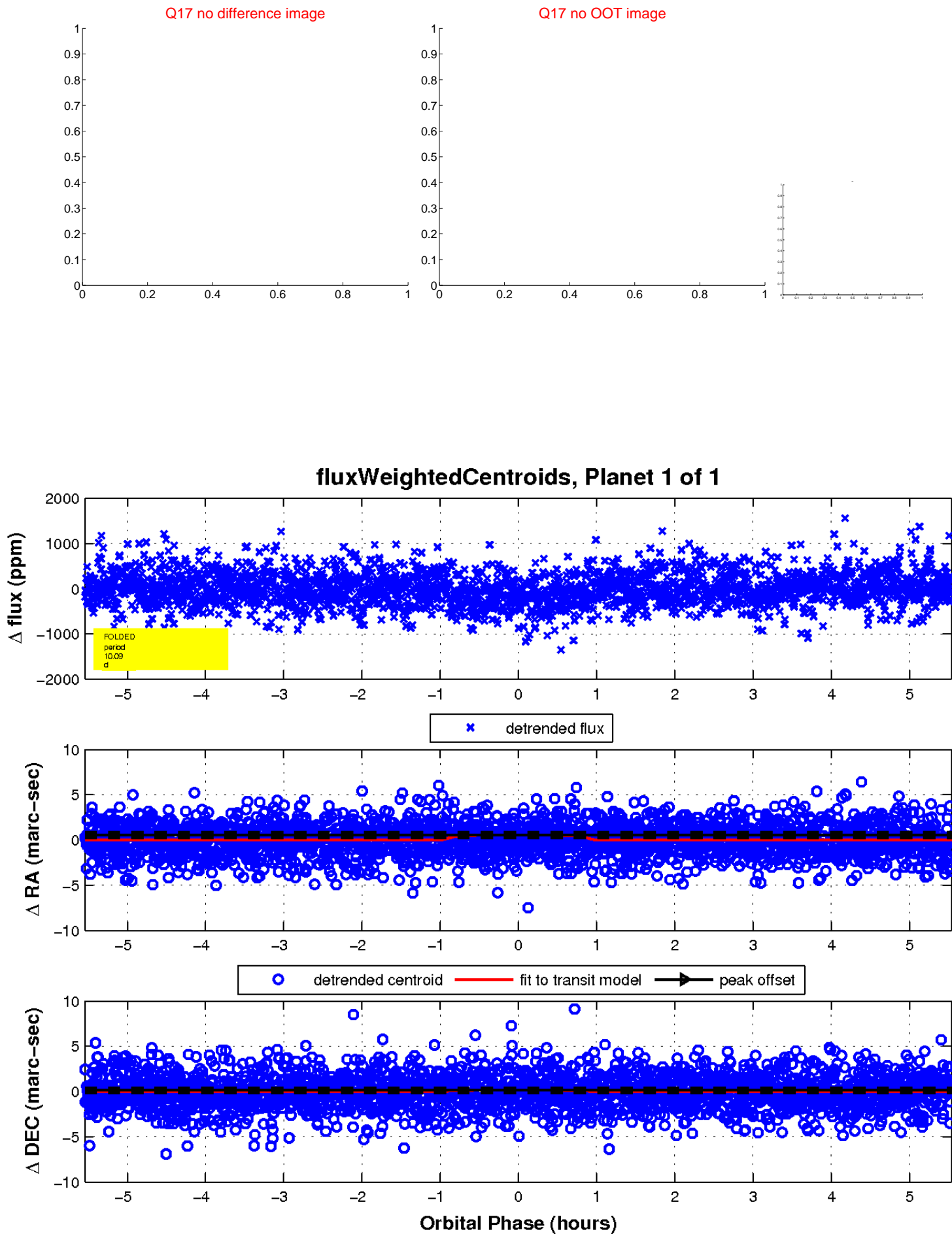
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

