

KIC 008144578

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})
008144578-01	OBS	No	0.582552	132.045960	0.0	5.888	8.3	0.0	1.31	6642	0.00	13484.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008144578-01	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.

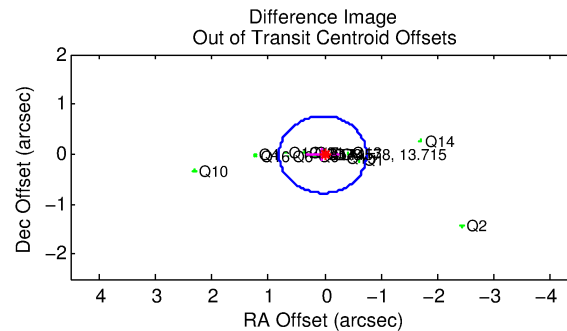
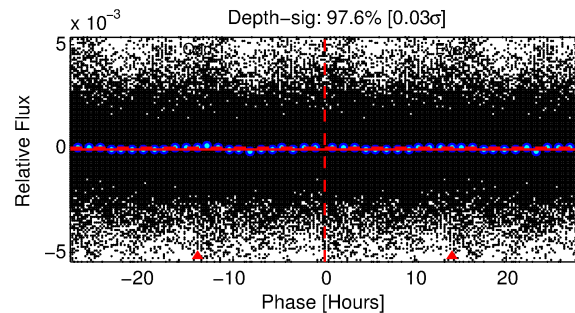
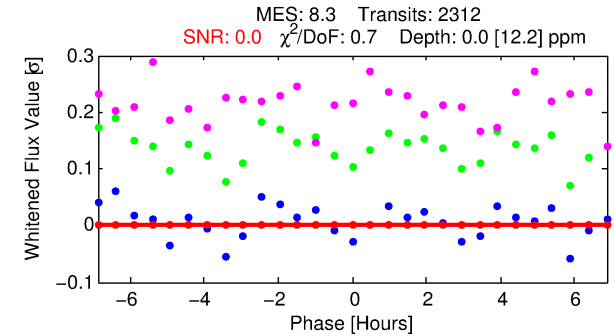
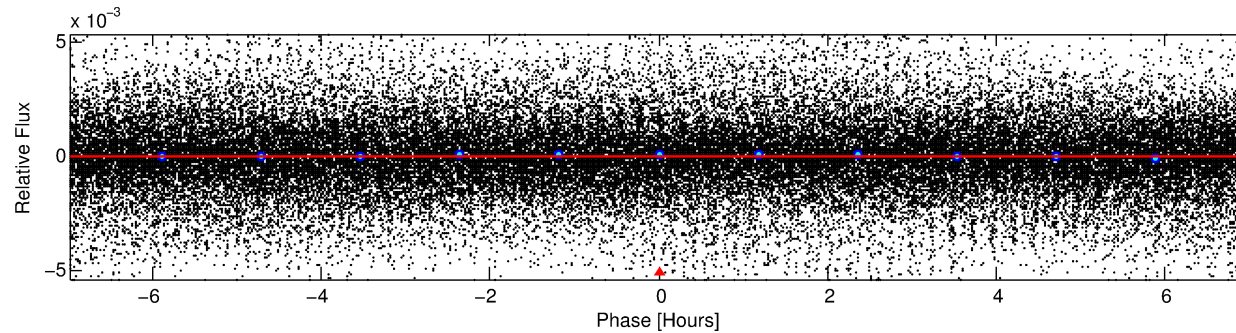
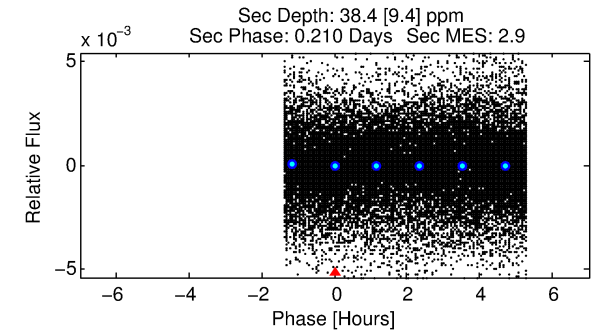
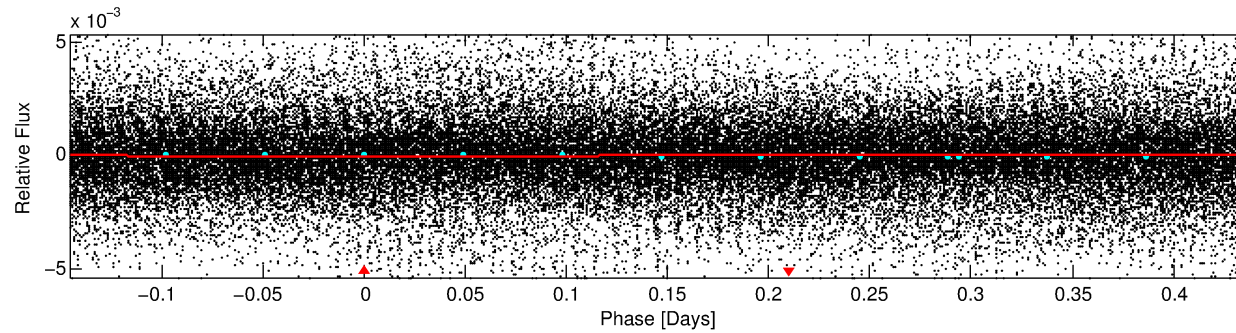
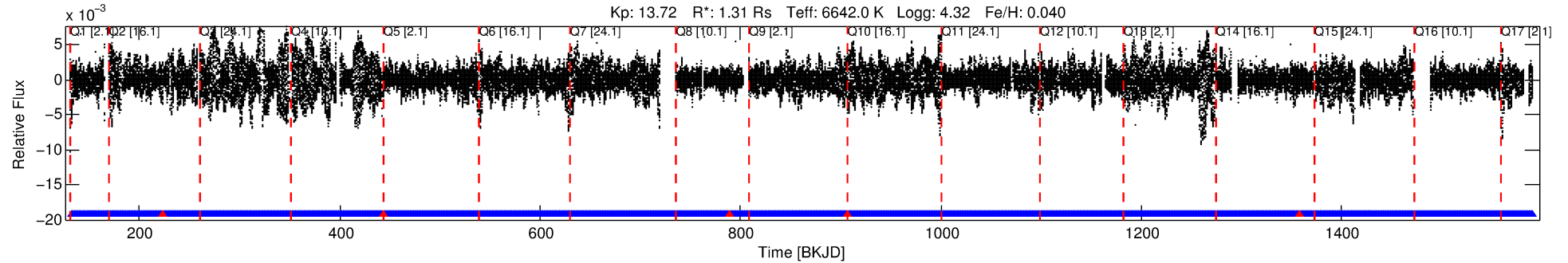
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008144578-01

No Significant Match Found

DV One-Page Summary

KIC: 8144578 Candidate: 1 of 1 Period: 0.583 d



DV Fit Results:

Period = 0.58255 [109.01271] d
Epoch = 132.0460 [14079.8455] BKJD
Rp/R* = 0.0000 [2.0815]
a/R* = 1.02 [2639.50]
b = 0.72 [77219.39]
Seff = 13484.18 [3364391.29]
Teq = 2748 [171397] K
Rp = 0.00 [297.55] Re
a = 0.0149 [1.8585] AU
Ag = 28143936.82 [41014605727775.27] [101000]
Teff = 309435 [112748719803] K

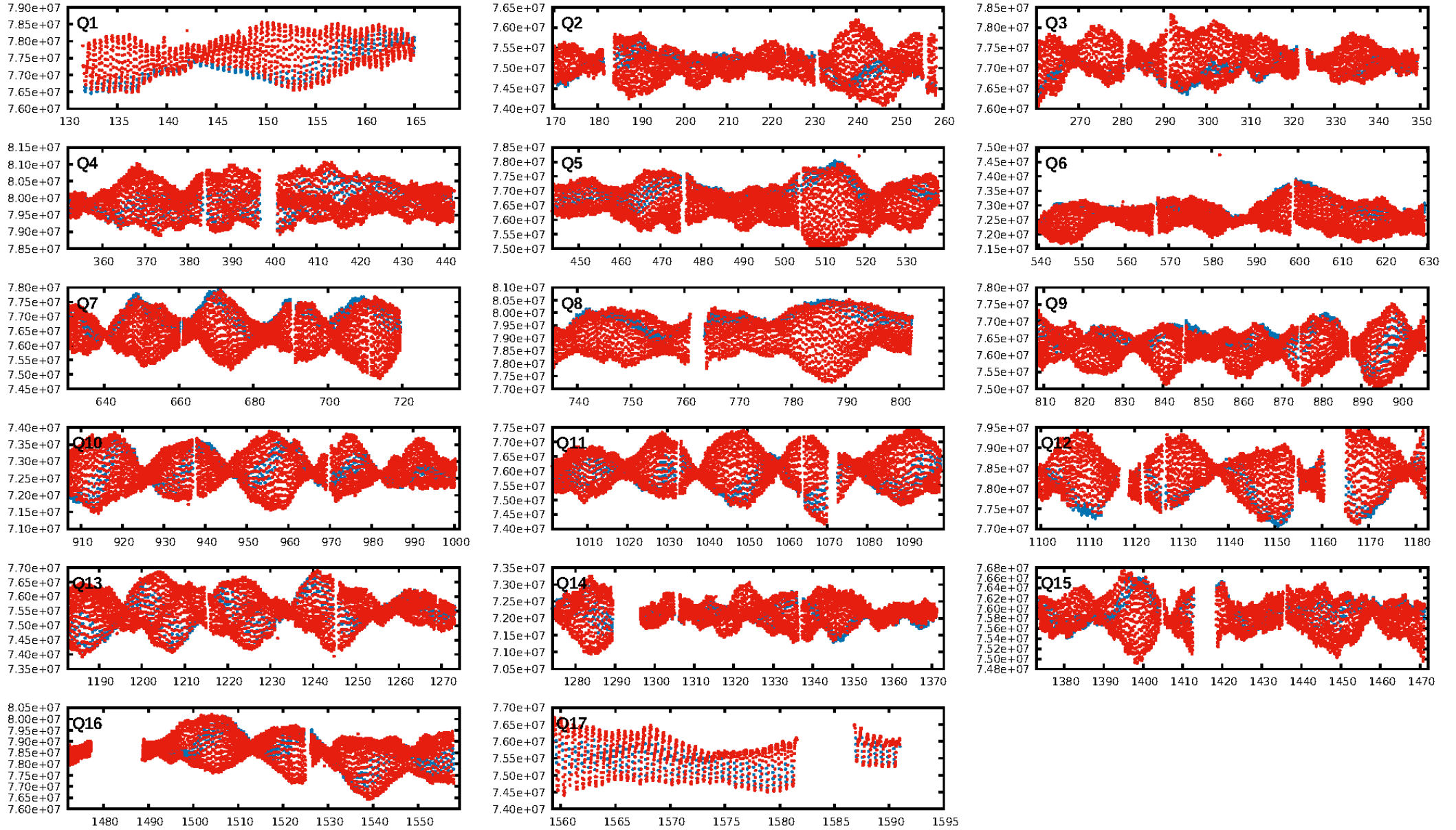
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2203/2208]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OutOffset-rm: 0.036 arcsec [0.14σ]
OutOffset-rm: 0.127 arcsec [0.60σ]
OutOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.41 [7/17]
DiffImageOverlap-fno: 1.00 [17/17]

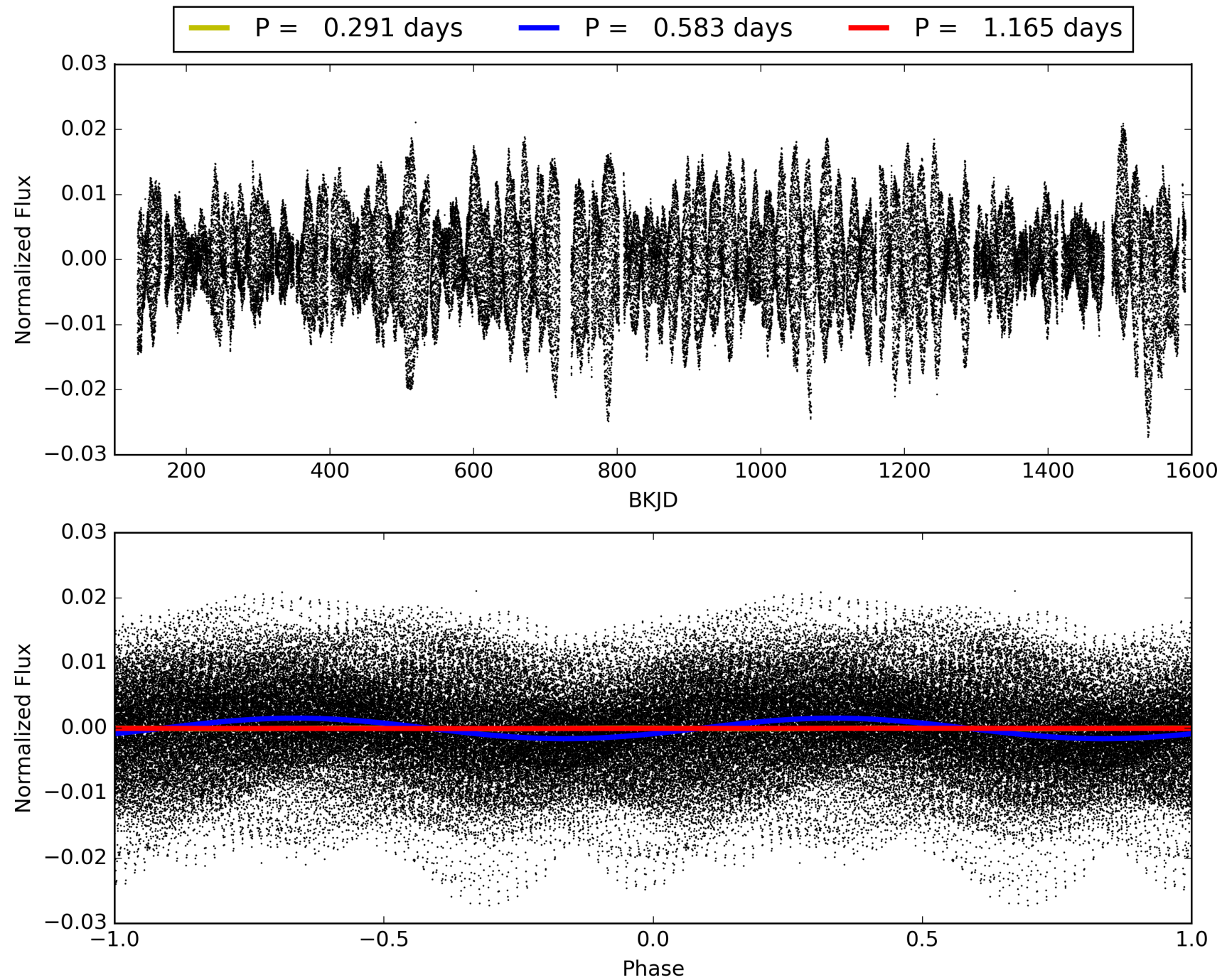
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:17:40 Z

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

TCE 008144578-01, PDC Light Curves

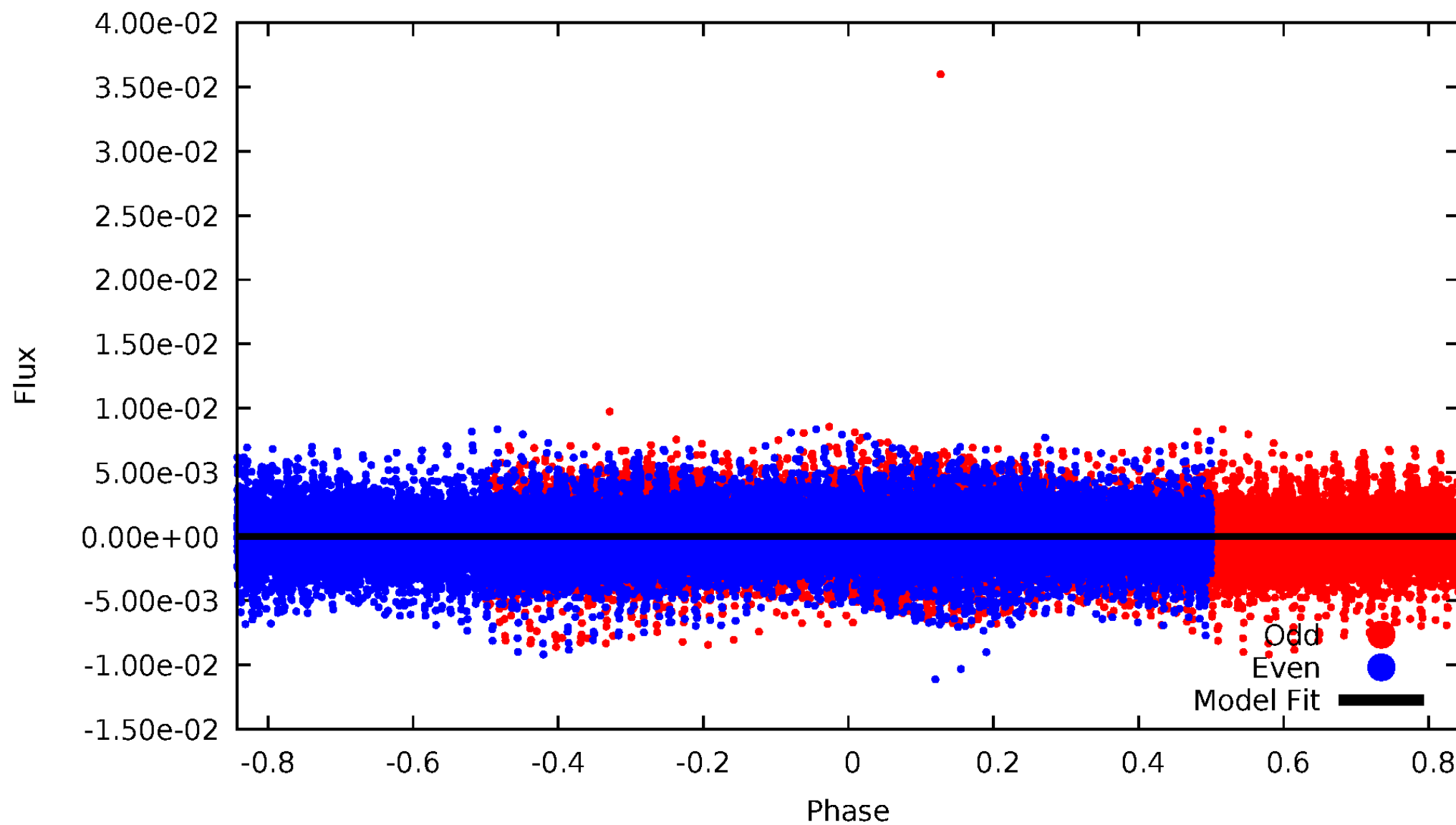


TCE 008144578-01



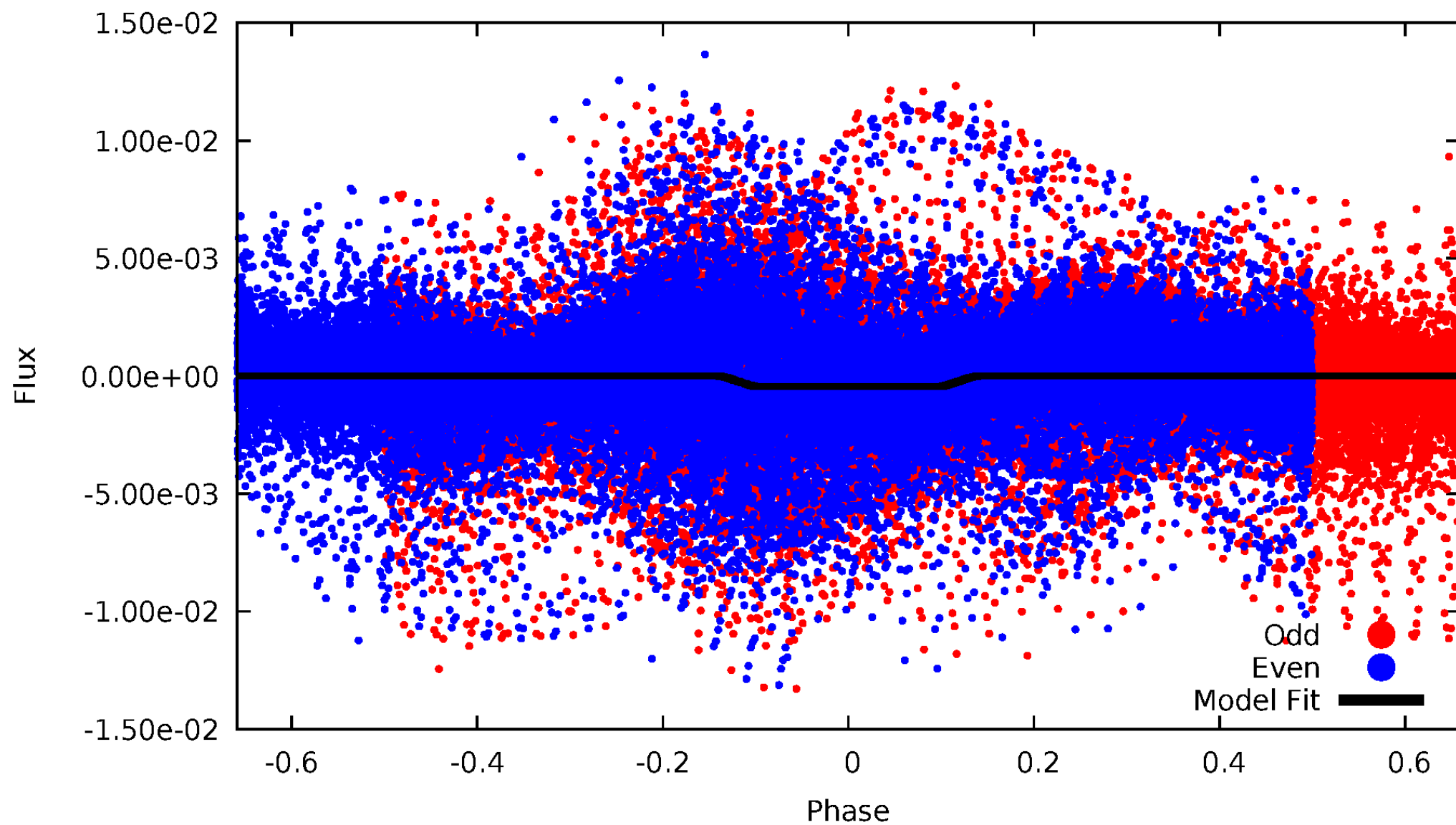
DV Odd/Even

TCE 008144578-01



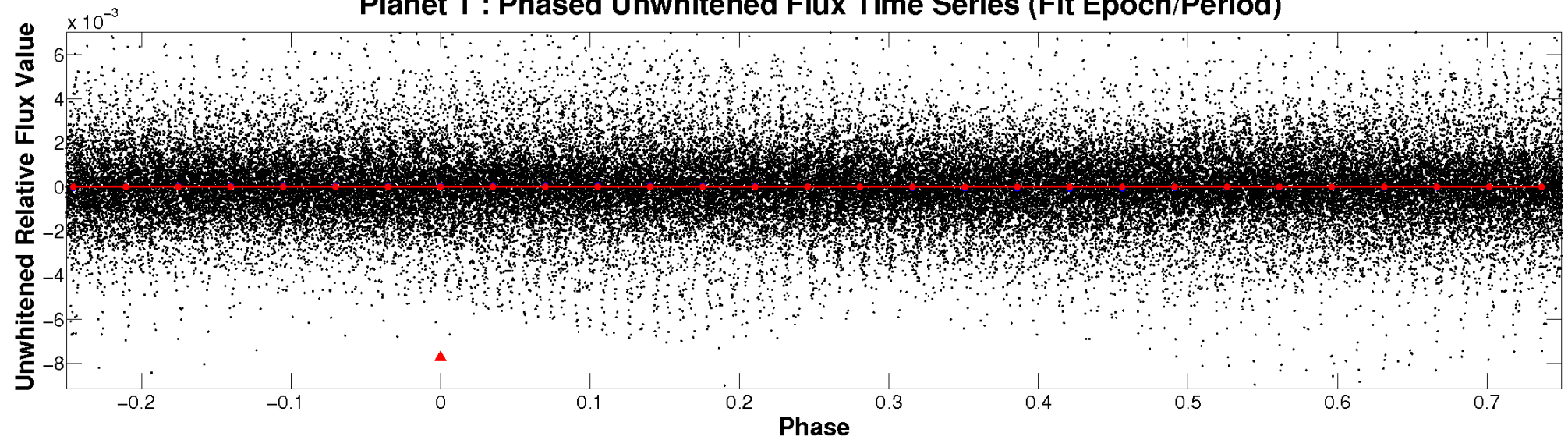
ALT Odd/Even

TCE 008144578-01

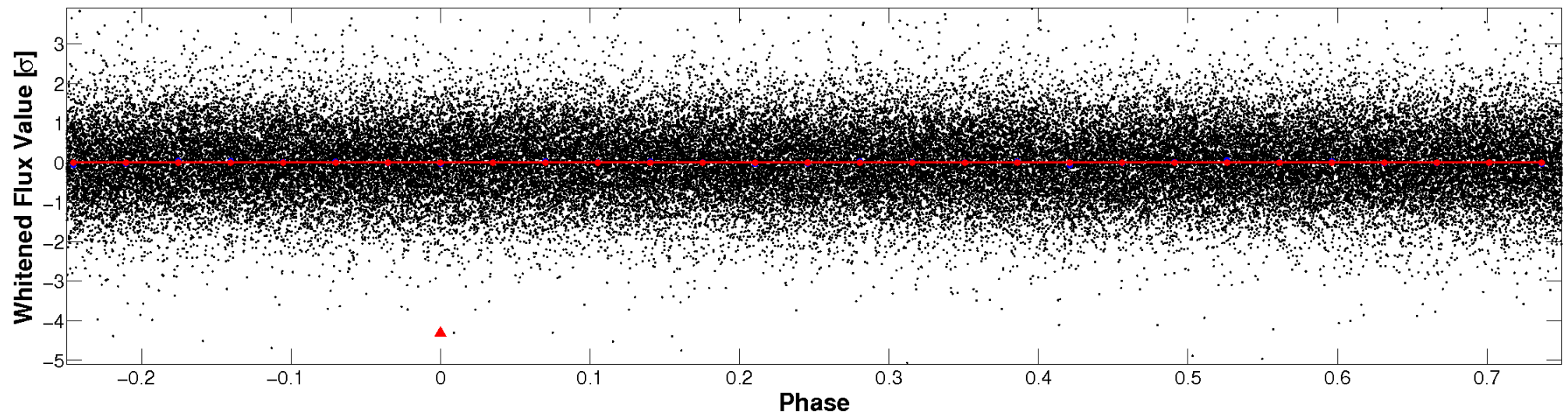


Non-Whitened Vs. Whitened Light Curve

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

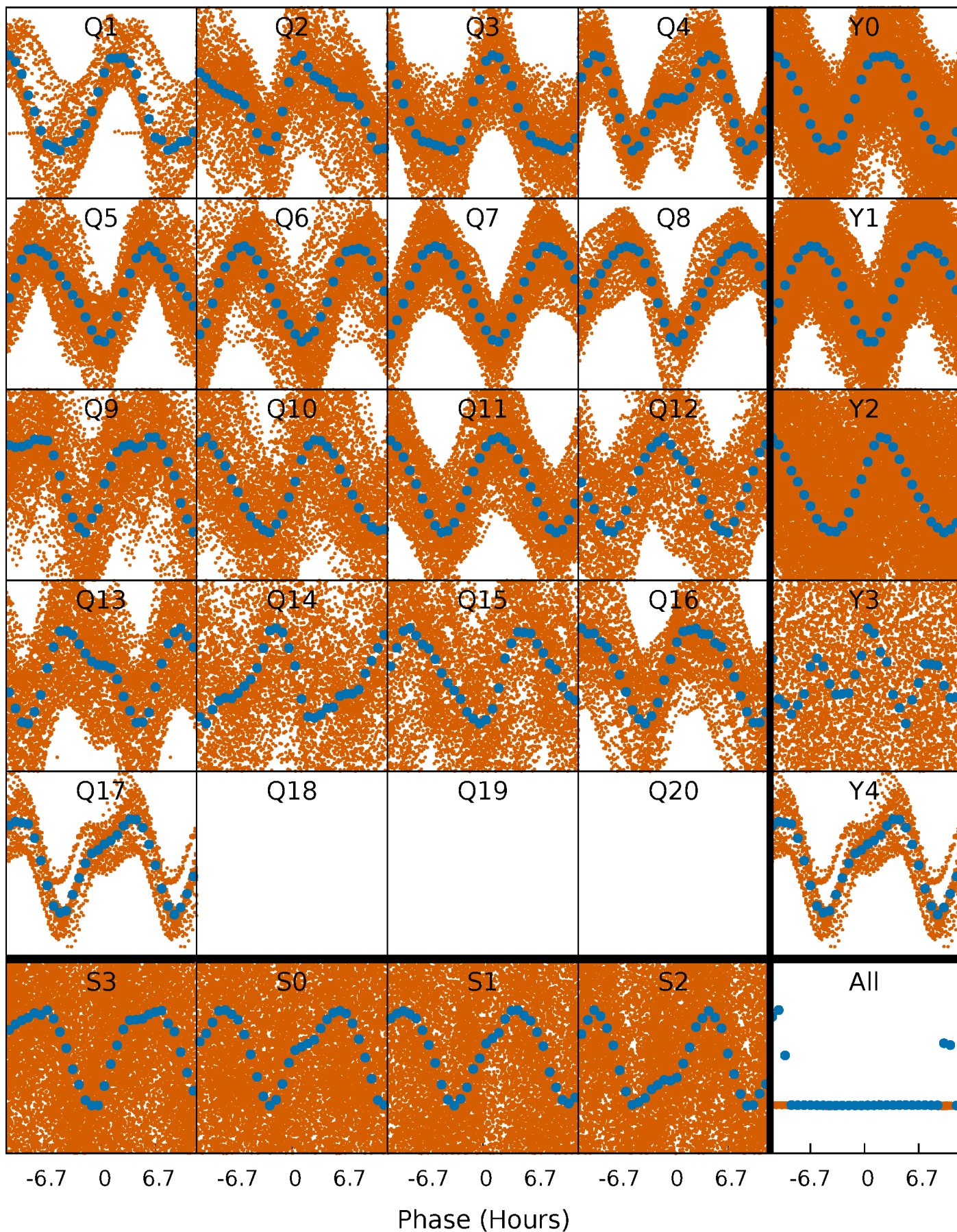


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



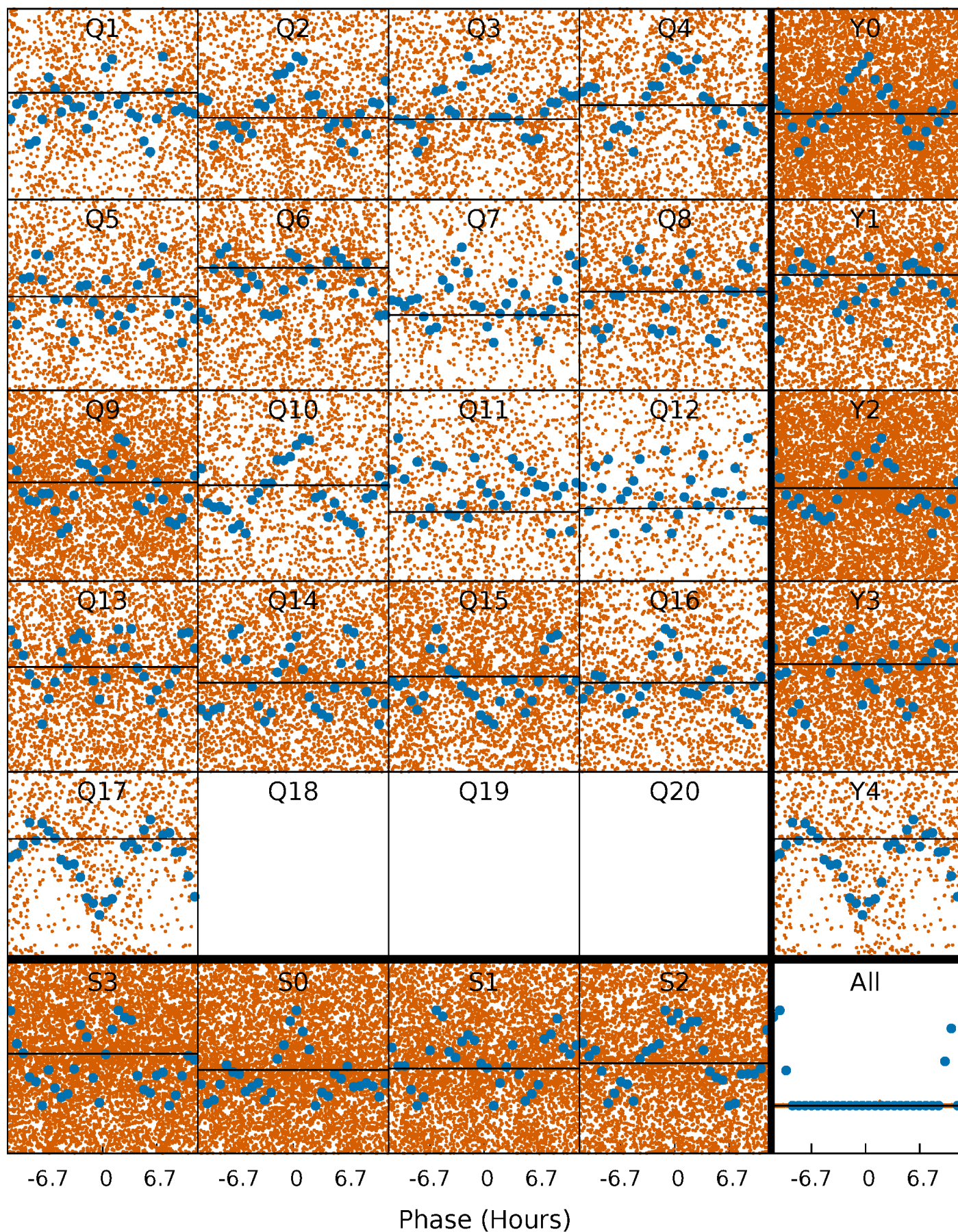
PDC Quarter-Phased Transit Curves

TCE 008144578-01 P= 0.582552 Days $T_0=132.045960$ (BKJD)



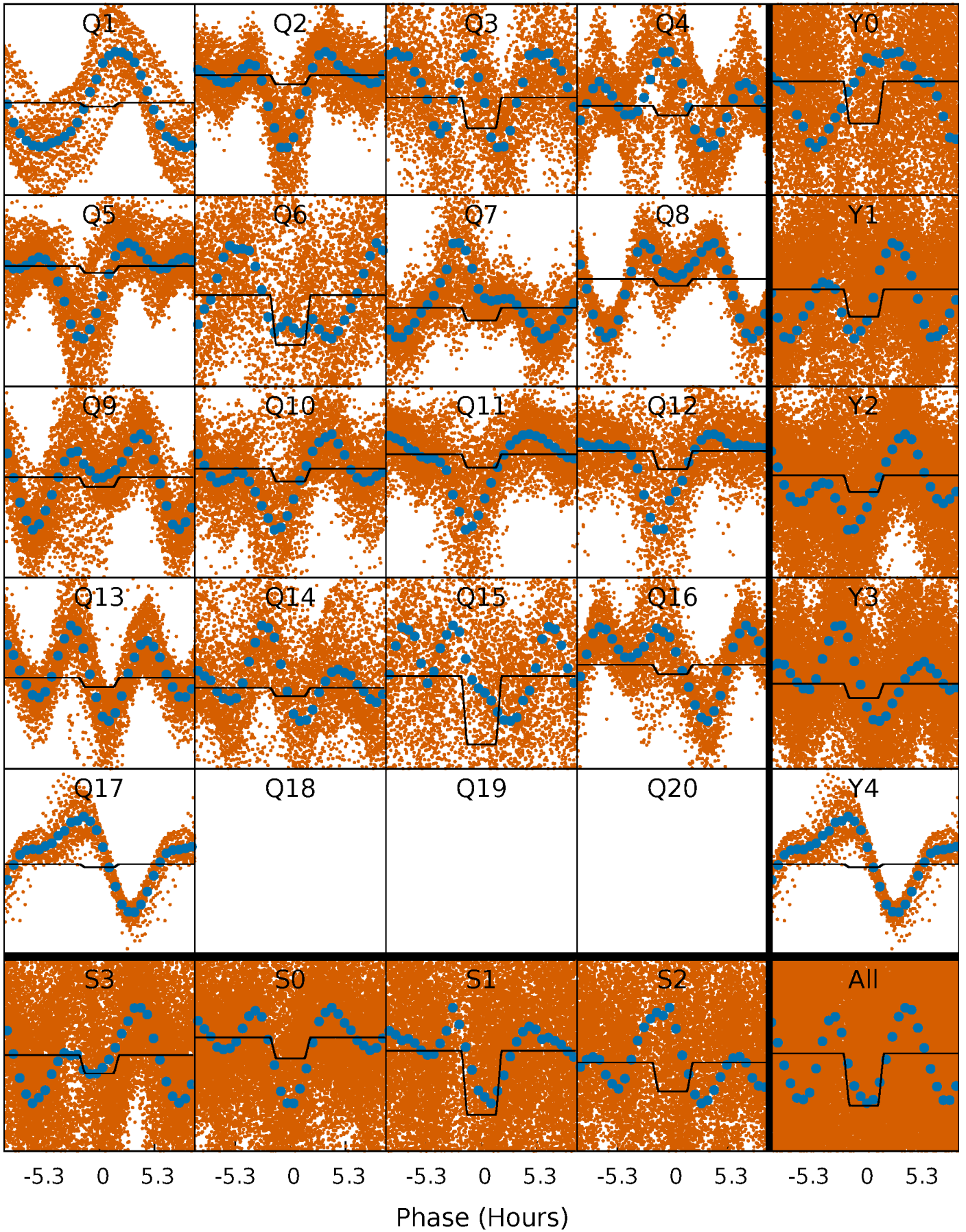
DV Quarter-Phased Transit Curves

TCE 008144578-01 P= 0.582552 Days $T_0=132.045960$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

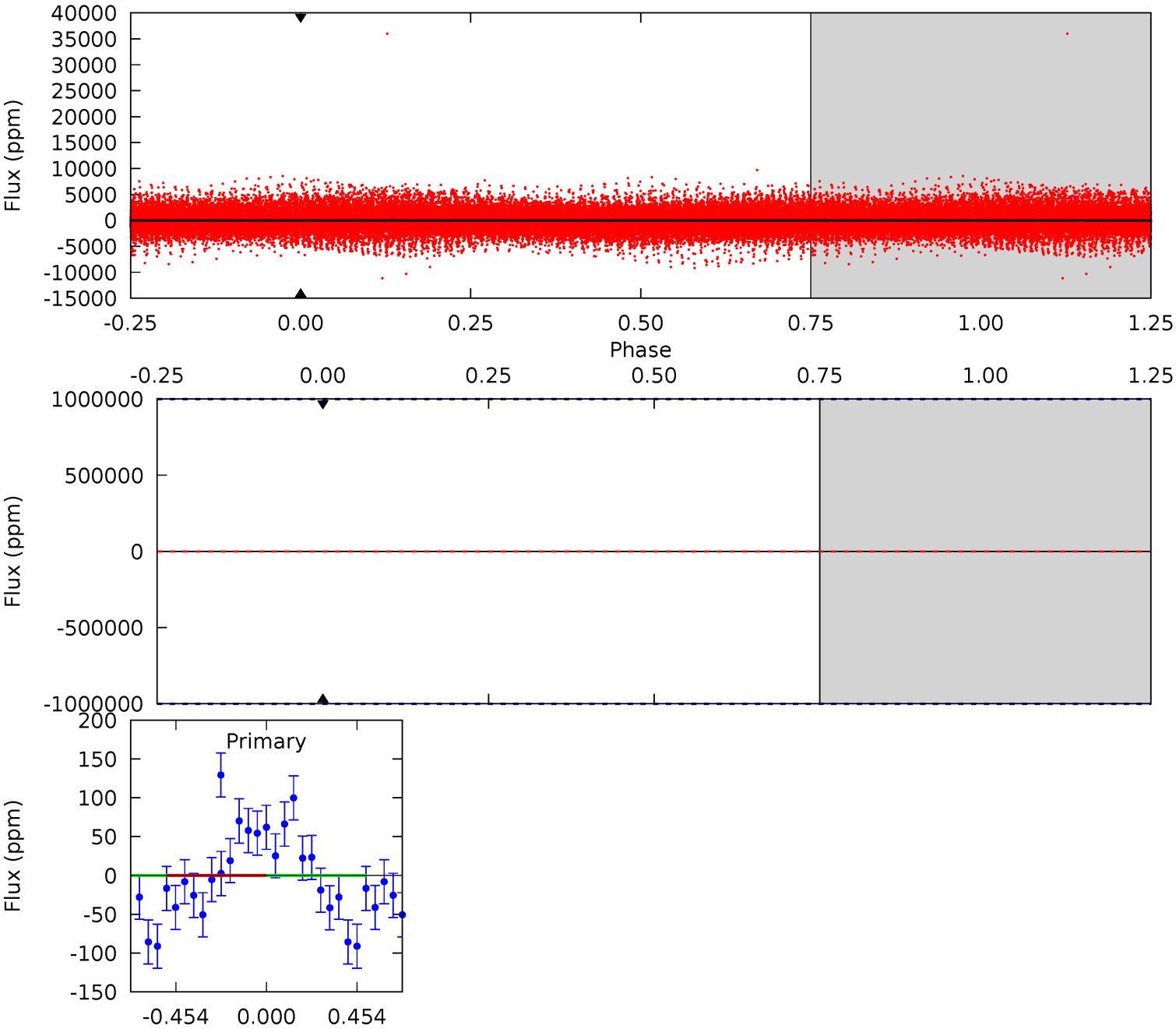
TCE 008144578-01 P= 0.581697 Days $T_0=132.081659$ (BKJD)



DV Model-Shift Uniqueness Test

008144578-01, P = 0.582552 Days, E = 131.463408 Days

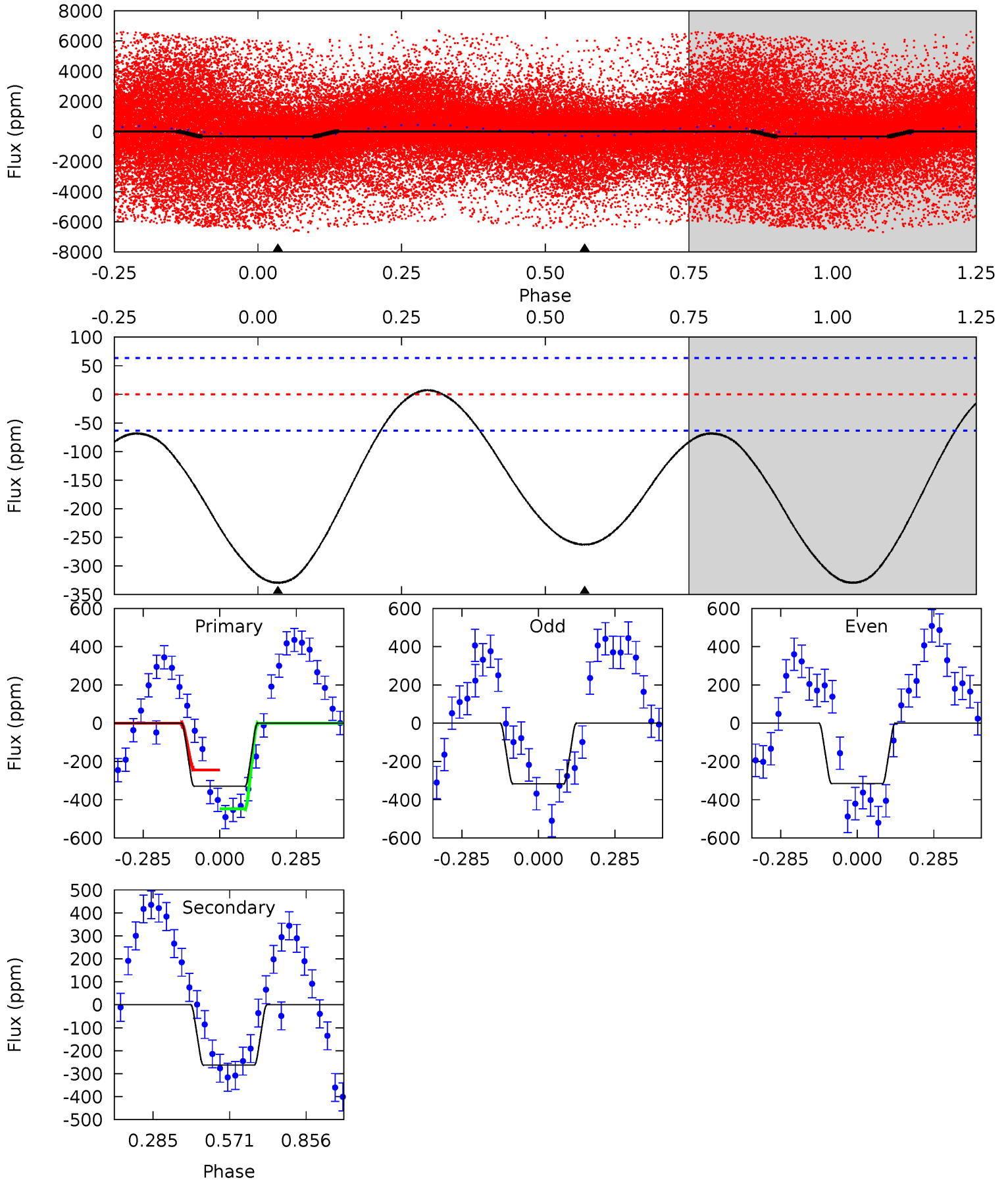
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008144578-01, P = 0.581697 Days, E = 131.499962 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.5	18.0	0	0	4.34	1.07	1.83	22.5	22.5	18.0	18.0	0.03	3.02	0.02	6.02



Stellar Parameters For KIC 008144578

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6642^{+161}_{-241}	$4.317^{+0.070}_{-0.210}$	$0.040^{+0.250}_{-0.350}$	$1.310^{+0.453}_{-0.162}$	$1.303^{+0.187}_{-0.187}$	$0.816^{+0.259}_{-0.464}$
	+2%/-4%	+2%/-5%	+625%/-875%	+35%/-12%	+14%/-14%	+32%/-57%
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 008144578-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$213.12^{+236.82}_{-139.85}$	803^{+414}_{-188}	-2020^{+5948}_{-1925}	$0.007^{+311.040}_{-265.924}$
Alt.	-263 ± 15	$200.43^{+212.90}_{-139.81}$	807^{+414}_{-189}	1515^{+710}_{-3374}	$0.410^{+4.976}_{-0.355}$

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 $A_{obs} \gg 1.0$

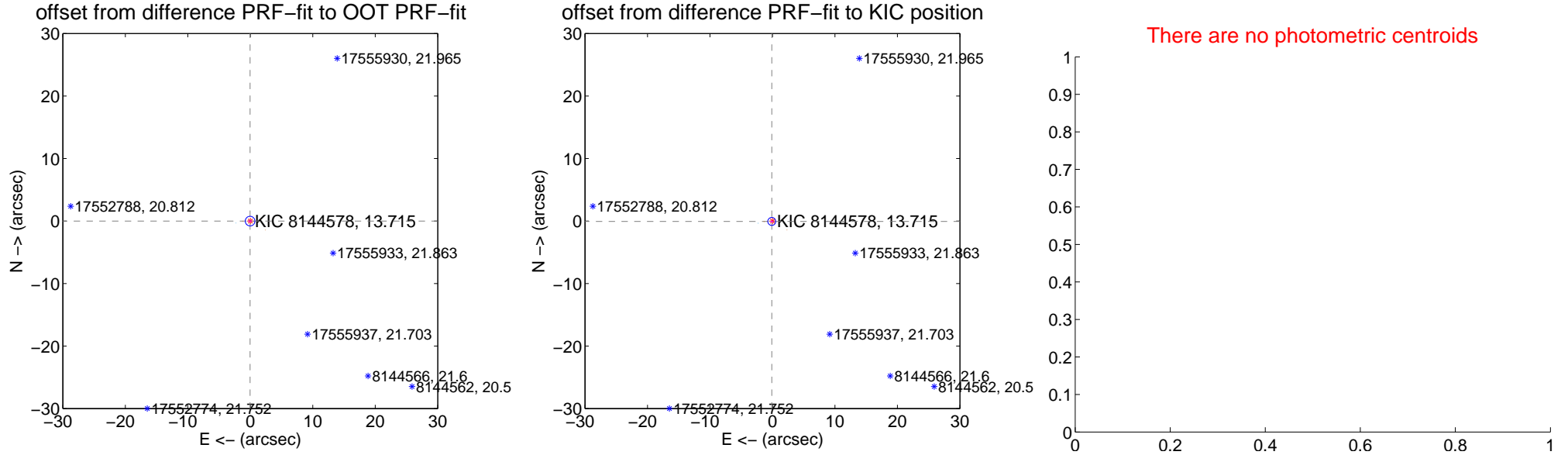
DV Centroid Data

Supplemental centroid analysis for 008144578-01. Kepler magnitude: 13.71. Transit SNR 0.00

There are 7 quarters with good PRF difference image offsets

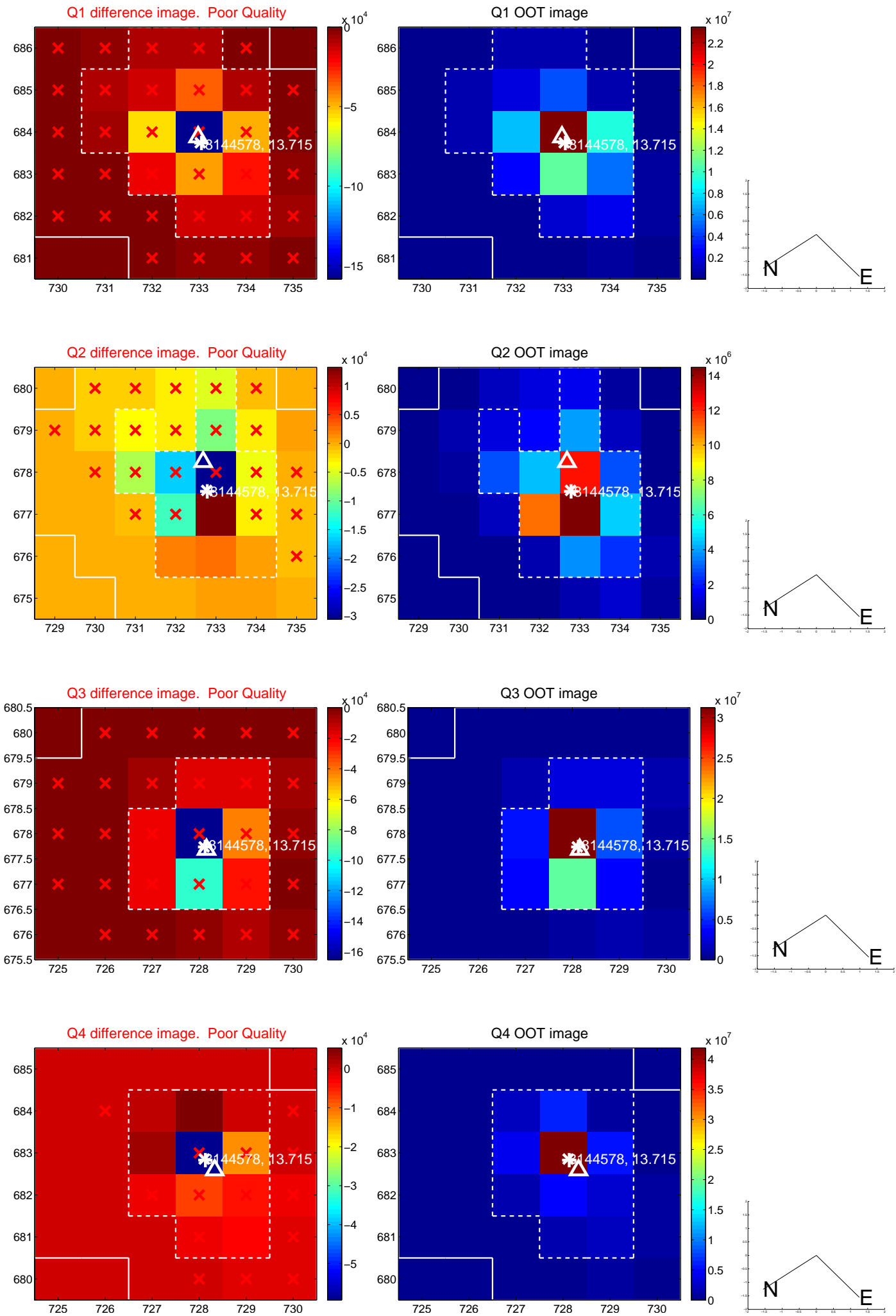
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.036 ± 0.257	0.14	0.035 ± 0.273	-0.009 ± 0.108
PRF-fit source offset from KIC position	0.127 ± 0.212	0.60	0.111 ± 0.251	-0.061 ± 0.105
photometric centroid source offset	—	—	—	—

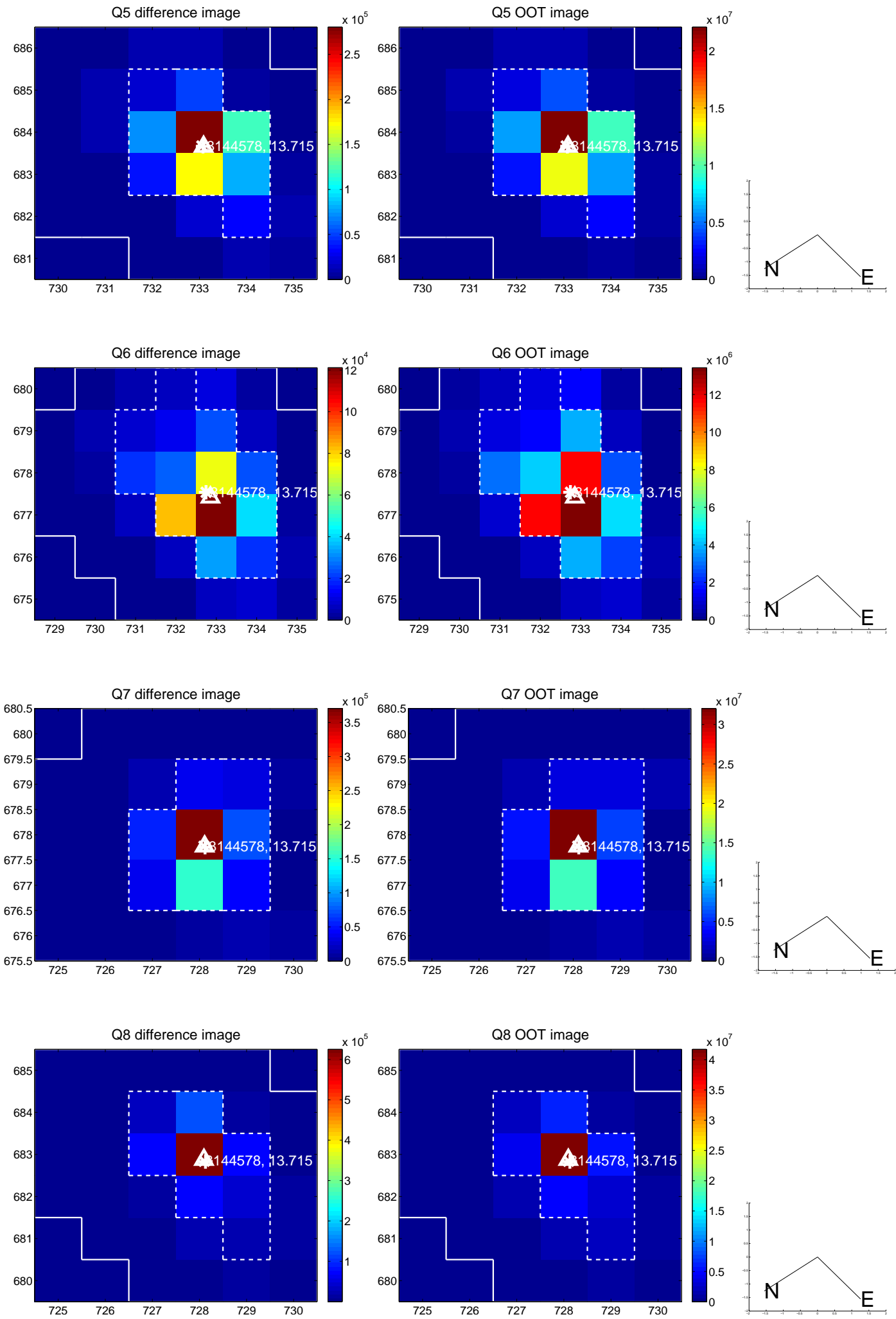


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

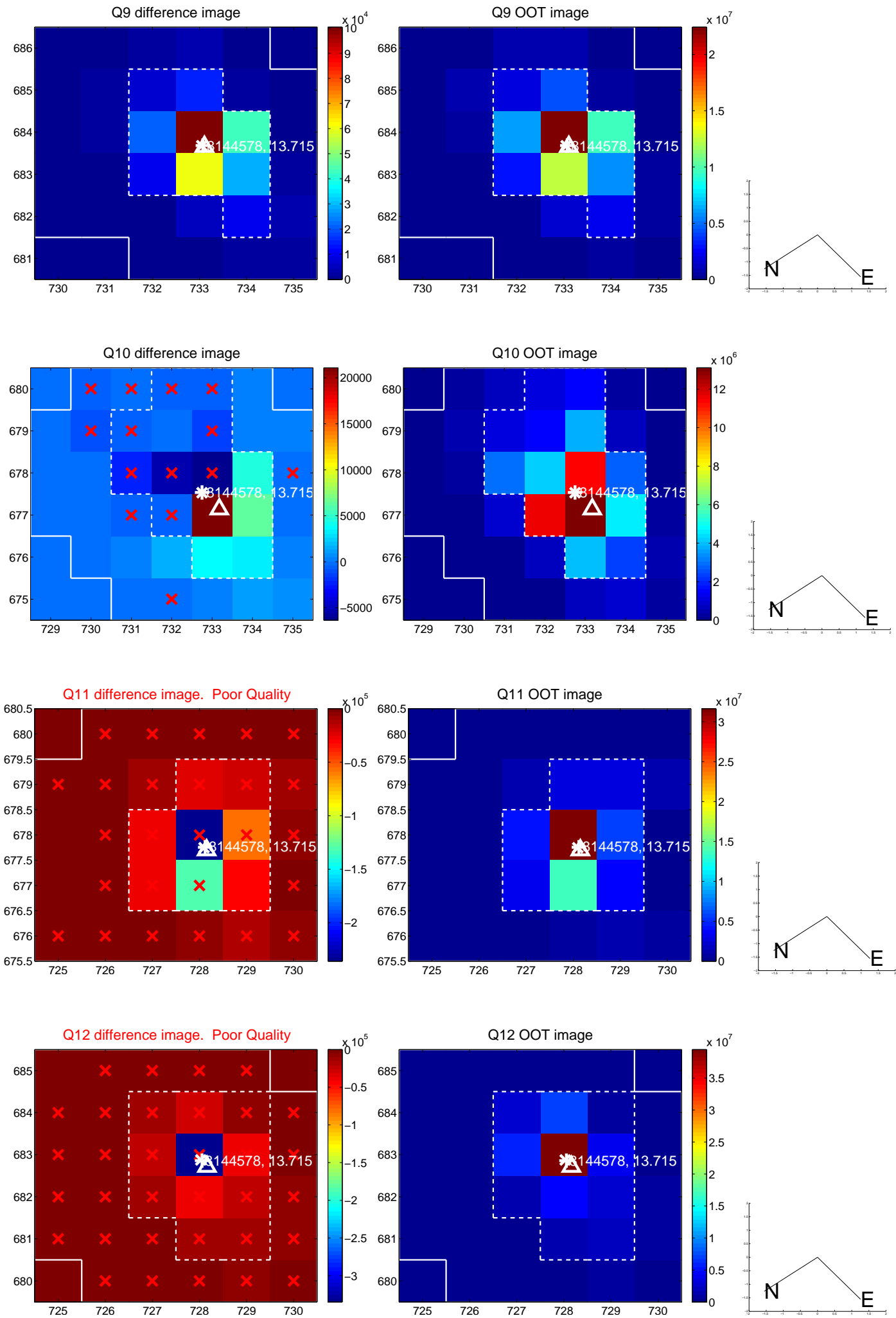
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



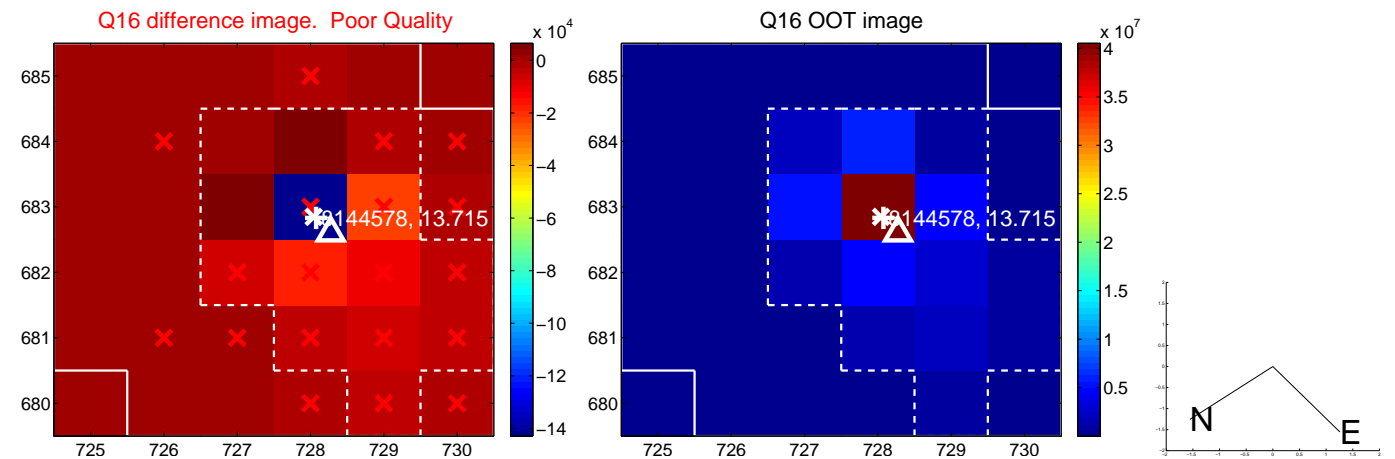
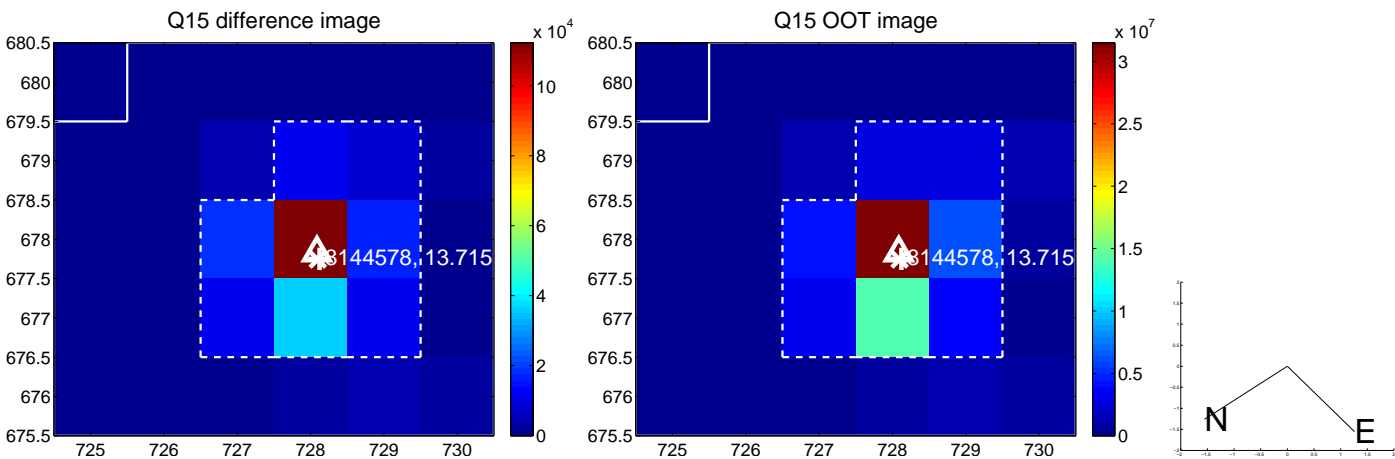
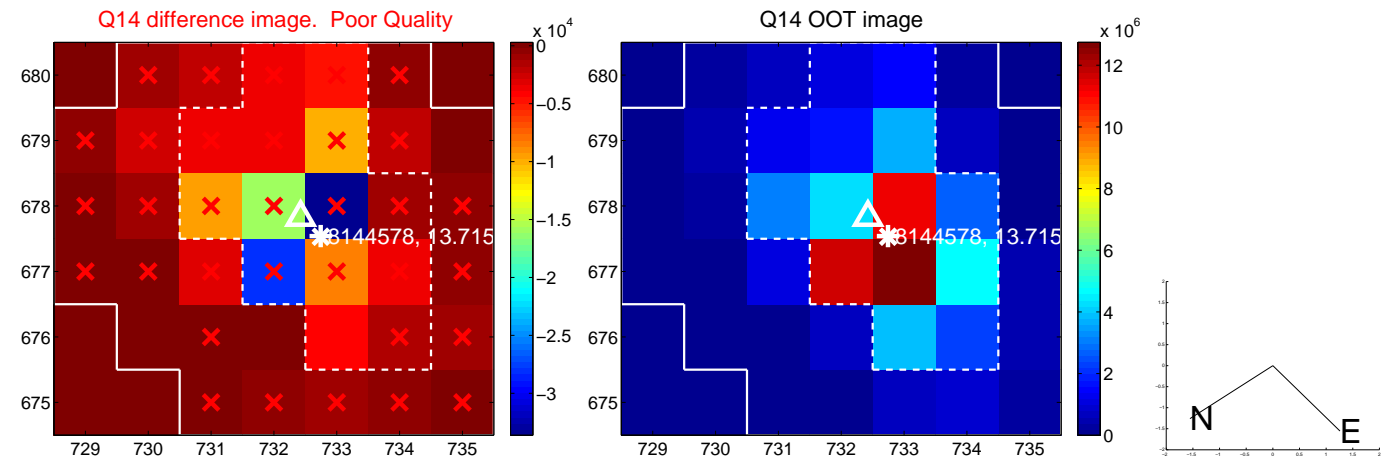
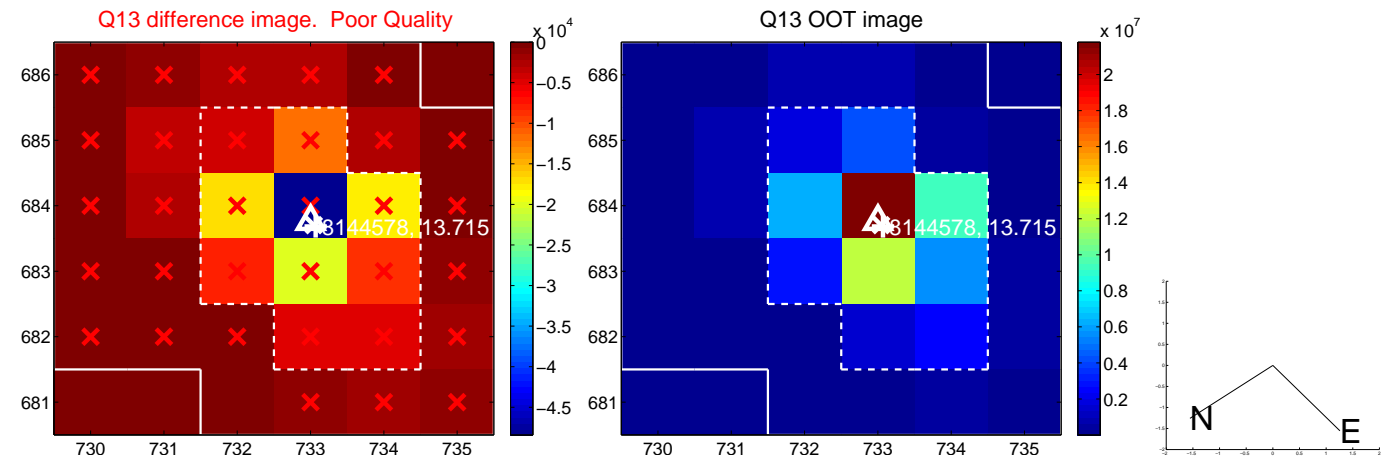
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



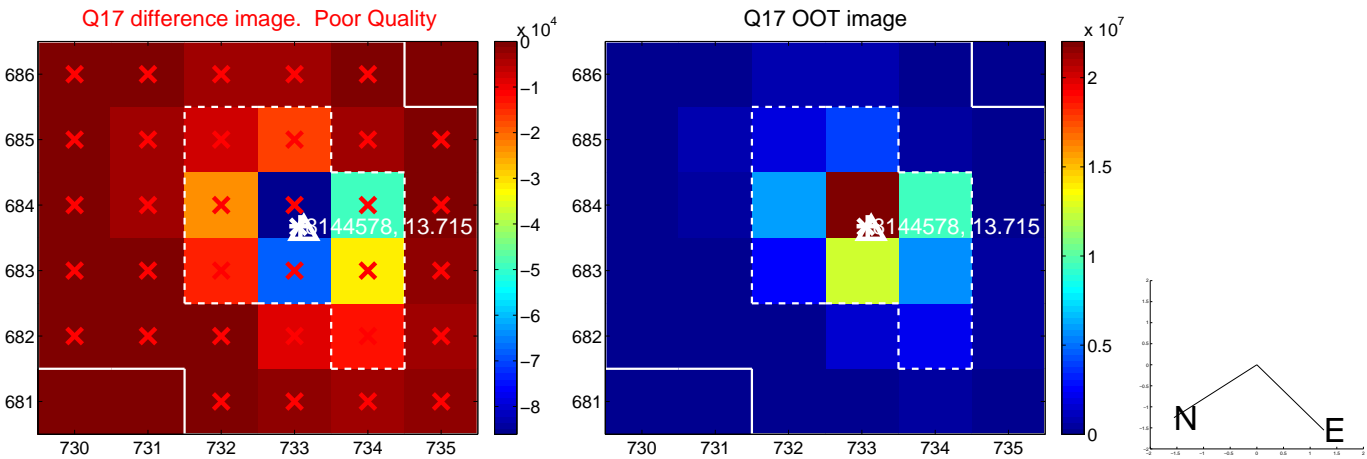
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

