

KIC 004357960

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})
004357960-01	OBS	No	1.658372	131.878046	3.5	14.387	11.5	2.7	1.69	6832	0.34	5959.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004357960-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

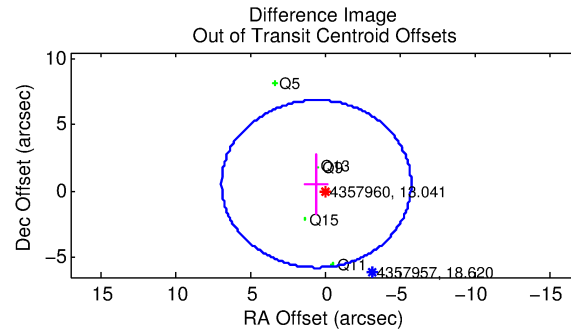
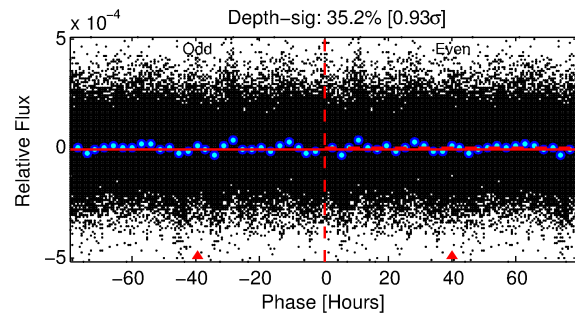
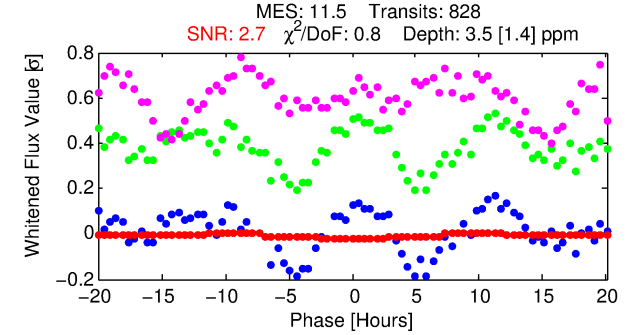
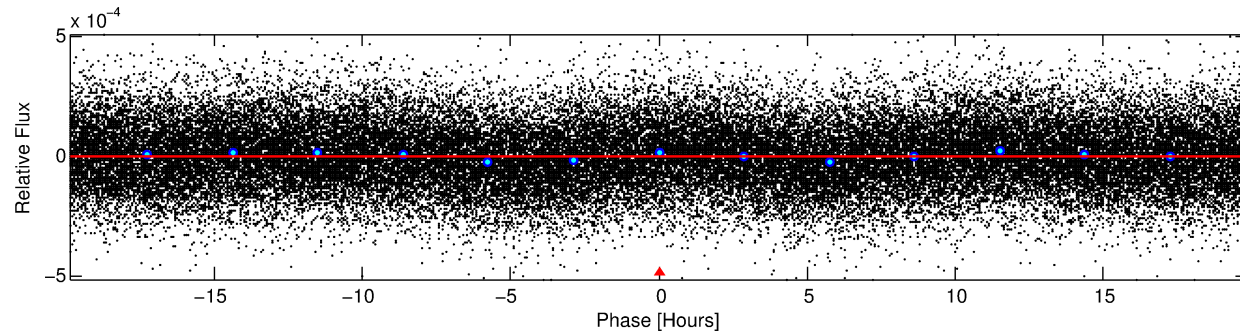
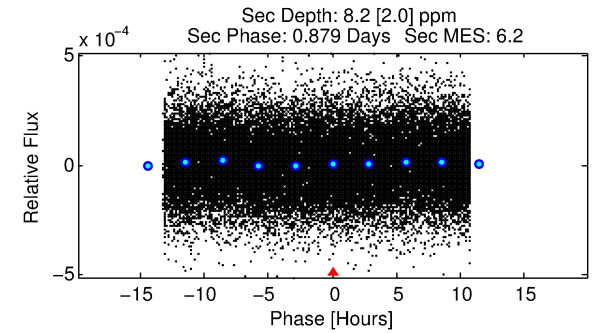
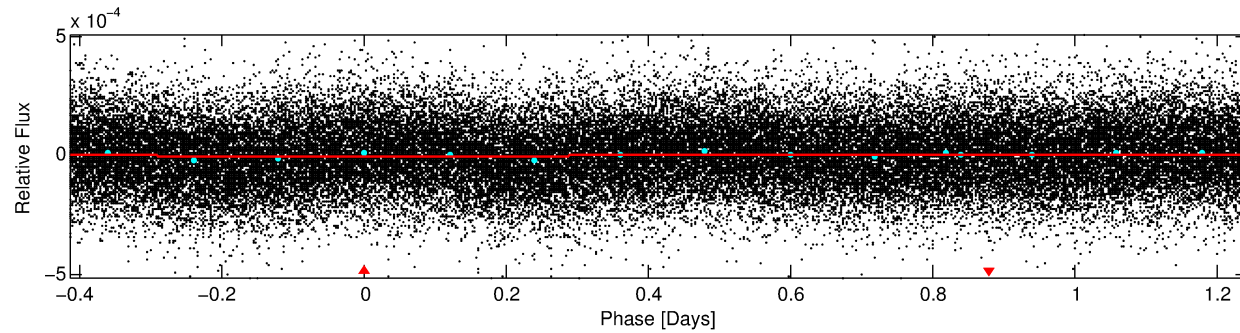
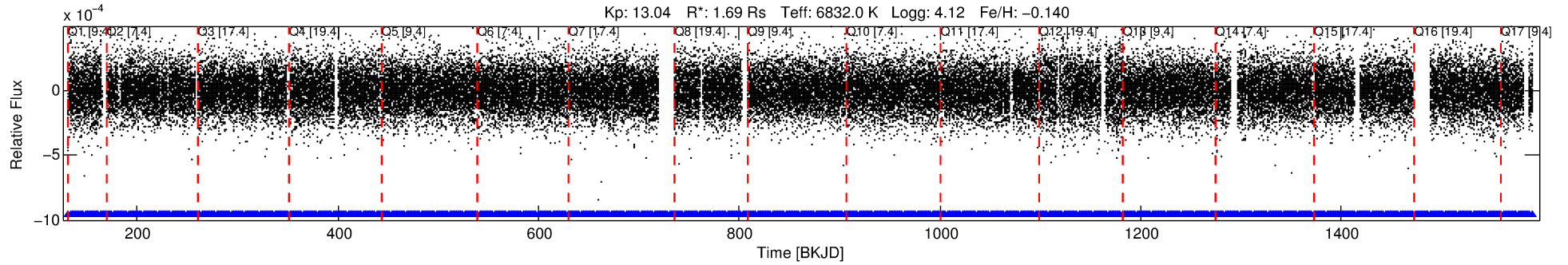
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004357960-01

No Significant Match Found

DV One-Page Summary

KIC: 4357960 Candidate: 1 of 1 Period: 1.658 d



DV Fit Results:

Period = 1.65837 [0.00013] d
Epoch = 131.8780 [0.0349] BKJD
Rp/R* = 0.0018 [0.0050]
a/R* = 1.06 [1.70]
b = 0.71 [11.44]
Seff = 5959.96 [1385.15]
Teq = 2240 [130] K
Rp = 0.34 [0.92] Re
a = 0.0305 [0.0047] AU
Ag = 36.44 [196.63] [0.18σ]
Teffp = 8511 [11472] K [0.55σ]

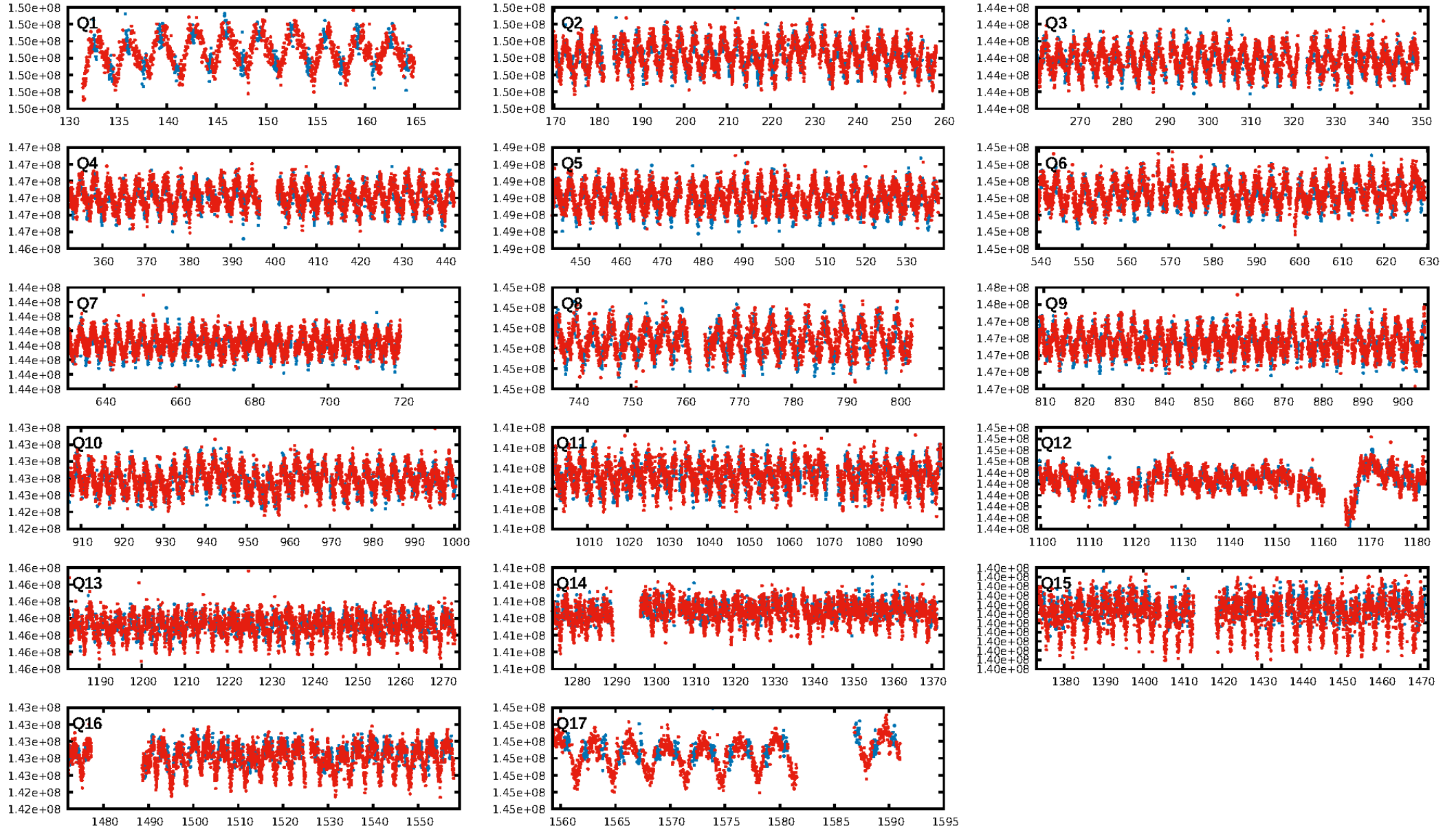
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [790/790]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.772 arcsec [0.37σ]
KicOffset-rm: 0.743 arcsec [0.56σ]
OotOffset-st: 0/2/0/3 [5]
KicOffset-st: 0/2/0/3 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 1.00 [17/17]

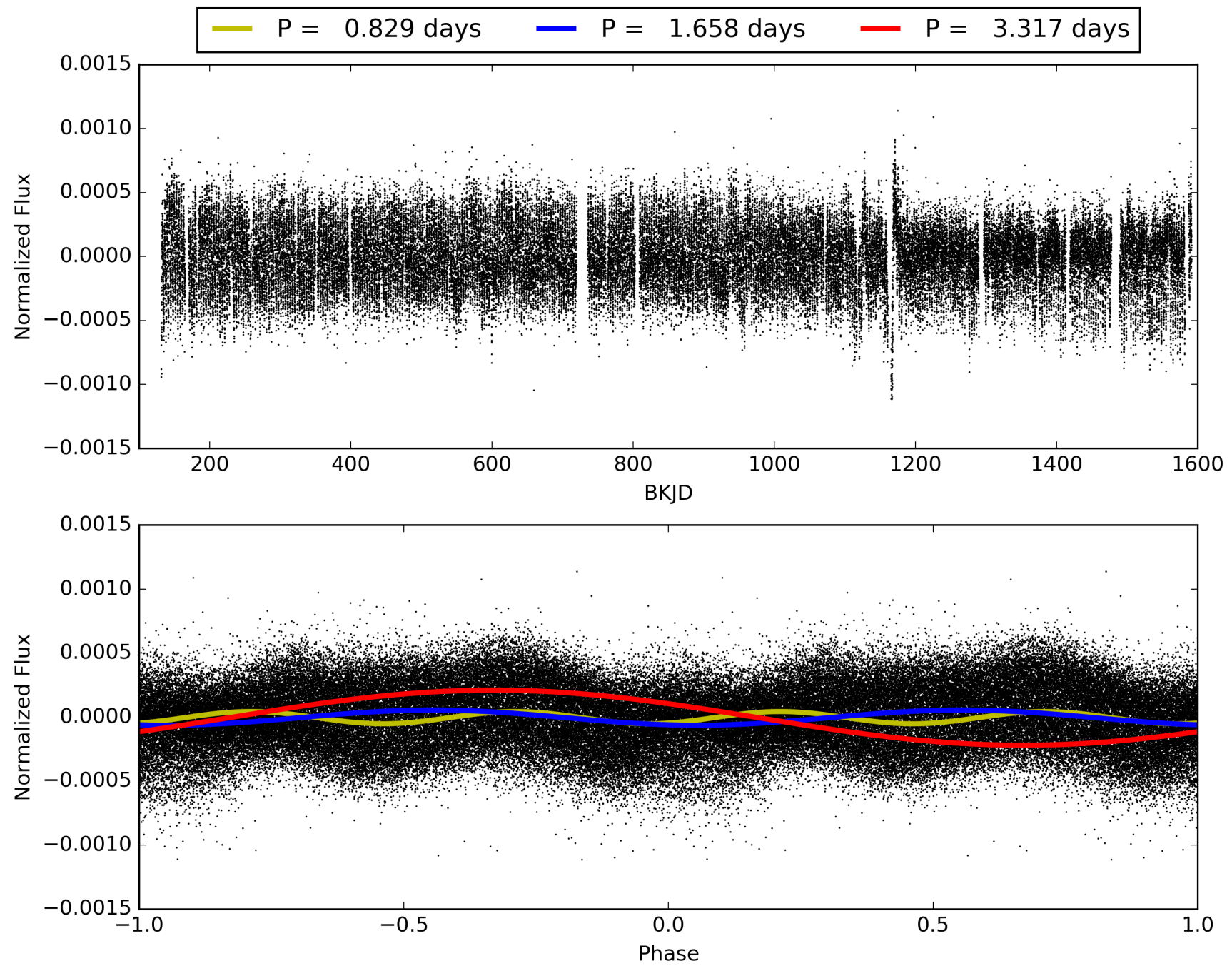
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:01:10 Z

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

TCE 004357960-01, PDC Light Curves

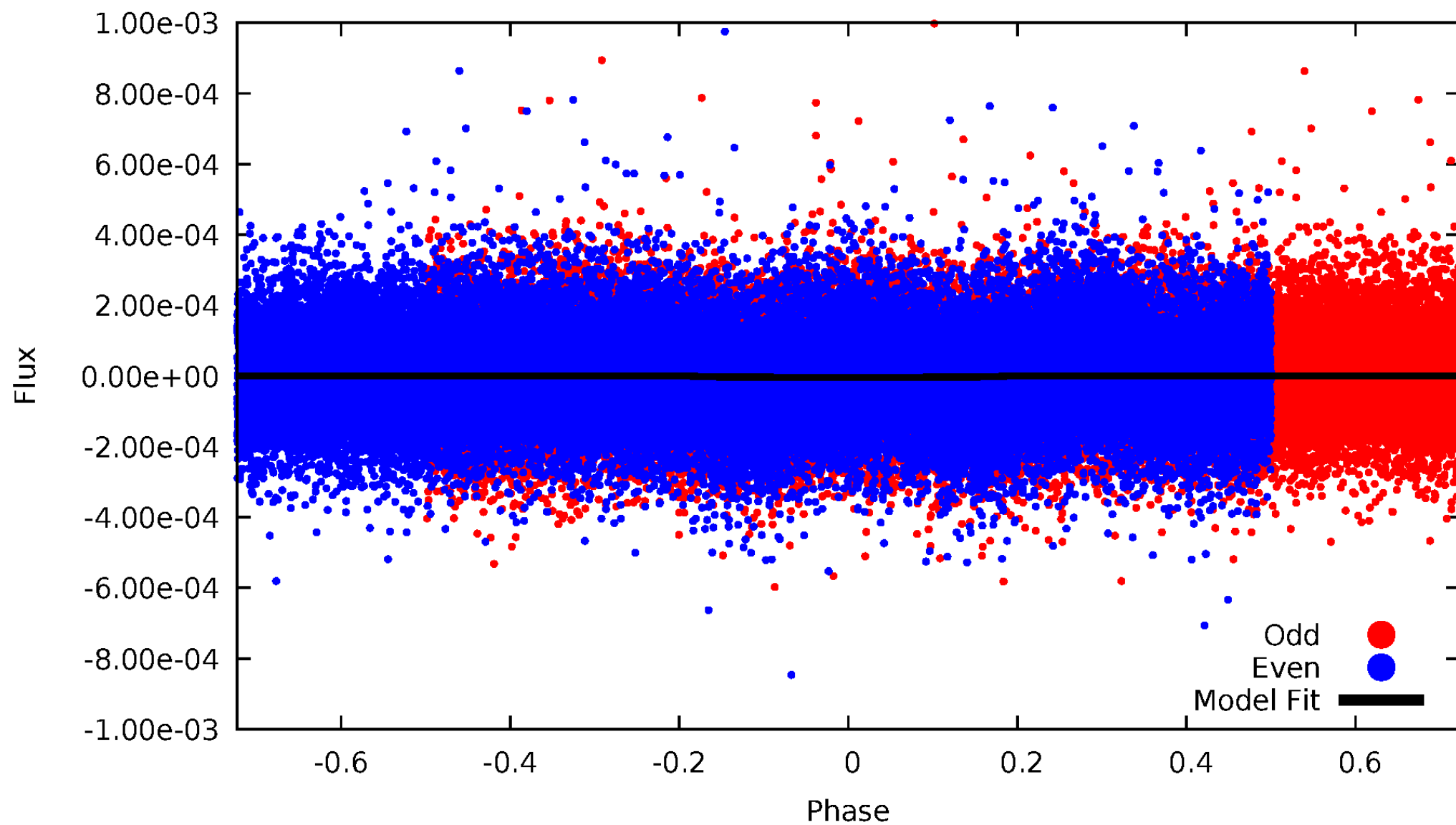


TCE 004357960-01



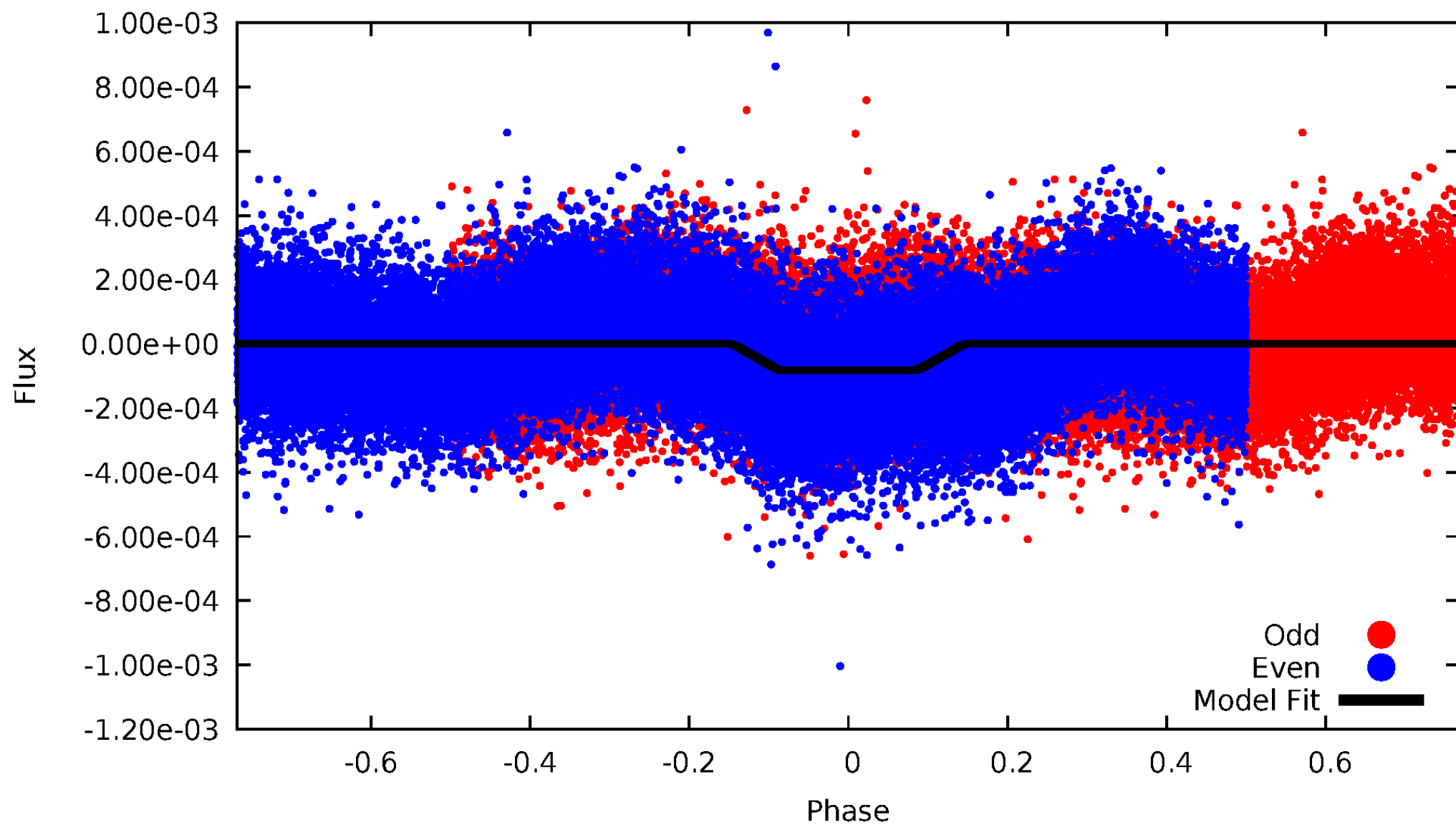
DV Odd/Even

TCE 004357960-01



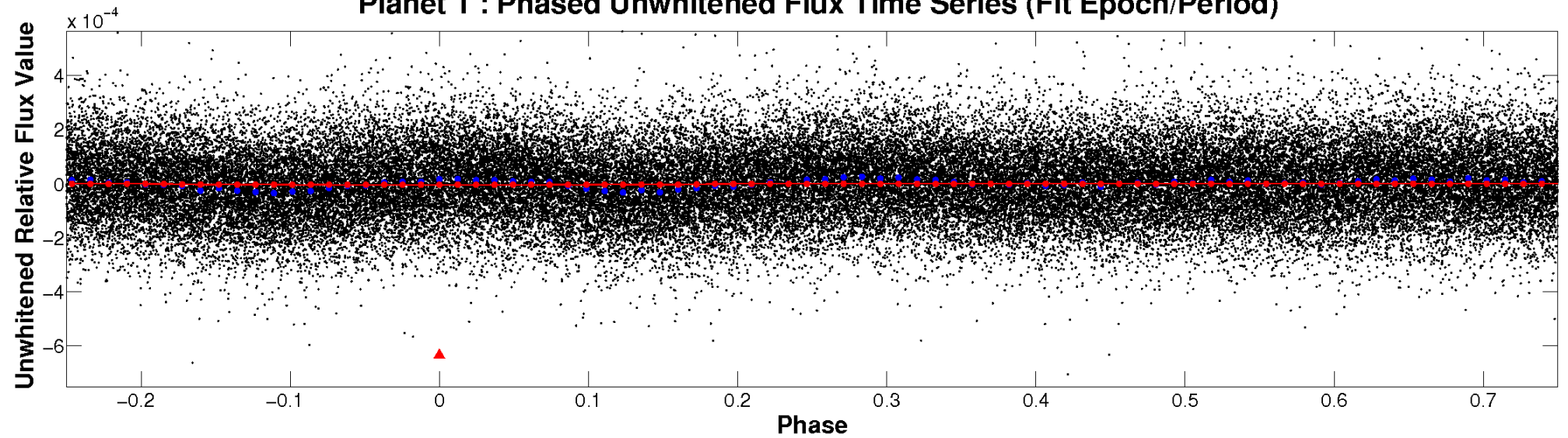
ALT Odd/Even

TCE 004357960-01

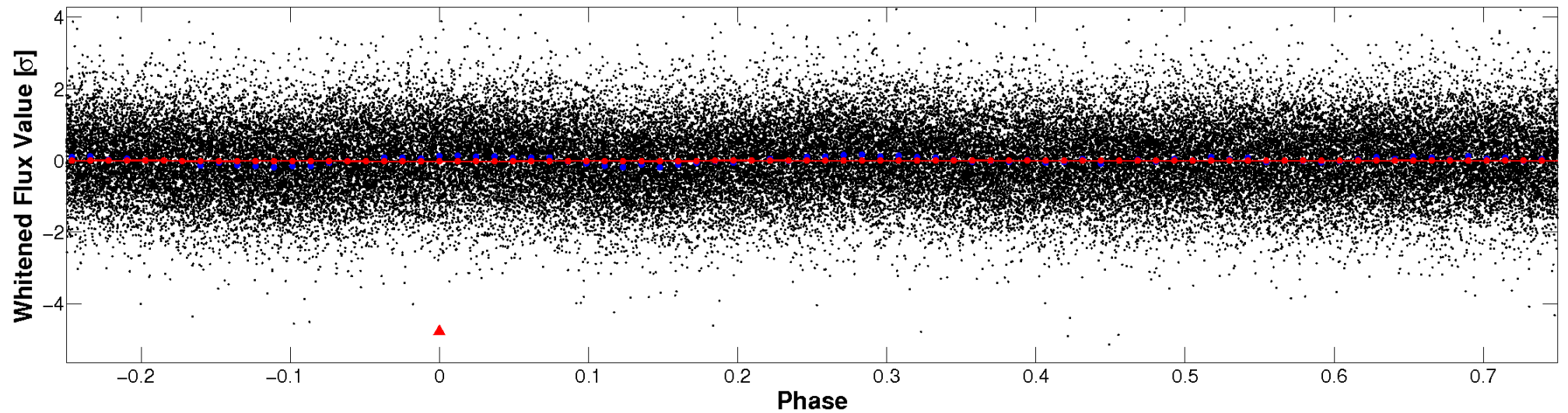


Non-Whitened Vs. Whitened Light Curve

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

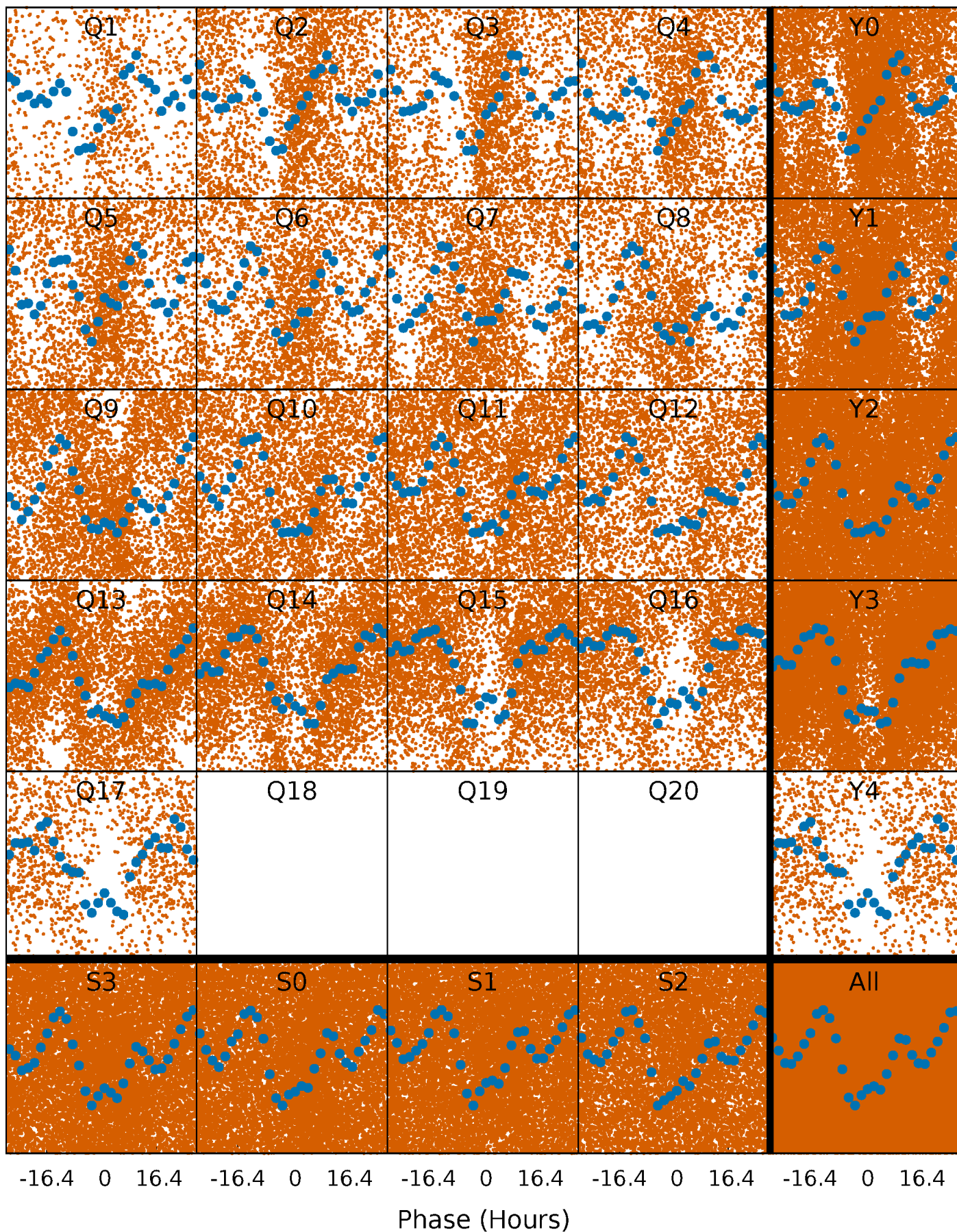


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



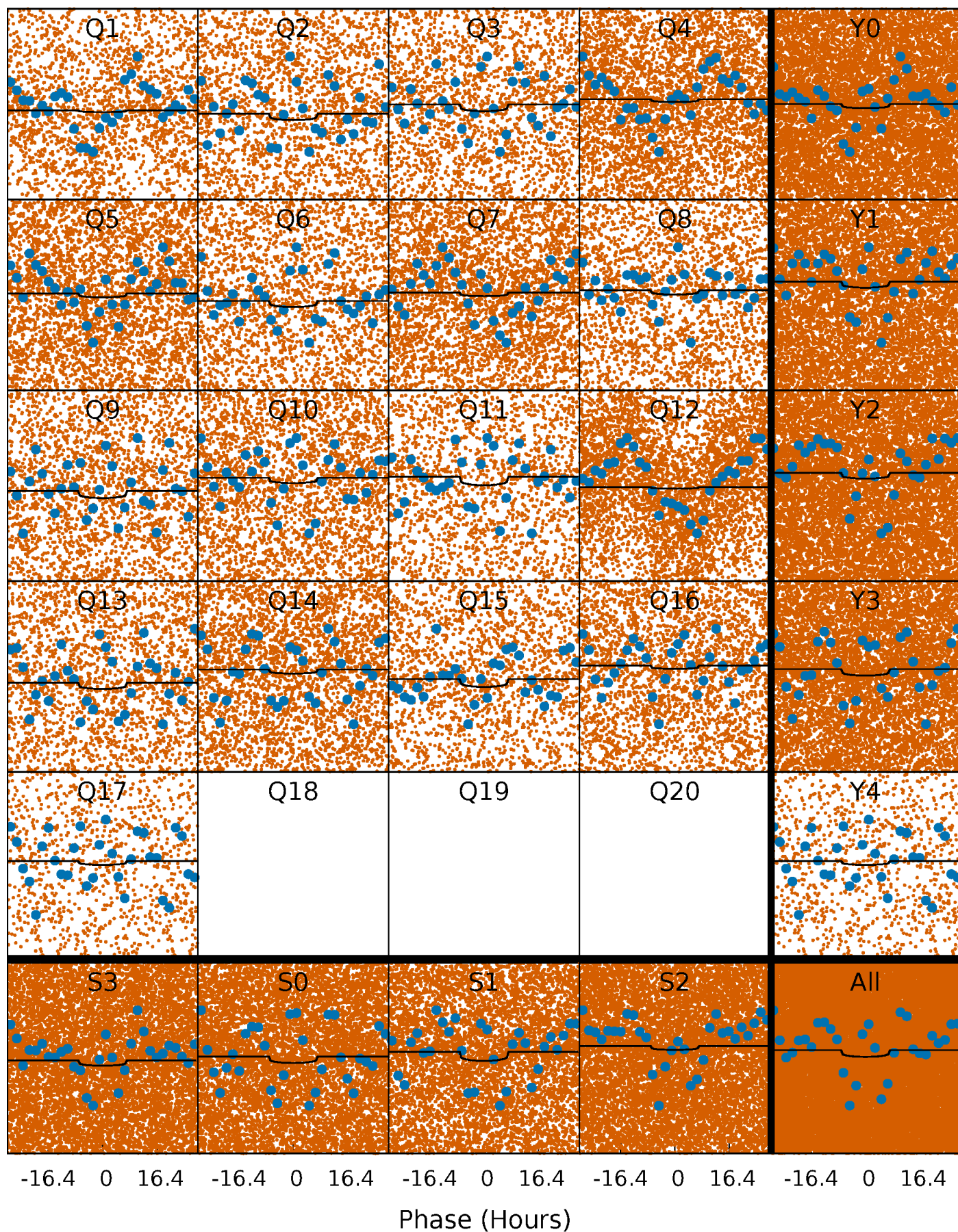
PDC Quarter-Phased Transit Curves

TCE 004357960-01 P= 1.658372 Days $T_0=131.878046$ (BKJD)



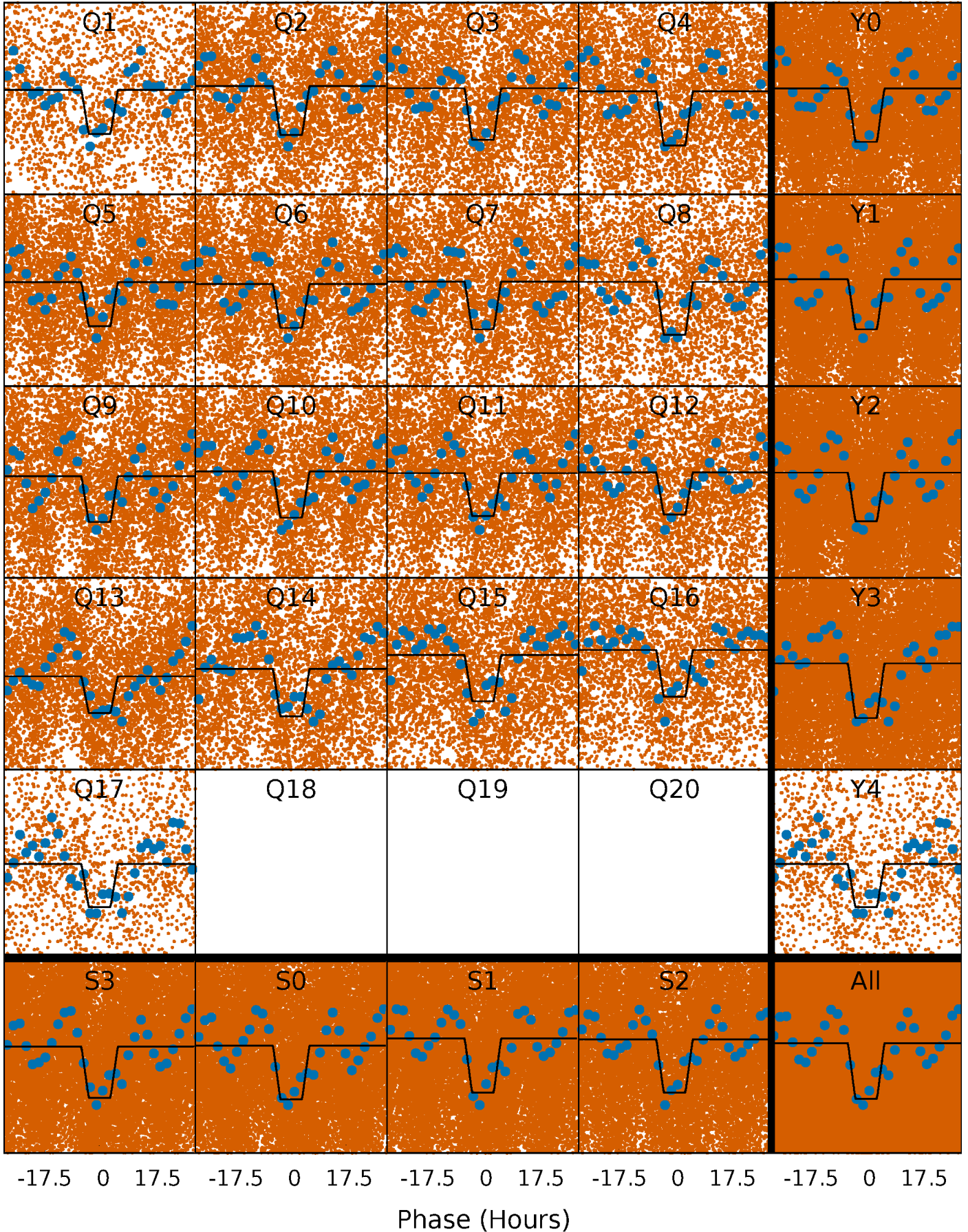
DV Quarter-Phased Transit Curves

TCE 004357960-01 P= 1.658372 Days $T_0=131.878046$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

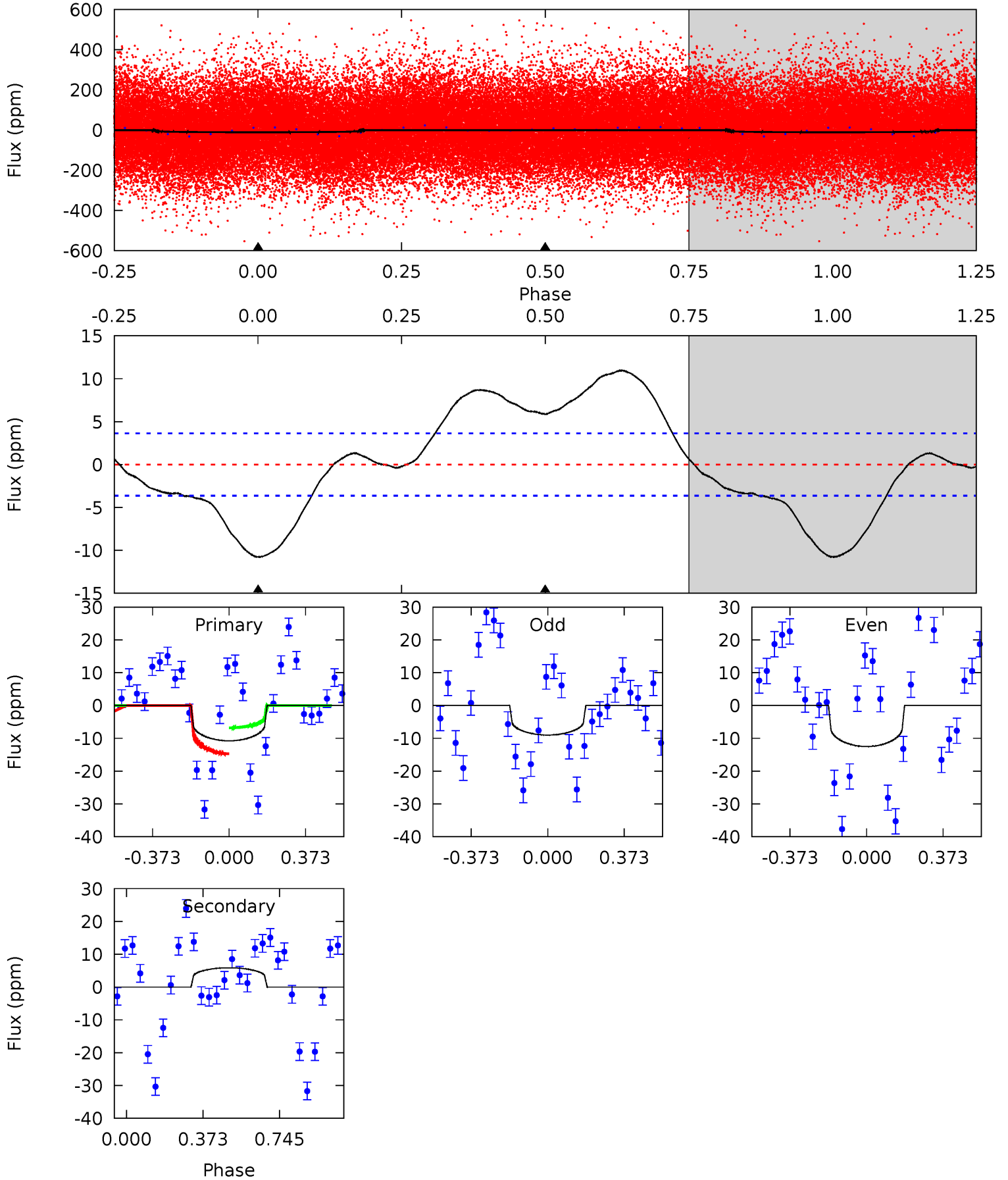
TCE 004357960-01 P= 1.658434 Days $T_0=131.763603$ (BKJD)



DV Model-Shift Uniqueness Test

004357960-01, P = 1.658372 Days, E = 130.219674 Days

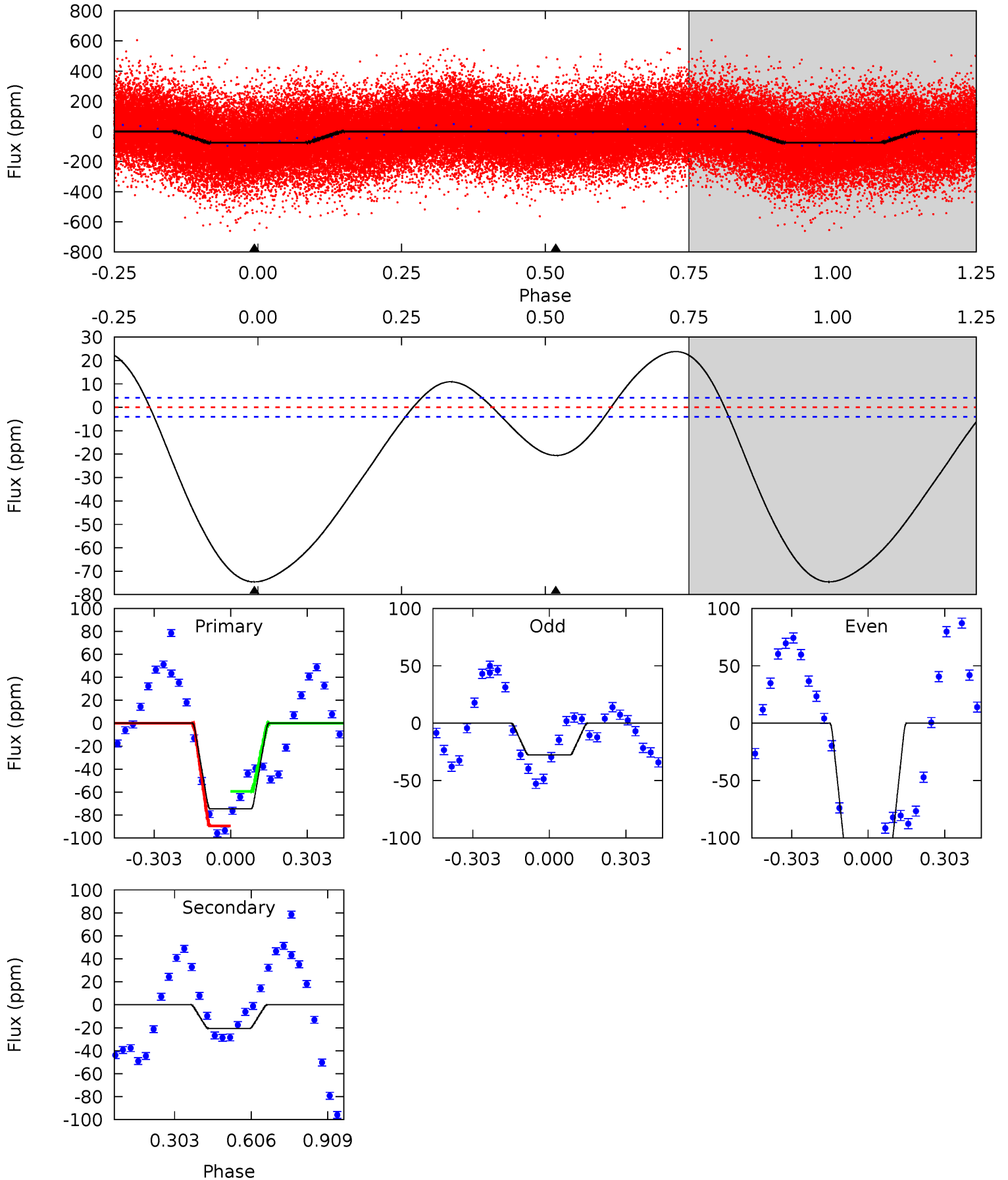
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	-6.92	0	0	4.28	0.89	1.21	12.7	12.7	-6.92	-6.92	2.02	1.12	0.50	4.67



Alt Model-Shift Uniqueness Test

004357960-01, P = 1.658434 Days, E = 130.105169 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
79.6	22.0	0	0	4.33	1.03	13.5	79.6	79.6	22.0	22.0	49.7	1.10	0.24	14.6



Stellar Parameters For KIC 004357960

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6832^{+71}_{-81}	$4.123^{+0.125}_{-0.125}$	$-0.140^{+0.150}_{-0.200}$	$1.685^{+0.309}_{-0.252}$	$1.384^{+0.101}_{-0.112}$	$0.407^{+0.239}_{-0.151}$
	+1%/-1%	+3%/-3%	+107%/-143%	+18%/-15%	+7%/-8%	+59%/-37%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 004357960-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	6 ± 1	$0.75^{+0.76}_{-0.53}$	3132^{+150}_{-131}	-5402^{+1252}_{-5688}	$-5.385^{+4.115}_{-58.164}$
Alt.	-21 ± 1	$1.72^{+0.87}_{-0.84}$	3133^{+148}_{-128}	4784^{+1876}_{-799}	$3.583^{+10.231}_{-1.991}$

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

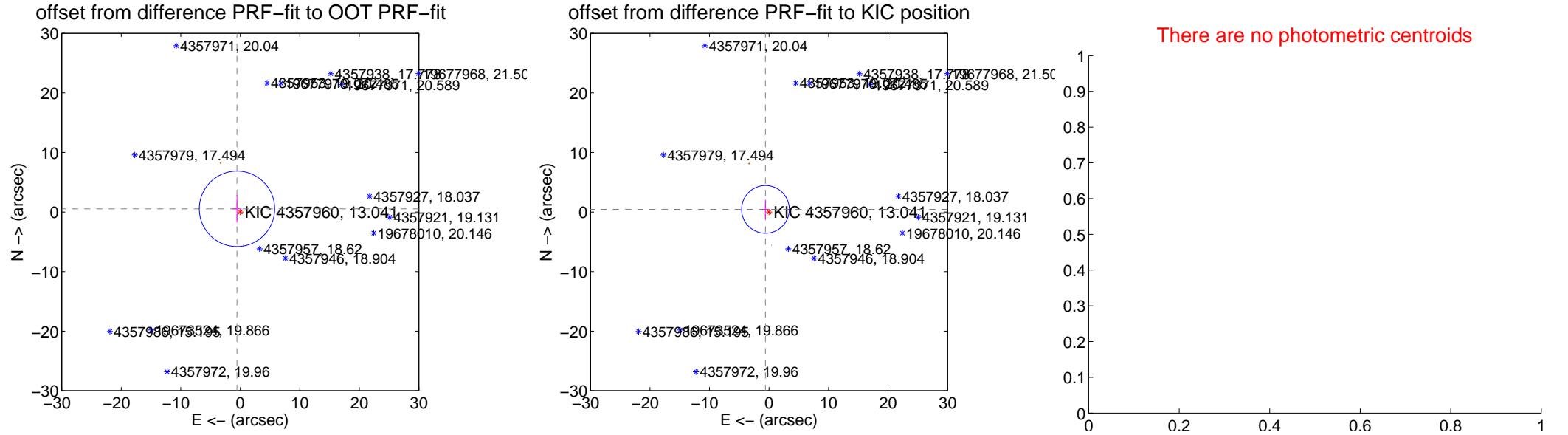
DV Centroid Data

Supplemental centroid analysis for 004357960-01. Kepler magnitude: 13.04. Transit SNR 2.70

There are 3 quarters with good PRF difference image offsets

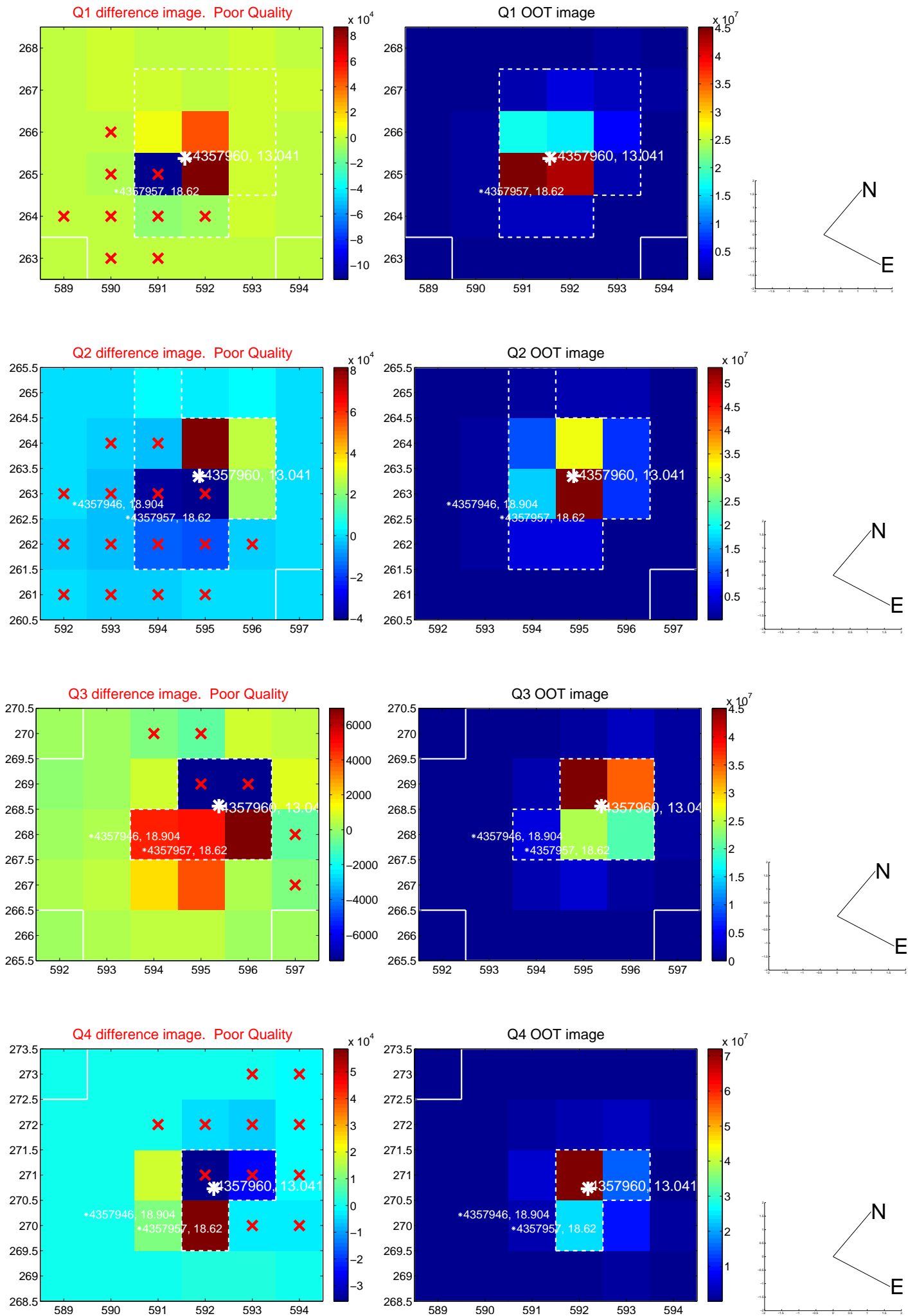
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.772 ± 2.111	0.37	0.554 ± 0.771	0.538 ± 2.305
PRF-fit source offset from KIC position	0.743 ± 1.336	0.56	0.596 ± 0.557	0.443 ± 1.618
photometric centroid source offset	—	—	—	—

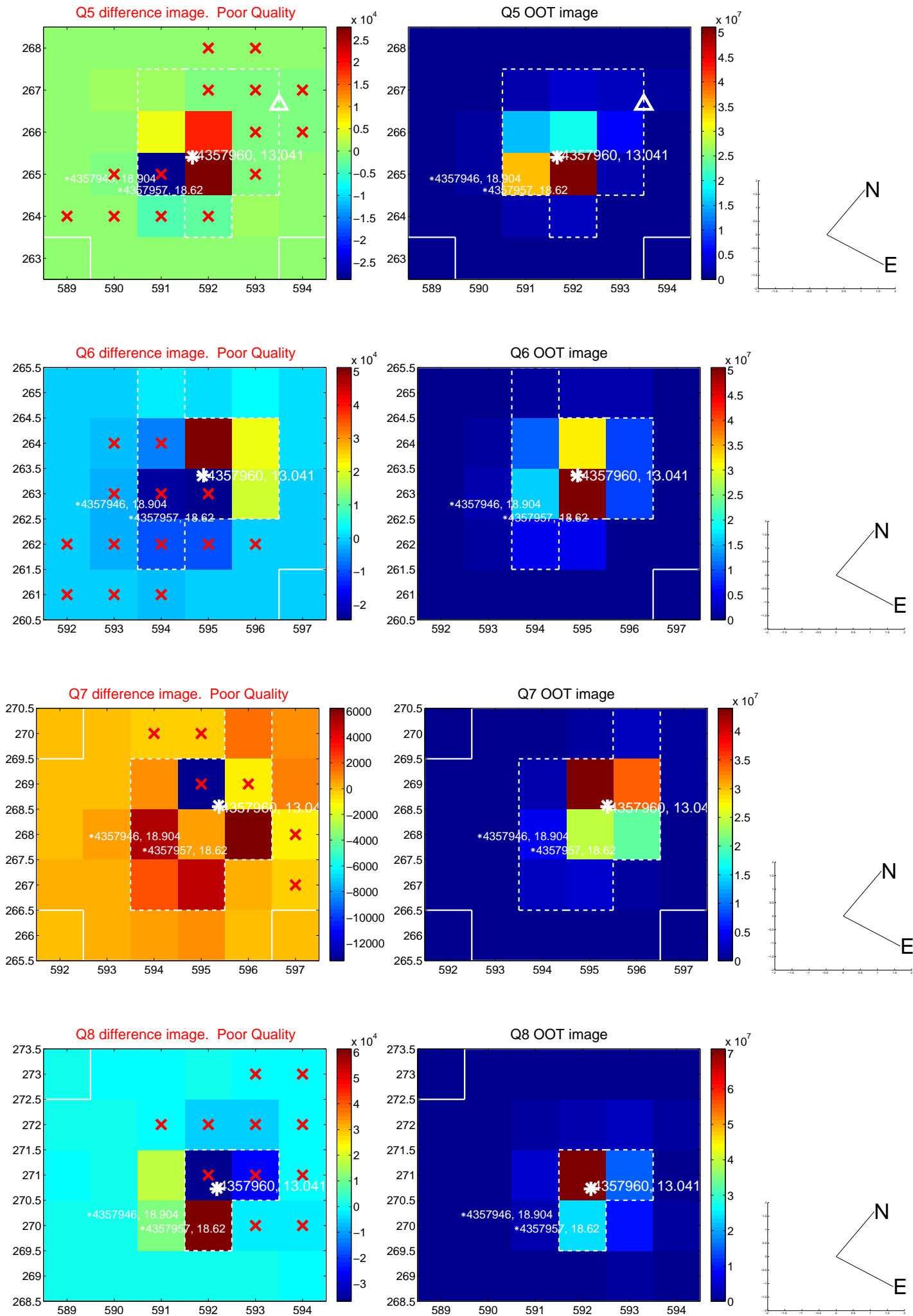


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

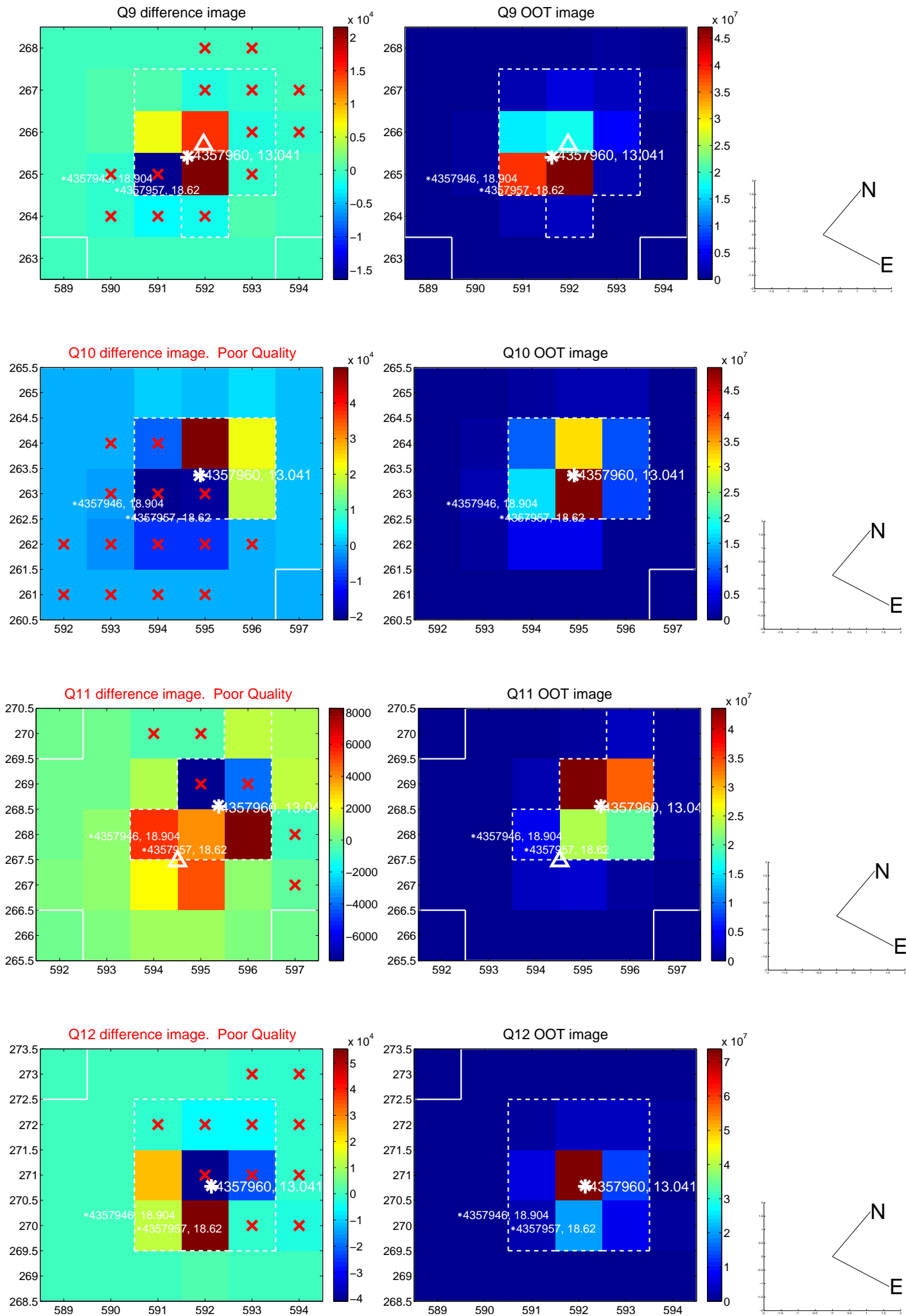
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



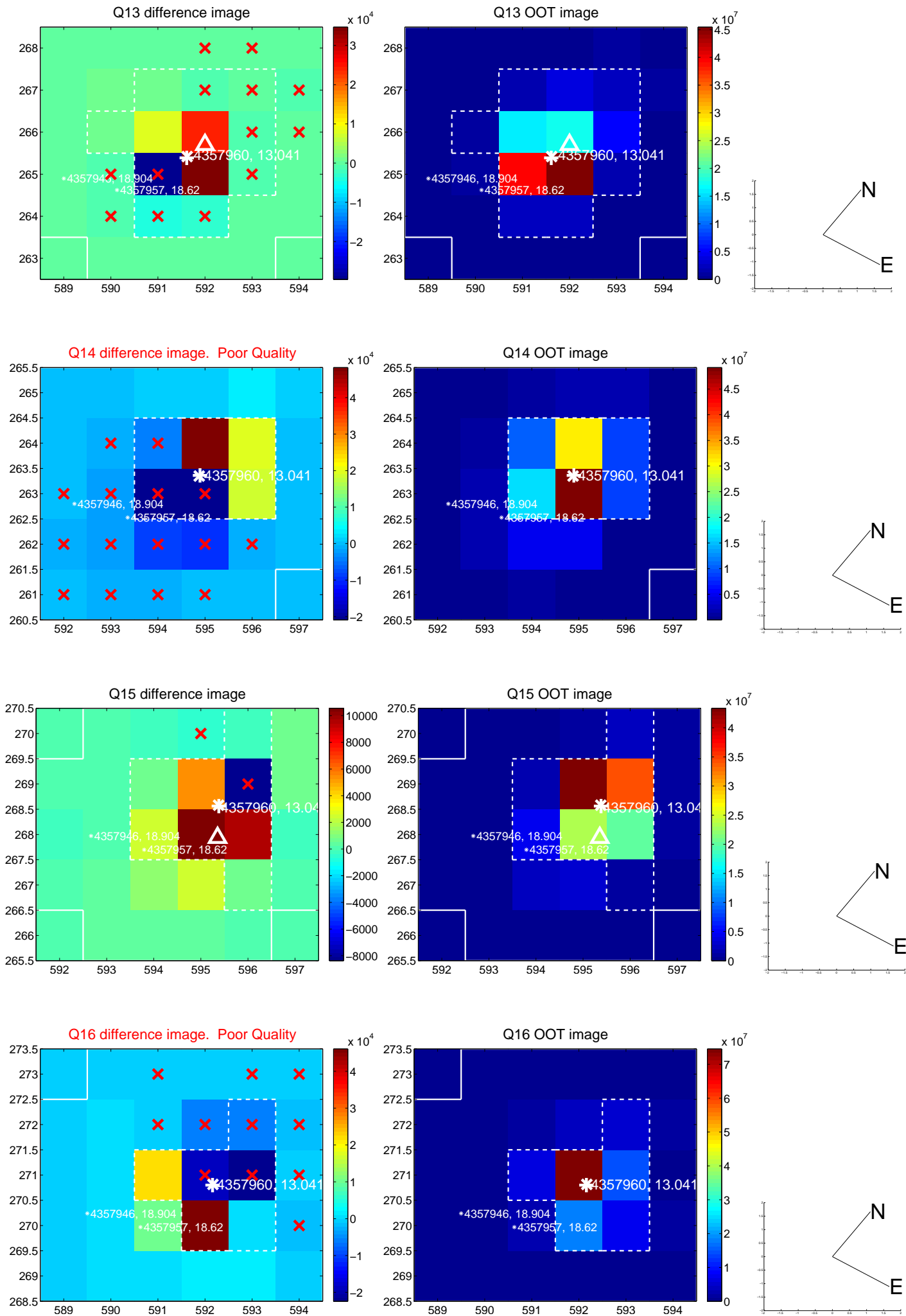
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



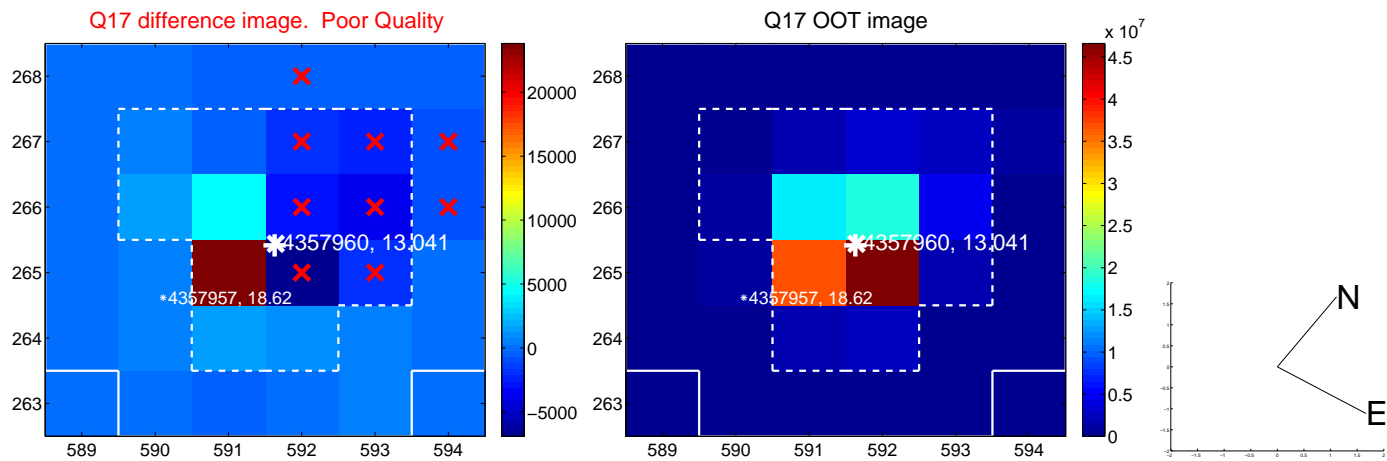
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

