

KIC 008264581

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})
008264581-01	OBS	No	2.214481	132.560304	17.6	10.769	8.3	9.1	1.67	7468	0.76	4873.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008264581-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT

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

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

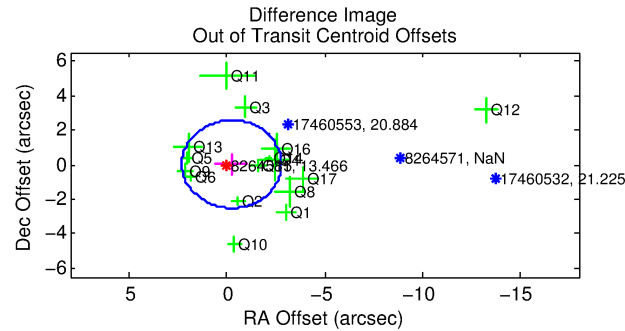
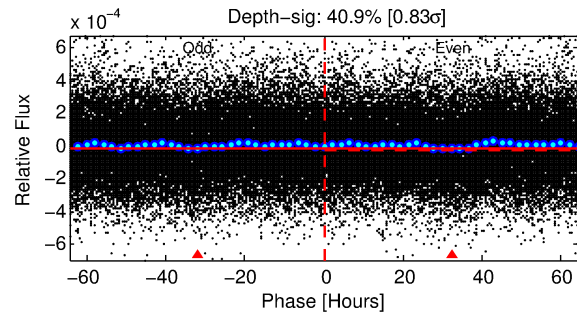
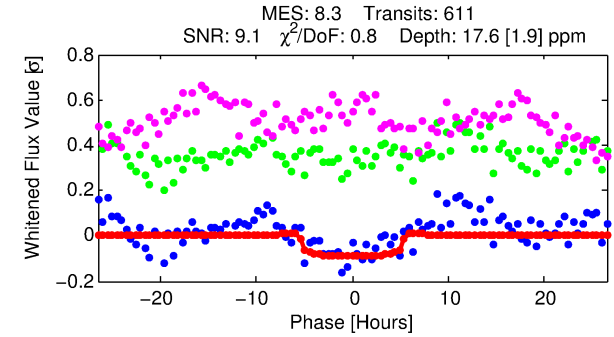
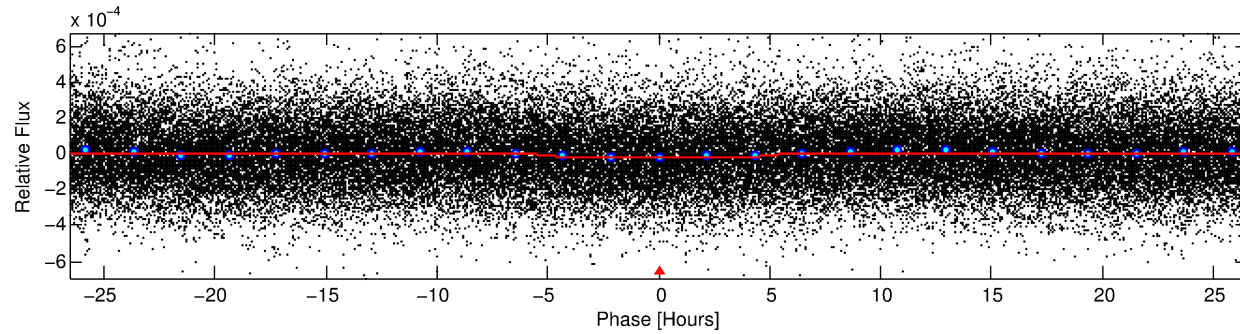
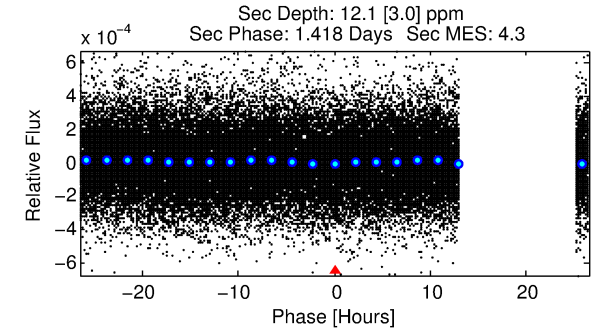
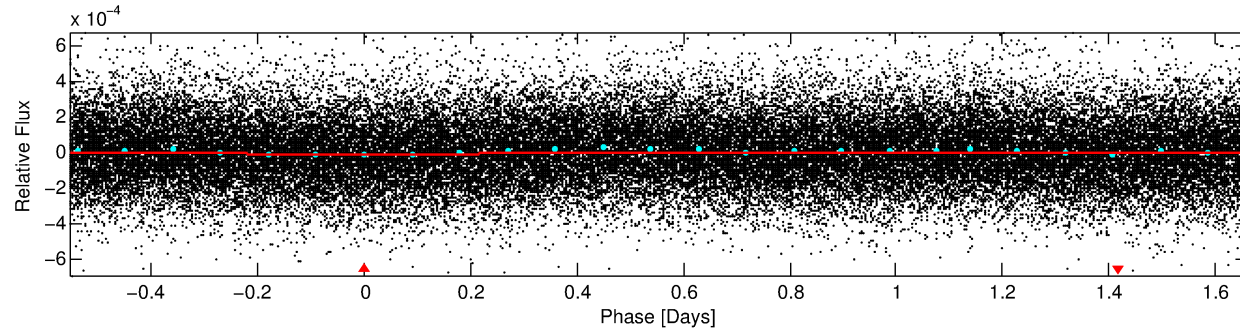
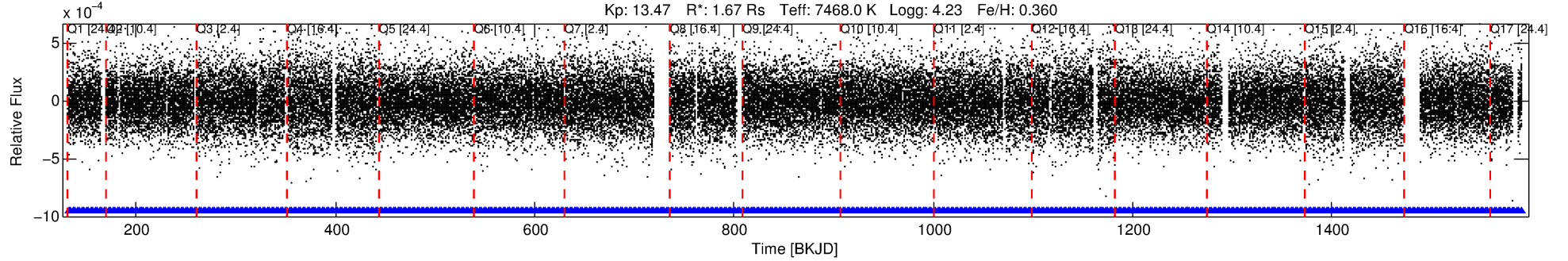
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008264581-01

No Significant Match Found

DV One-Page Summary

KIC: 8264581 Candidate: 1 of 1 Period: 2.214 d



DV Fit Results:

Period = 2.21448 [0.00004] d
Epoch = 132.5603 [0.0104] BKJD
Rp/R* = 0.0042 [0.0016]
a/R* = 1.36 [1.50]
b = 0.74 [1.47]
Seff = 4873.03 [2216.70]
Teq = 2130 [242] K
Rp = 0.76 [0.39] Re
a = 0.0398 [0.0114] AU
Ag = 18.41 [16.75] [1.04σ]
Teffp = 6823 [1419] K [3.26σ]

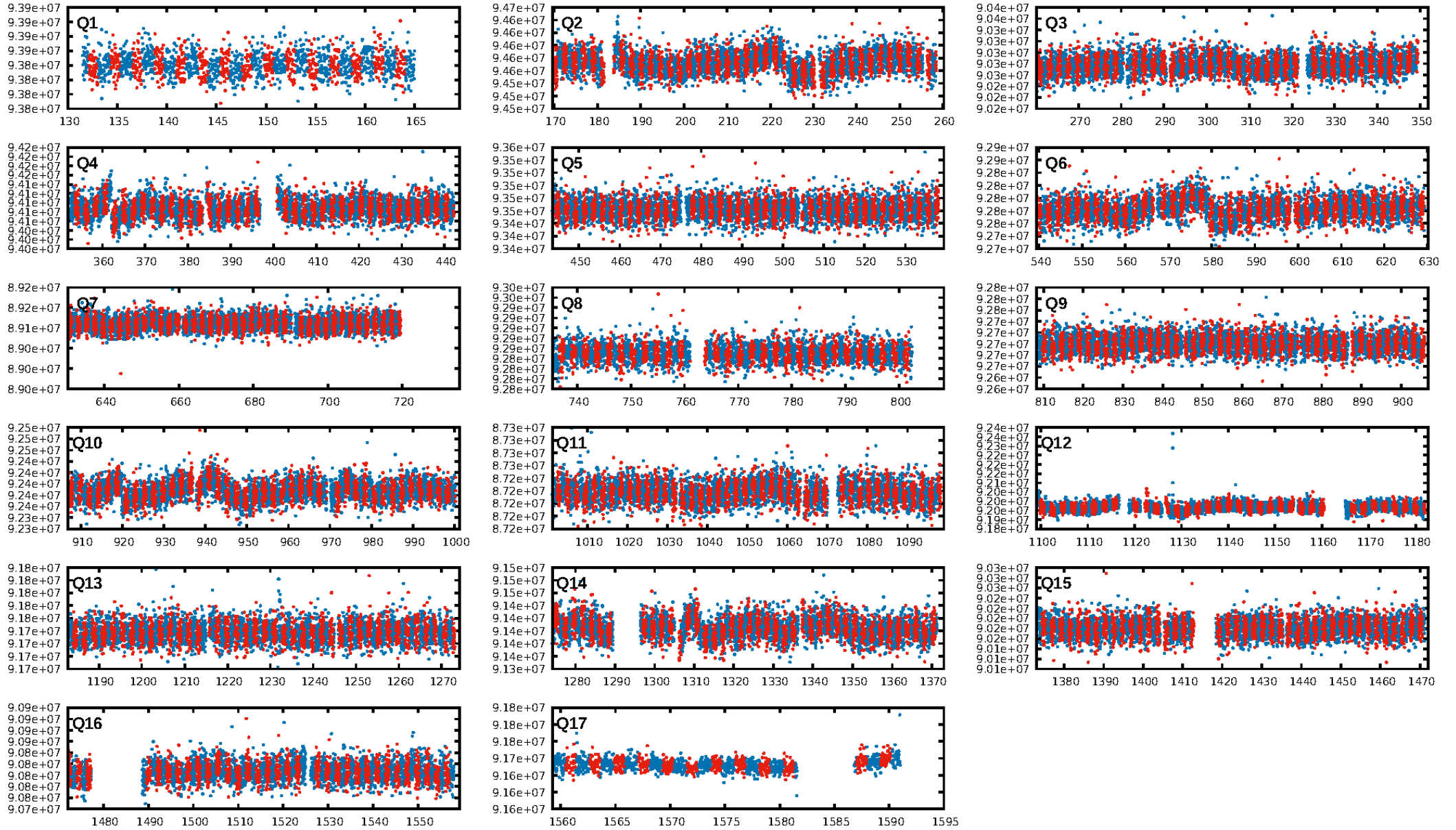
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.42e-14
RollingBand-fgt: 1.00 [584/584]
GhostDiagnostic-chr: 1.636
Centroid-sig: 11.7%
Centroid-so: 2.524 arcsec [1.39σ]
OotOffset-rm: 0.247 arcsec [0.29σ]
KicOffset-rm: 0.367 arcsec [0.40σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.38 [6/16]
DiffImageOverlap-fno: 1.00 [17/17]

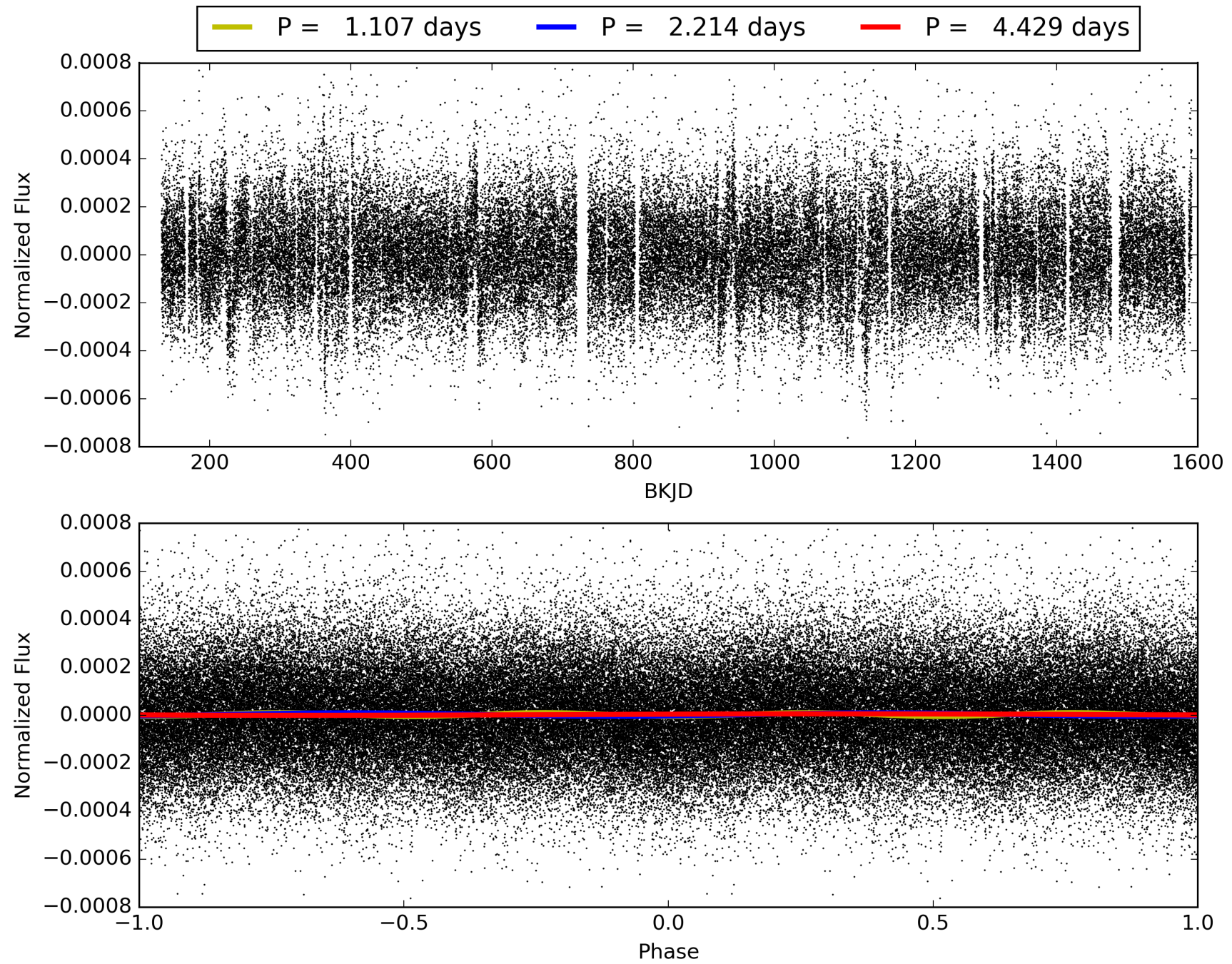
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:25:20 Z

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

TCE 008264581-01, PDC Light Curves

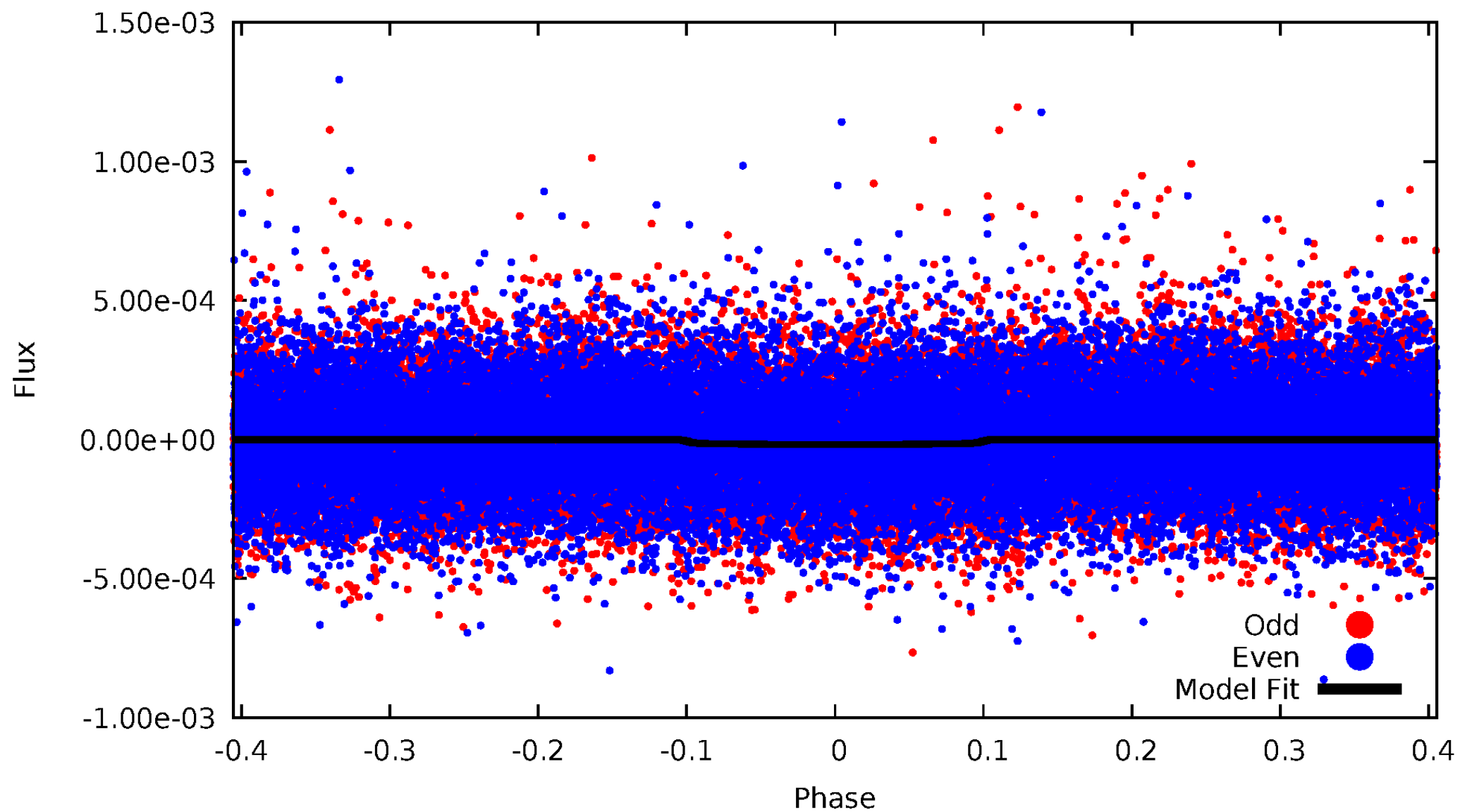


TCE 008264581-01



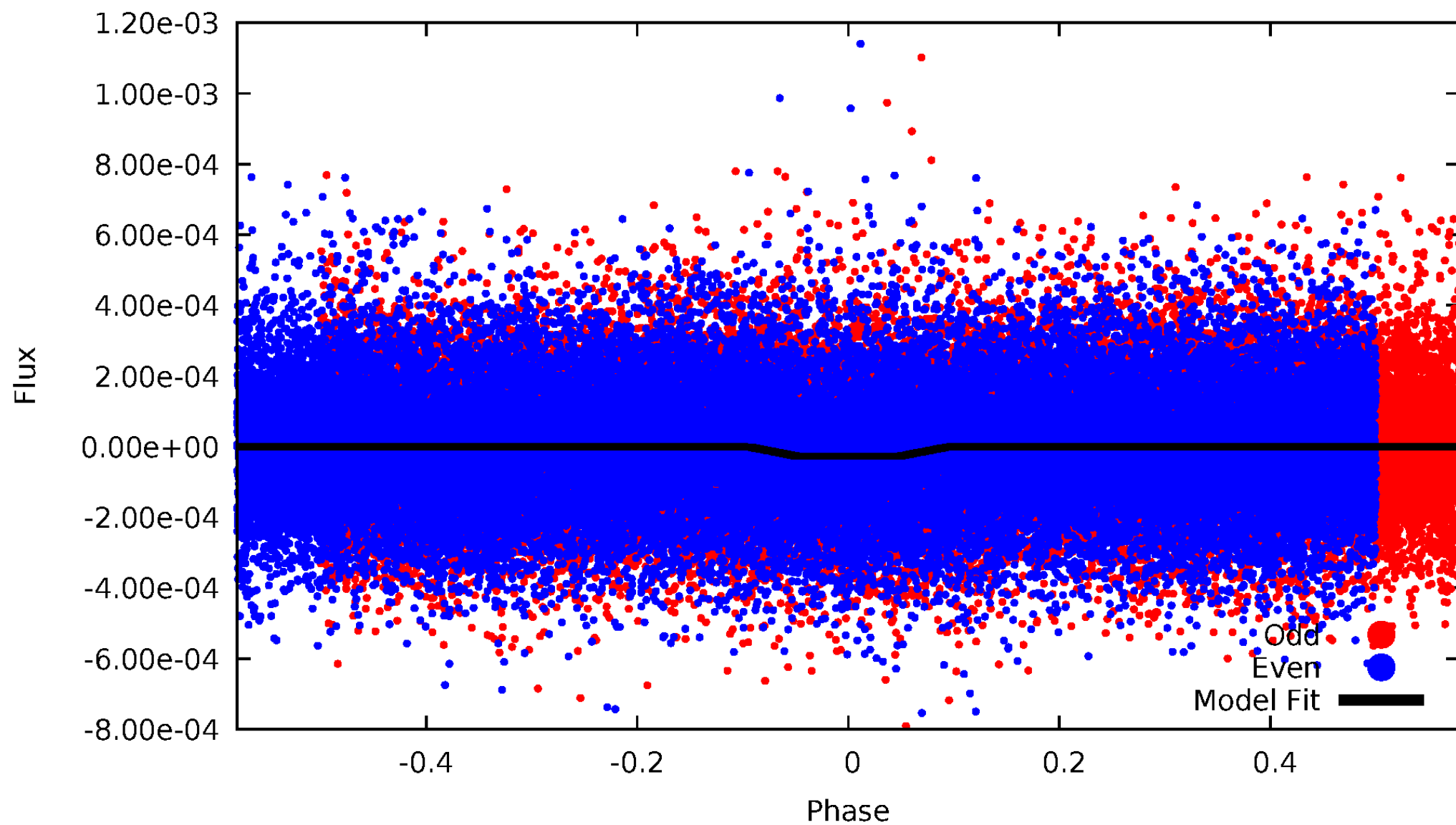
DV Odd/Even

TCE 008264581-01

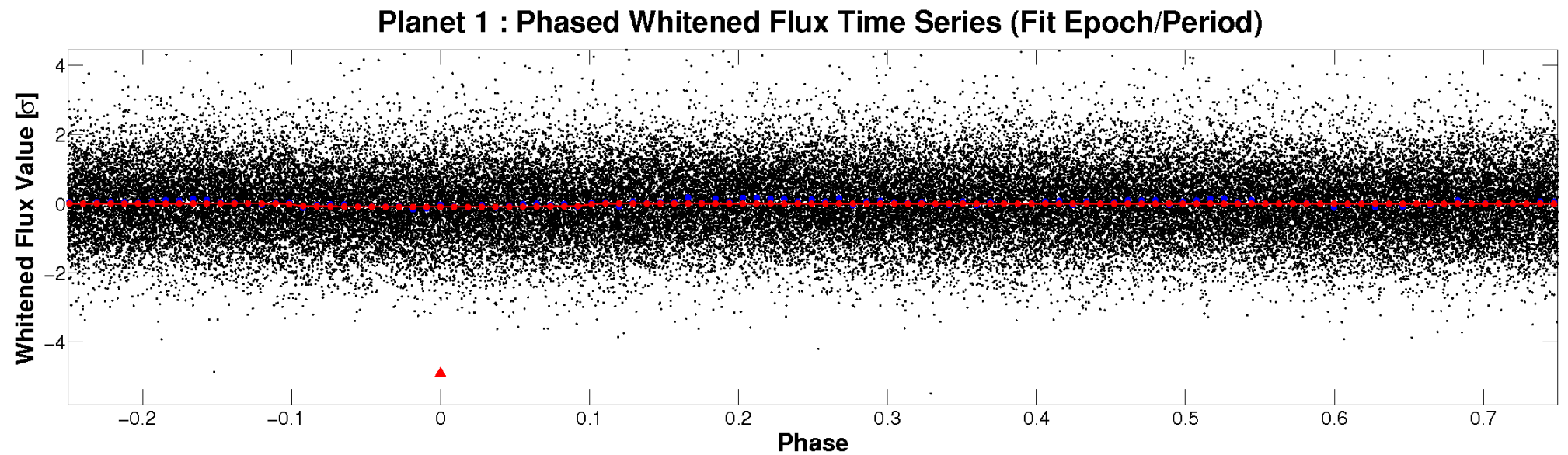
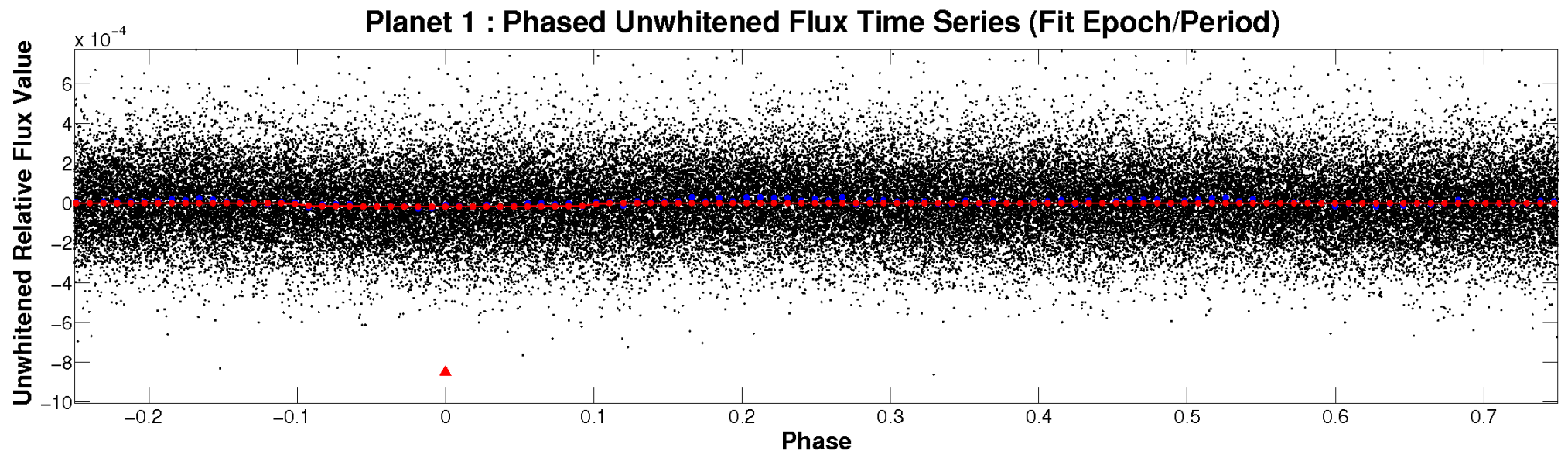


ALT Odd/Even

TCE 008264581-01

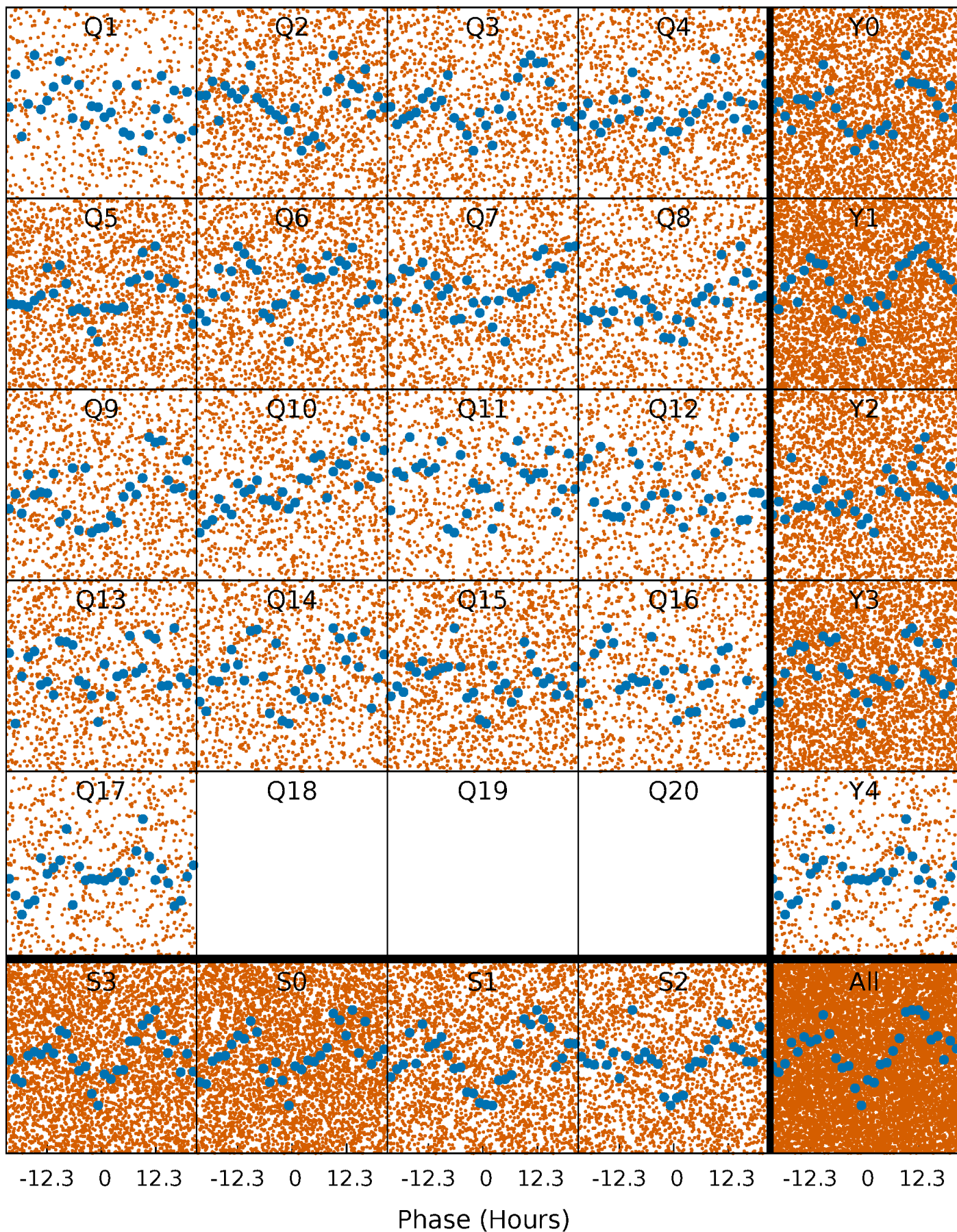


Non-Whitened Vs. Whitened Light Curve



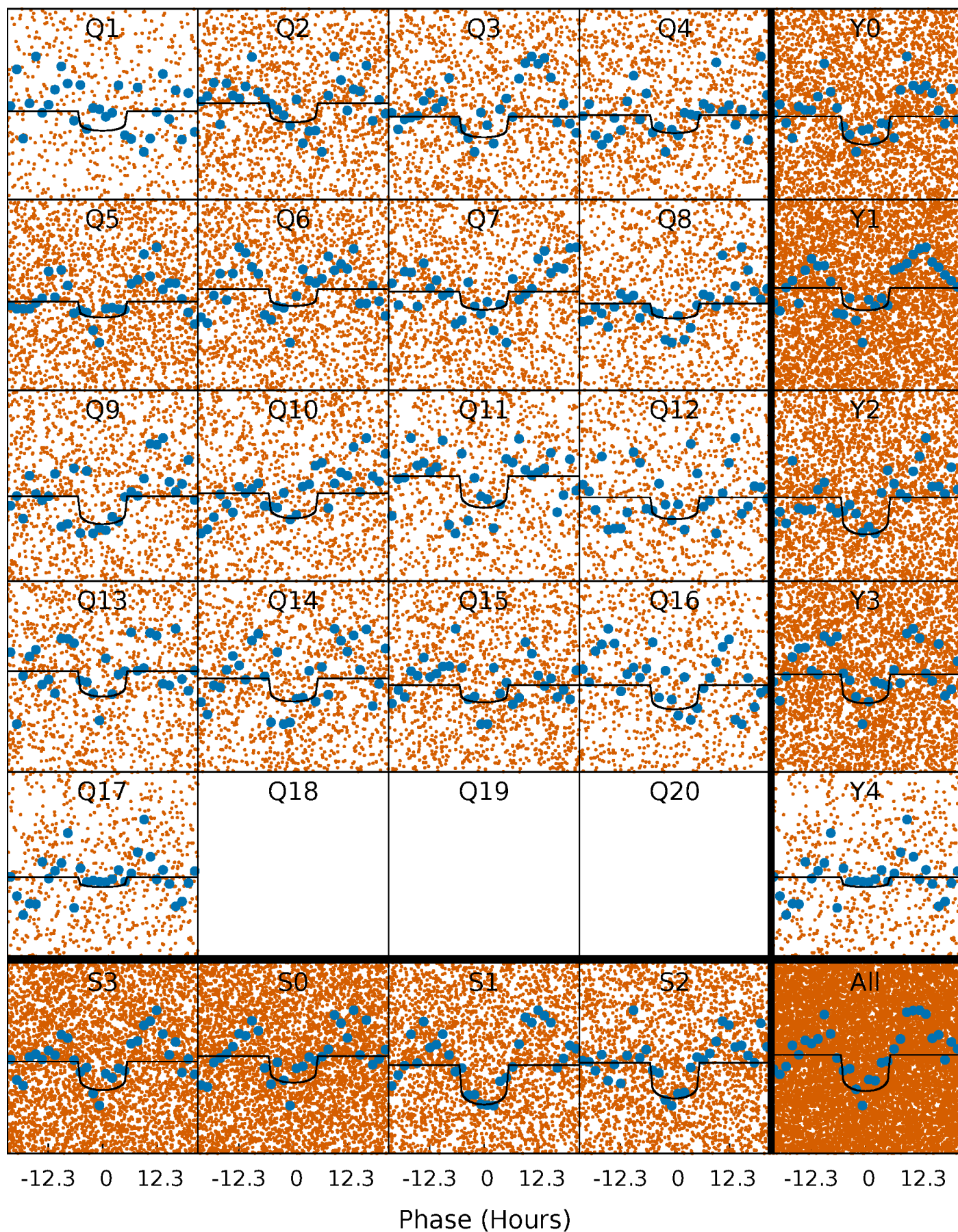
PDC Quarter-Phased Transit Curves

TCE 008264581-01 P= 2.214481 Days $T_0=132.560304$ (BKJD)



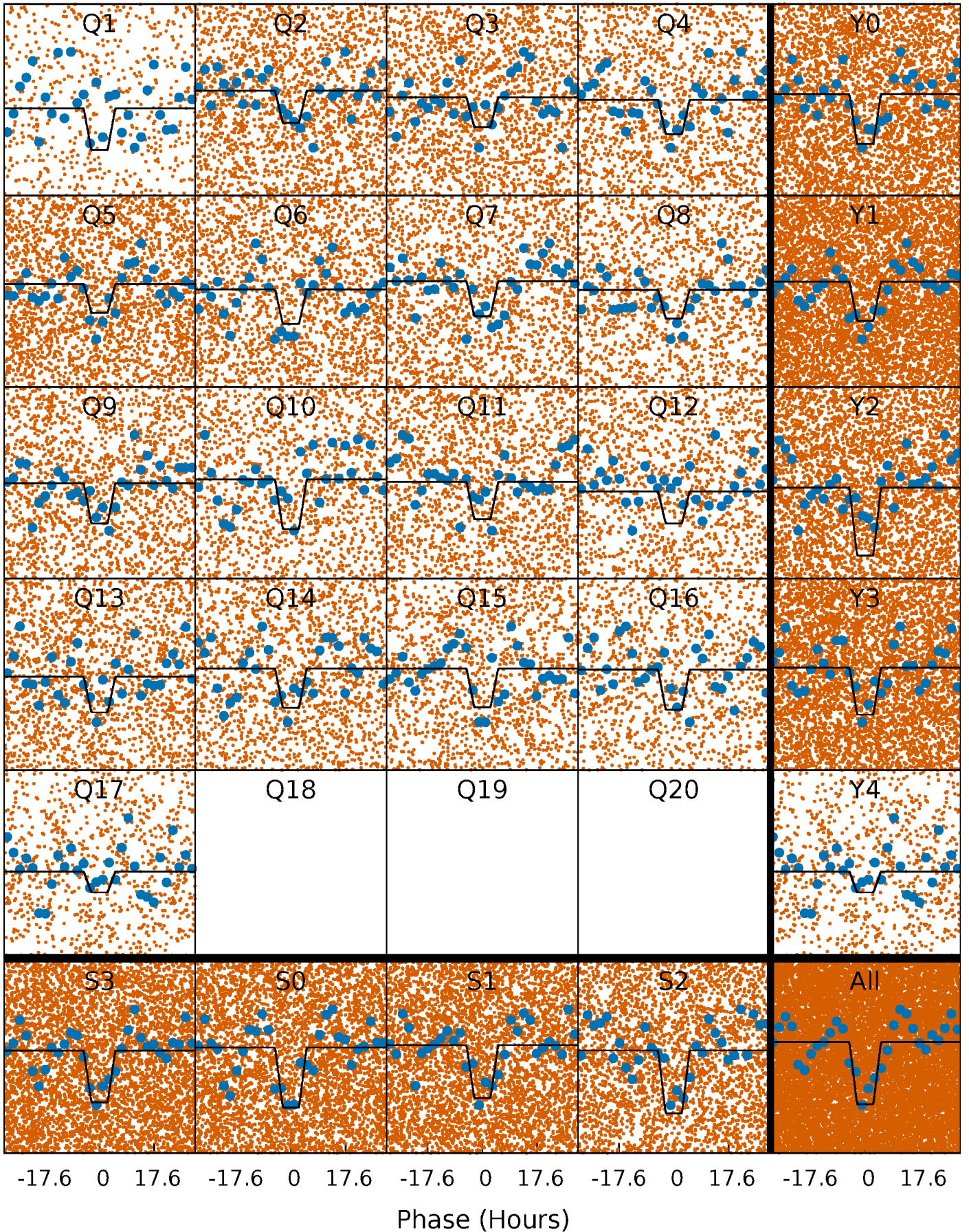
DV Quarter-Phased Transit Curves

TCE 008264581-01 P= 2.214481 Days $T_0=132.560304$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

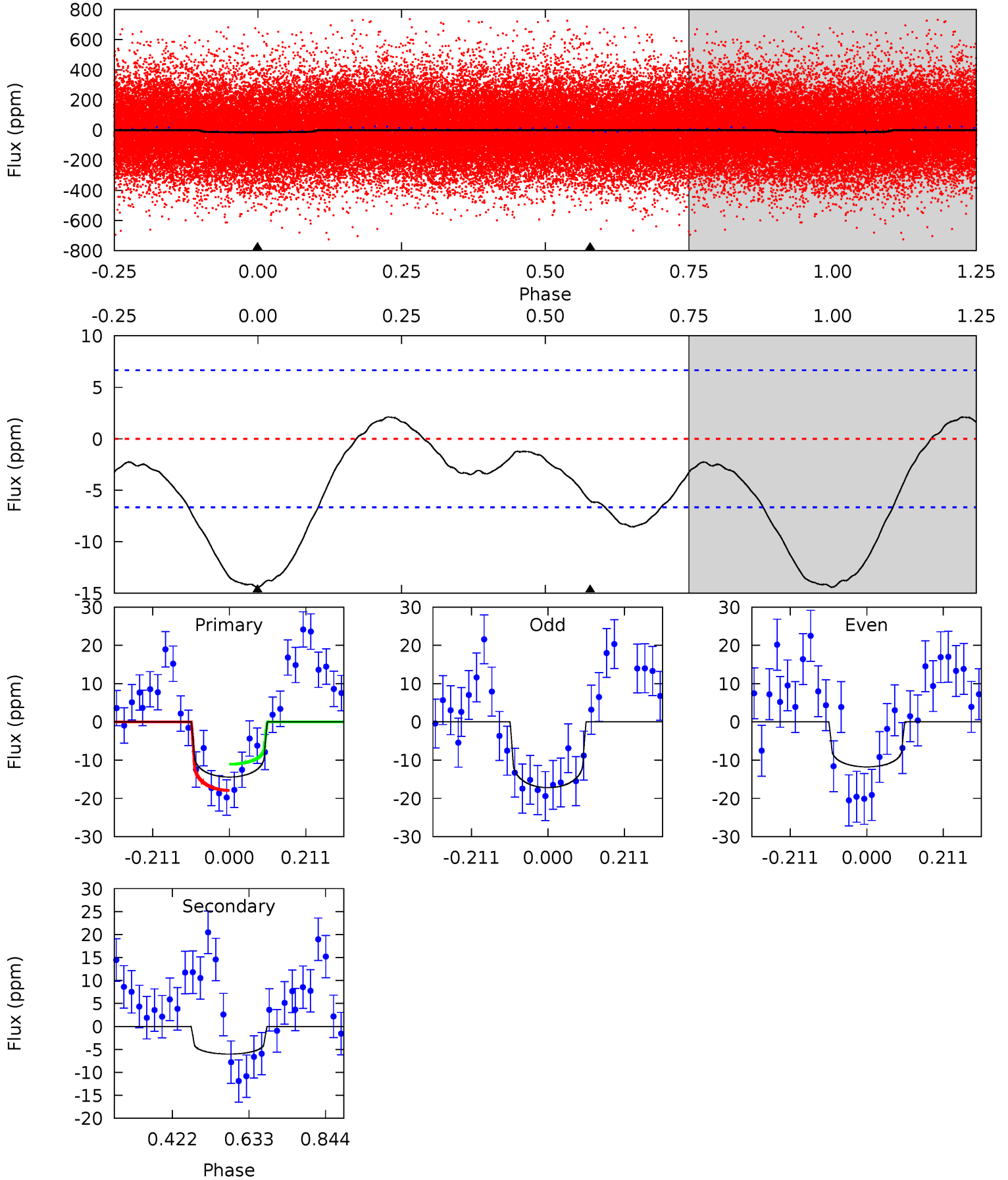
TCE 008264581-01 P= 2.214586 Days $T_0=132.506268$ (BKJD)



DV Model-Shift Uniqueness Test

008264581-01, P = 2.214481 Days, E = 130.345823 Days

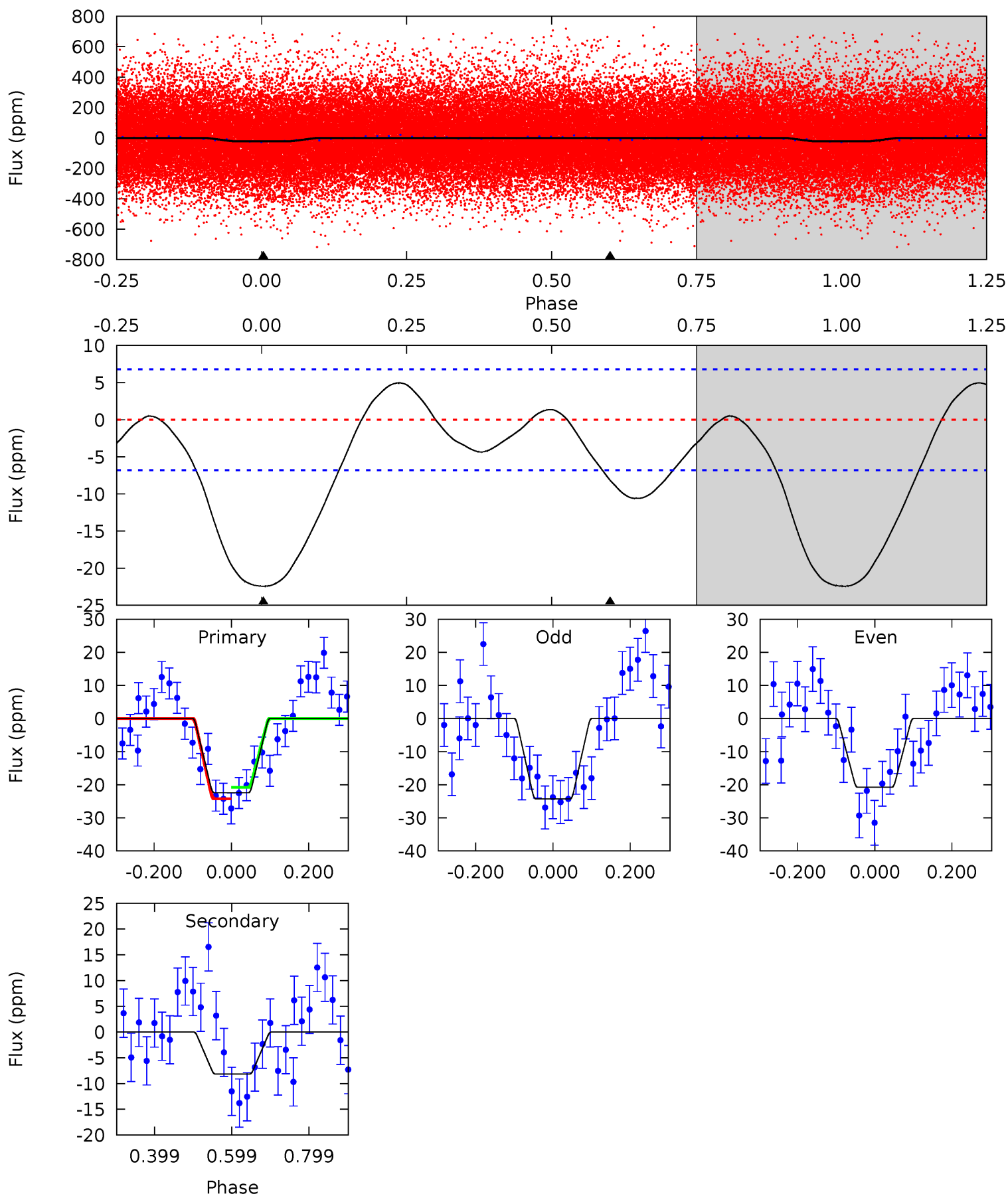
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.54	3.98	0	0	4.41	1.25	1.30	9.54	9.54	3.98	3.98	1.80	1.02	0.13	2.29



Alt Model-Shift Uniqueness Test

008264581-01, P = 2.214586 Days, E = 130.291682 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	5.30	0	0	4.42	1.28	2.31	14.6	14.6	5.30	5.30	1.15	1.24	0.18	1.14



Stellar Parameters For KIC 008264581

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7468^{+206}_{-353}	$4.230^{+0.056}_{-0.224}$	$0.360^{+0.050}_{-0.450}$	$1.666^{+0.575}_{-0.192}$	$1.719^{+0.193}_{-0.235}$	$0.524^{+0.160}_{-0.289}$
	+3%/-5%	+1%/-5%	+14%/-125%	+35%/-12%	+11%/-14%	+31%/-55%
Source	KIC0	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 008264581-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6 ± 2	$0.80^{+0.33}_{-0.32}$	3031^{+251}_{-174}	5555^{+1606}_{-832}	$7.762^{+13.802}_{-3.971}$
Alt.	-8 ± 2	$0.99^{+0.32}_{-0.32}$	3034^{+247}_{-158}	5415^{+1235}_{-700}	$7.253^{+8.756}_{-3.385}$

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

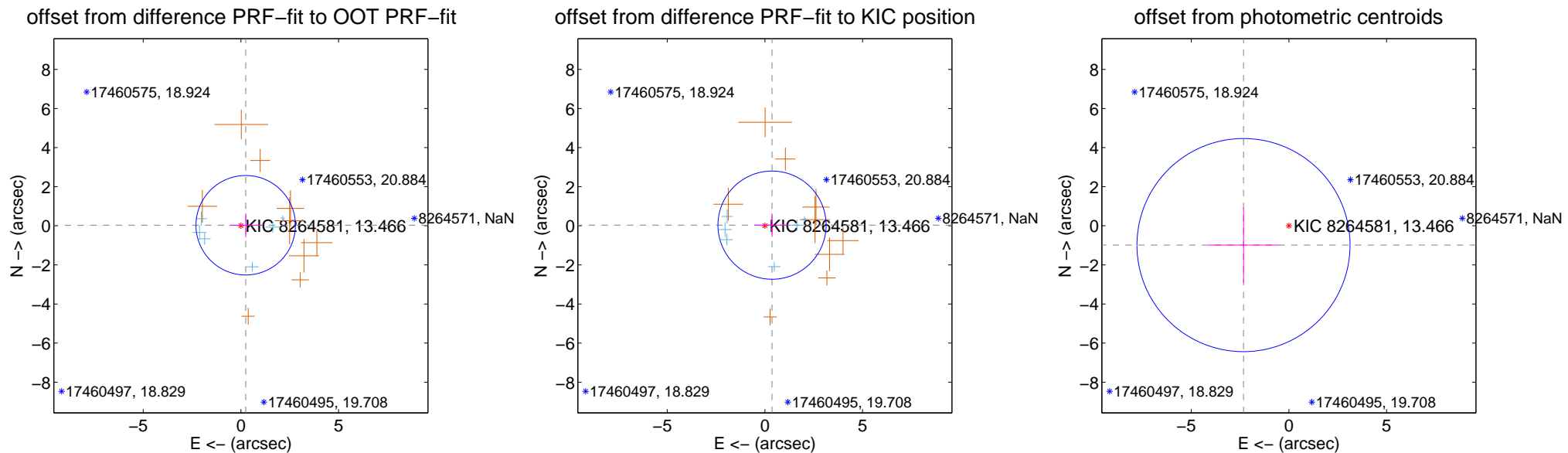
DV Centroid Data

Supplemental centroid analysis for 008264581-01. Kepler magnitude: 13.47. Transit SNR 9.12

There are 6 quarters with good PRF difference image offsets

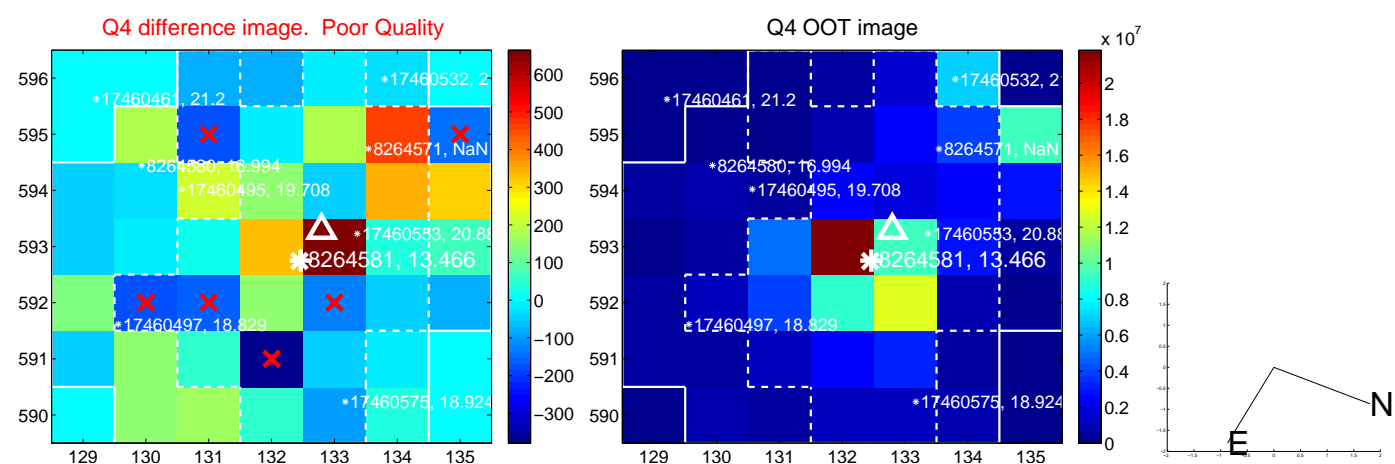
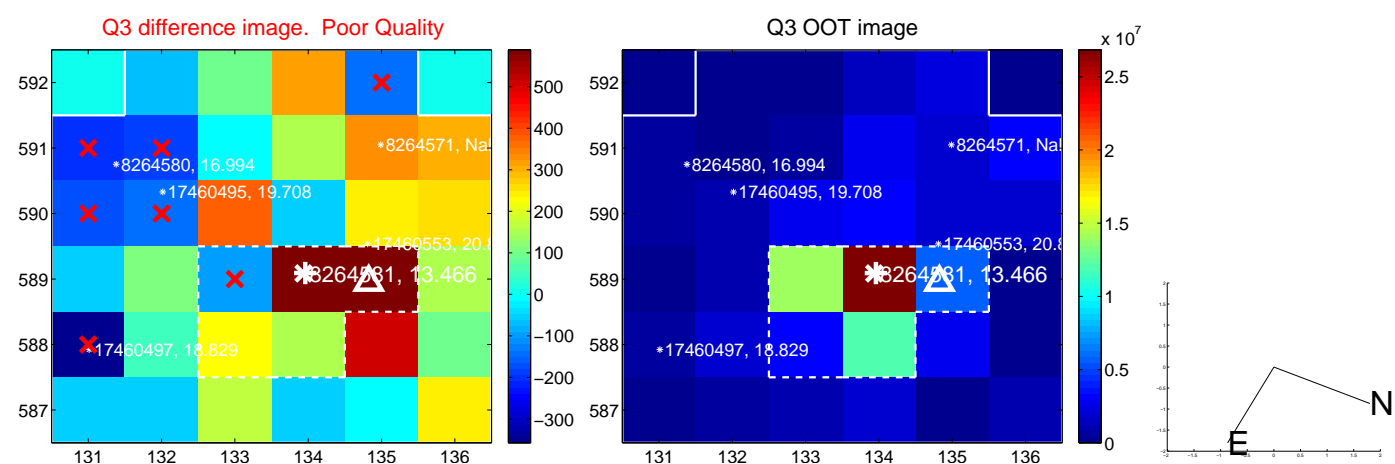
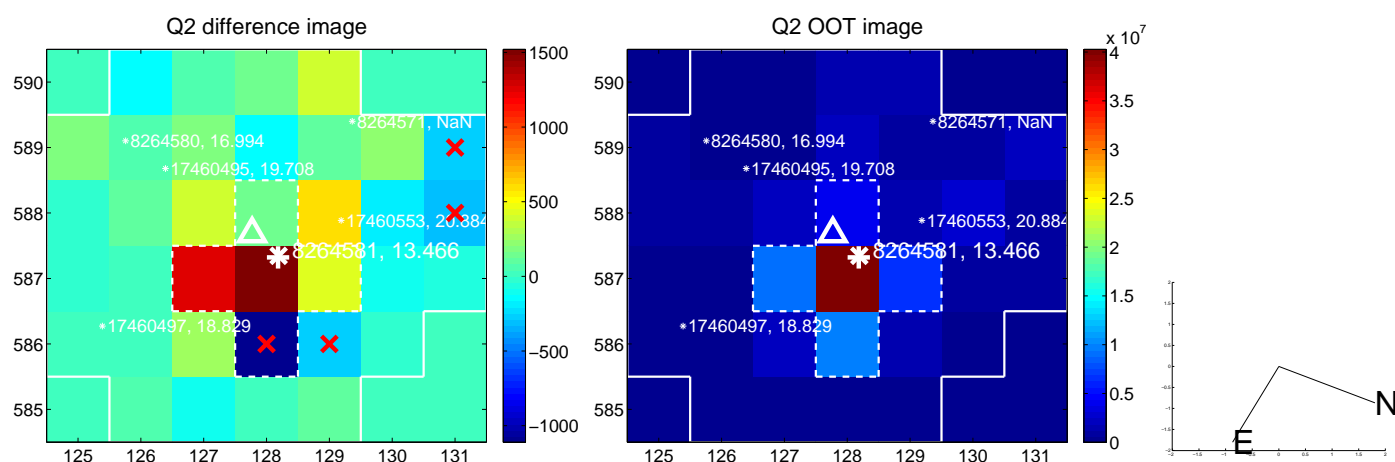
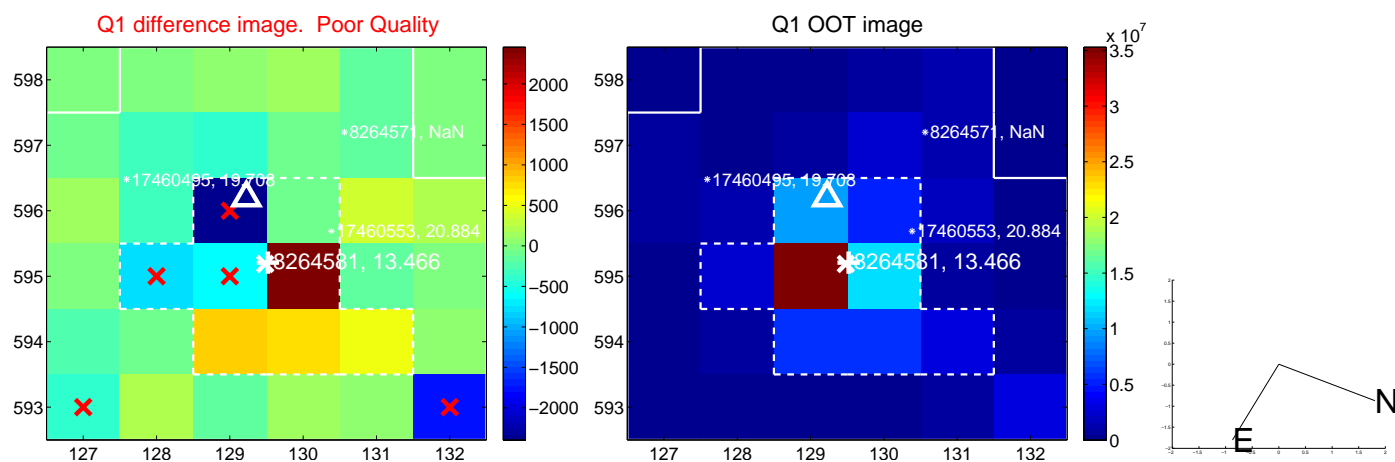
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.247 ± 0.848	0.29	-0.245 ± 0.833	0.029 ± 0.613
PRF-fit source offset from KIC position	0.367 ± 0.922	0.40	-0.365 ± 0.907	0.033 ± 0.608
photometric centroid source offset	2.52 ± 1.82	1.39	2.32 ± 1.80	-0.99 ± 1.92

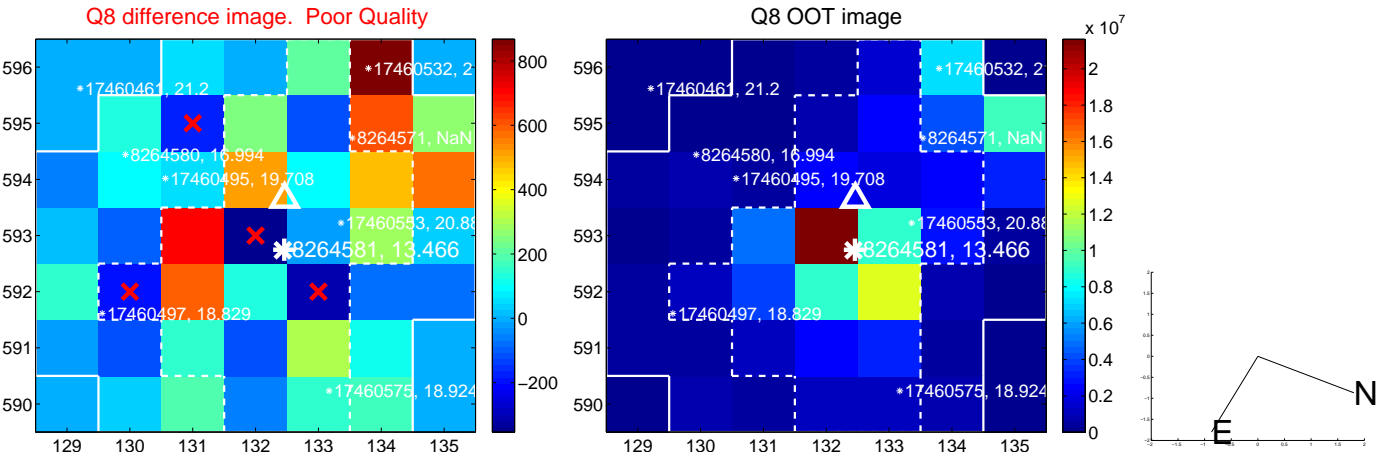
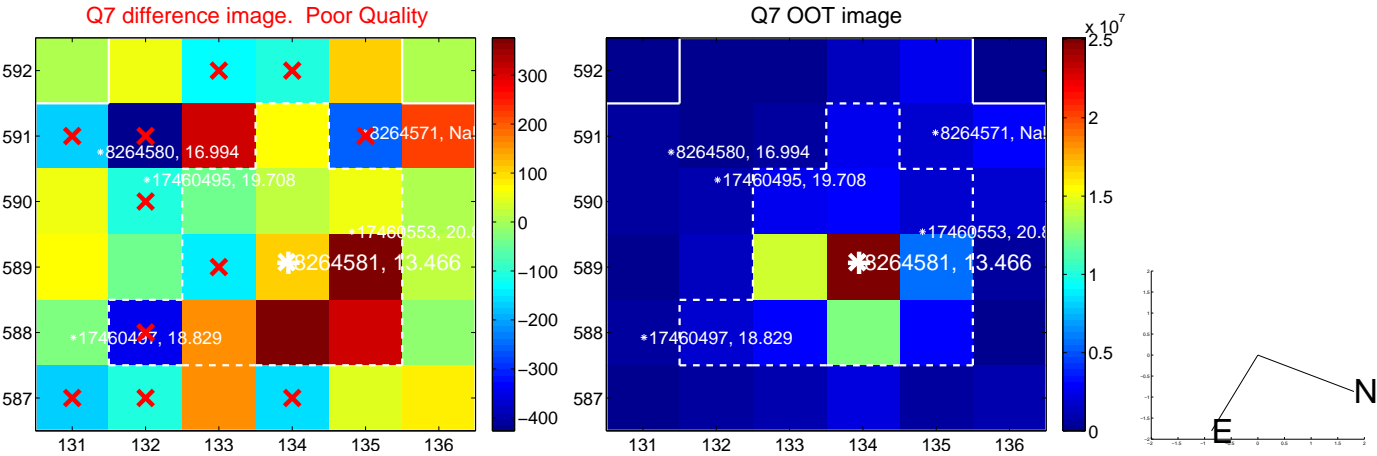
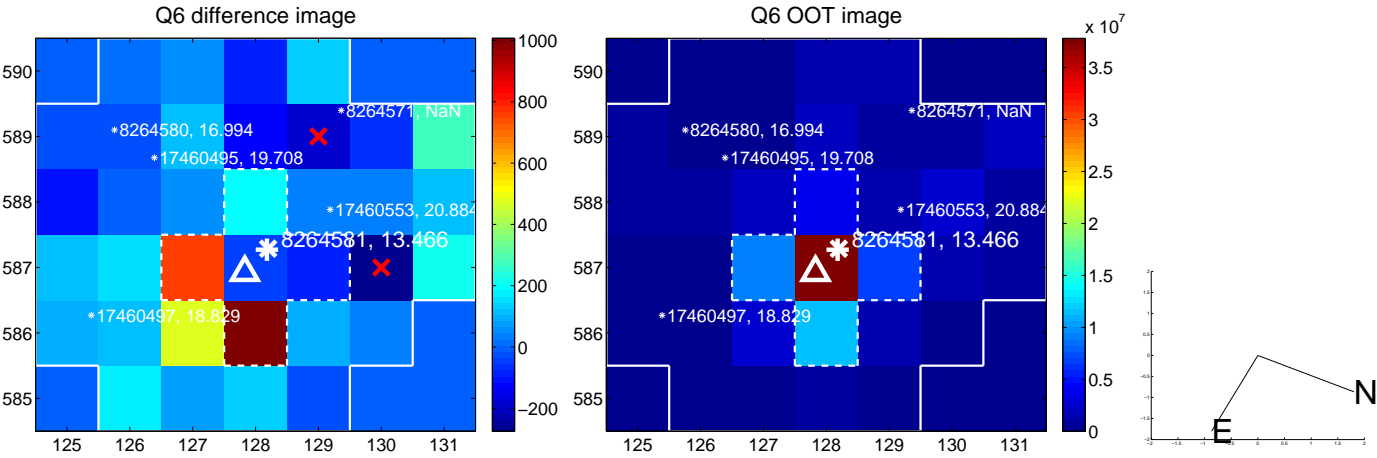
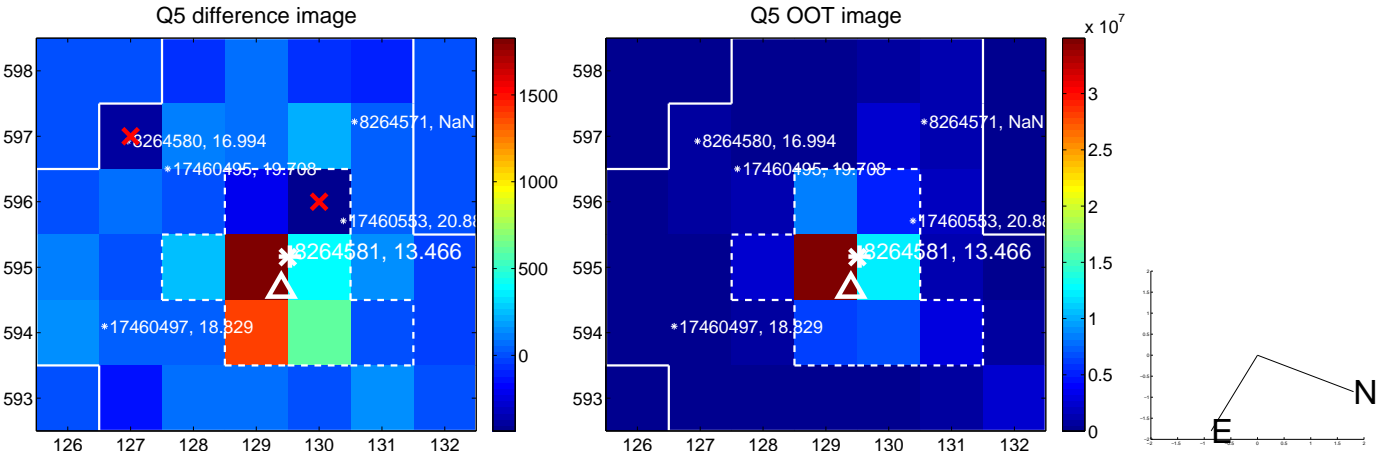


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

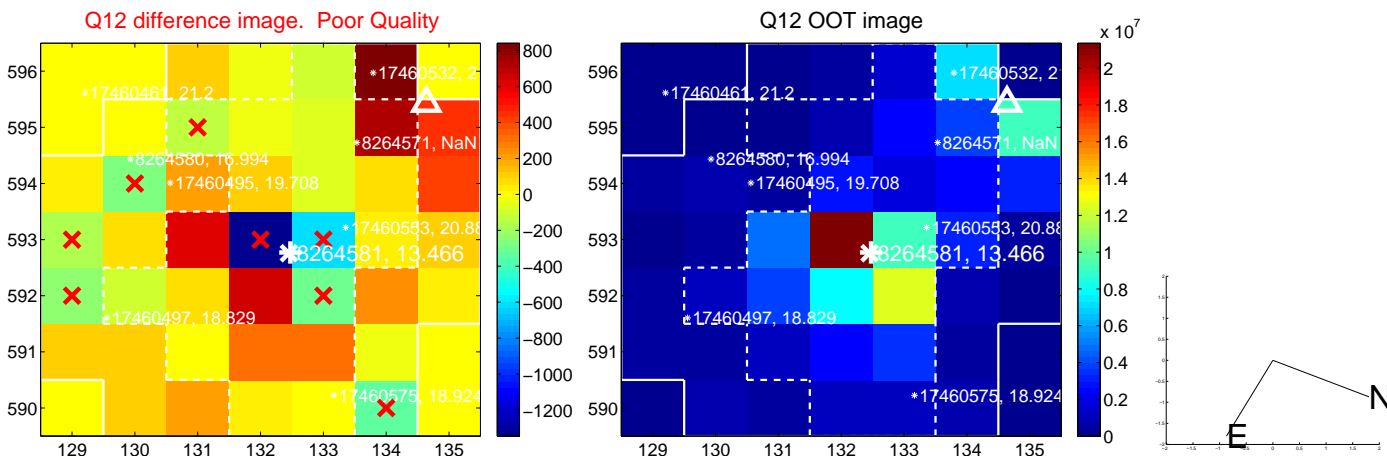
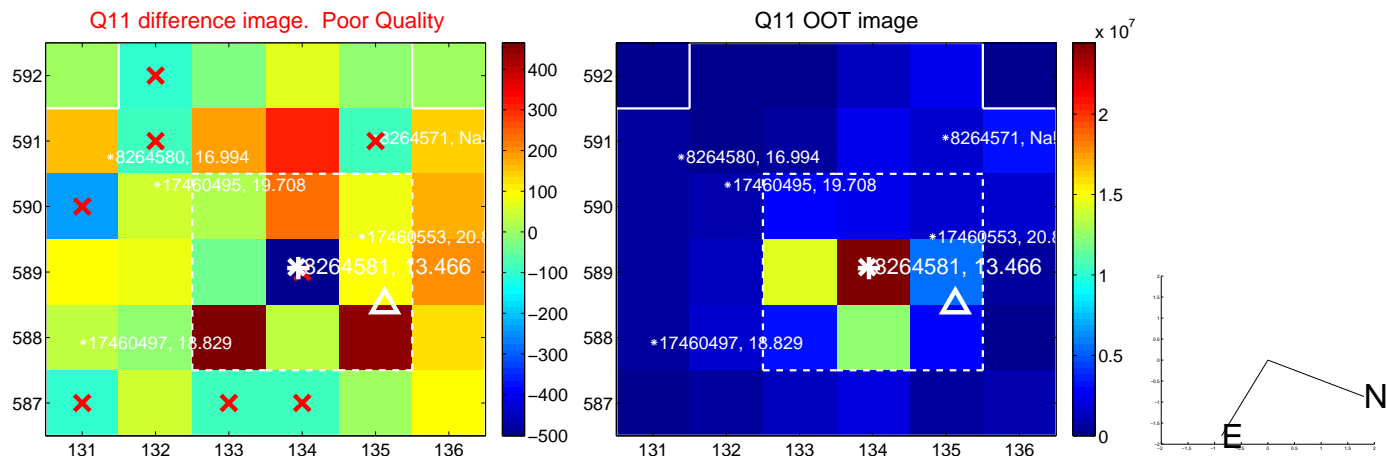
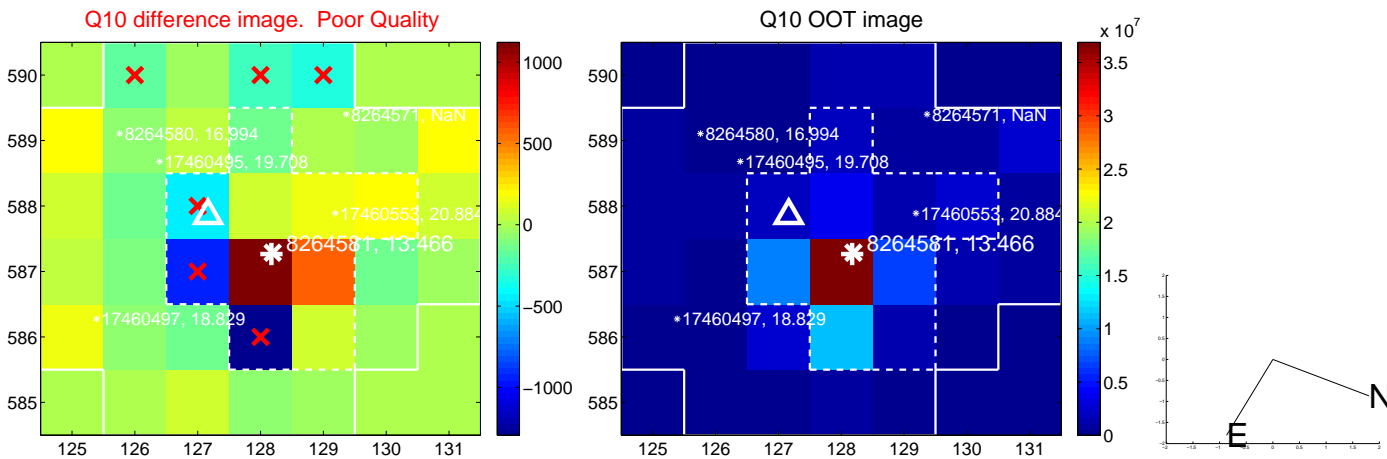
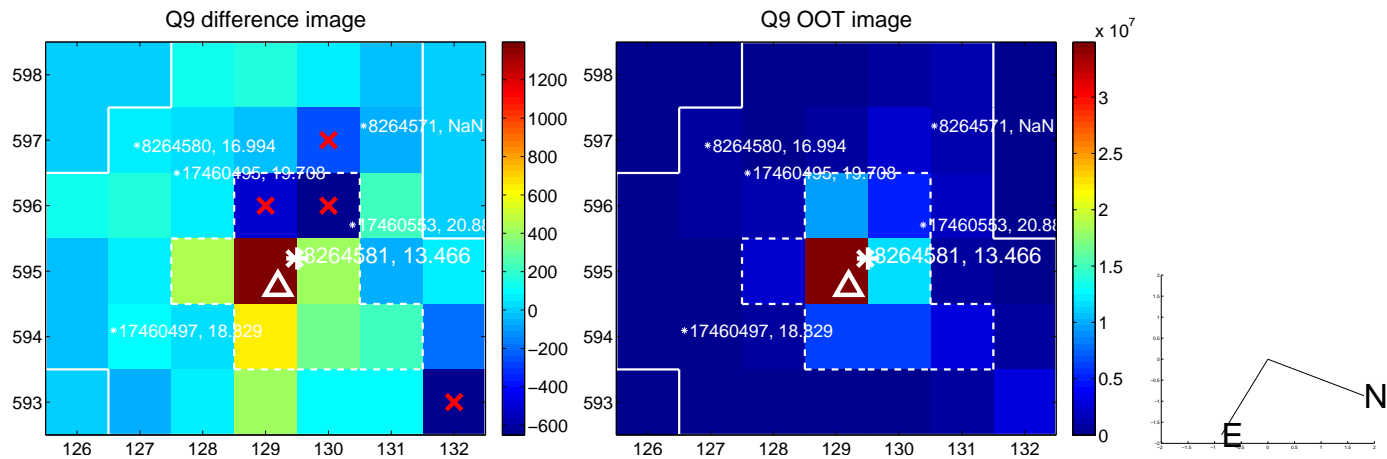
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



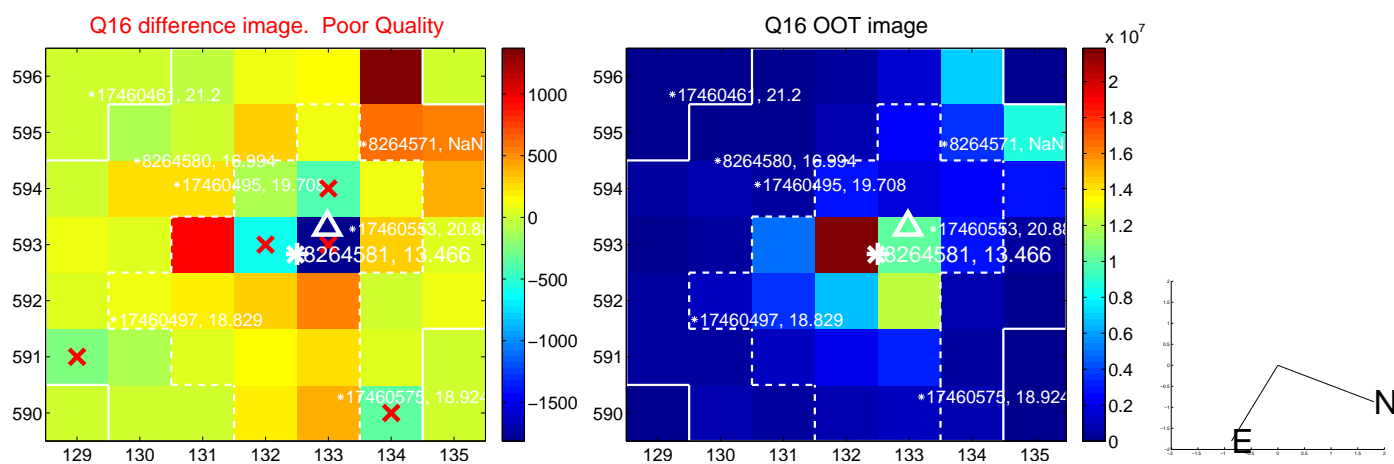
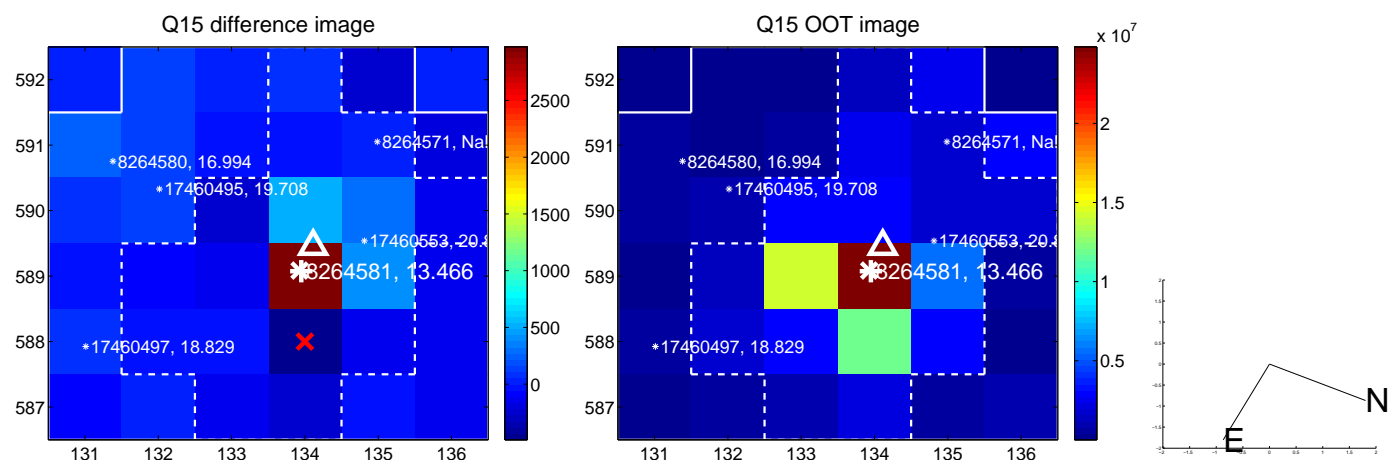
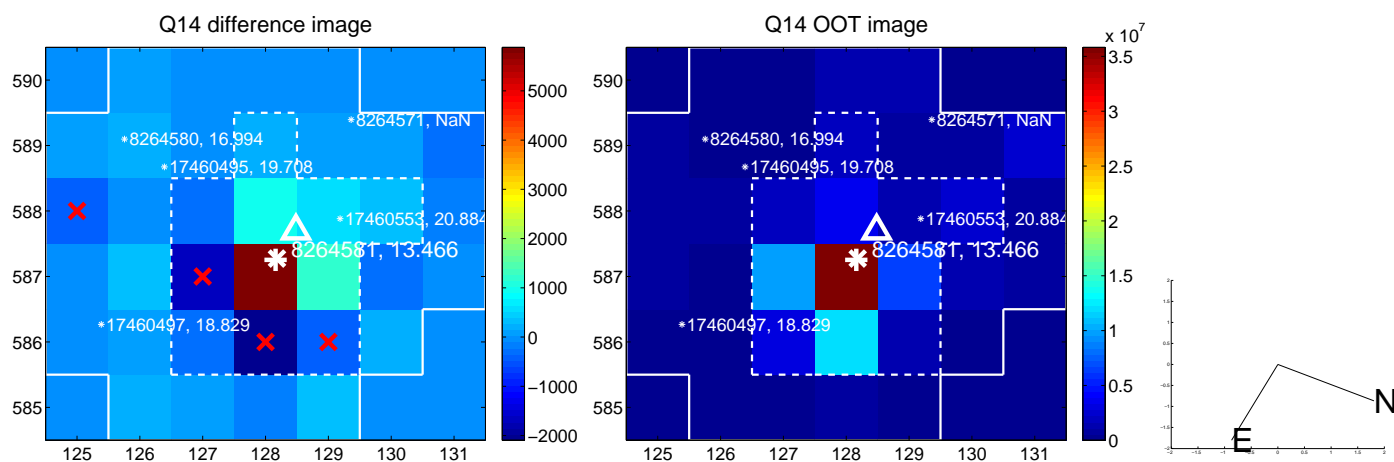
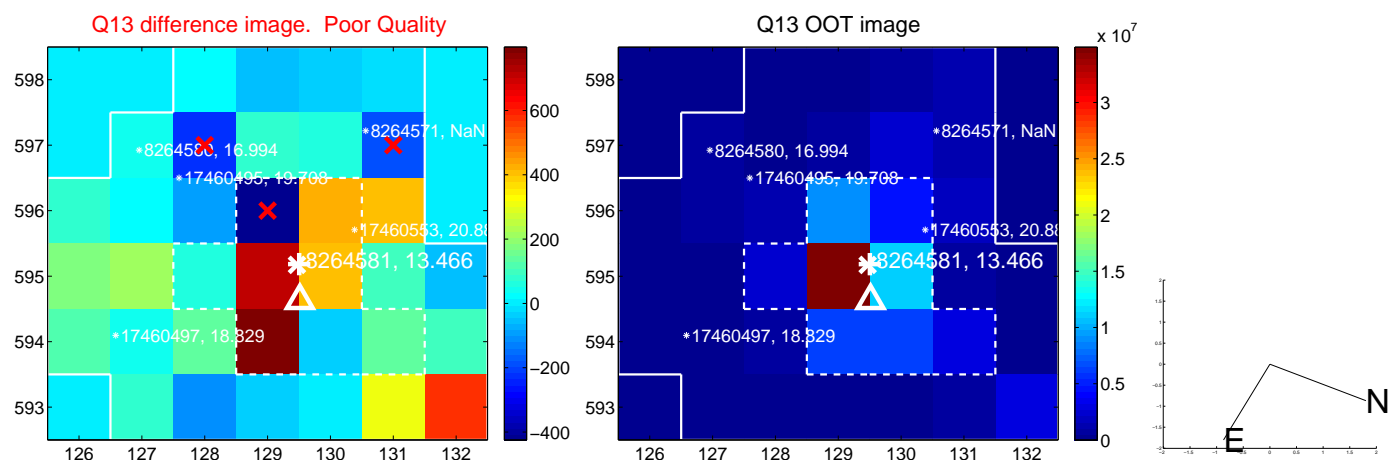
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



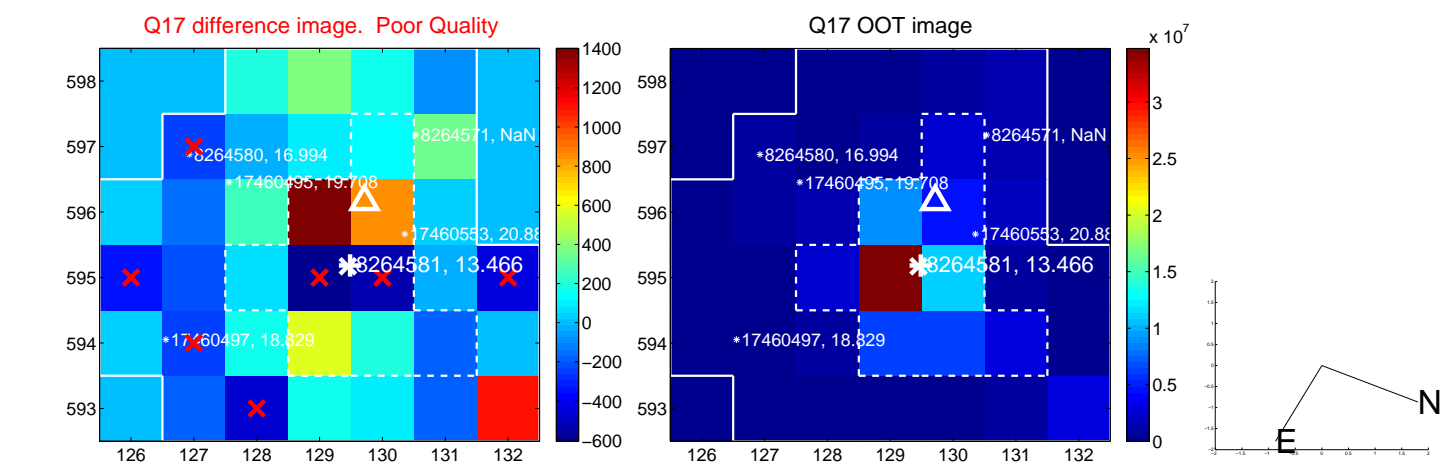
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



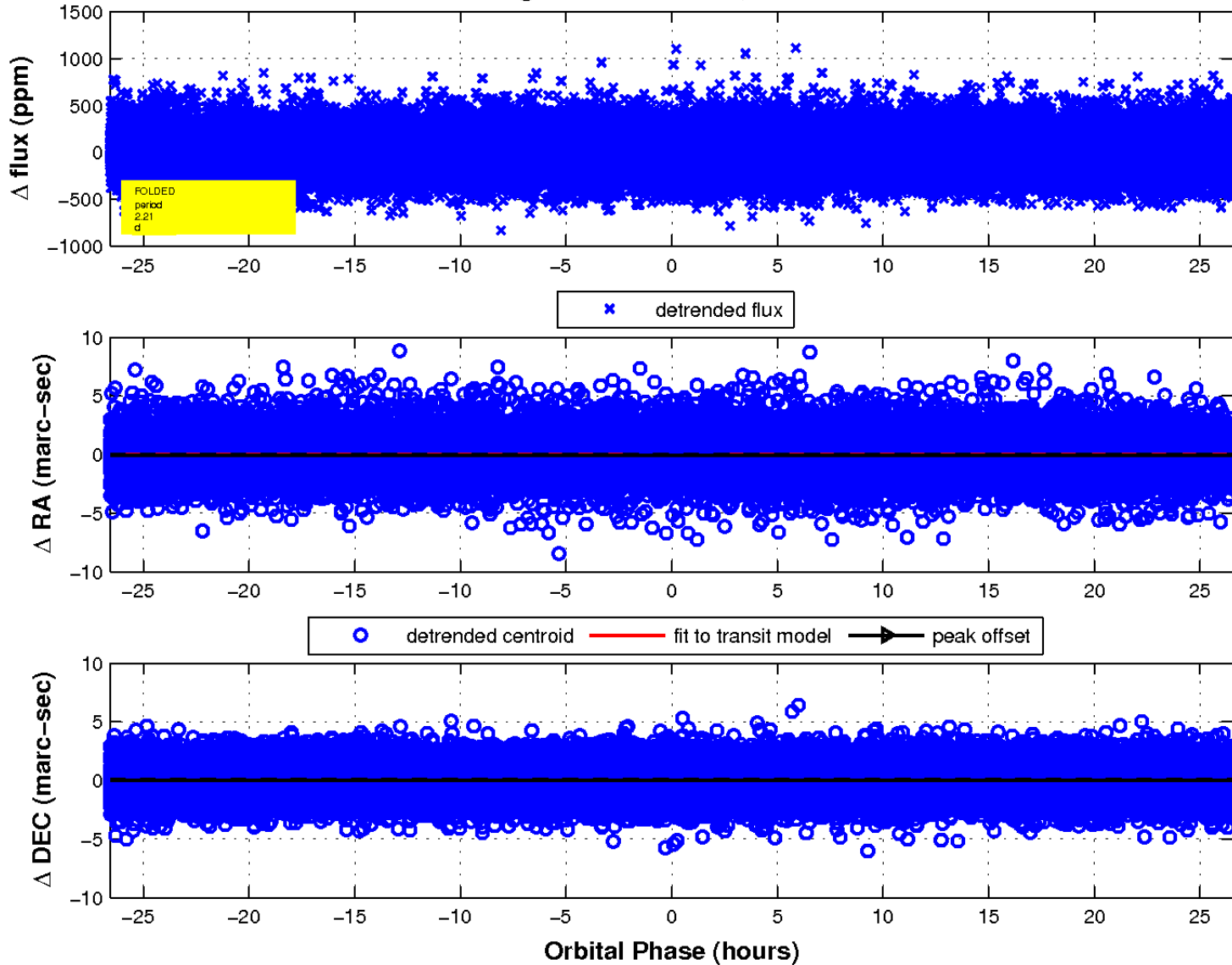
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

