

KIC 004068256

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})
004068256-01	OBS	No	1.281681	132.192121	31.9	4.354	8.4	7.0	1.10	5524	0.70	1966.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004068256-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—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.

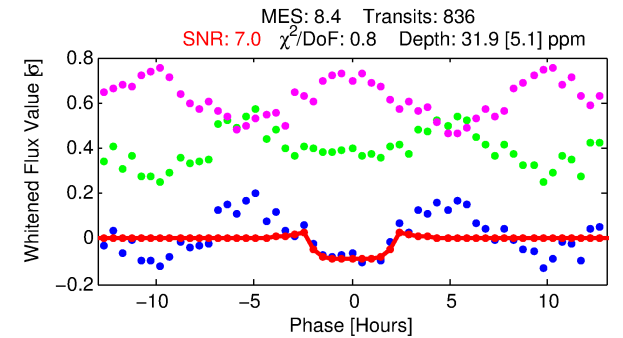
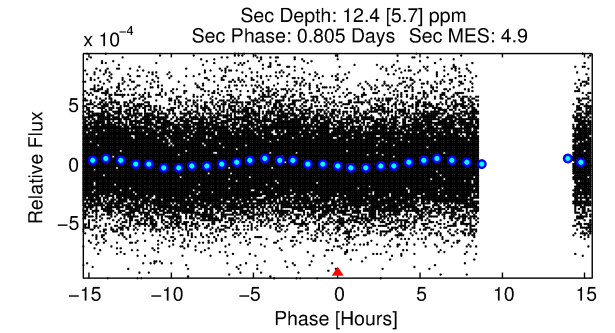
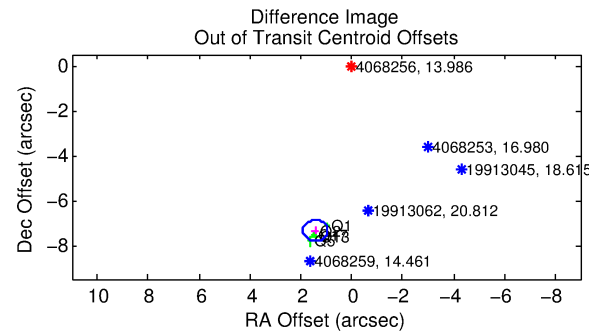
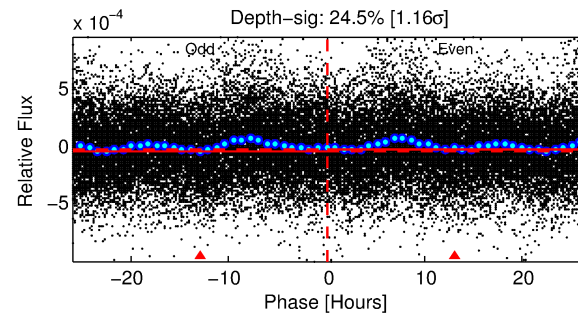
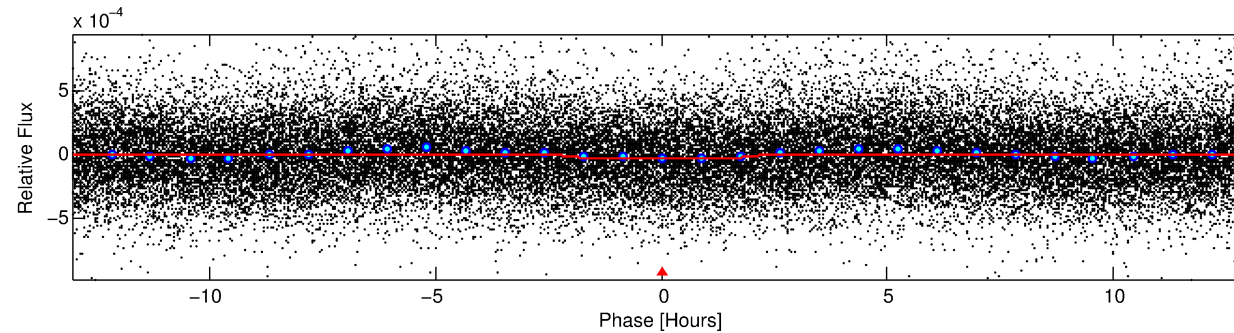
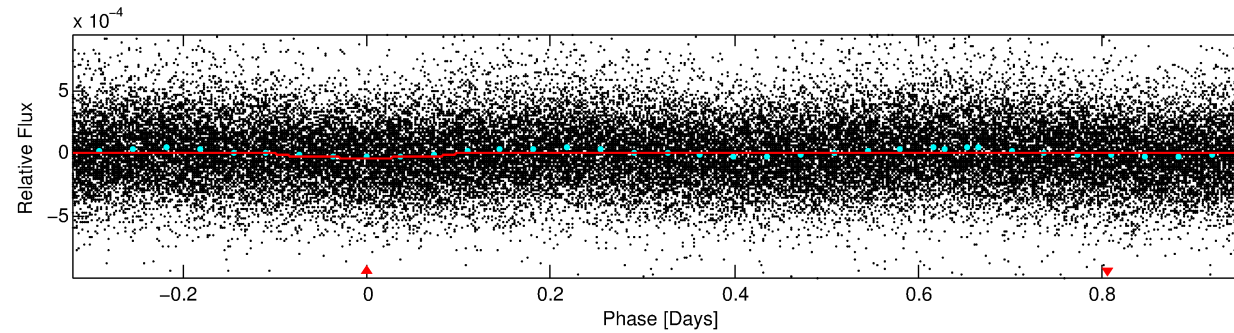
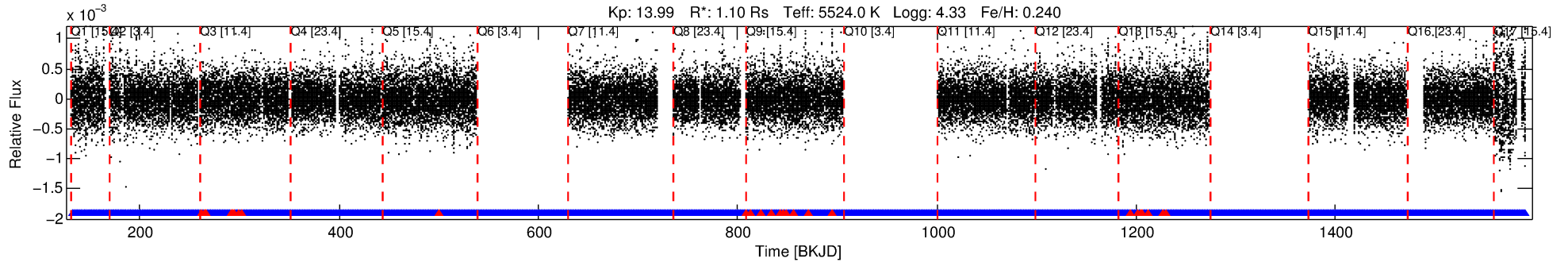
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004068256-01

No Significant Match Found

DV One-Page Summary

KIC: 4068256 Candidate: 1 of 1 Period: 1.282 d



DV Fit Results:

Period = 1.28168 [0.00002] d
Epoch = 132.1921 [0.0057] BKJD
Rp/R* = 0.0058 [0.0031]
a/R* = 1.57 [2.09]
b = 0.82 [0.89]
Seff = 1966.88 [705.08]
Teq = 1698 [152] K
Rp = 0.70 [0.43] Re
a = 0.0228 [0.0053] AU
Ag = 7.10 [8.64] [0.71 σ]
Teffp = 4286 [1257] K [2.04 σ]

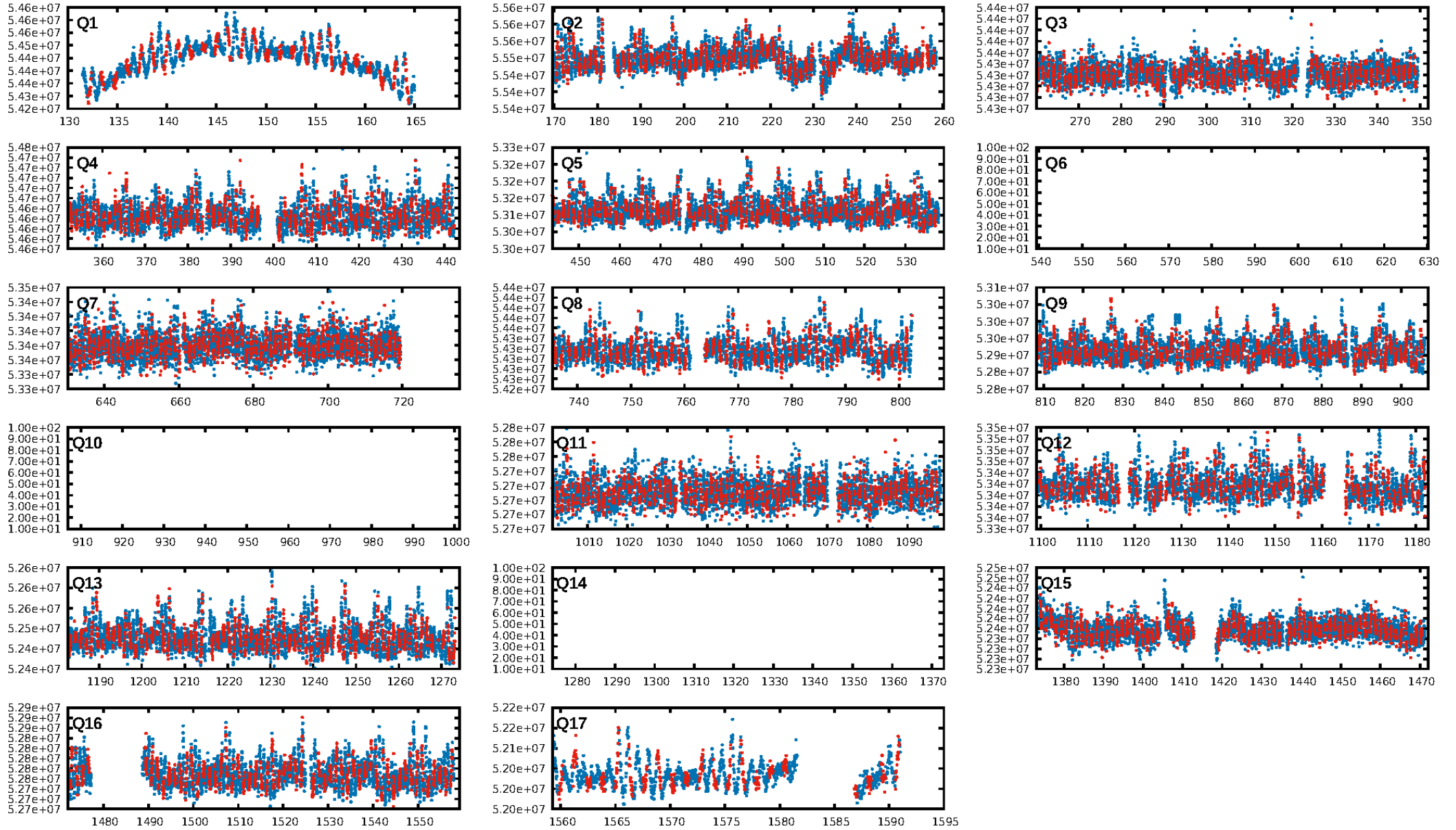
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.32e-13
RollingBand-fgt: 0.96 [761/789]
GhostDiagnostic-chr: -1.718
Centroid-sig: 9.6%
Centroid-so: 3.753 arcsec [1.20 σ]
OotOffset-rm: 7.483 arcsec [47.95 σ]
KicOffset-rm: 7.912 arcsec [38.25 σ]
OotOffset-st: 1/0/0/4 [5]
KicOffset-st: 1/0/0/4 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [14/14]

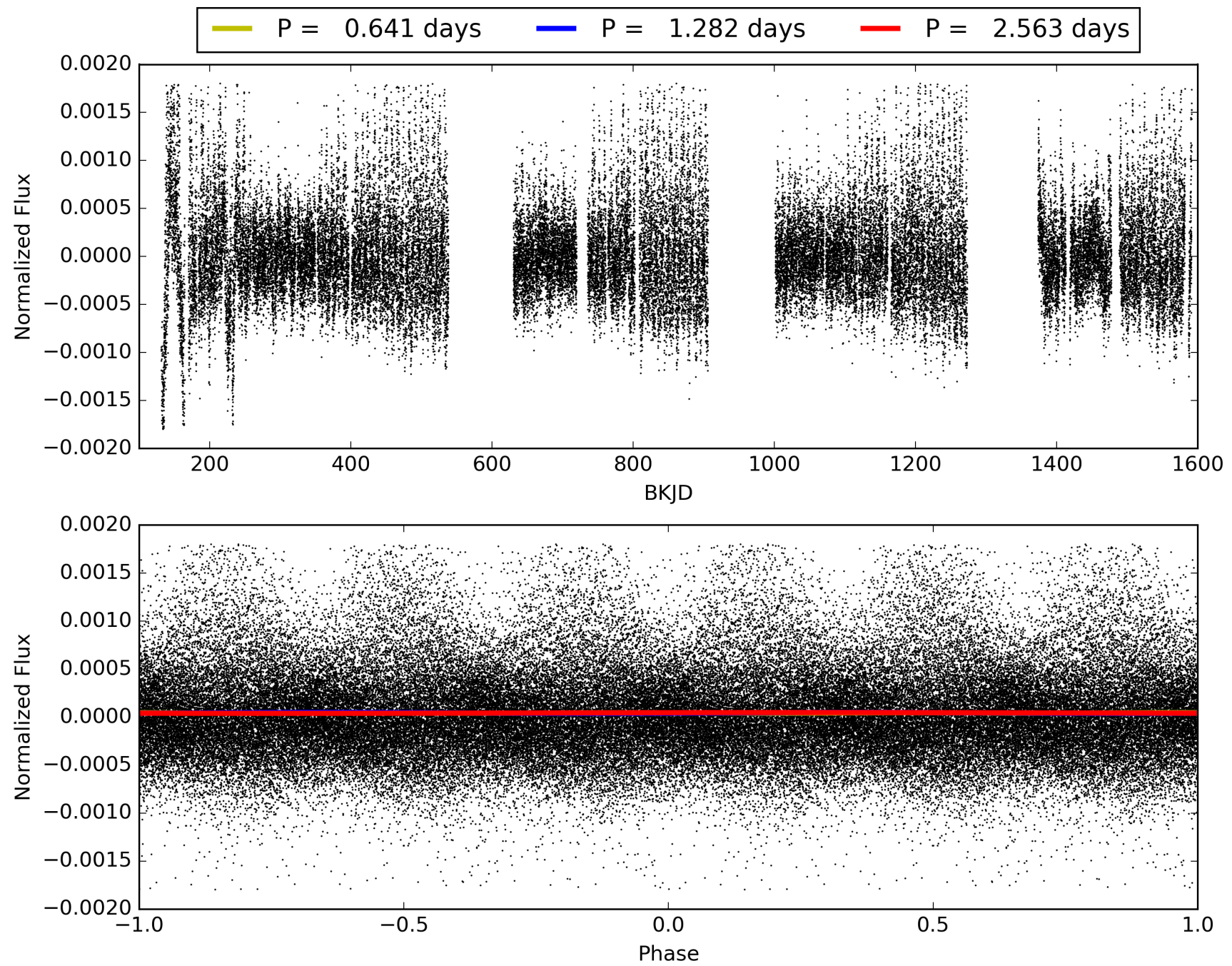
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:18:05 Z

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

TCE 004068256-01, PDC Light Curves

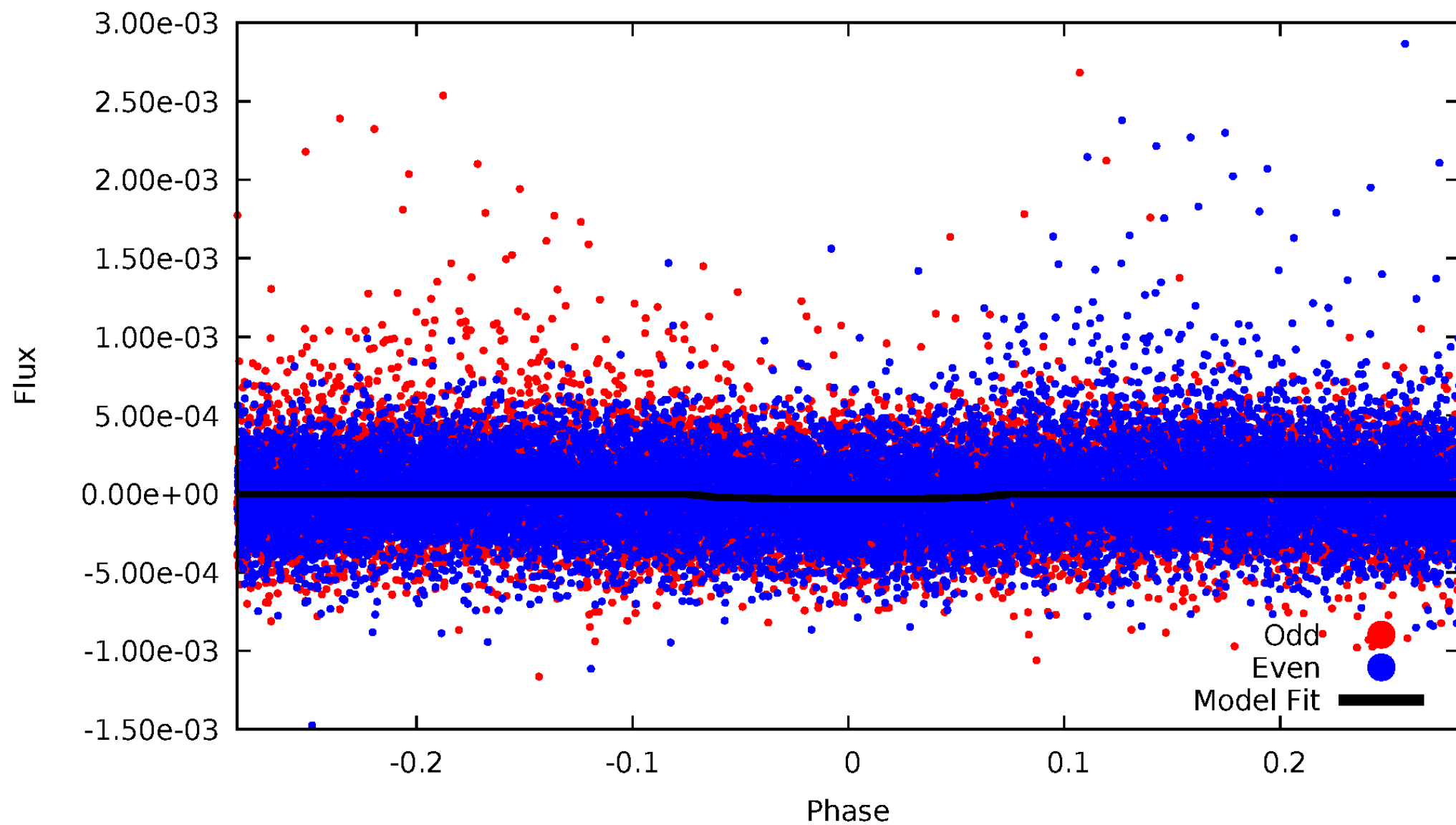


TCE 004068256-01



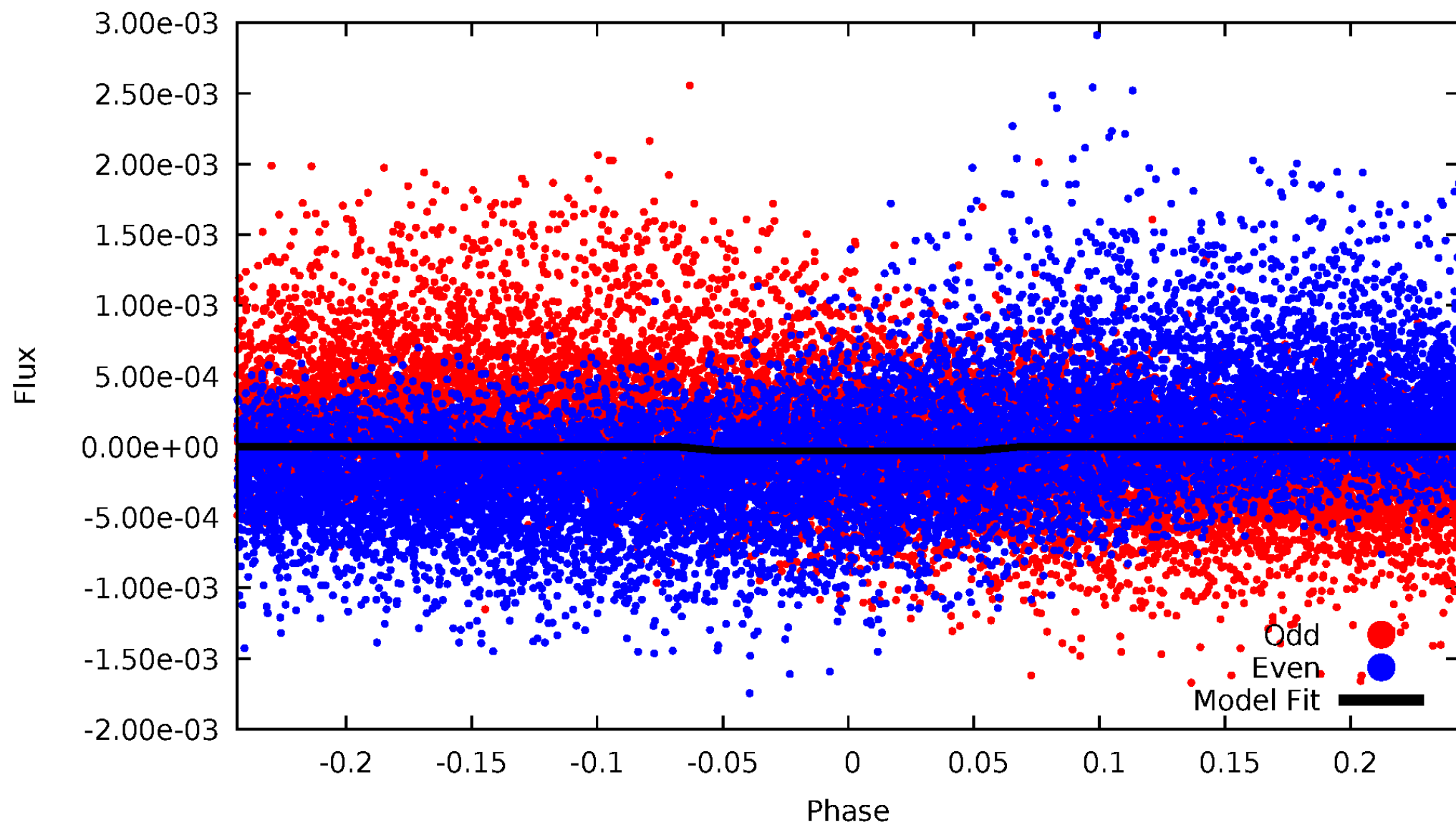
DV Odd/Even

TCE 004068256-01



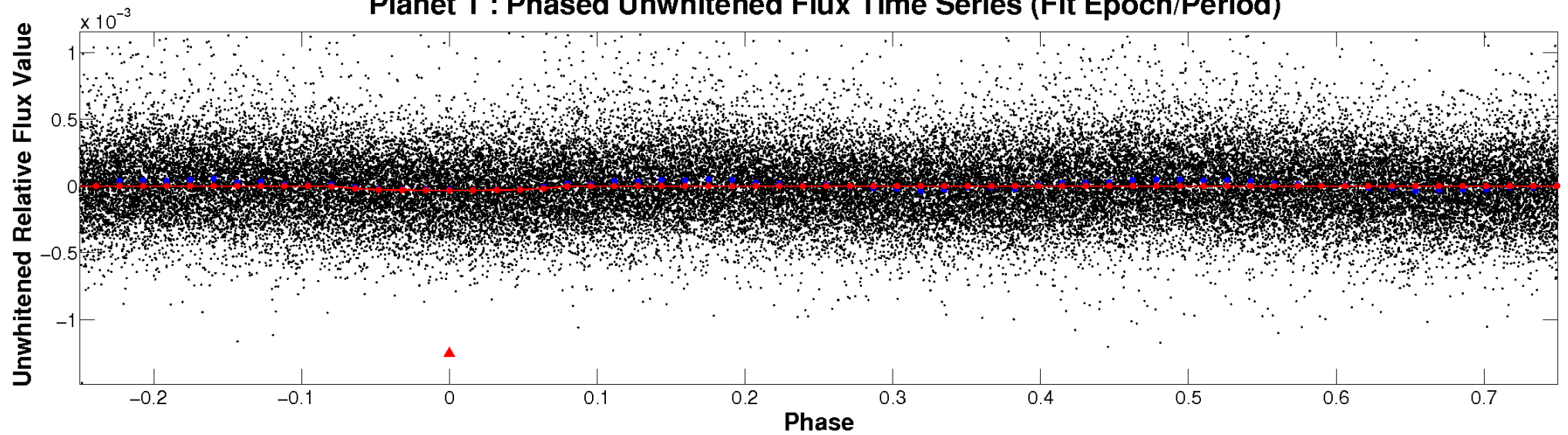
ALT Odd/Even

TCE 004068256-01

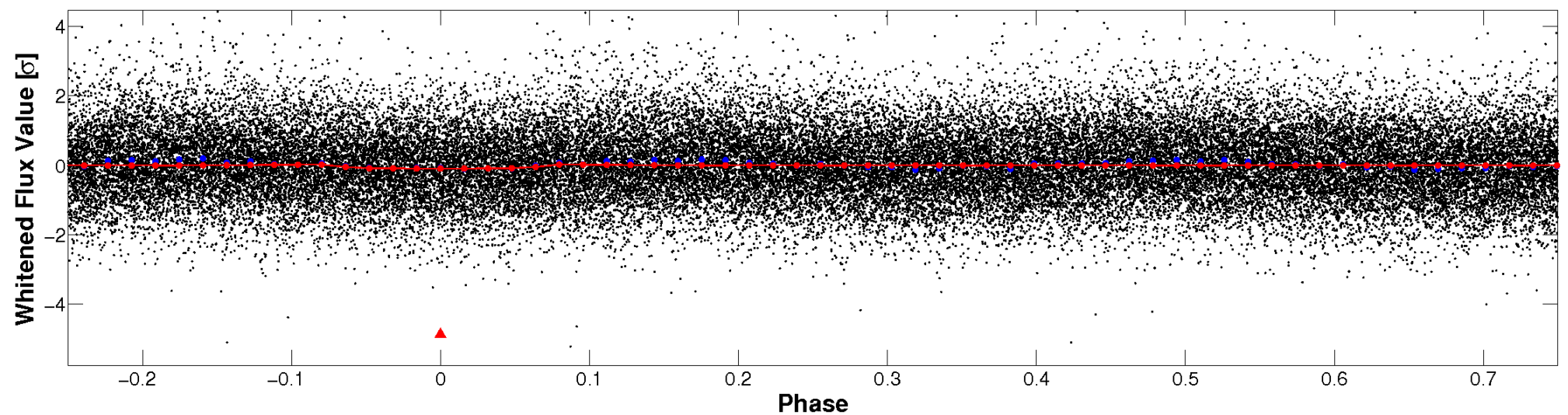


Non-Whitened Vs. Whitened Light Curve

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

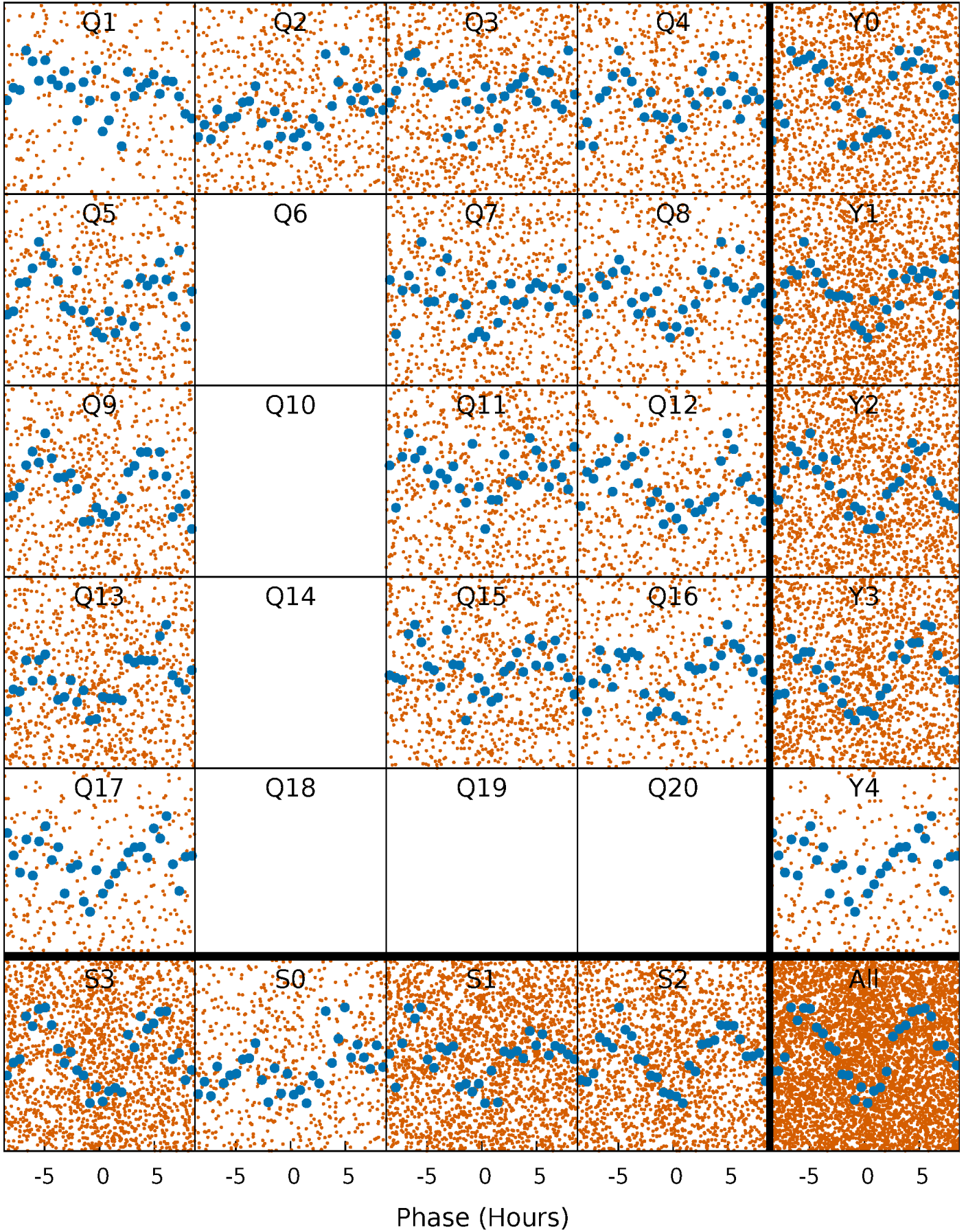


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



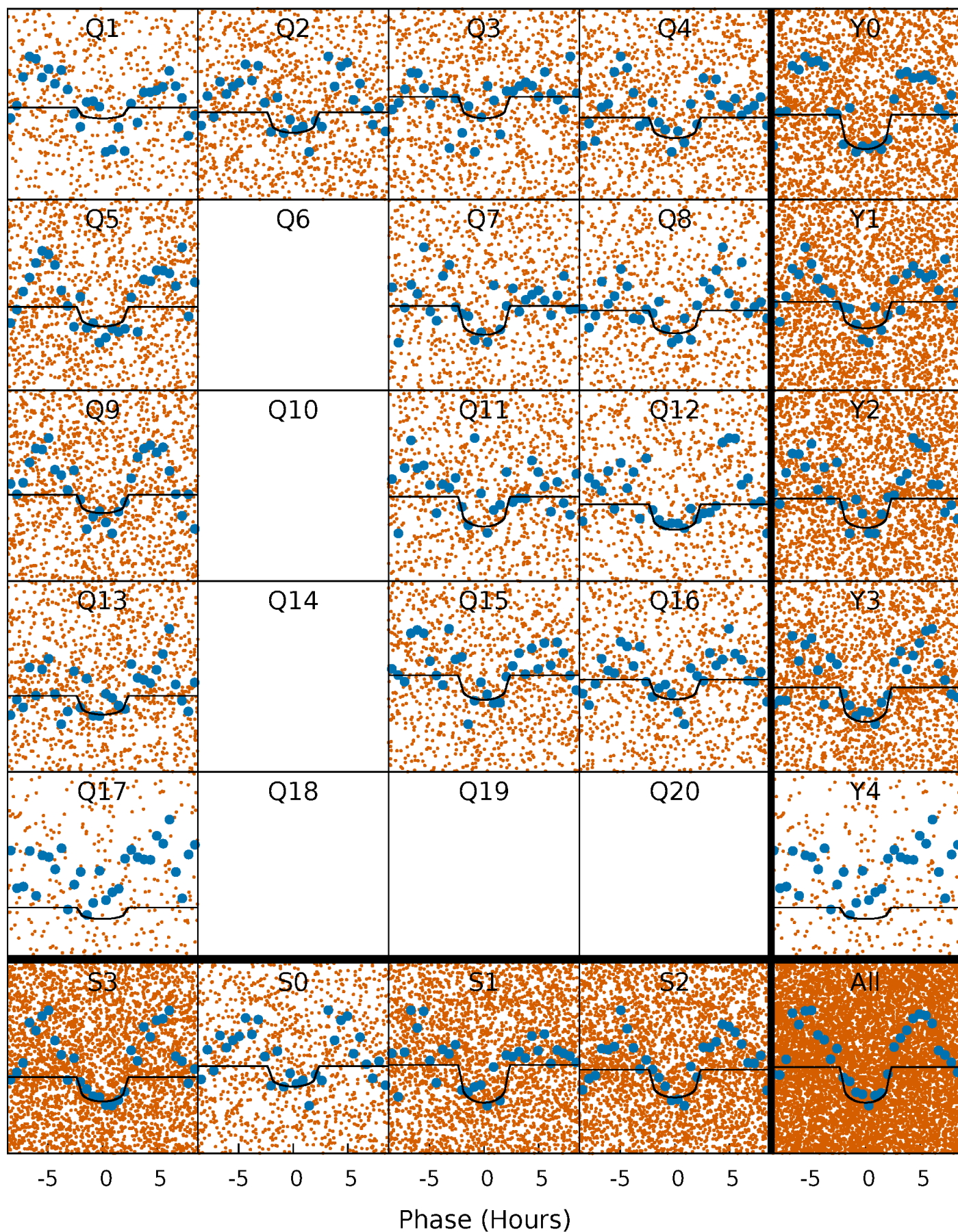
PDC Quarter-Phased Transit Curves

TCE 004068256-01 P= 1.281681 Days $T_0=132.192121$ (BKJD)



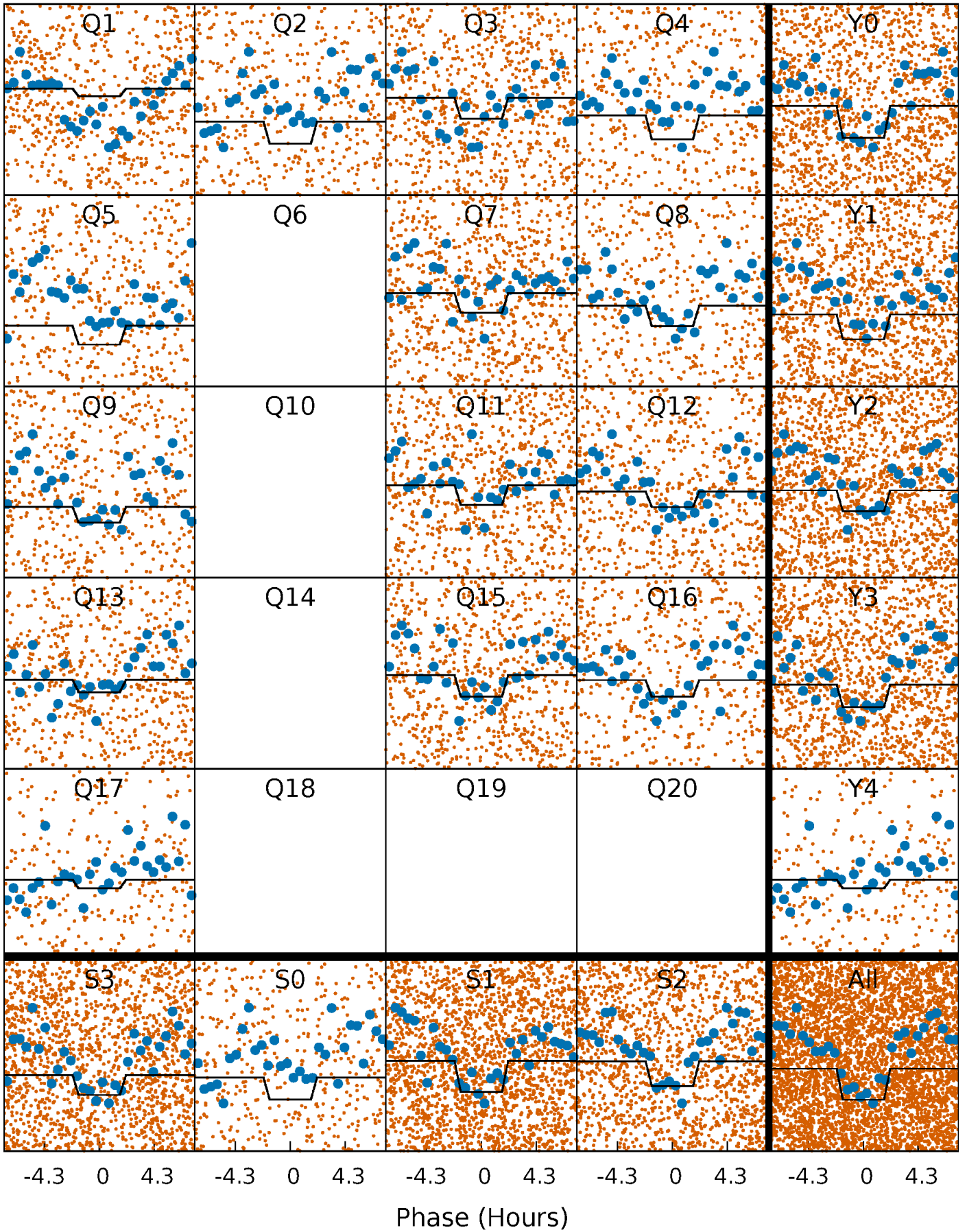
DV Quarter-Phased Transit Curves

TCE 004068256-01 P= 1.281681 Days $T_0=132.192121$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

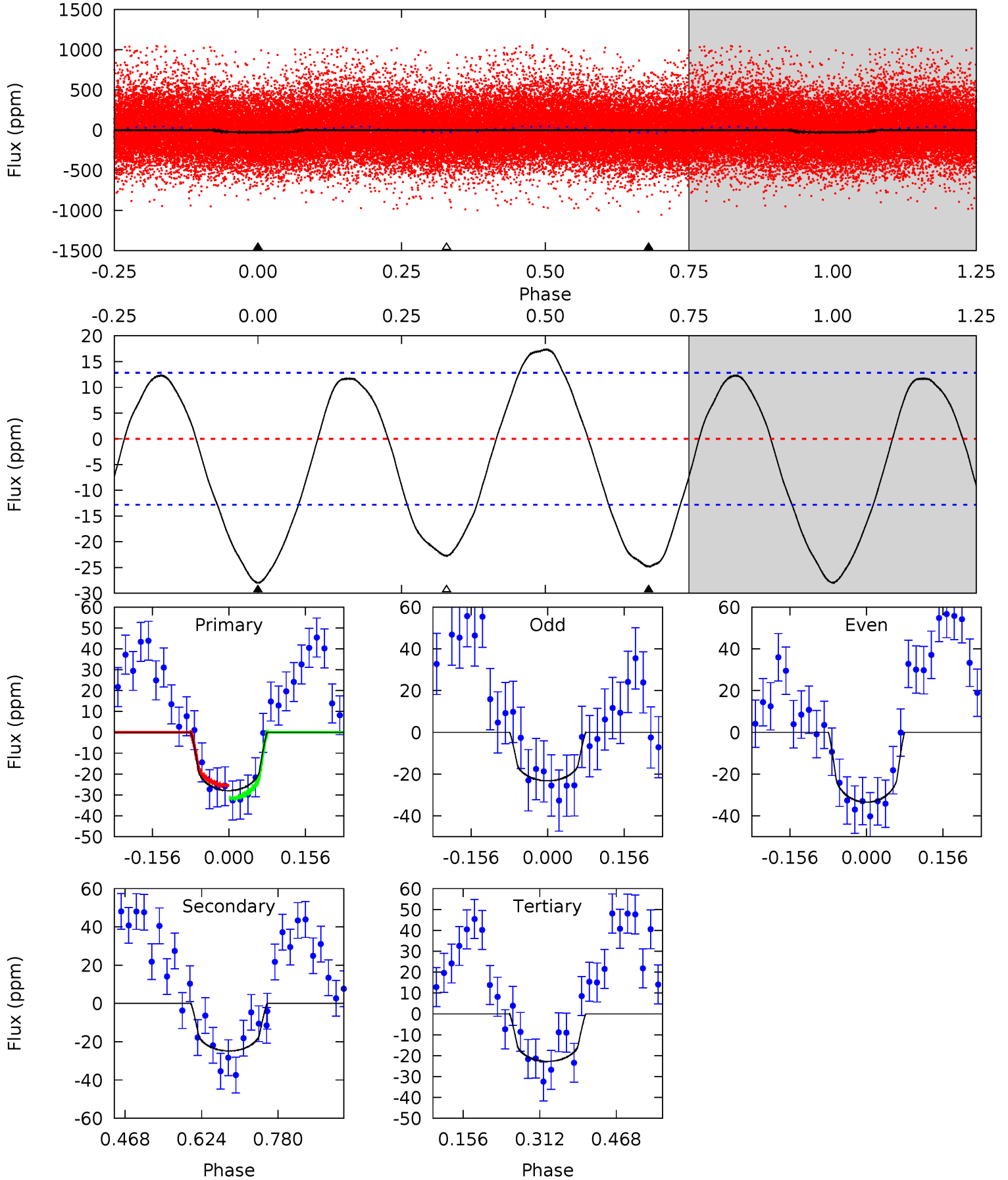
TCE 004068256-01 P= 1.281698 Days $T_0=132.181096$ (BKJD)



DV Model-Shift Uniqueness Test

004068256-01, P = 1.281681 Days, E = 130.910440 Days

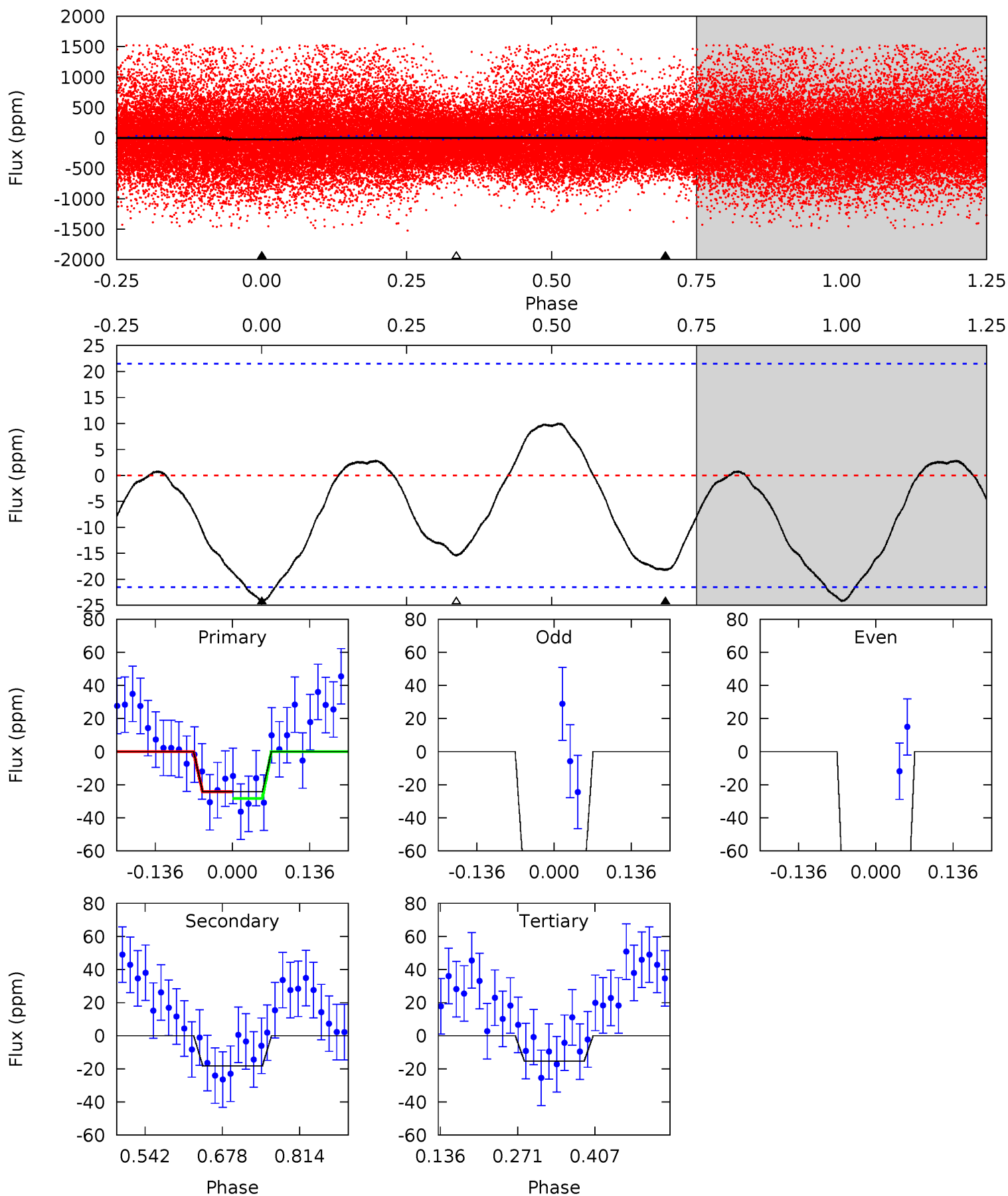
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.75	8.65	7.92	0	4.47	1.42	4.92	1.83	9.75	0.73	8.65	1.79	0.98	0.38	1.09



Alt Model-Shift Uniqueness Test

004068256-01, P = 1.281698 Days, E = 130.899398 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.06	3.80	3.23	0	4.50	1.49	1.65	1.83	5.06	0.58	3.80	4.99	0.60	0.29	0.45



Stellar Parameters For KIC 004068256

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5524^{+150}_{-150}	$4.332^{+0.170}_{-0.187}$	$0.240^{+0.200}_{-0.300}$	$1.105^{+0.307}_{-0.205}$	$0.957^{+0.092}_{-0.075}$	$0.998^{+0.842}_{-0.484}$
	+3%/-3%	+4%/-4%	+83%/-125%	+28%/-19%	+10%/-8%	+84%/-48%
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 004068256-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-25 ± 3	$0.75^{+0.39}_{-0.40}$	2389^{+182}_{-147}	5027^{+2274}_{-777}	13^{+46}_{-7}
Alt.	-18 ± 5	$0.69^{+0.36}_{-0.34}$	2375^{+174}_{-141}	4796^{+1805}_{-753}	11^{+31}_{-6}

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

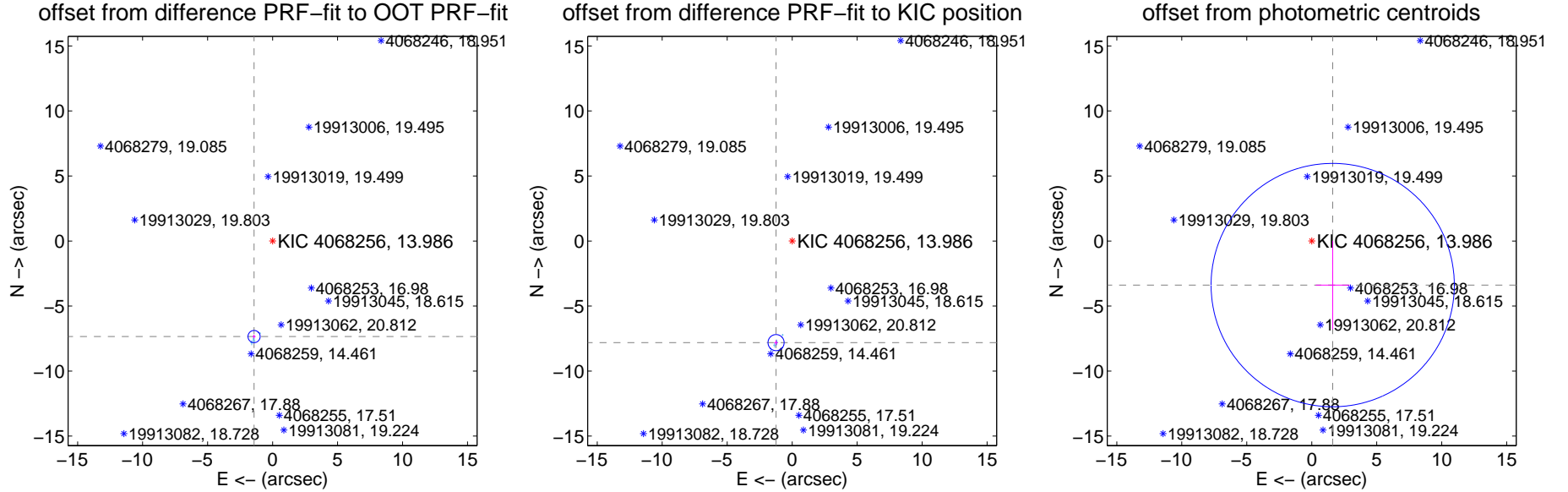
DV Centroid Data

Supplemental centroid analysis for 004068256-01. Kepler magnitude: 13.99. Transit SNR 6.96

There are 5 quarters with good PRF difference image offsets

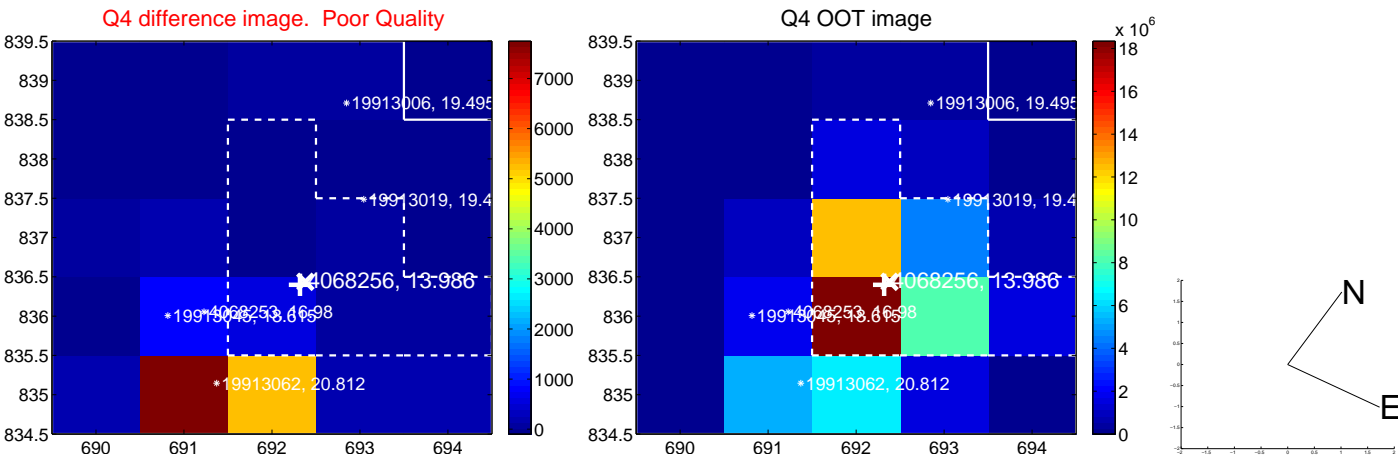
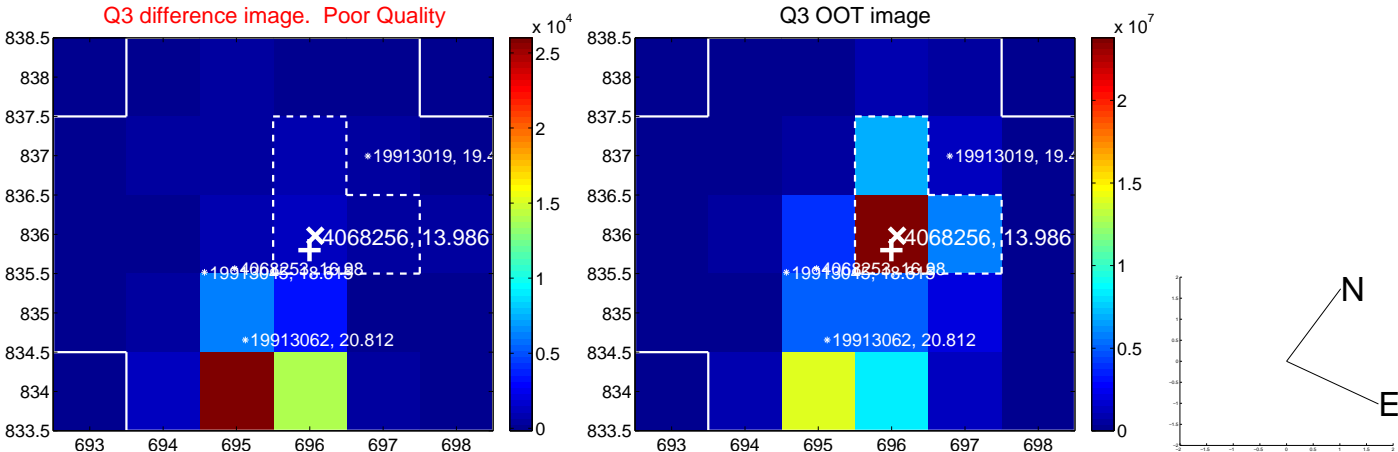
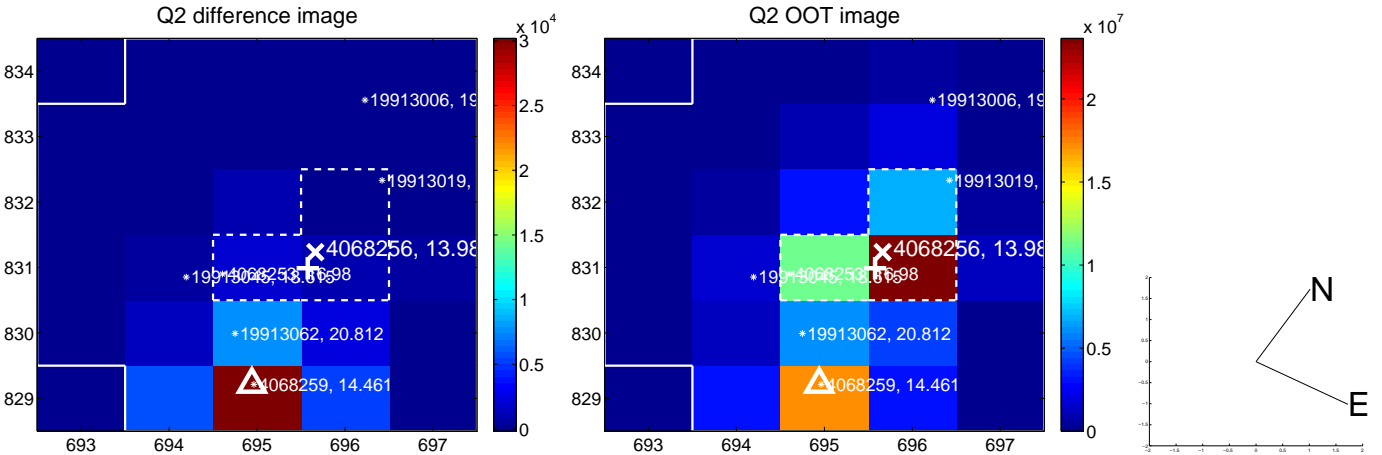
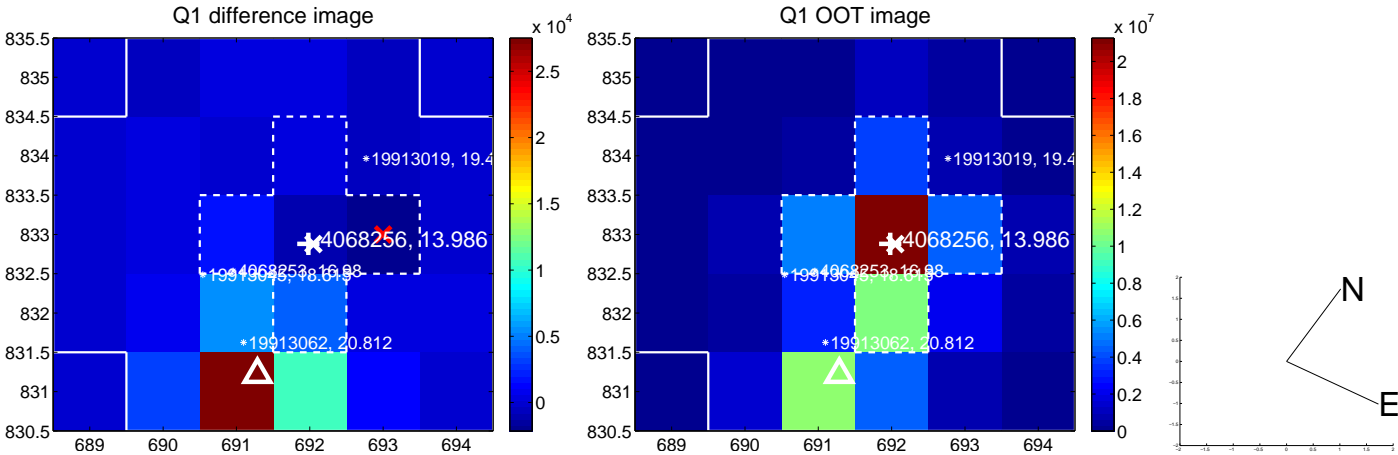
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.483 \pm 0.156	47.95	1.425 \pm 0.116	-7.346 \pm 0.143
PRF-fit source offset from KIC position	7.912 \pm 0.207	38.25	1.239 \pm 0.147	-7.814 \pm 0.190
photometric centroid source offset	3.75 \pm 3.12	1.20	-1.61 \pm 1.31	-3.39 \pm 3.40

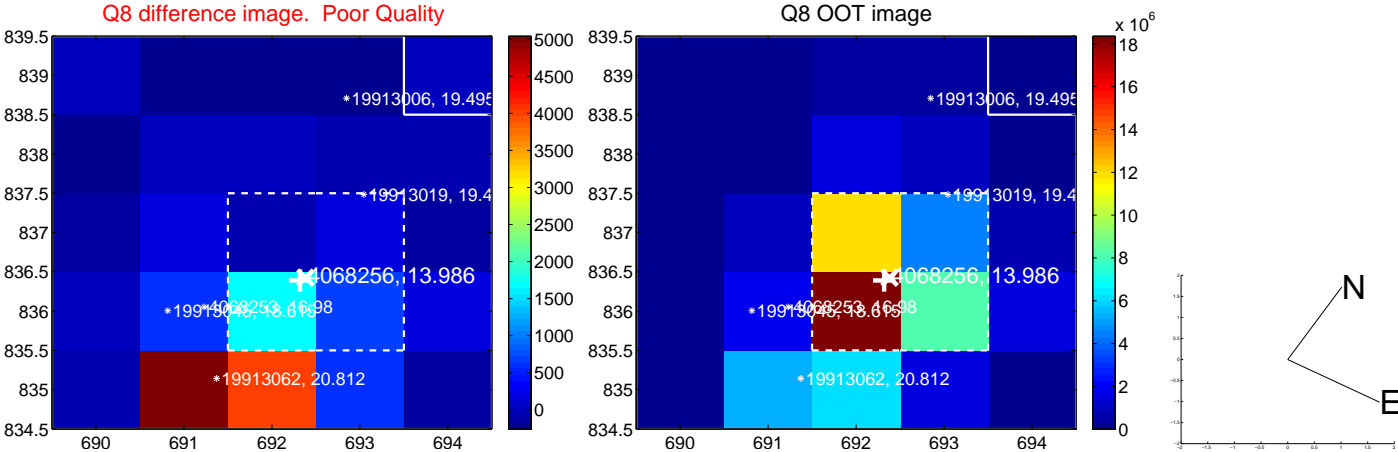
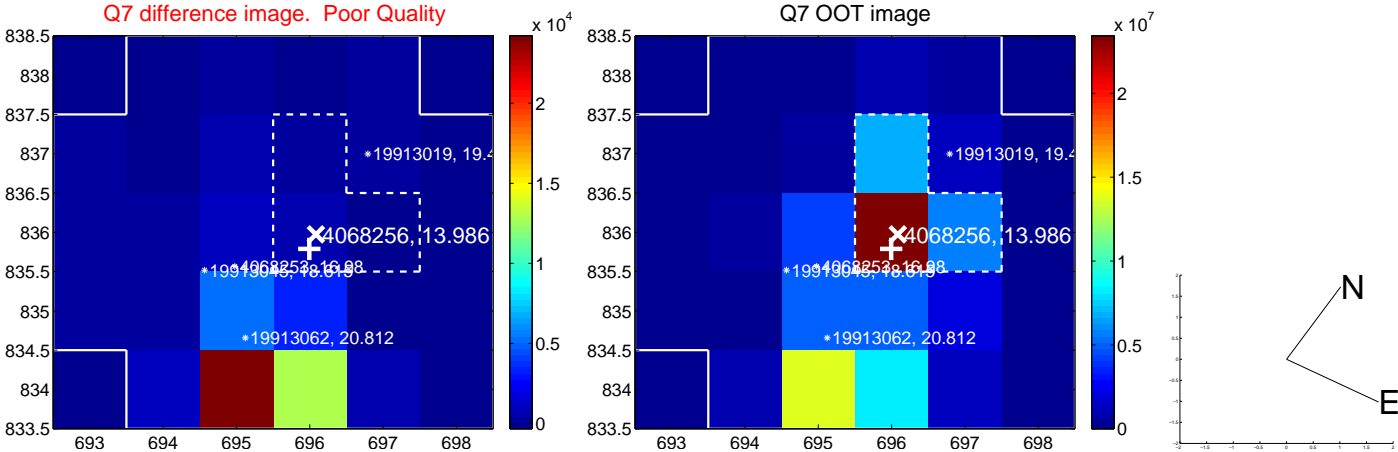
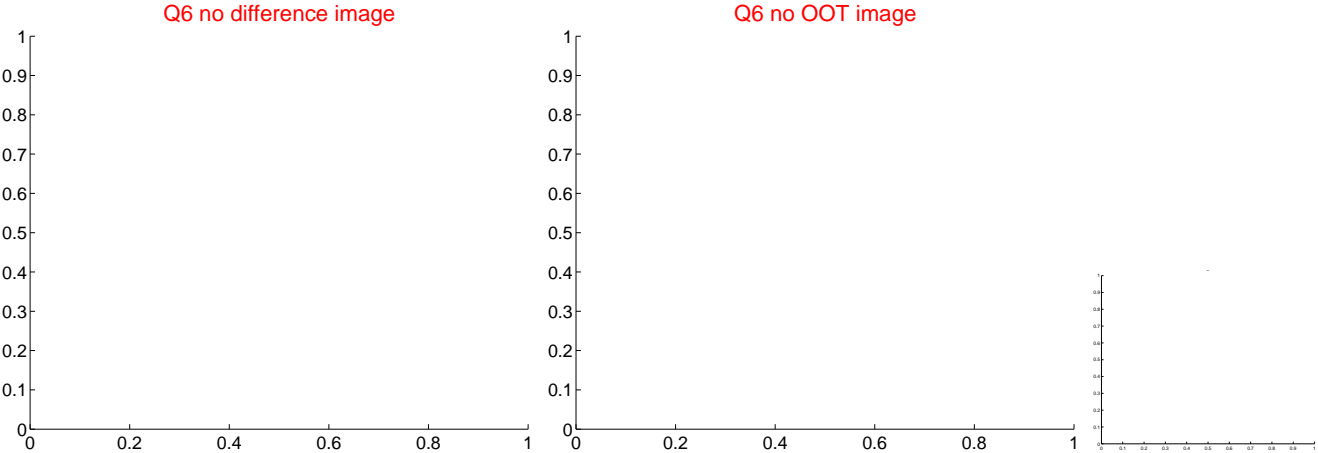
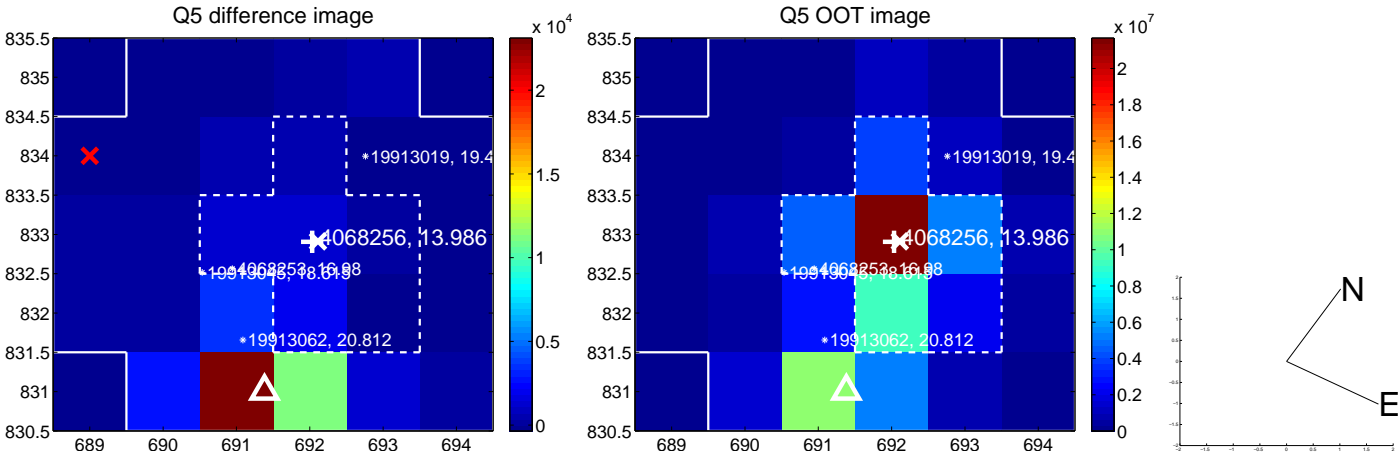


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

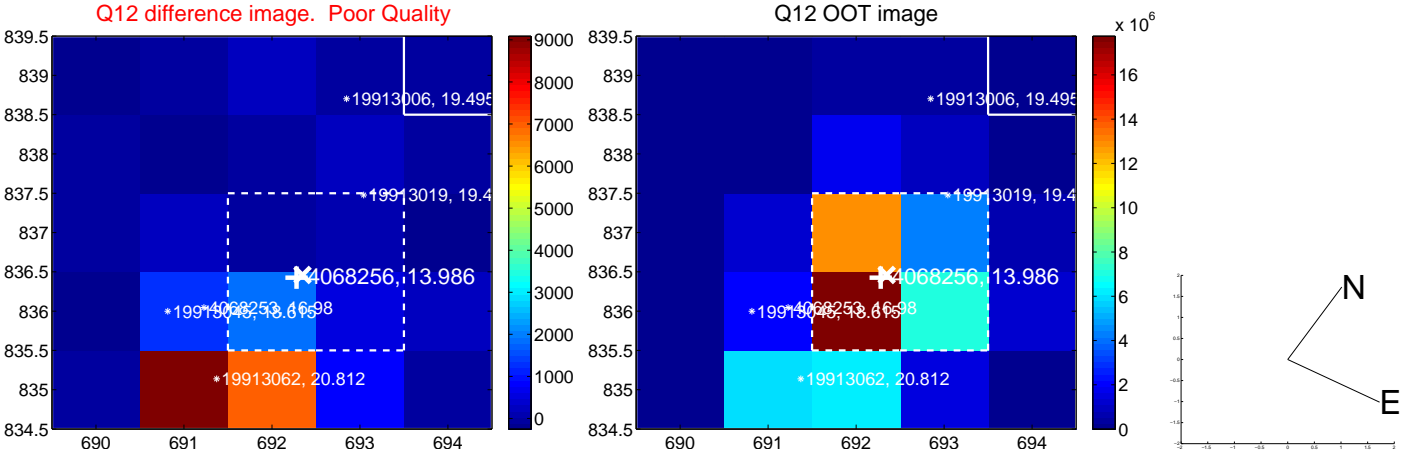
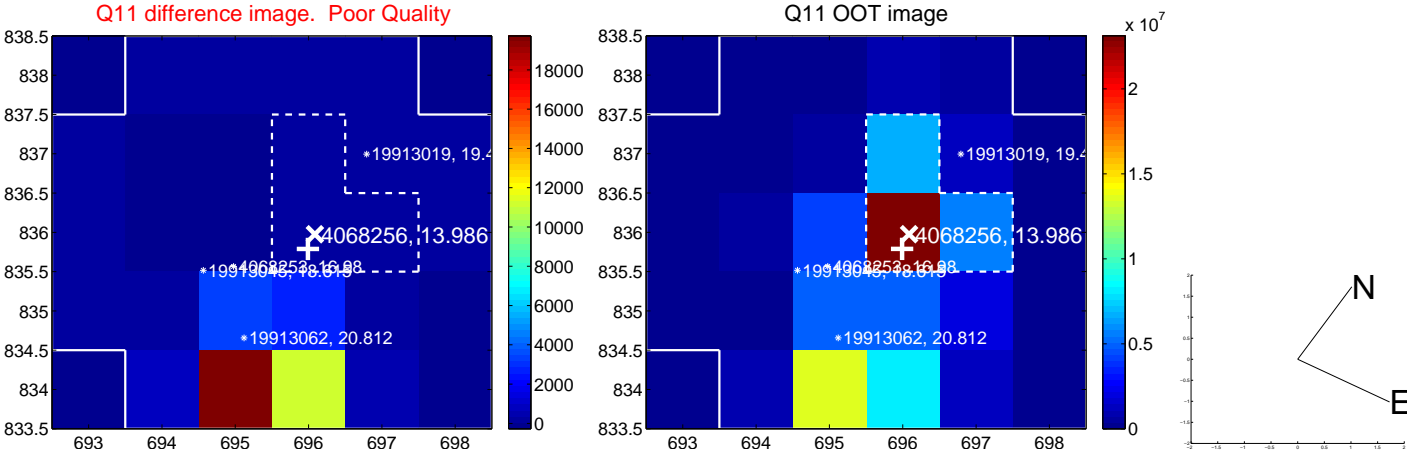
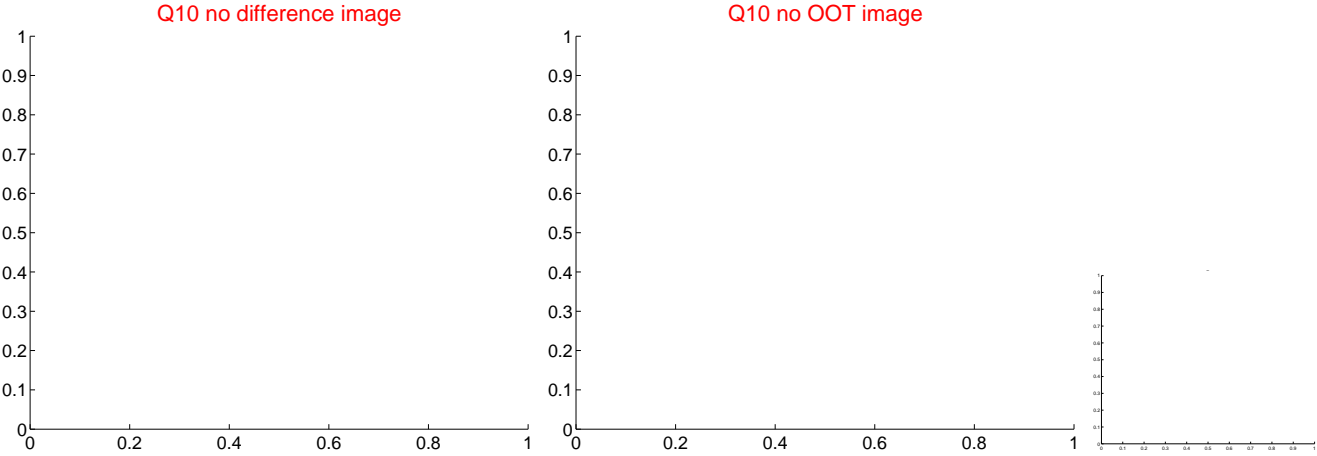
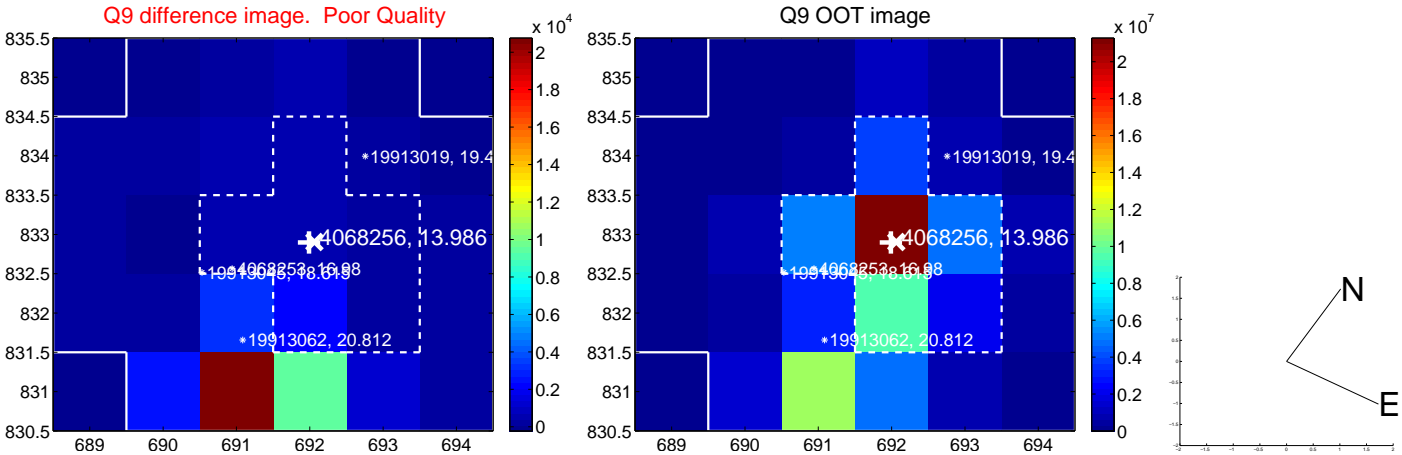
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



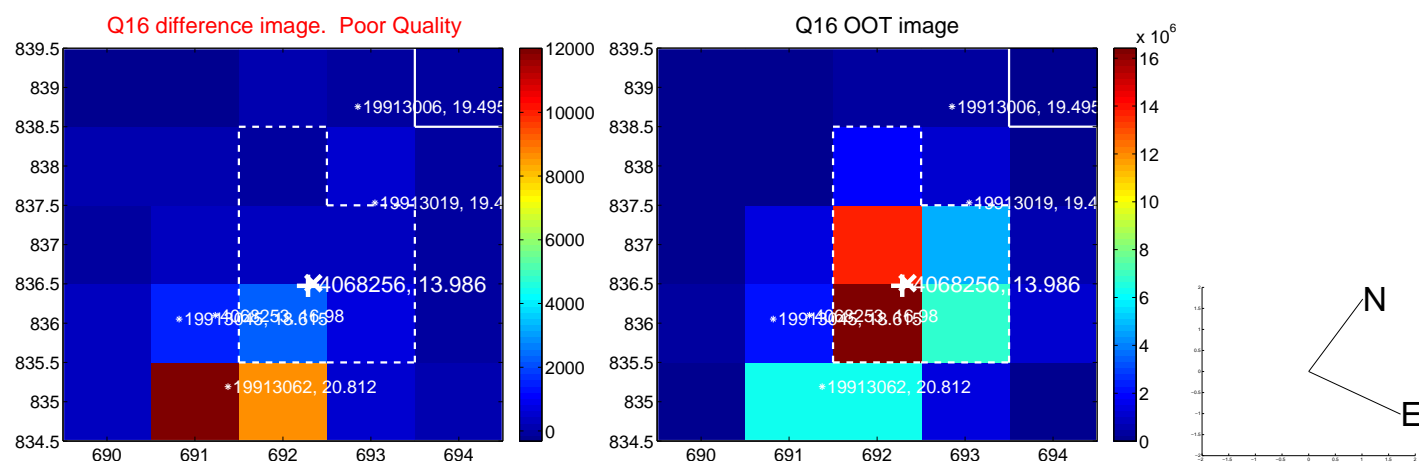
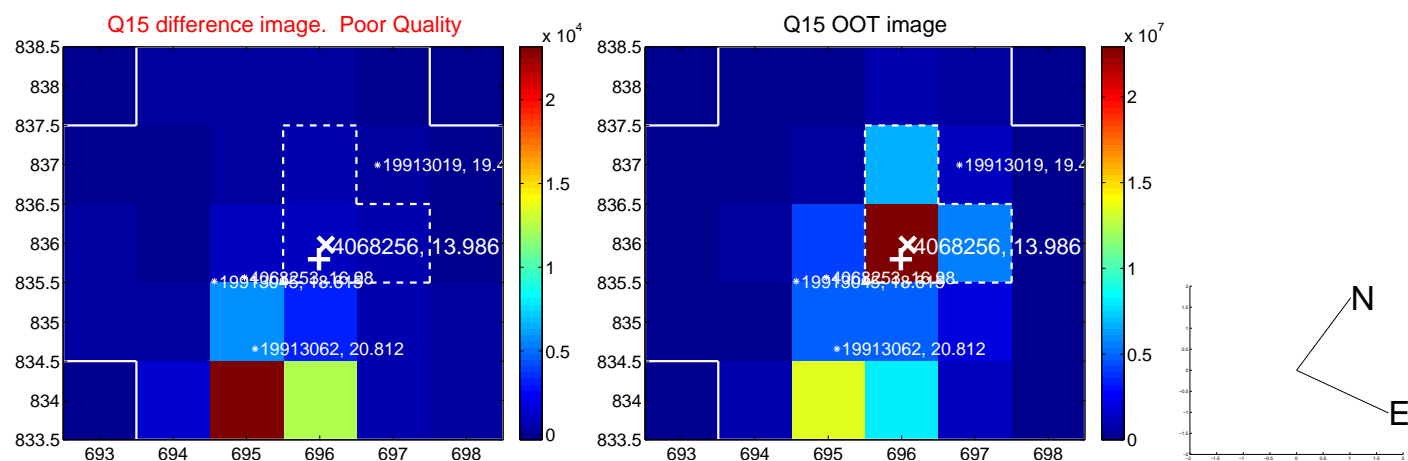
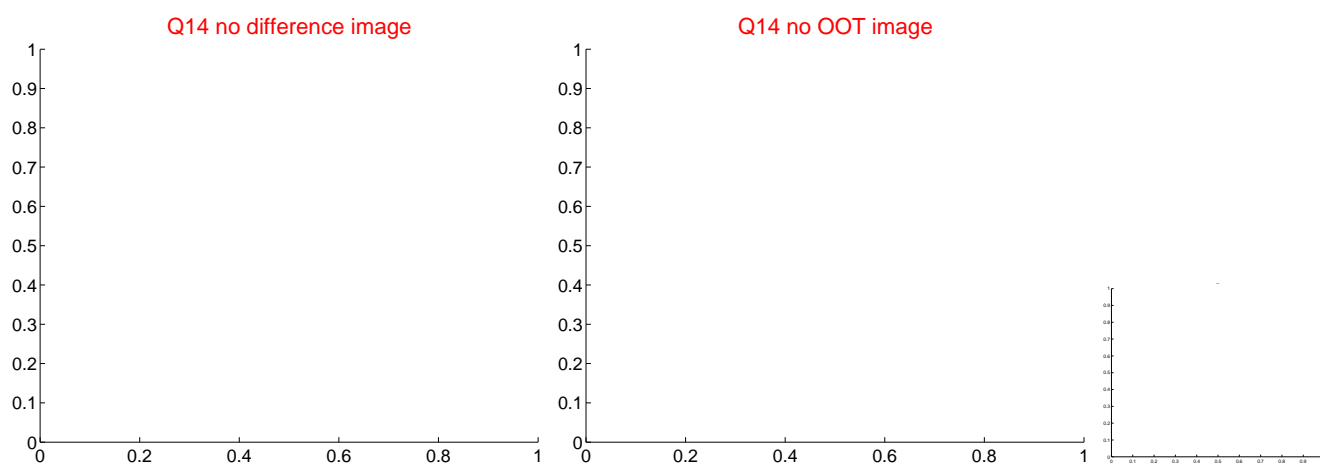
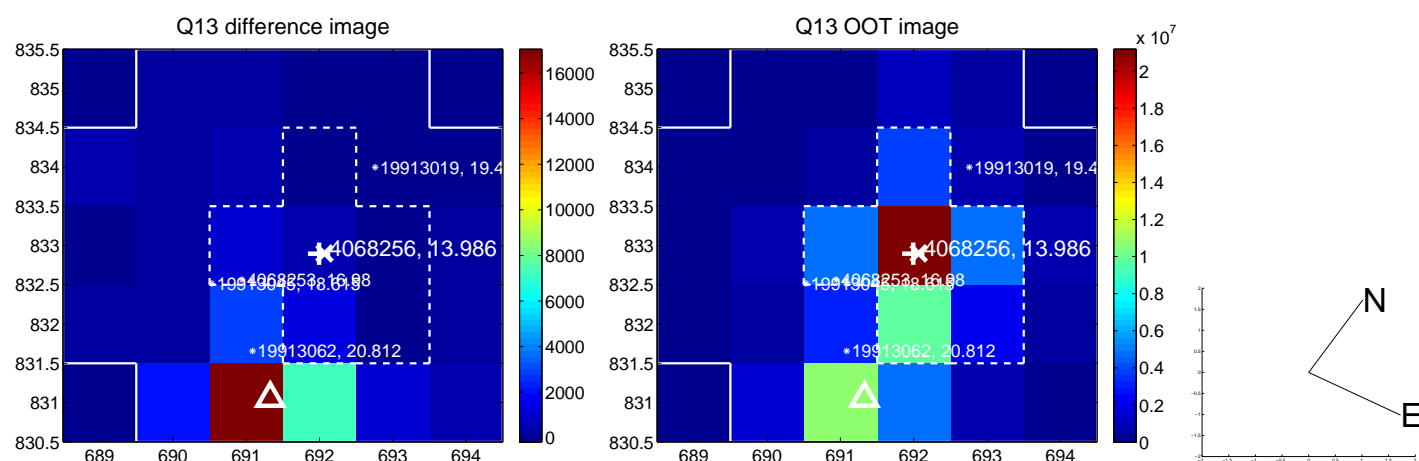
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

