

KIC 010281360

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})
010281360-01	OBS	No	0.648167	132.077650	33.5	6.476	8.7	7.4	2.11	7776	1.23	47640.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010281360-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

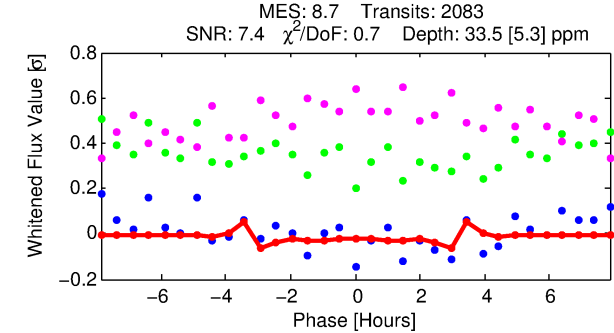
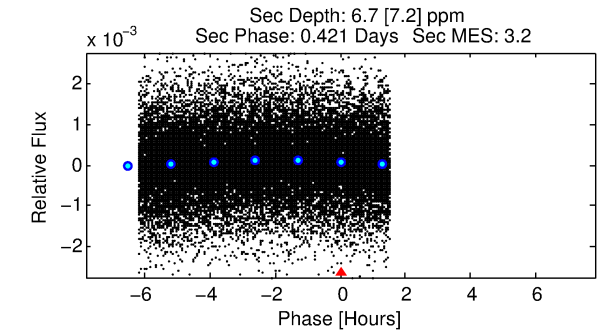
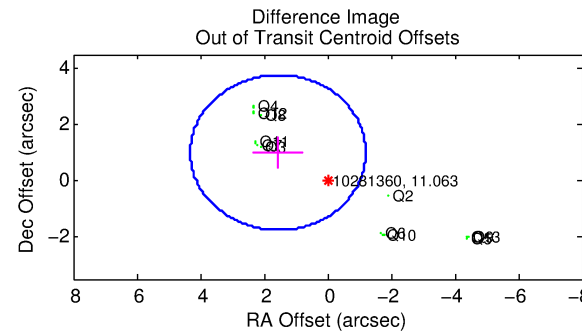
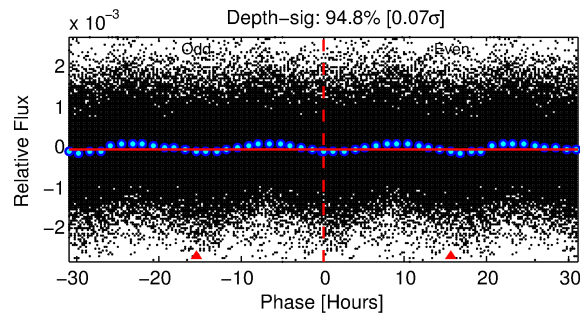
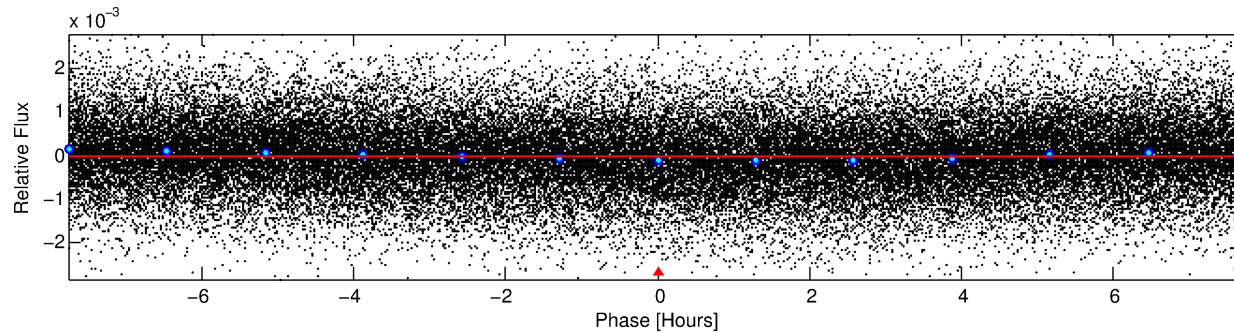
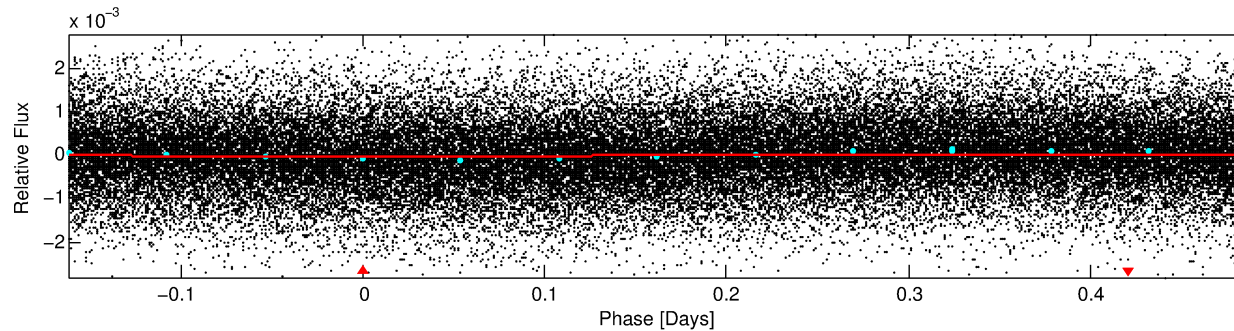
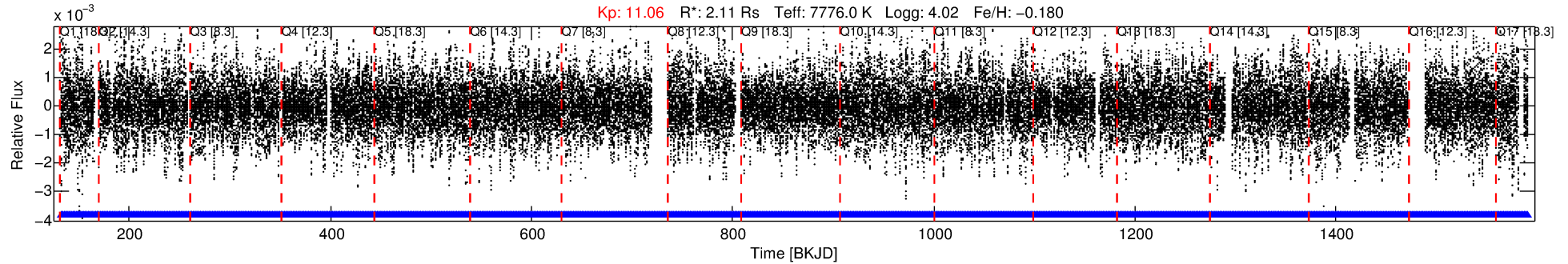
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010281360-01

No Significant Match Found

DV One-Page Summary

KIC: 10281360 Candidate: 1 of 1 Period: 0.648 d



DV Fit Results:

Period = 0.64817 [0.00001] d
Epoch = 132.0776 [0.0015] BKJD
Rp/R* = 0.0053 [0.0016]
a/R* = 1.04 [0.14]
b = 0.08 [22.30]
Seff = 47640.48 [20239.54]
Teq = 3767 [400] K
Rp = 1.23 [0.53] Re
a = 0.0175 [0.0046] AU
Ag = 0.74 [0.96] [-0.27 σ]
Teffp = 5411 [1673] K [0.96 σ]

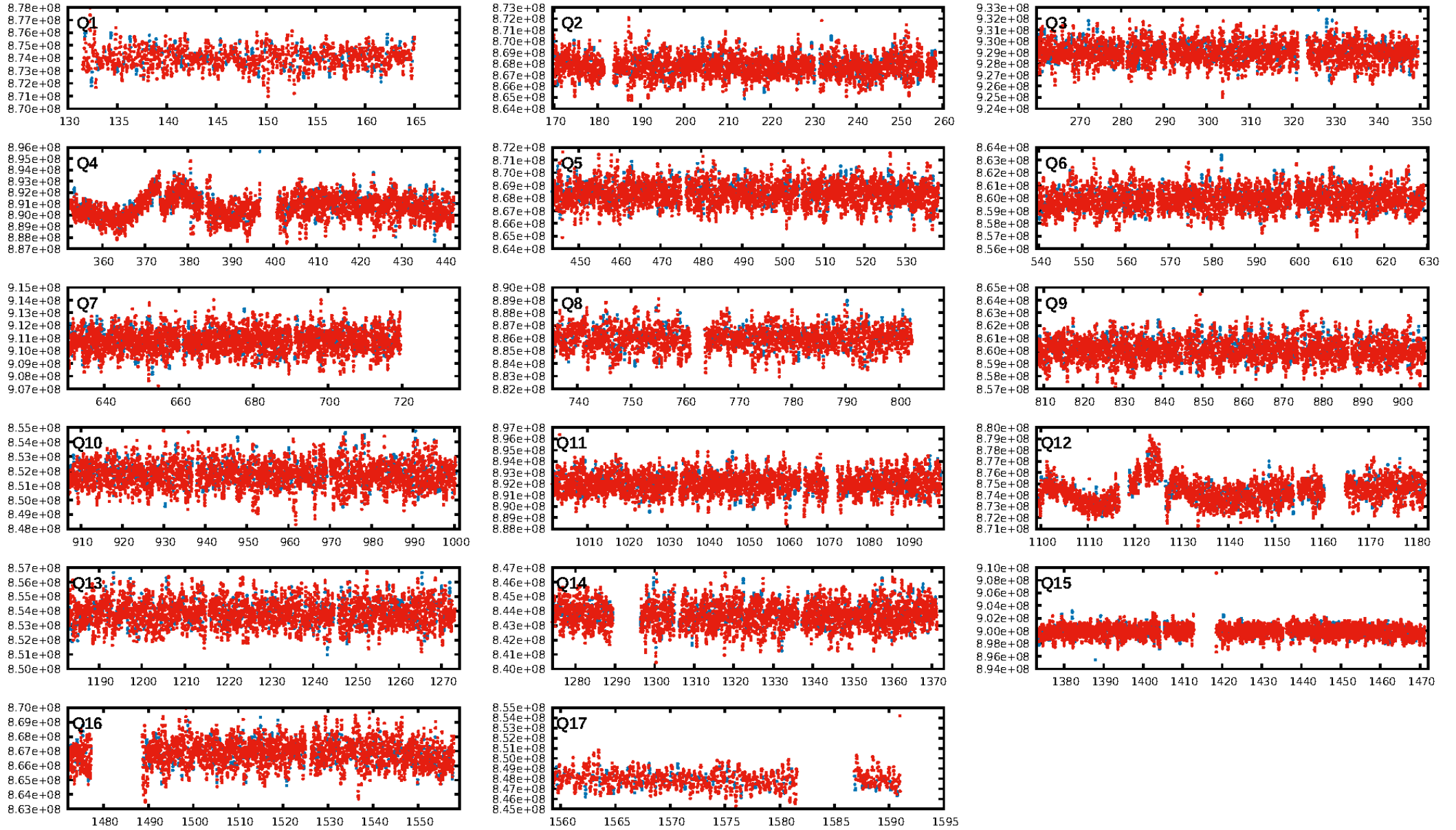
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1989/1989]
GhostDiagnostic-chr: 1.197
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.848 arcsec [2.01 σ]
KicOffset-rm: 1.707 arcsec [1.62 σ]
OotOffset-st: 3/3/3/3 [12]
KicOffset-st: 3/3/3/3 [12]
DiffImageQuality-fgm: 0.42 [5/12]
DiffImageOverlap-fno: 1.00 [17/17]

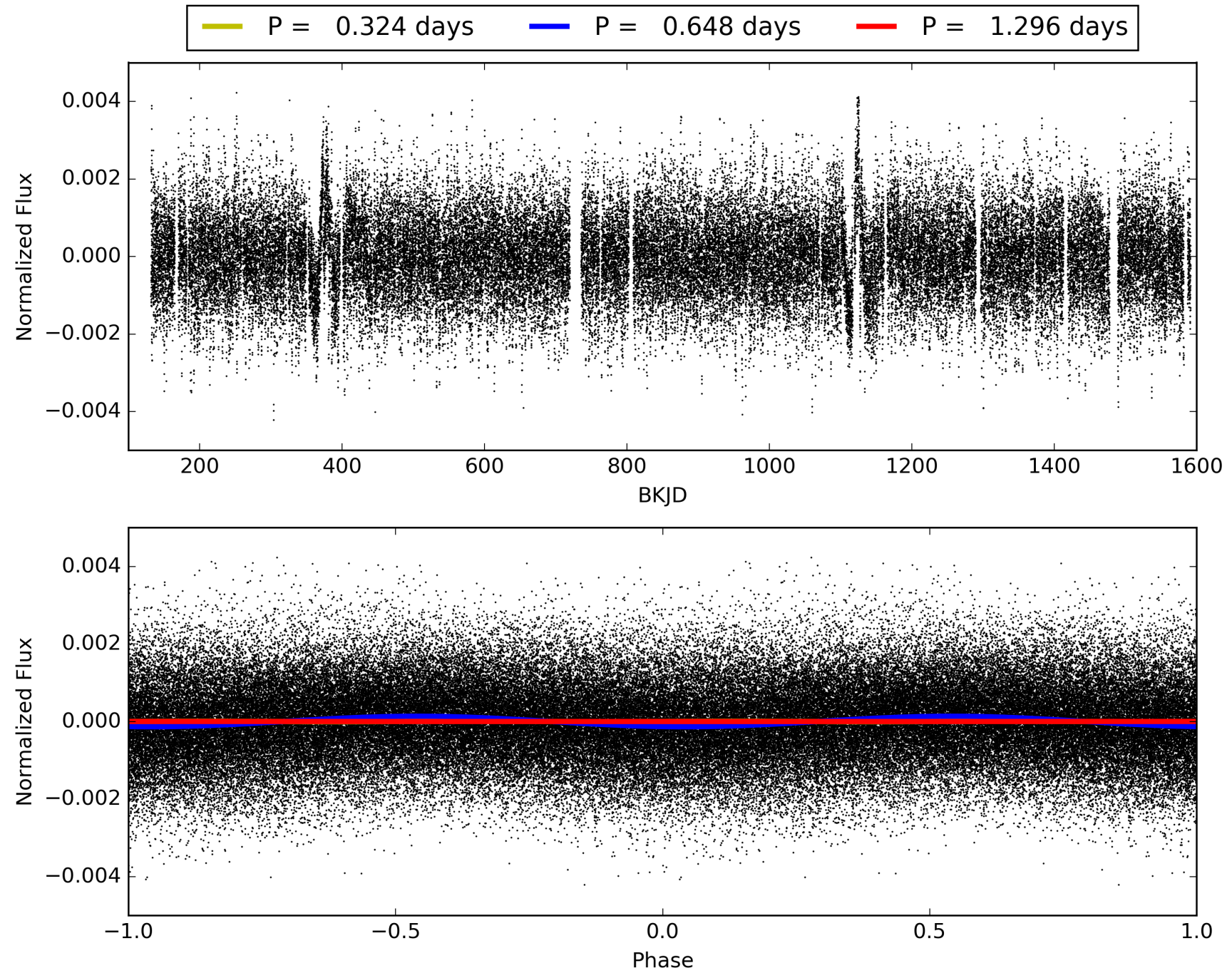
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:58:50 Z

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

TCE 010281360-01, PDC Light Curves

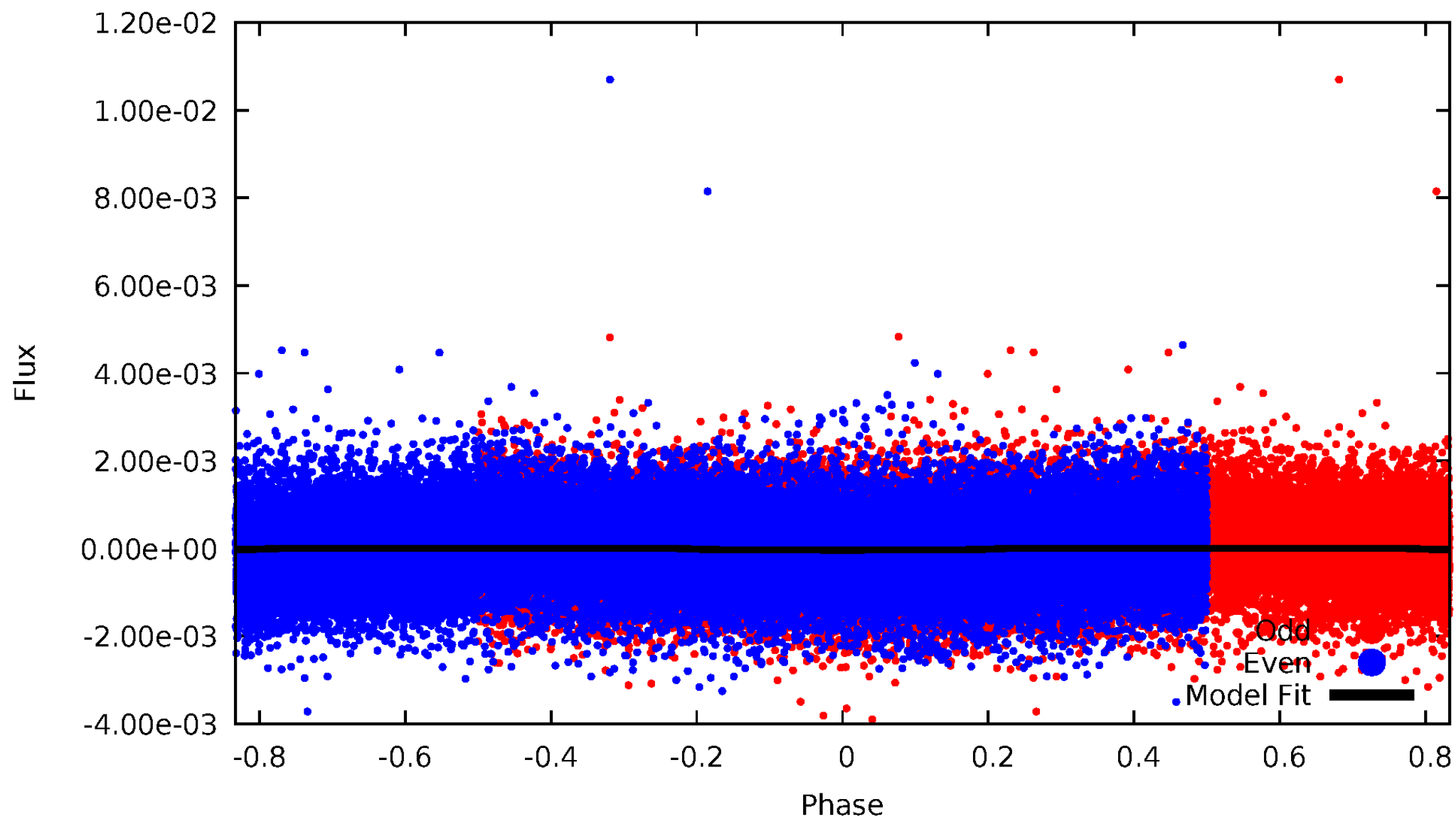


TCE 010281360-01



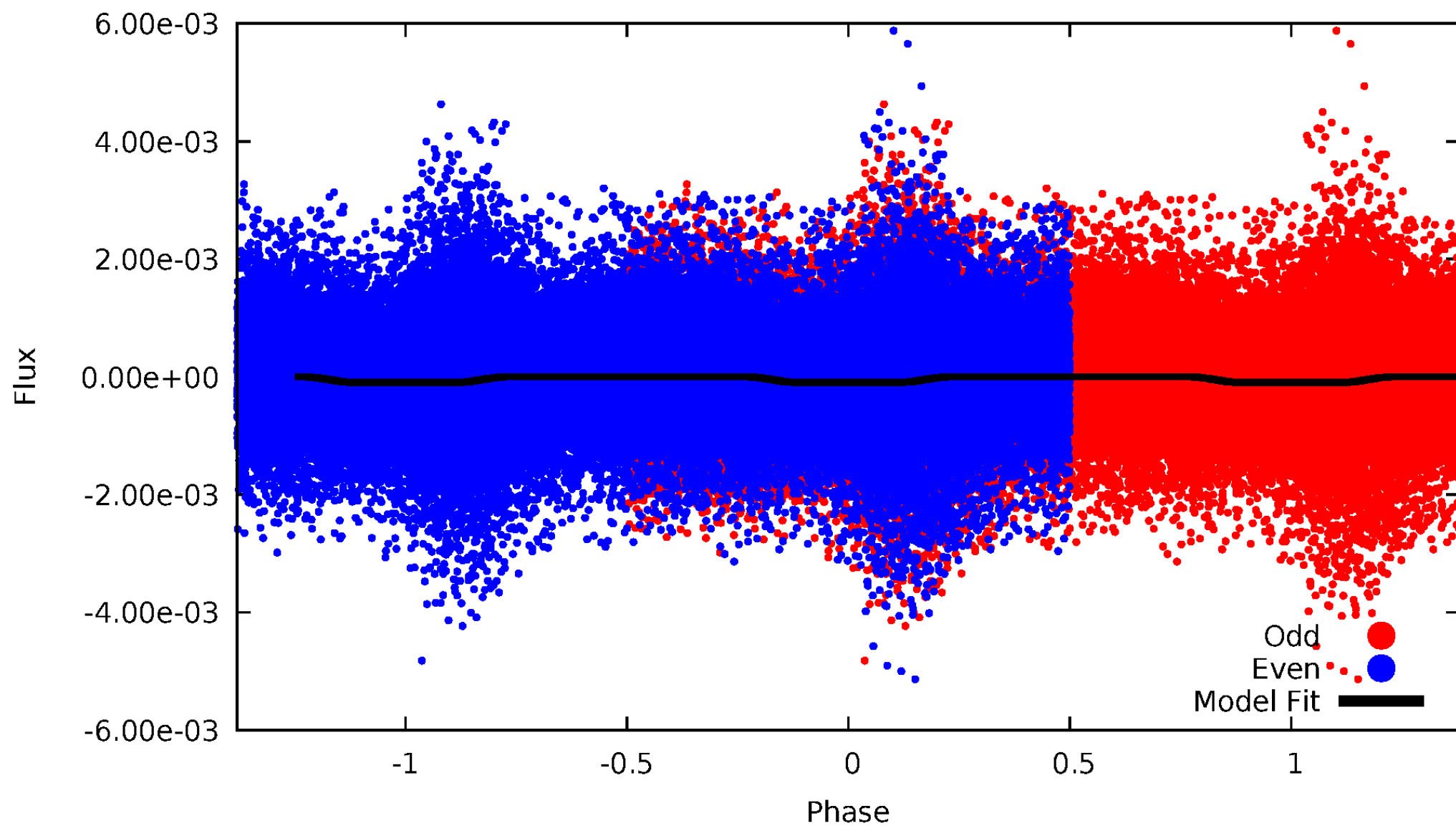
DV Odd/Even

TCE 010281360-01



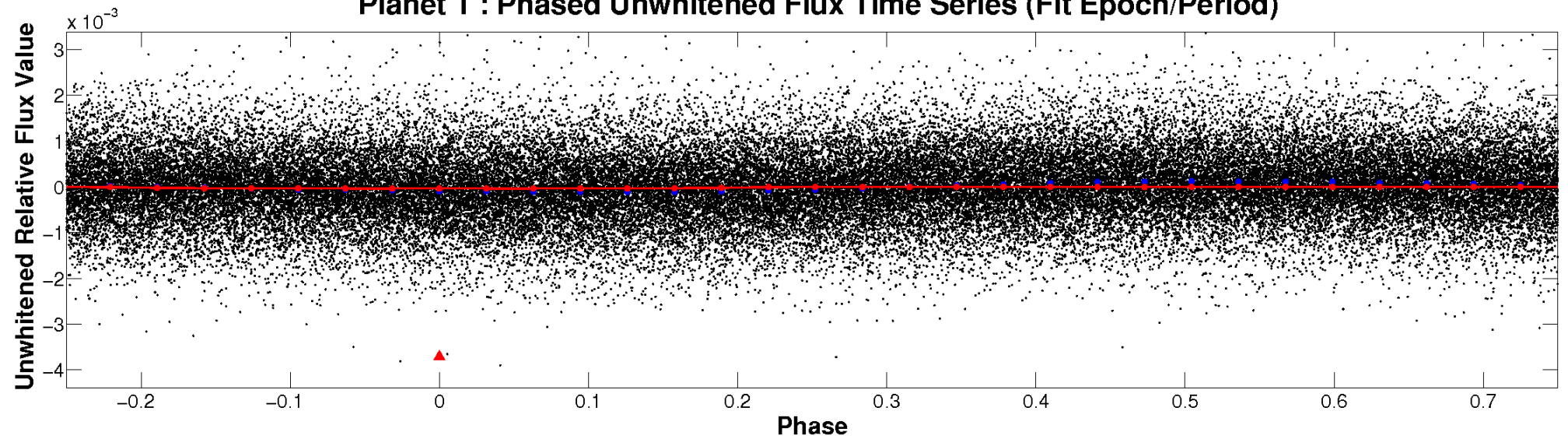
ALT Odd/Even

TCE 010281360-01

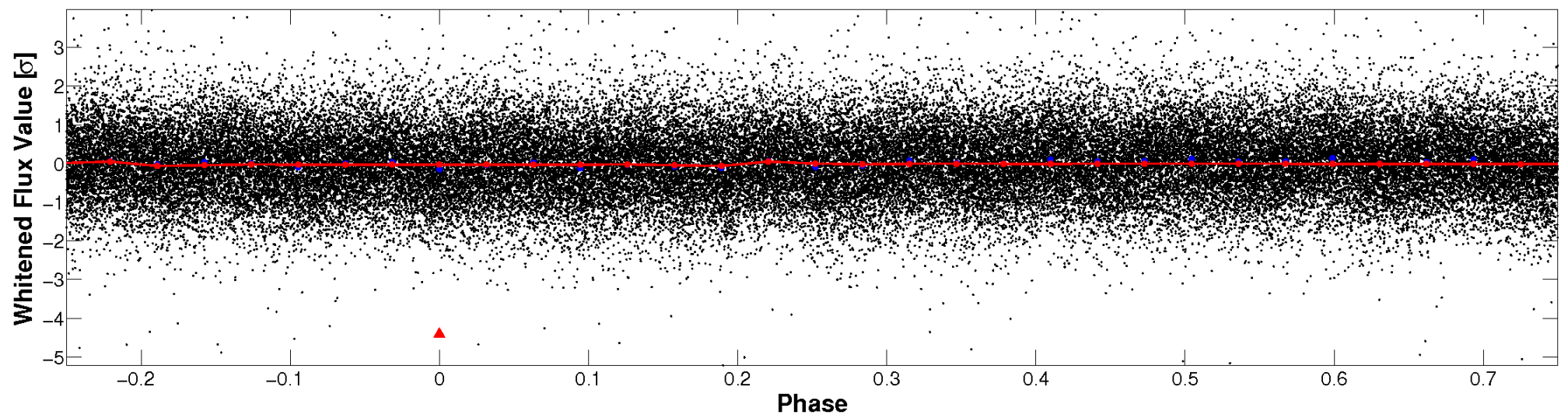


Non-Whitened Vs. Whitened Light Curve

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

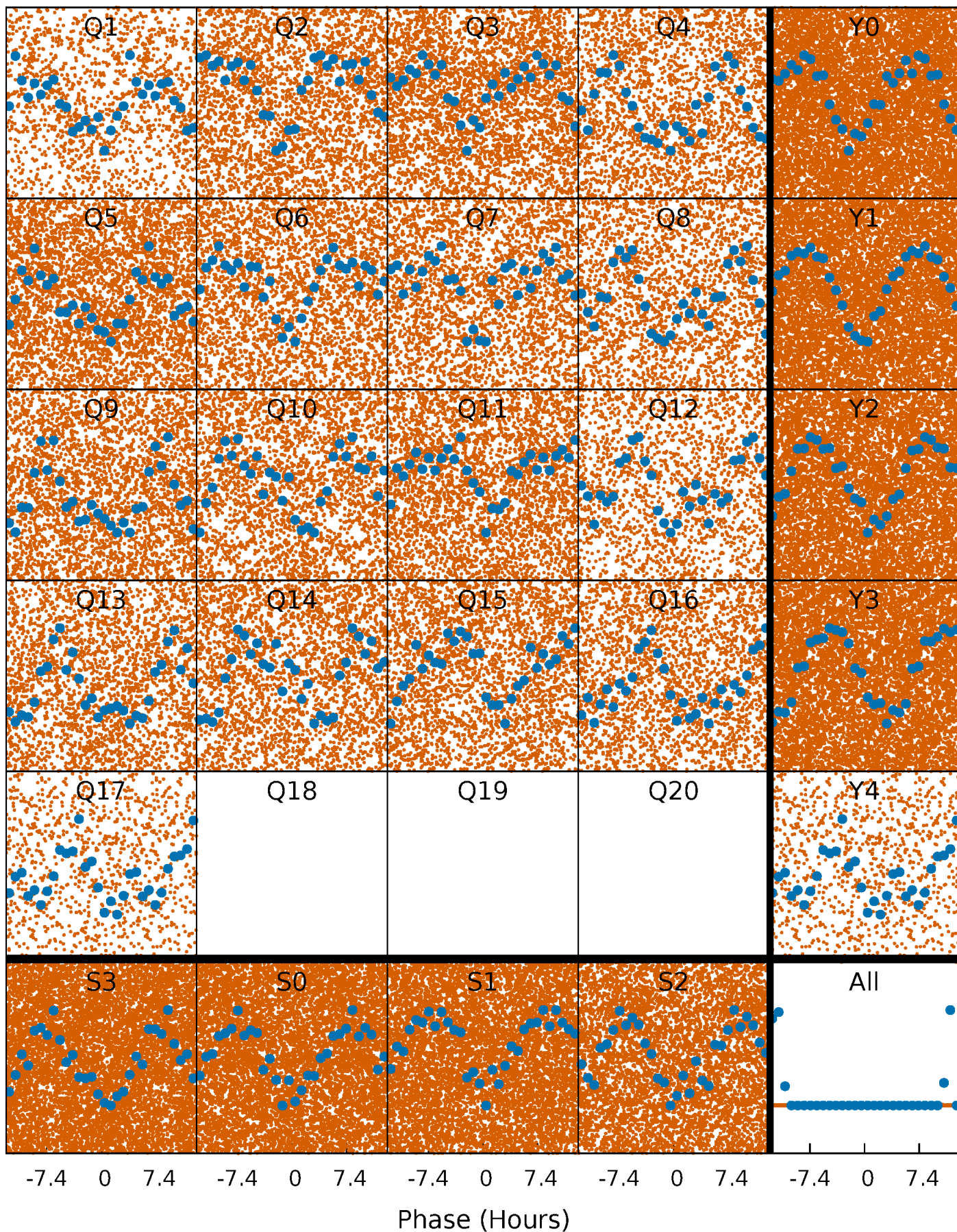


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



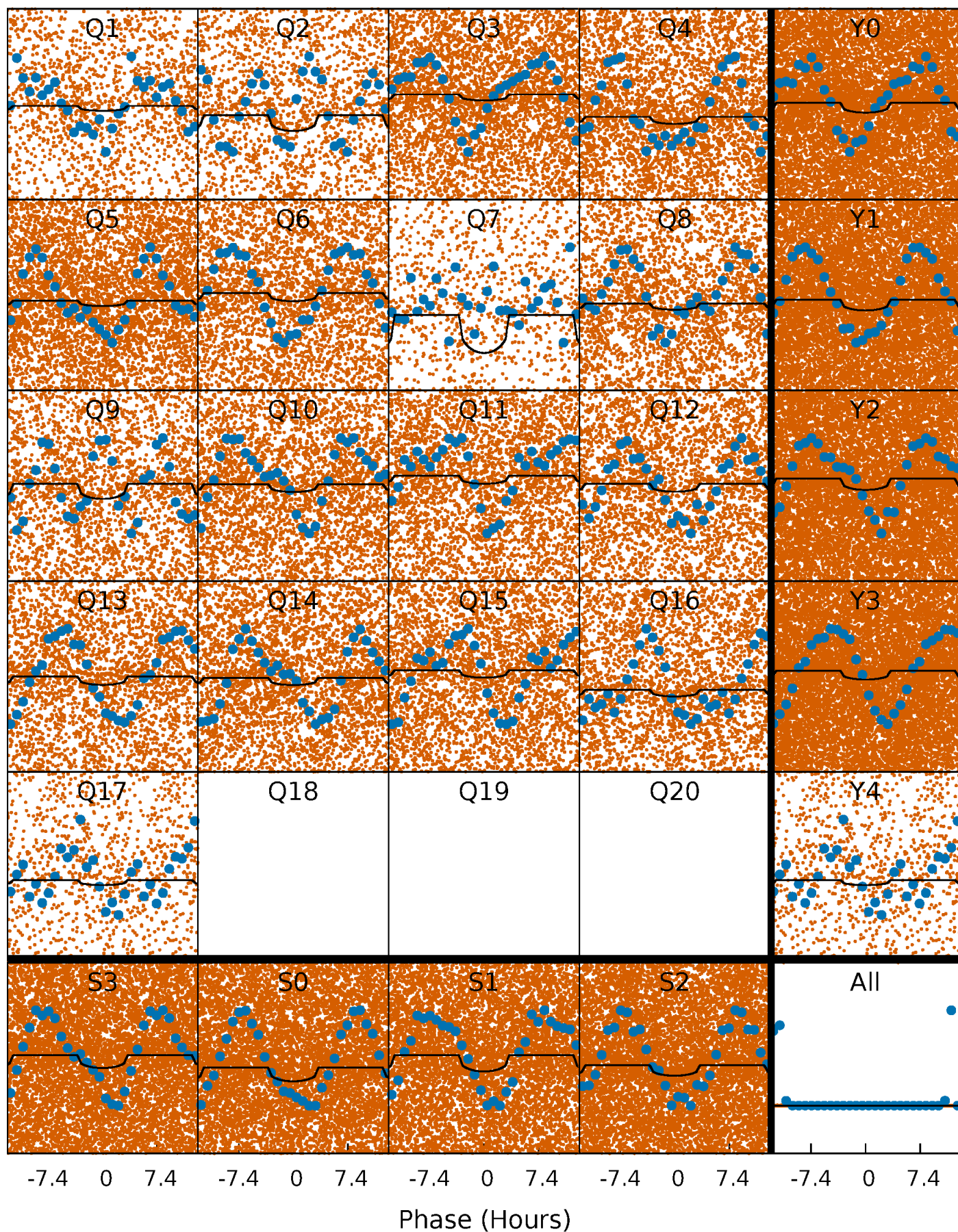
PDC Quarter-Phased Transit Curves

TCE 010281360-01 P= 0.648167 Days $T_0=132.077650$ (BKJD)



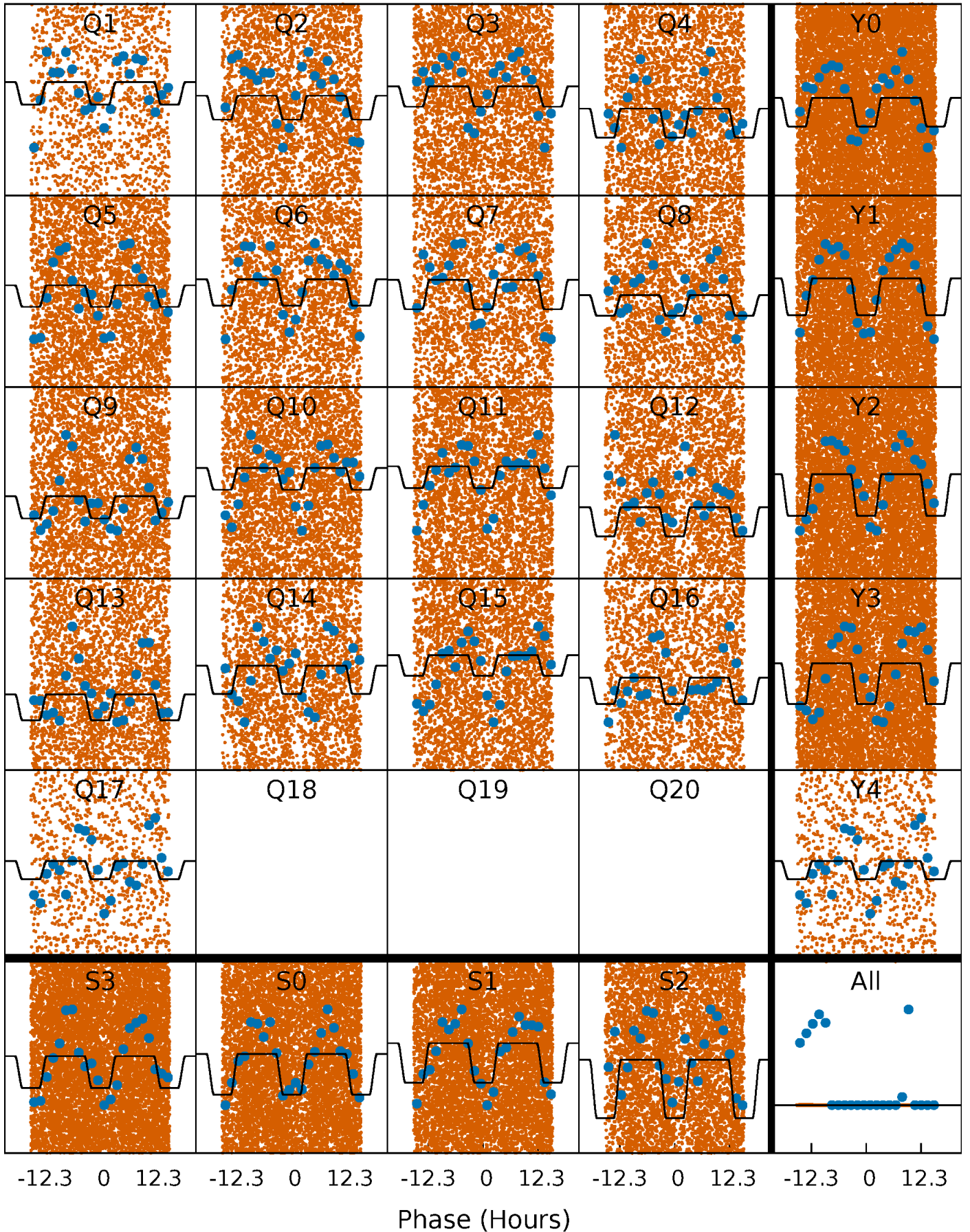
DV Quarter-Phased Transit Curves

TCE 010281360-01 P= 0.648167 Days $T_0=132.077650$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

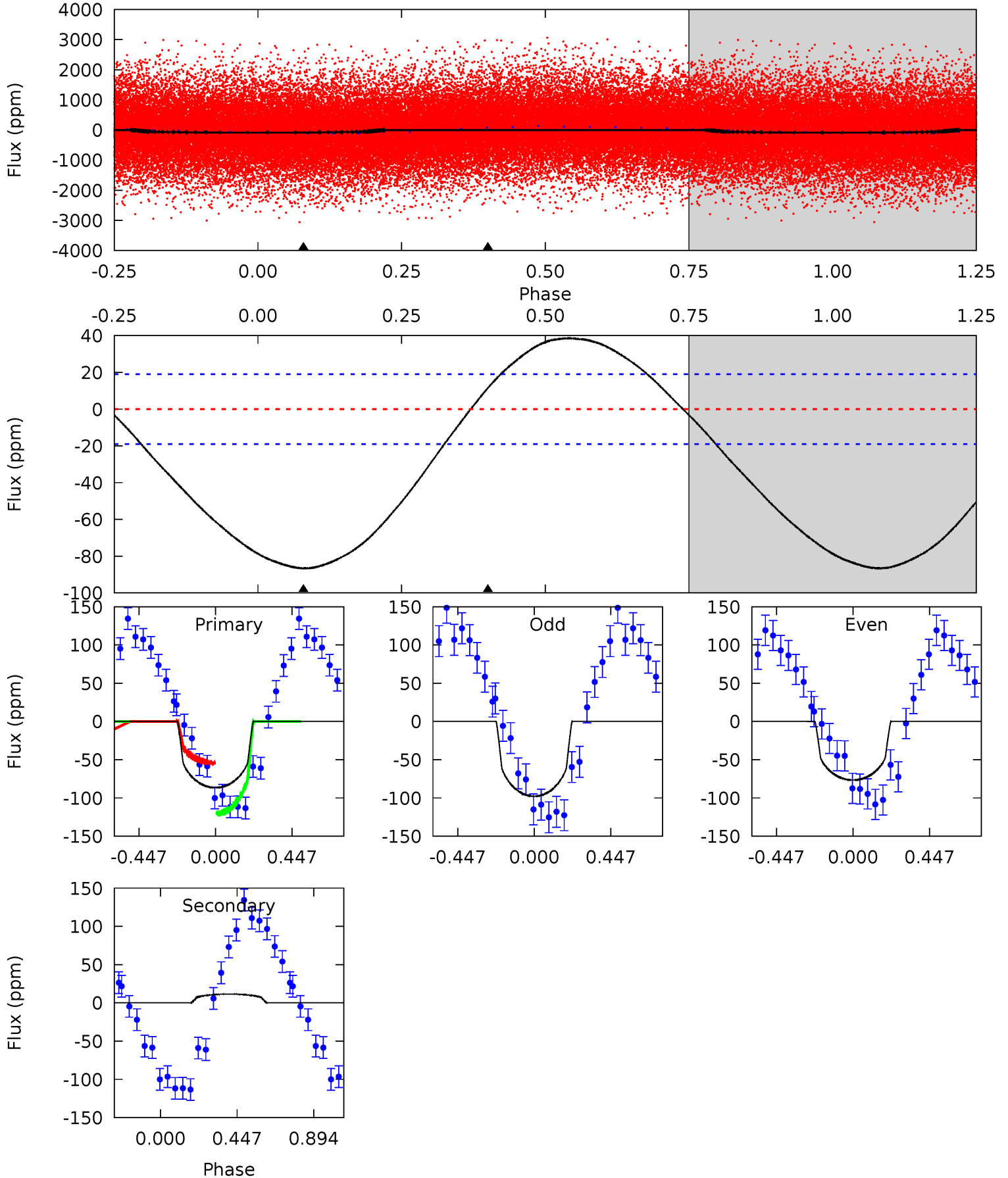
TCE 010281360-01 P= 0.648166 Days $T_0=132.075724$ (BKJD)



DV Model-Shift Uniqueness Test

010281360-01, P = 0.648167 Days, E = 131.429483 Days

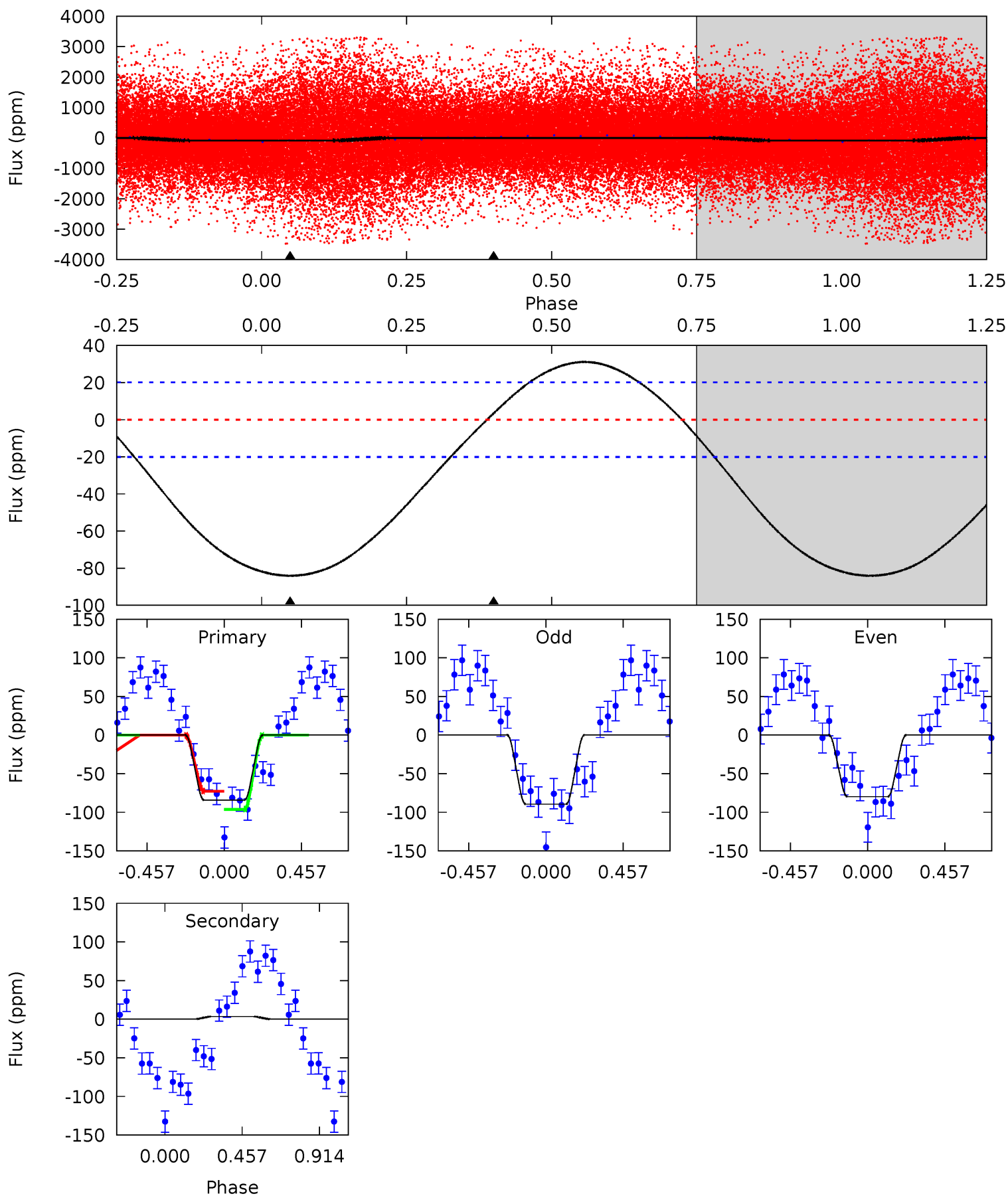
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.3	-2.56	0	0	4.24	0.76	2.09	19.3	19.3	-2.56	-2.56	2.35	1.03	0.31	7.28



Alt Model-Shift Uniqueness Test

010281360-01, P = 0.648166 Days, E = 131.427558 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	-0.73	0	0	4.23	0.74	2.00	17.7	17.7	-0.73	-0.73	1.02	0.95	0.27	2.33



Stellar Parameters For KIC 010281360

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7776^{+216}_{-325}	$4.019^{+0.216}_{-0.144}$	$-0.180^{+0.200}_{-0.350}$	$2.106^{+0.489}_{-0.652}$	$1.690^{+0.172}_{-0.319}$	$0.255^{+0.335}_{-0.110}$
	+3%/-4%	+5%/-4%	+111%/-194%	+23%/-31%	+10%/-19%	+131%/-43%
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 010281360-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	11 ± 4	$1.16^{+0.41}_{-0.34}$	5211^{+358}_{-412}	-6364^{+843}_{-1359}	$-1.302^{+0.689}_{-1.835}$
Alt.	3 ± 5	$2.13^{+0.54}_{-0.47}$	5215^{+402}_{-423}	-4703^{+495}_{-446}	$-0.110^{+0.150}_{-0.224}$

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

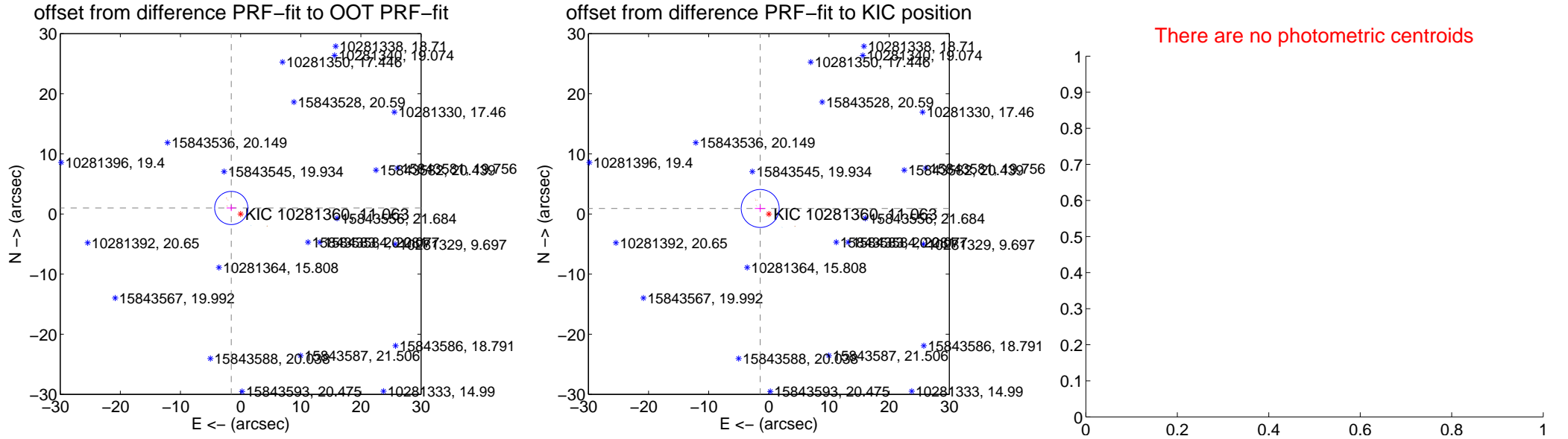
DV Centroid Data

Supplemental centroid analysis for 010281360-01. **Kepler magnitude: 11.06.** Transit SNR 7.35

There are 5 quarters with good PRF difference image offsets

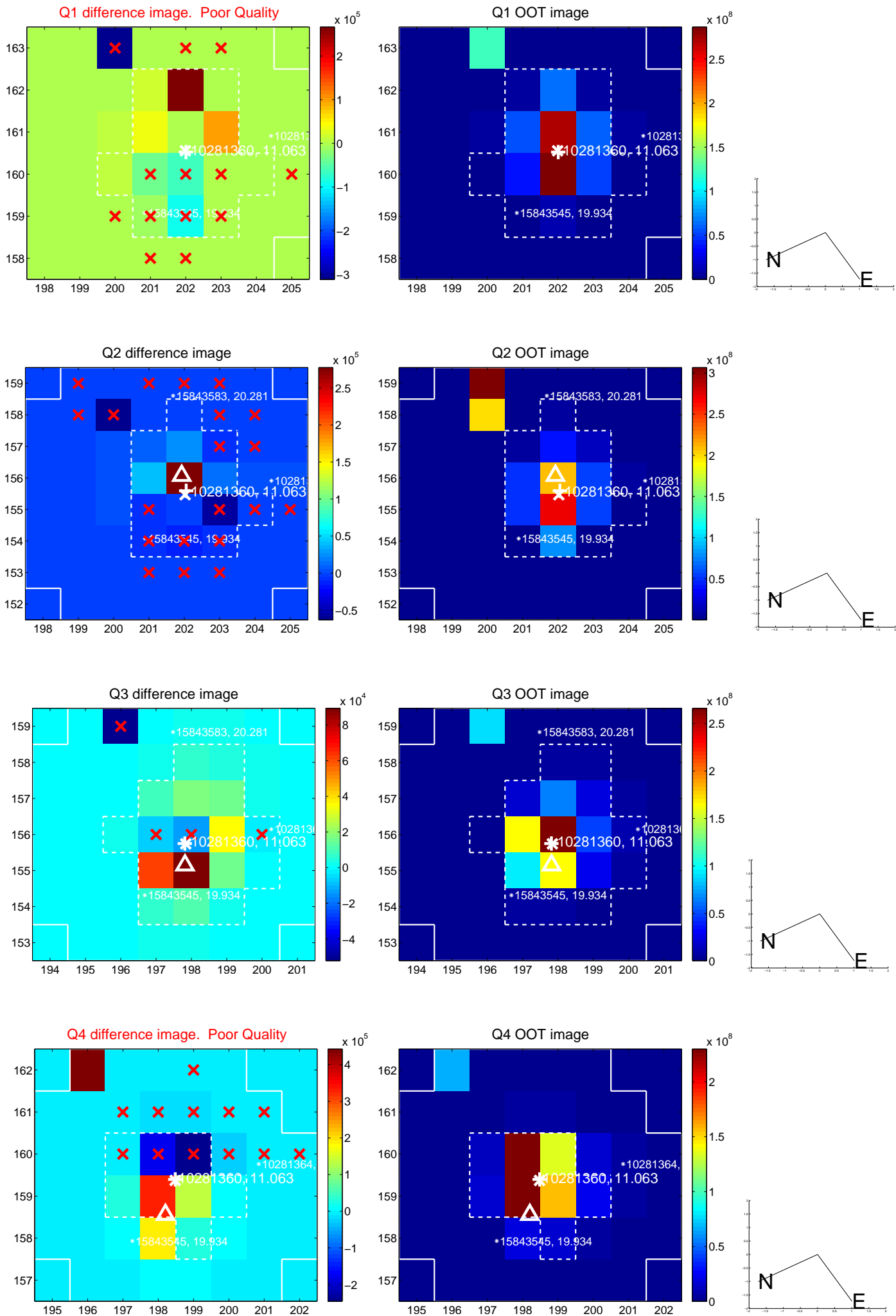
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.848 ± 0.920	2.01	1.554 ± 0.777	1.000 ± 0.523
PRF-fit source offset from KIC position	1.707 ± 1.053	1.62	1.440 ± 0.880	0.917 ± 0.601
photometric centroid source offset	—	—	—	—

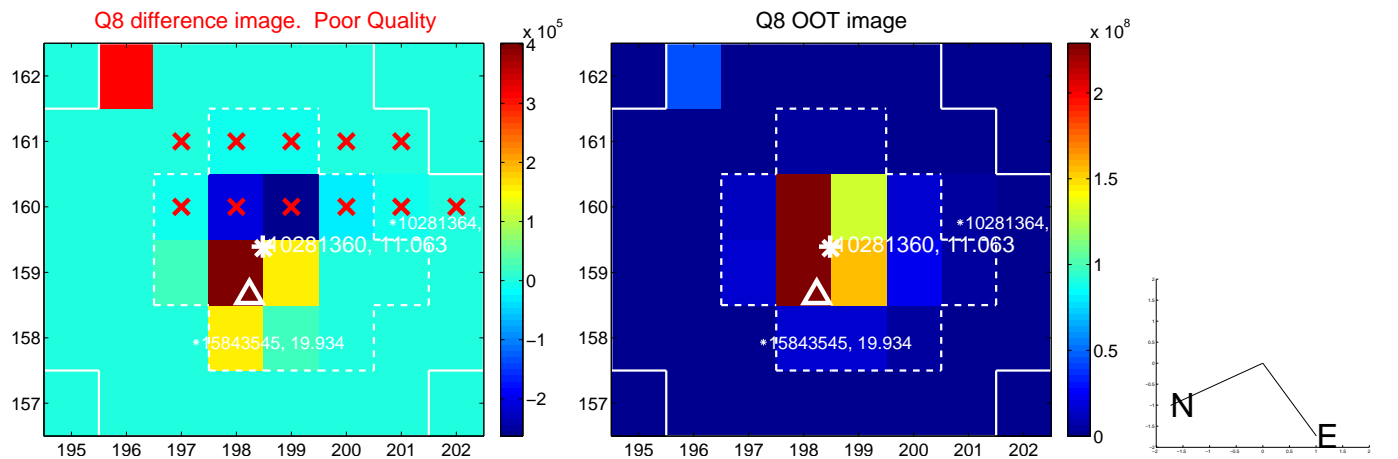
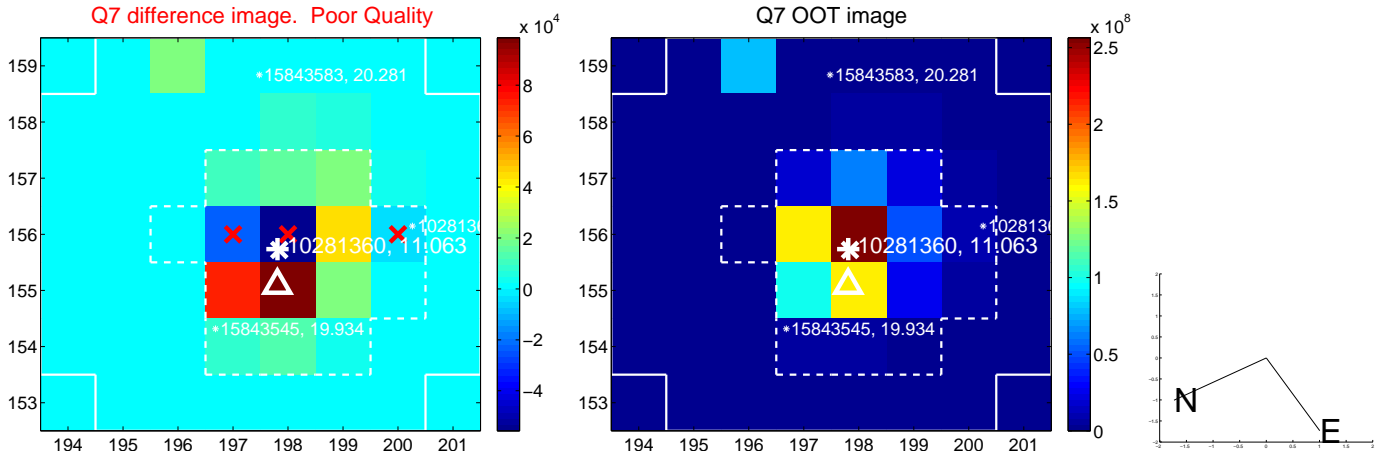
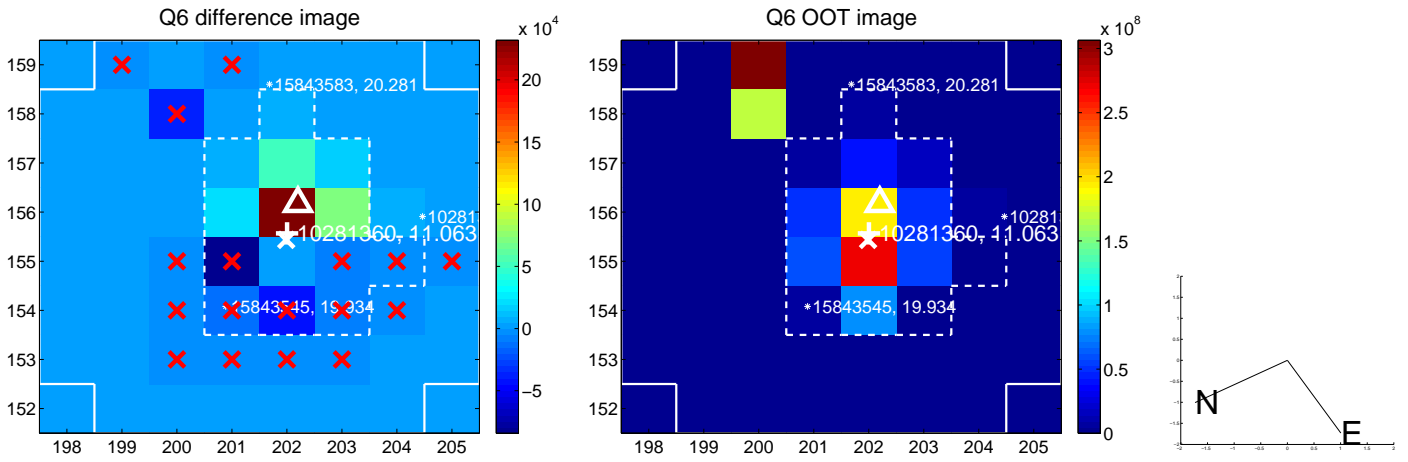
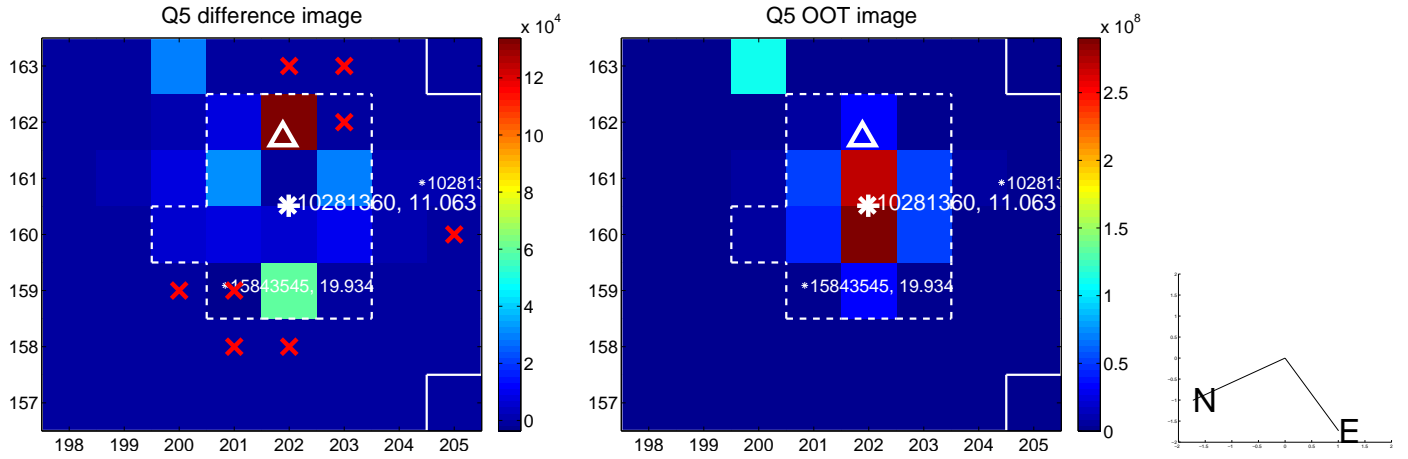


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

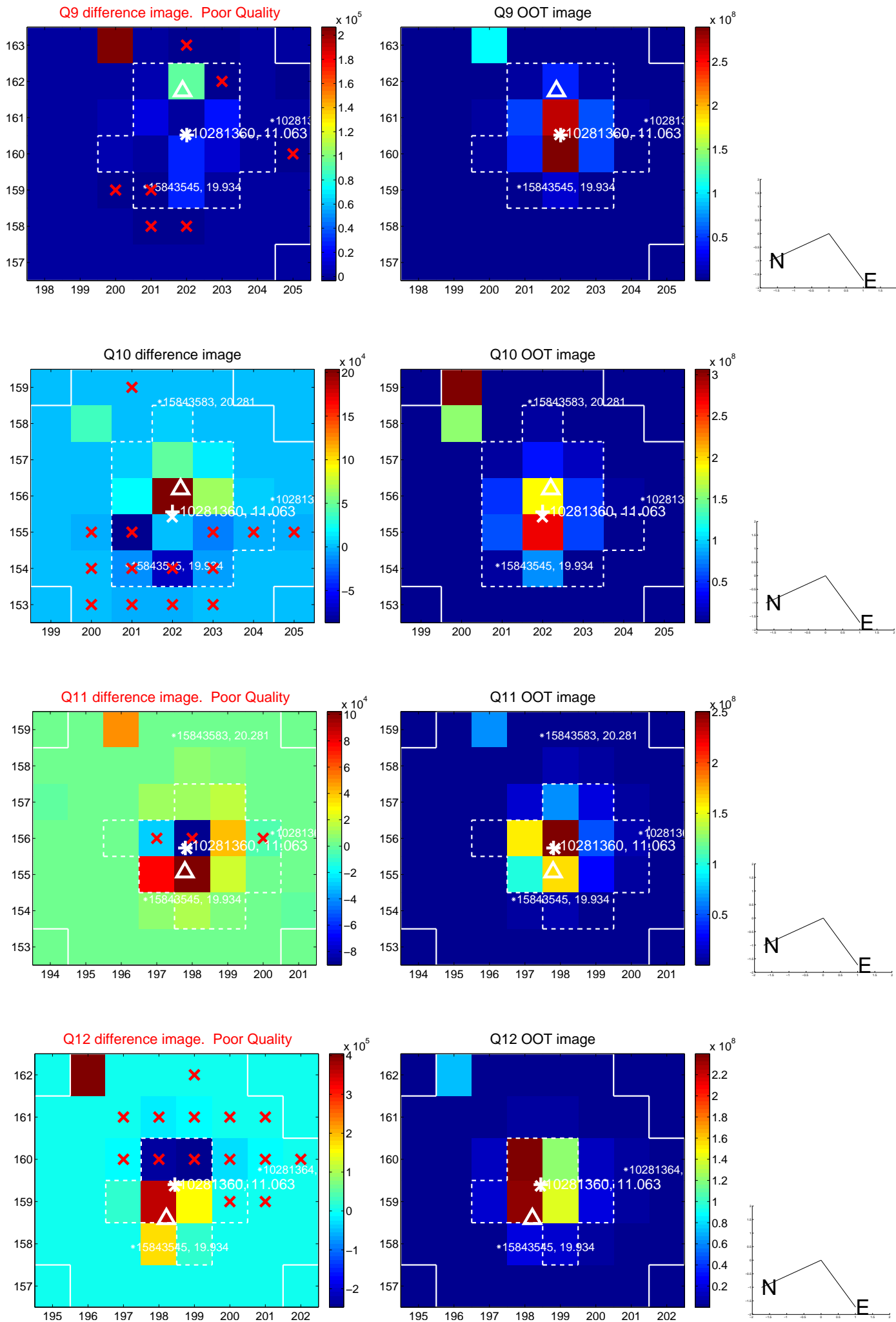
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



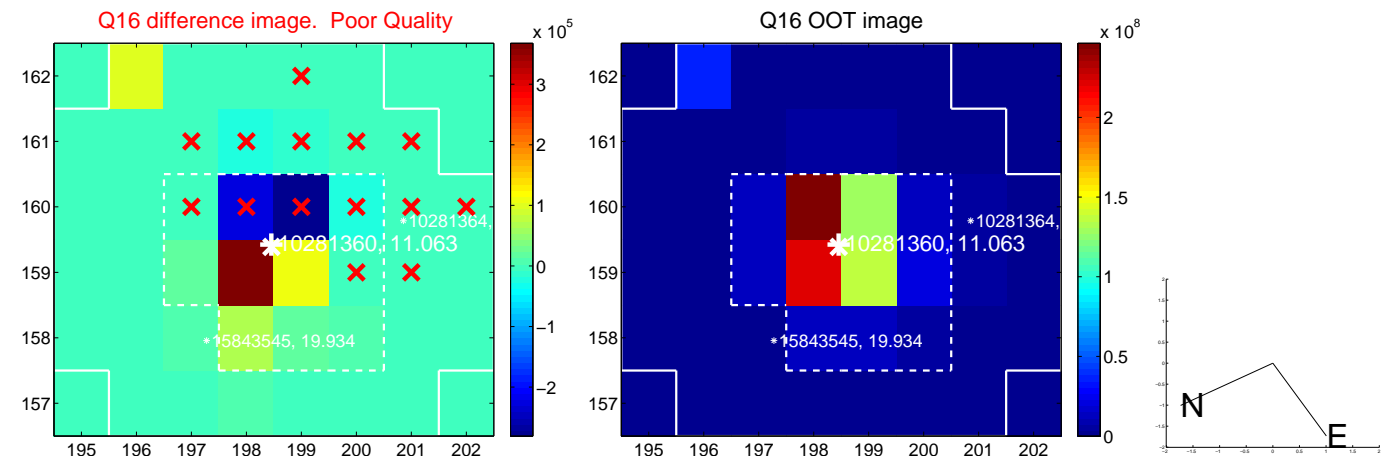
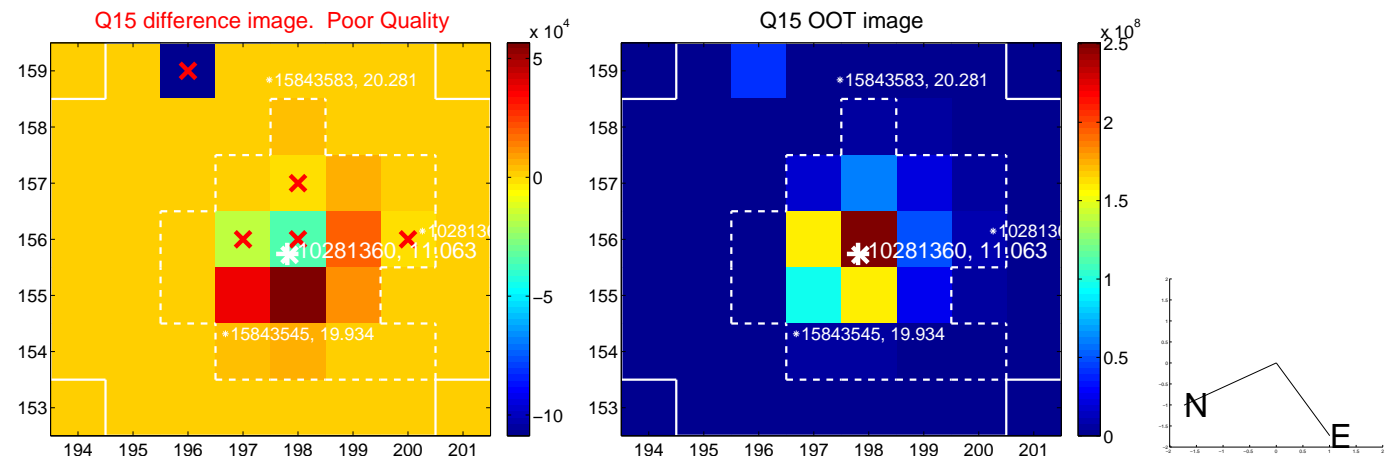
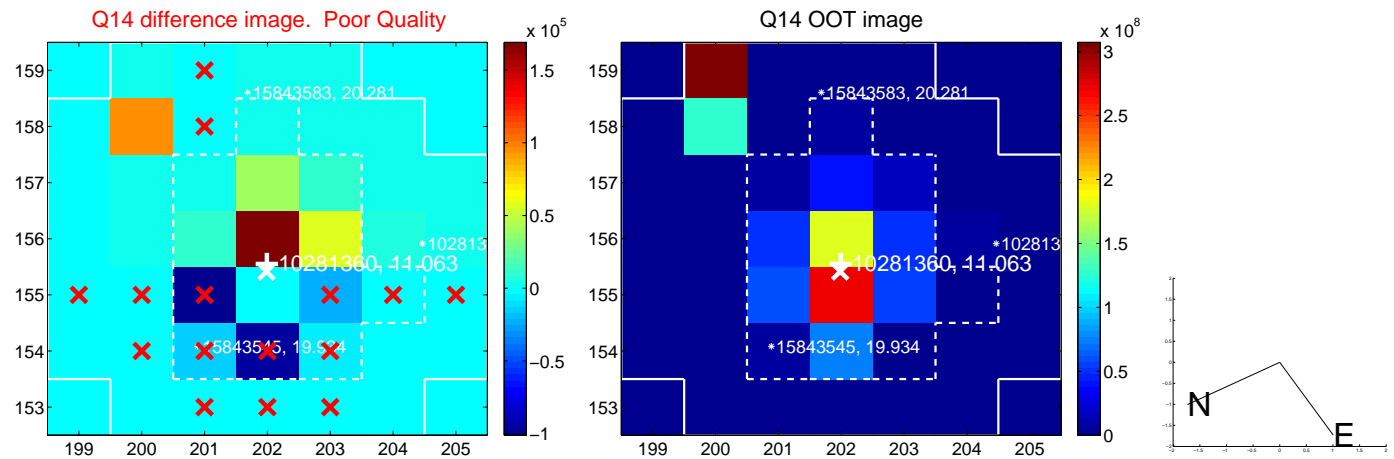
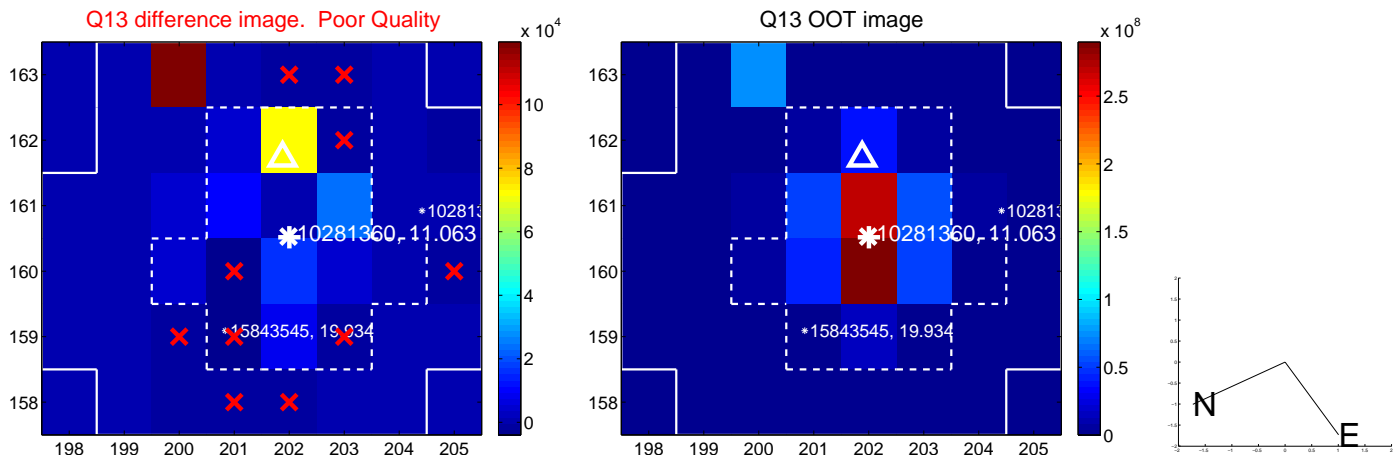
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



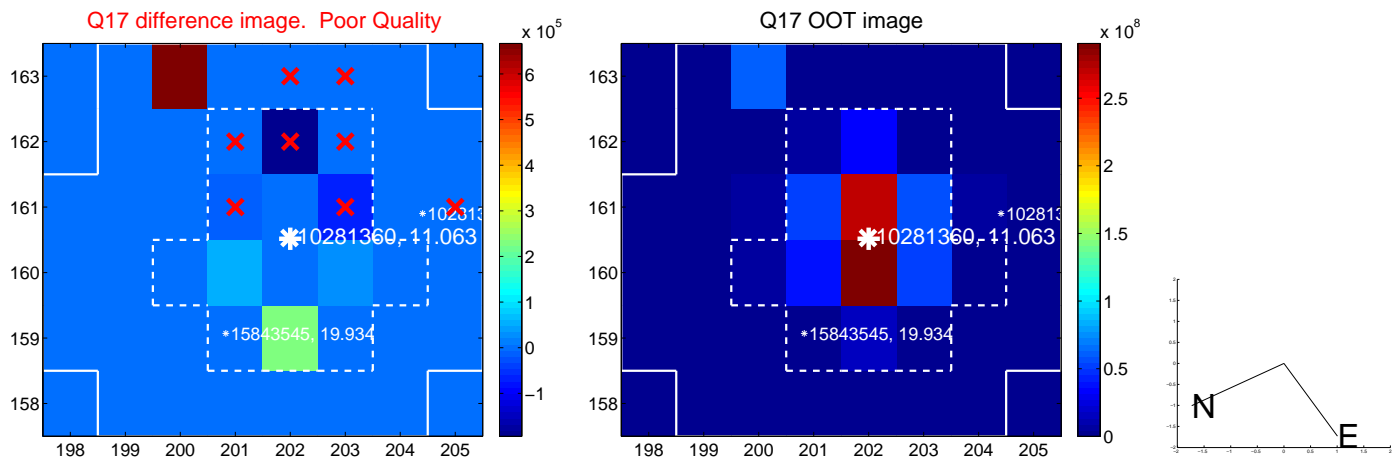
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folded centroid time series figure for this object.

UKIRT Image

Declination

