

KIC 005041569

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})
005041569-01	OBS	2795.01	2.535455	132.215959	192.4	5.955	15.3	16.7	1.10	6268	1.81	1127.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005041569-01	OBS	FP	0.02	0	1	0	0	MOD_SEC_DV—CENT_FEW_DIFFS

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 005041569-01

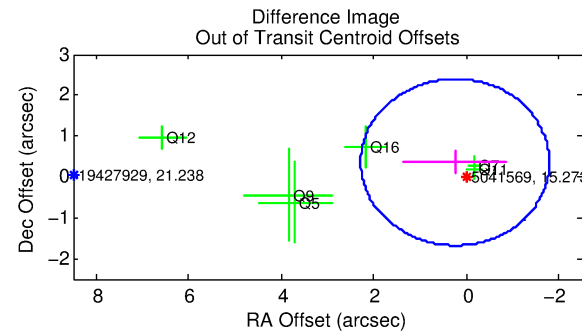
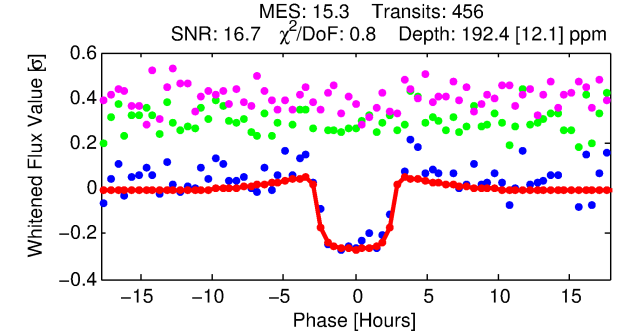
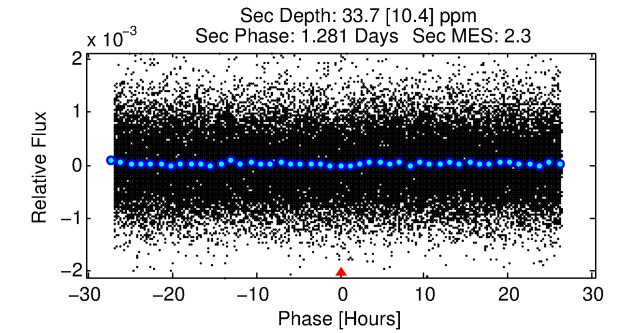
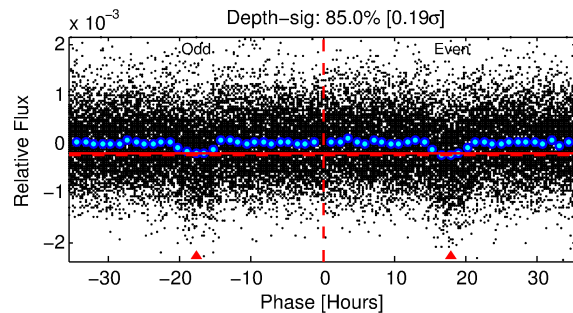
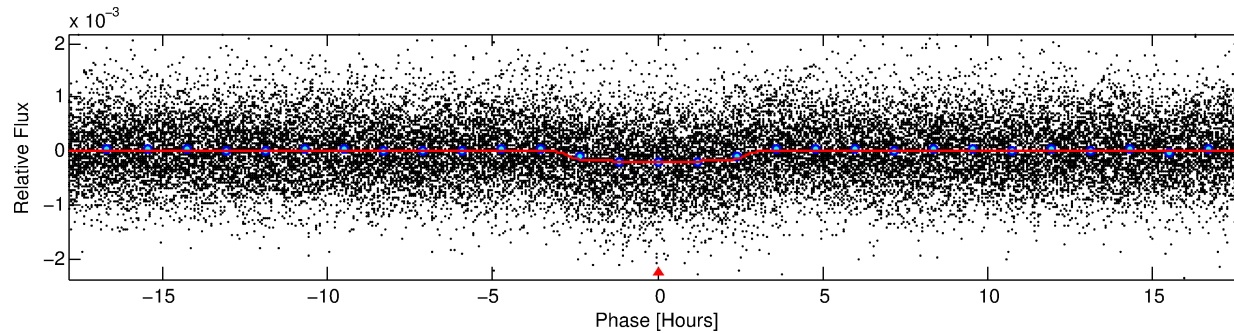
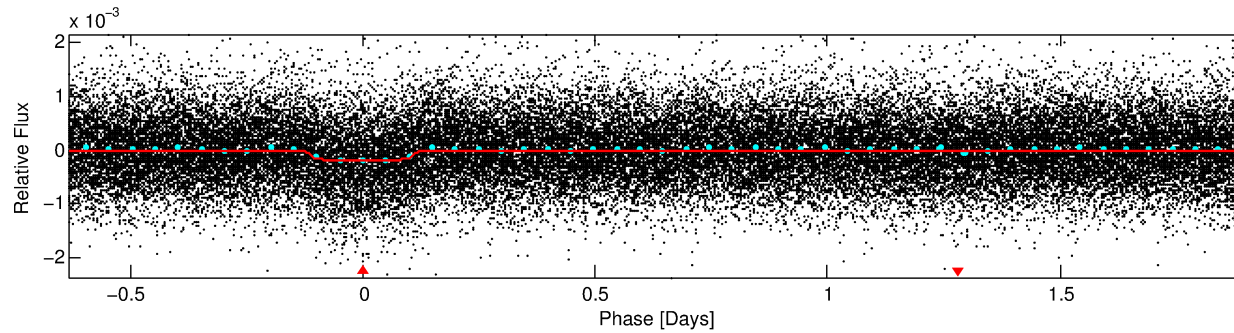
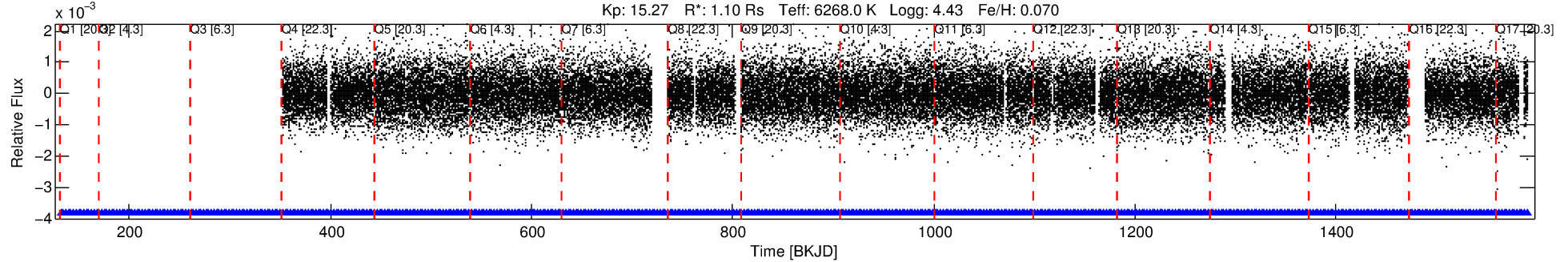
No Significant Match Found

DV One-Page Summary

KIC: 5041569 Candidate: 1 of 1 Period: 2.535 d

KOI: K02795.01 Corr: 0.898

Kp: 15.27 R*: 1.10 Rs Teff: 6268.0 K Logg: 4.43 Fe/H: 0.070



DV Fit Results:

Period = 2.53545 [0.00002] d
Epoch = 132.2160 [0.0039] BKJD
Rp/R* = 0.0151 [0.0017]
a/R* = 1.74 [0.69]
b = 0.91 [0.11]
Seff = 1127.88 [523.18]
Teff = 1478 [171] K
Rp = 1.81 [0.66] Re
a = 0.0385 [0.0114] AU
Ag = 8.39 [4.85] [1.52σ]
Teffp = 3889 [406] K [5.48σ]

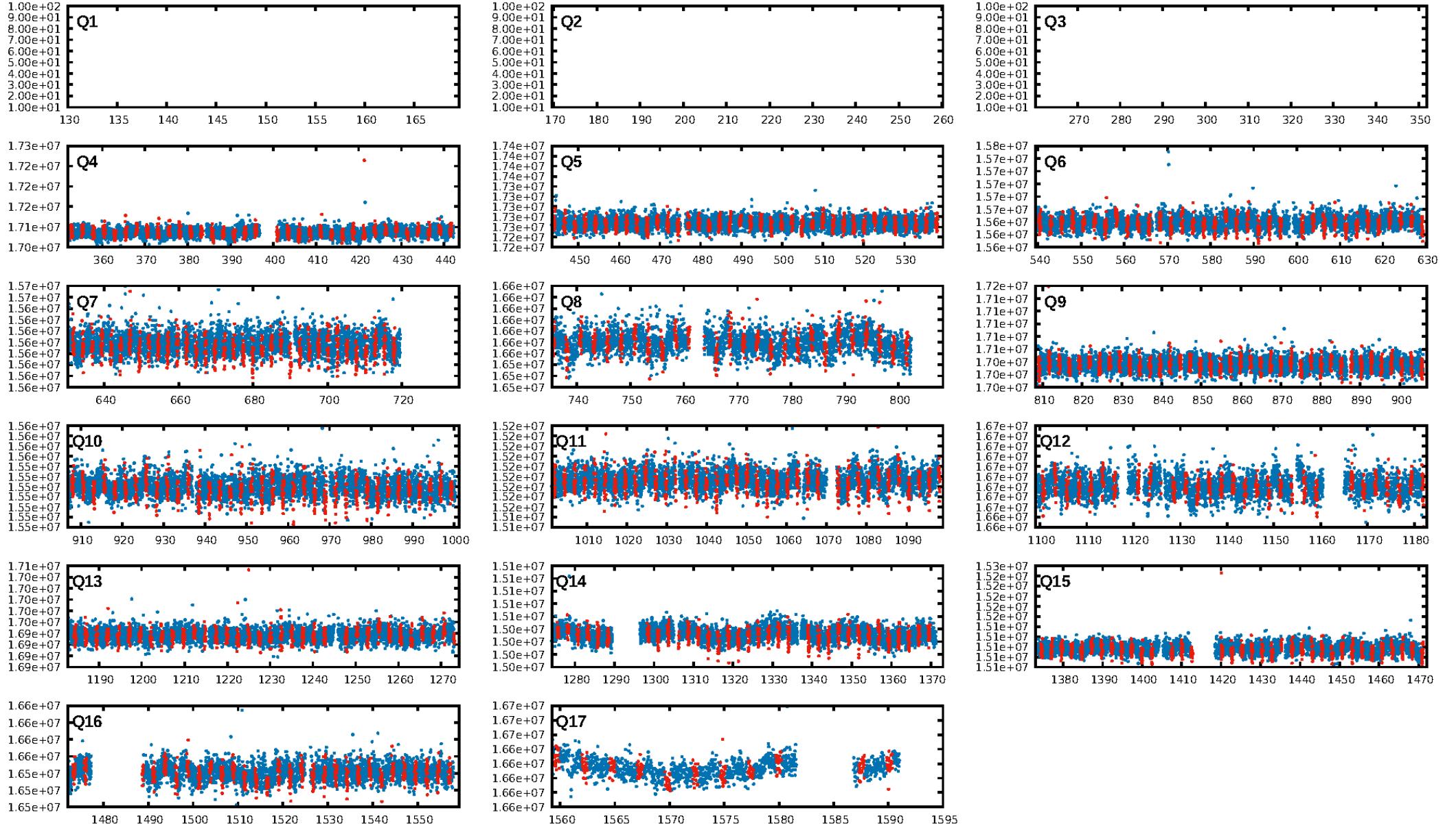
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.91e-46
RollingBand-fgt: 1.00 [445/445]
GhostDiagnostic-chr: -0.6507
Centroid-sig: 0.0%
Centroid-so: 5.887 arcsec [9.50σ]
OotOffset-rm: 0.432 arcsec [0.64σ]
KicOffset-rm: 0.446 arcsec [0.53σ]
OotOffset-st: 0/2/2/2 [6]
KicOffset-st: 0/2/2/2 [6]
DiffImageQuality-fgm: 0.00 [0/6]
DiffImageOverlap-fno: 1.00 [14/14]

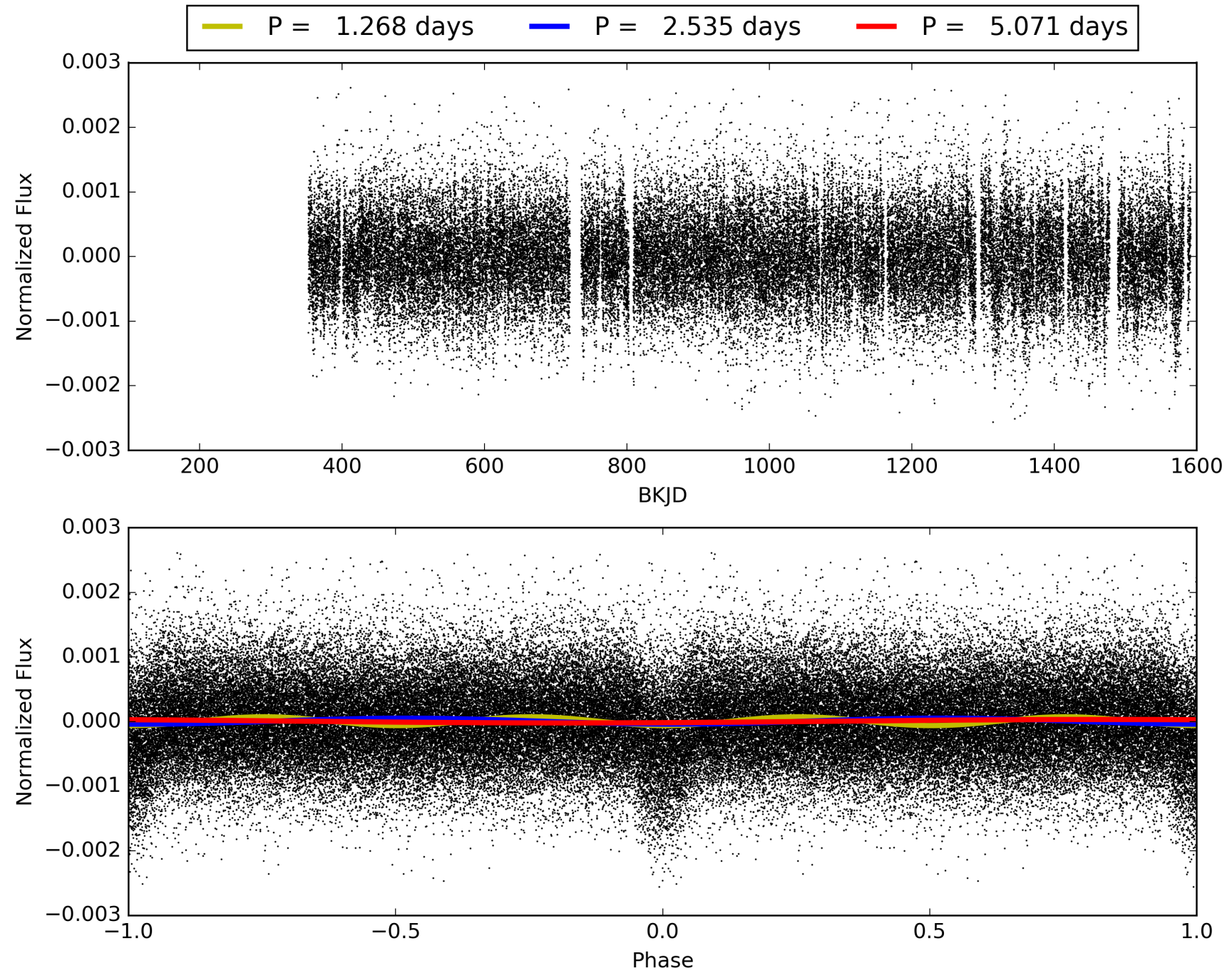
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:06:40 Z

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

TCE 005041569-01, PDC Light Curves

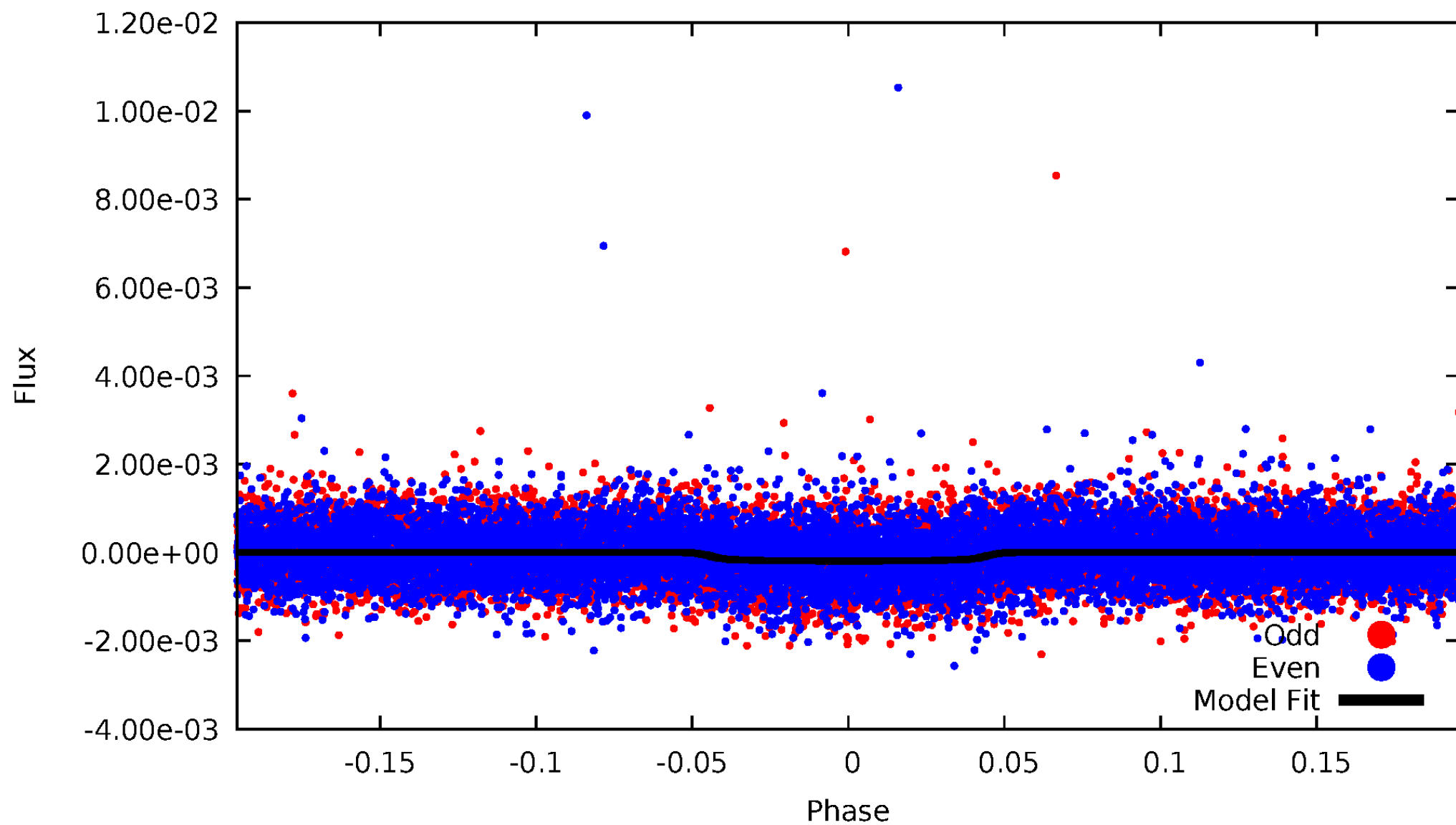


TCE 005041569-01



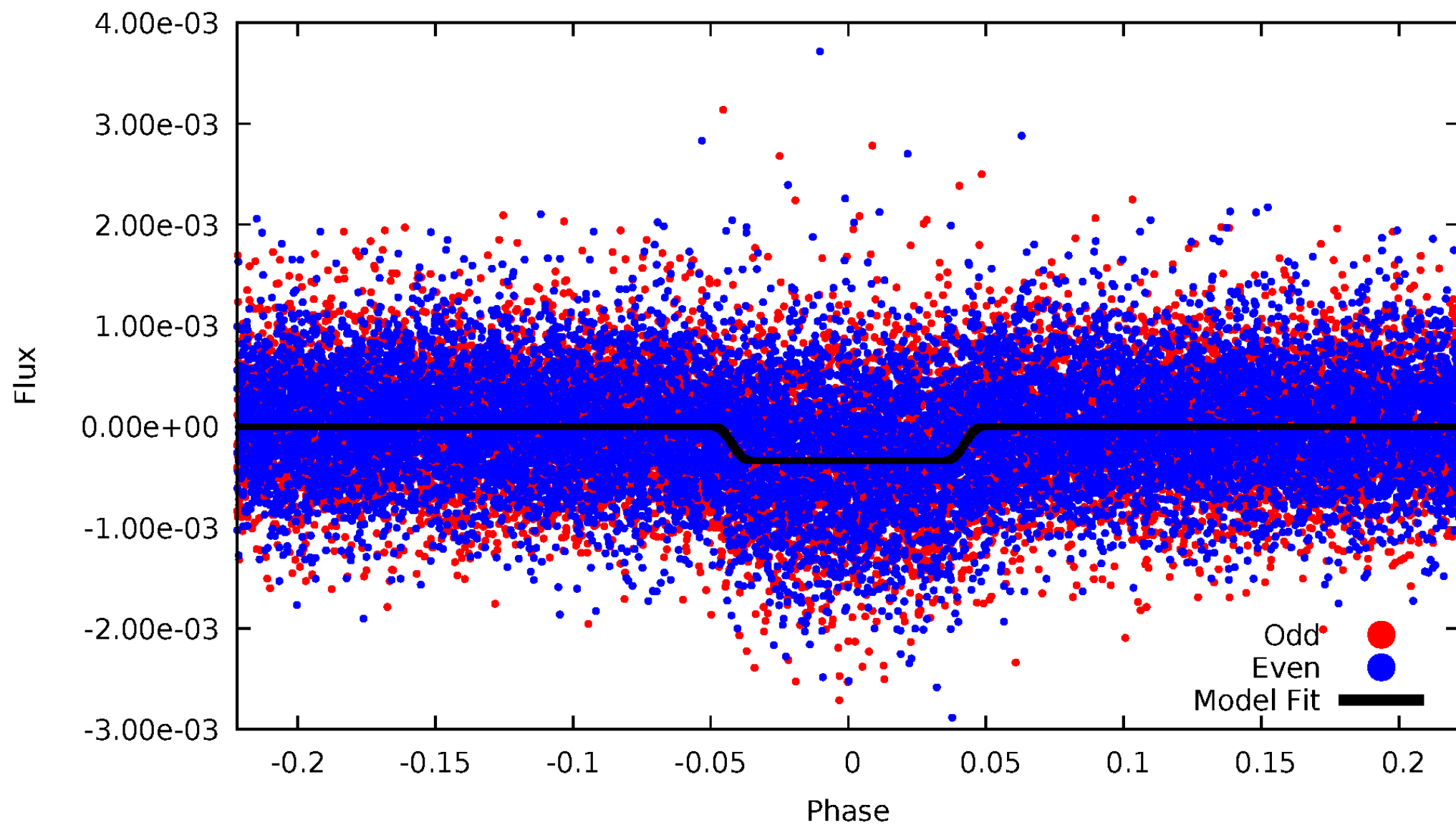
DV Odd/Even

TCE 005041569-01



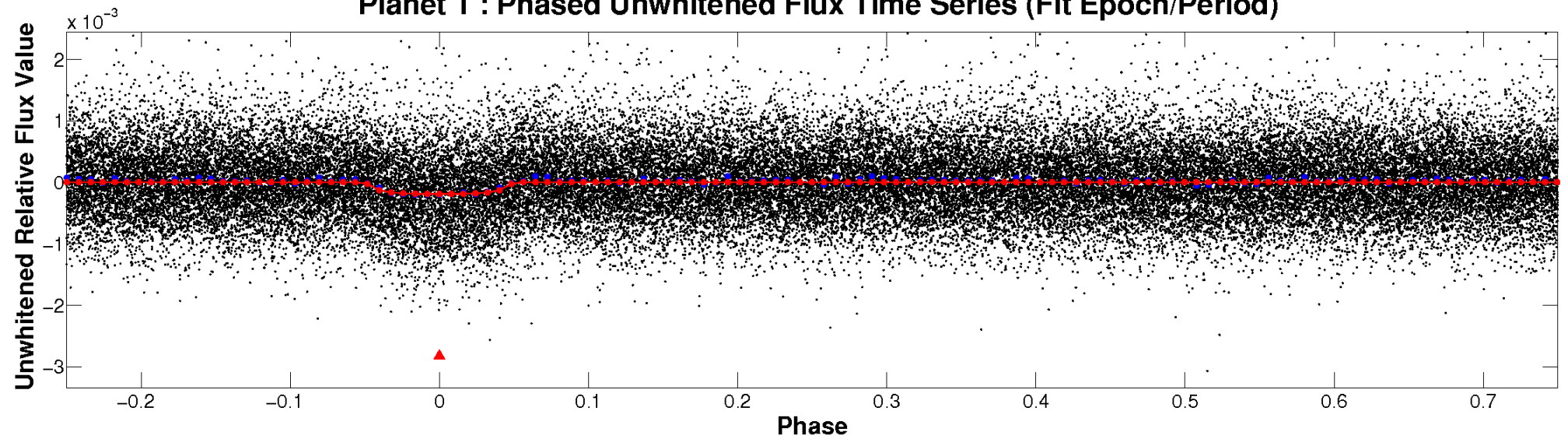
ALT Odd/Even

TCE 005041569-01

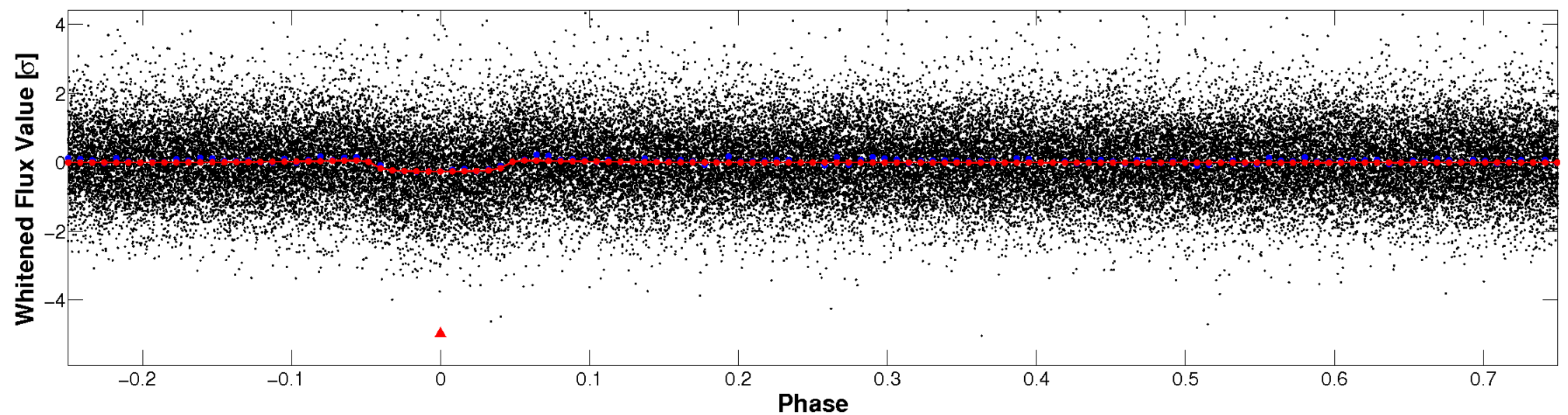


Non-Whitened Vs. Whitened Light Curve

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

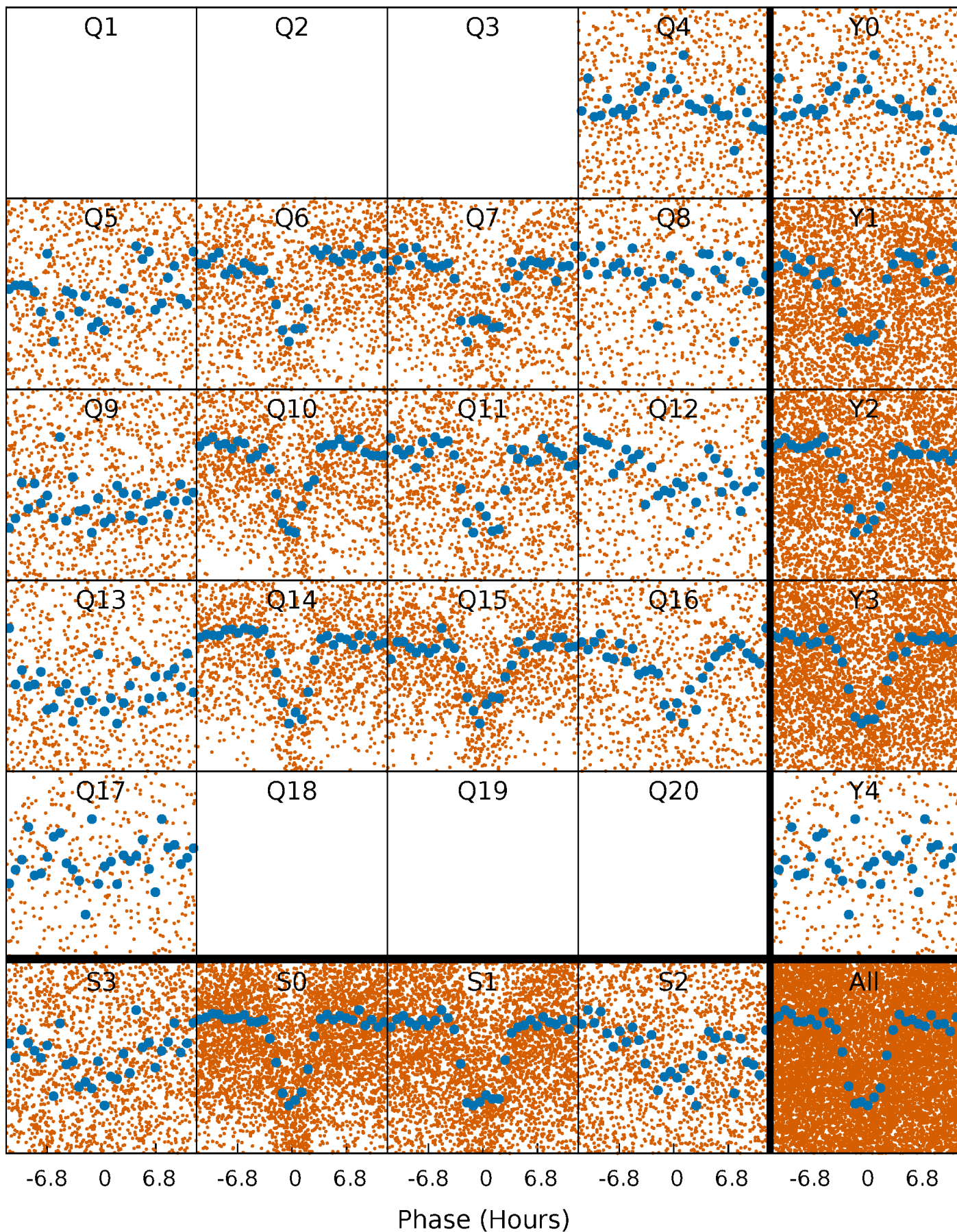


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



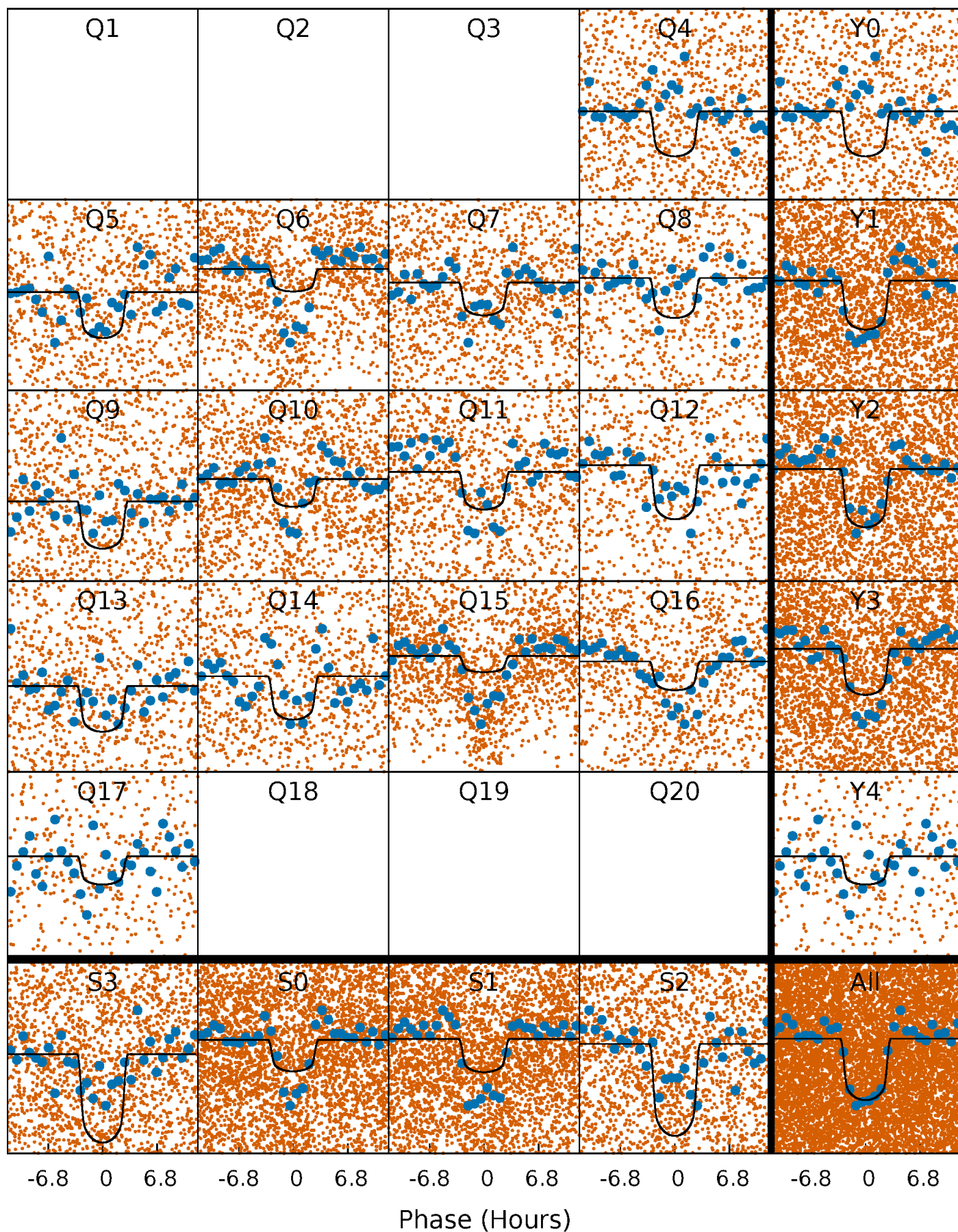
PDC Quarter-Phased Transit Curves

TCE 005041569-01 P= 2.535455 Days $T_0=132.215959$ (BKJD)



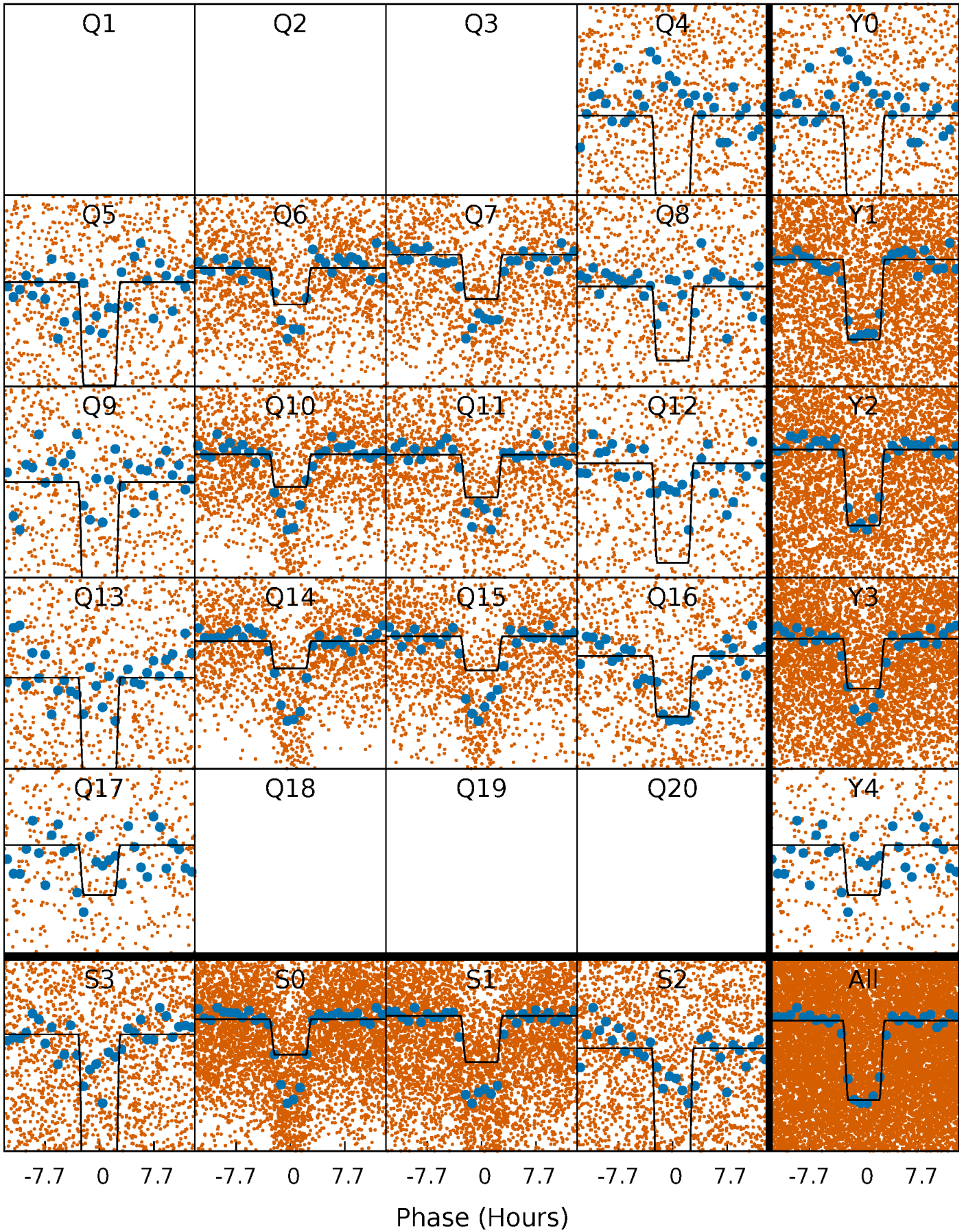
DV Quarter-Phased Transit Curves

TCE 005041569-01 P= 2.535455 Days $T_0=132.215959$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

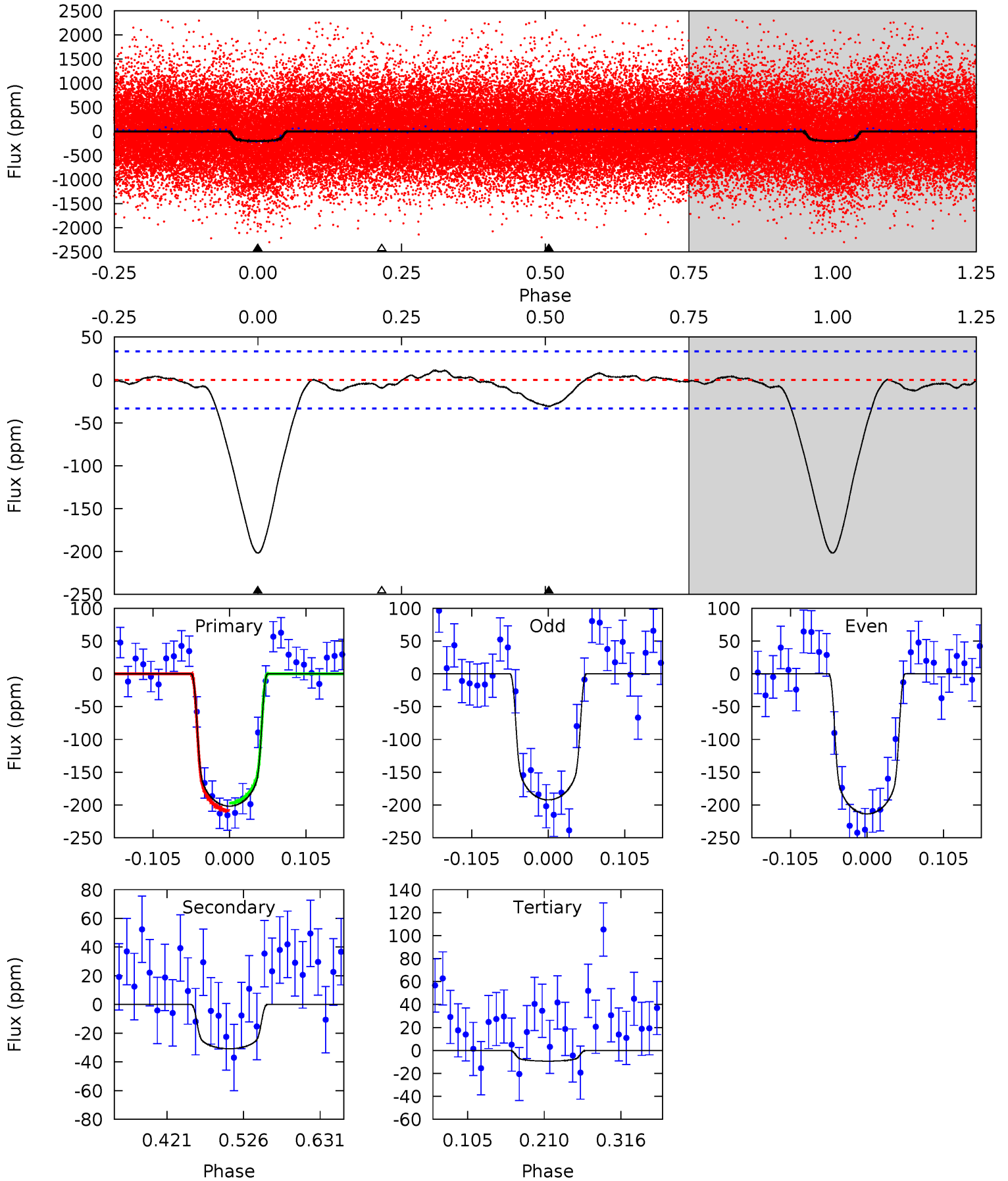
TCE 005041569-01 P= 2.535497 Days $T_0=132.202793$ (BKJD)



DV Model-Shift Uniqueness Test

005041569-01, P = 2.535455 Days, E = 132.215959 Days

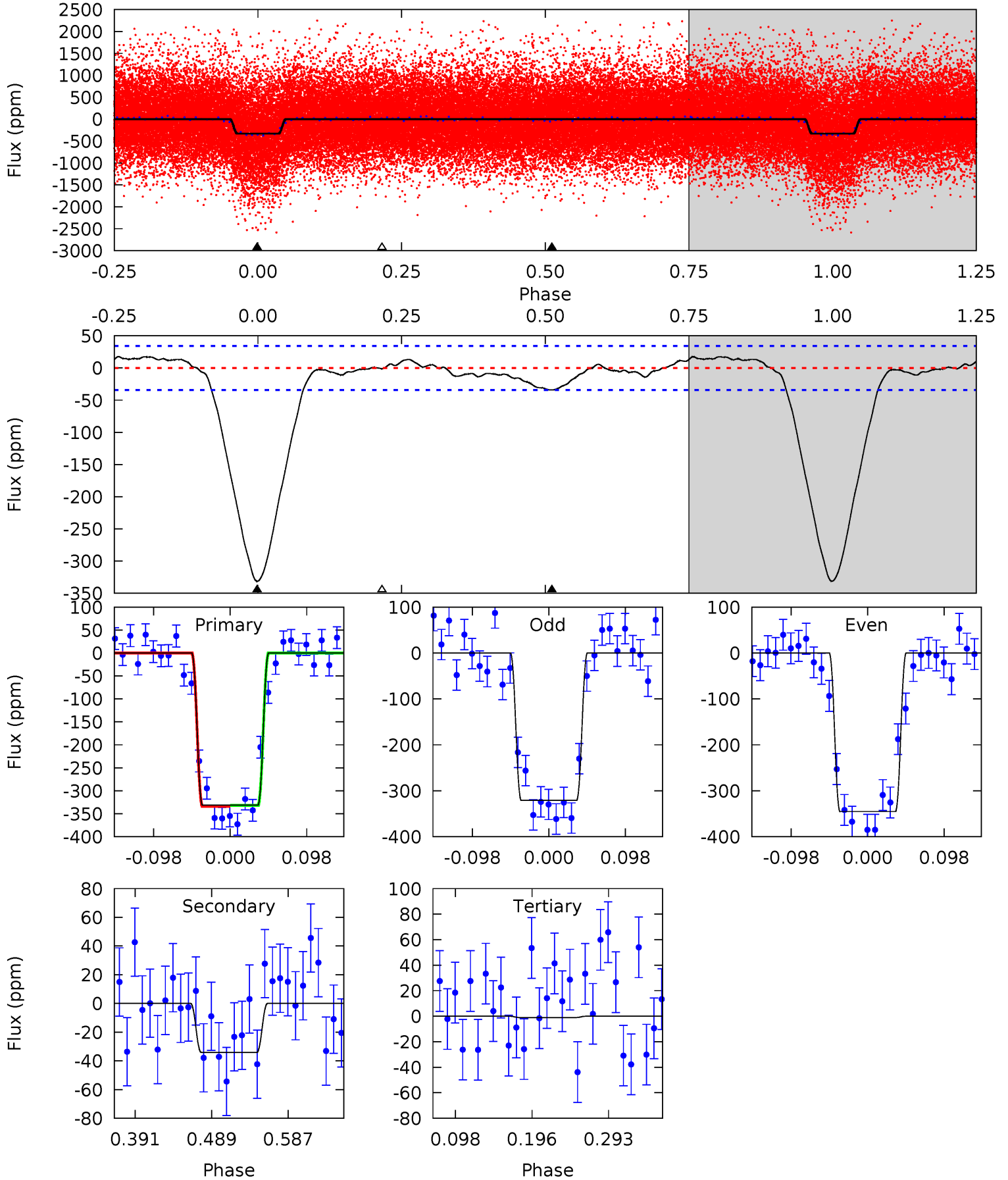
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.7	4.23	1.28	0	4.55	1.62	0.70	26.4	27.7	2.95	4.23	1.47	1.04	0.05	0.78



Alt Model-Shift Uniqueness Test

005041569-01, P = 2.535497 Days, E = 132.202793 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.4	4.57	0.14	0	4.57	1.66	1.22	44.2	44.4	4.43	4.57	1.65	1.04	0.05	0.11



Stellar Parameters For KIC 005041569

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6268^{+173}_{-260}	$4.429^{+0.056}_{-0.238}$	$0.070^{+0.250}_{-0.300}$	$1.100^{+0.384}_{-0.128}$	$1.188^{+0.170}_{-0.170}$	$1.257^{+0.376}_{-0.679}$
	+3%/-4%	+1%/-5%	+357%/-429%	+35%/-12%	+14%/-14%	+30%/-54%
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 005041569-01 / KOI 2795.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-31 ± 7	$1.89^{+0.39}_{-0.29}$	2106^{+172}_{-122}	4031^{+285}_{-269}	$6.688^{+3.146}_{-2.436}$
Alt.	-34 ± 7	$2.31^{+0.45}_{-0.33}$	2109^{+181}_{-121}	3833^{+224}_{-221}	$5.036^{+2.233}_{-1.679}$

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 $A_{obs} \gg 1.0$

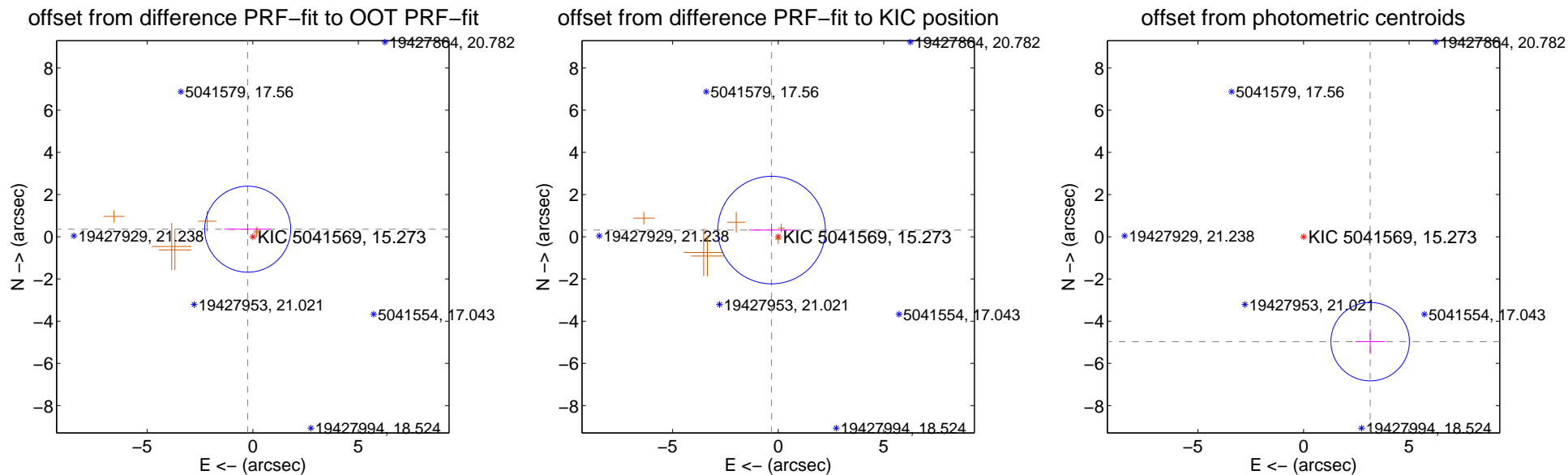
DV Centroid Data

Supplemental centroid analysis for 005041569-01. Kepler magnitude: 15.27. Transit SNR 16.67

There are 0 quarters with good PRF difference image offsets

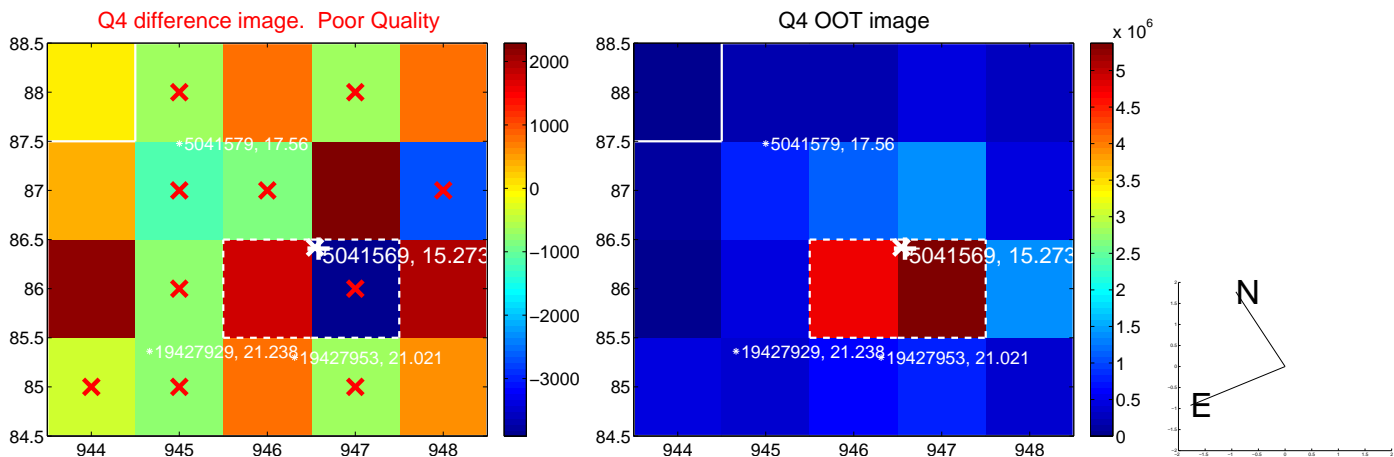
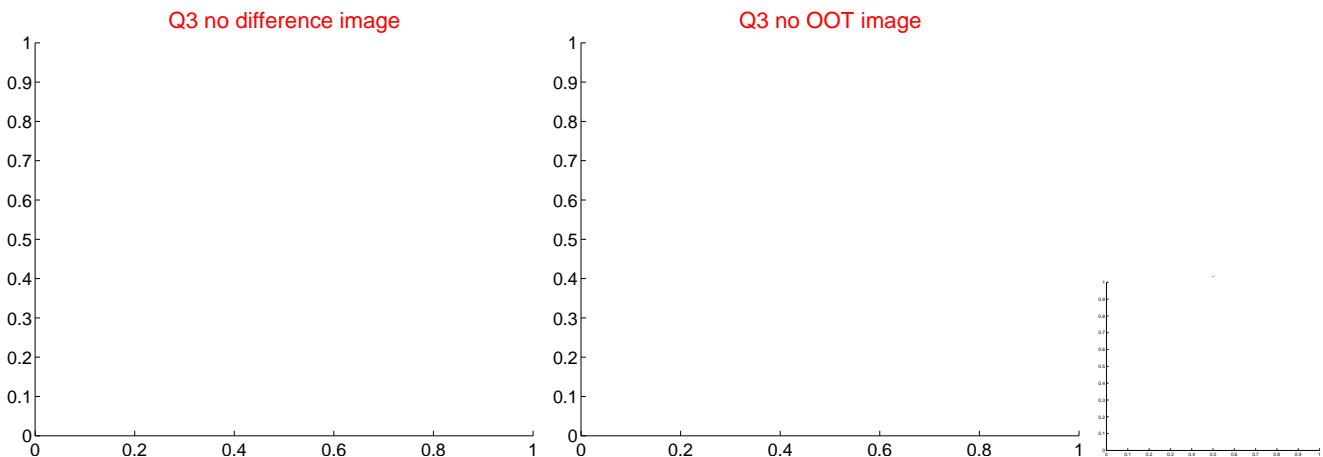
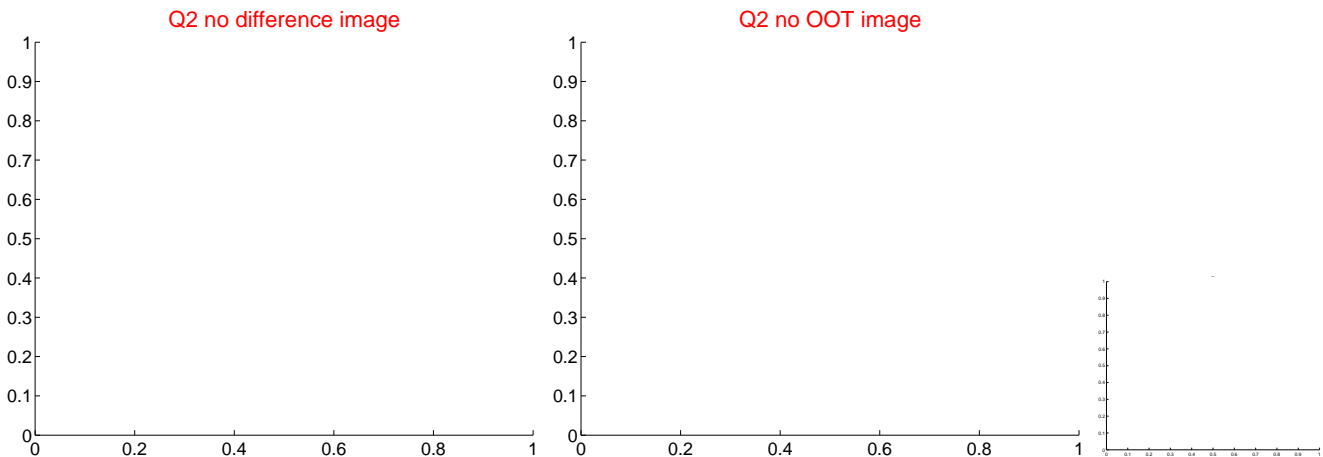
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.432 ± 0.679	0.64	0.242 ± 1.110	0.358 ± 0.259
PRF-fit source offset from KIC position	0.446 ± 0.849	0.53	0.313 ± 1.070	0.318 ± 0.306
photometric centroid source offset	5.89 ± 0.62	9.50	-3.16 ± 0.70	-4.97 ± 0.58

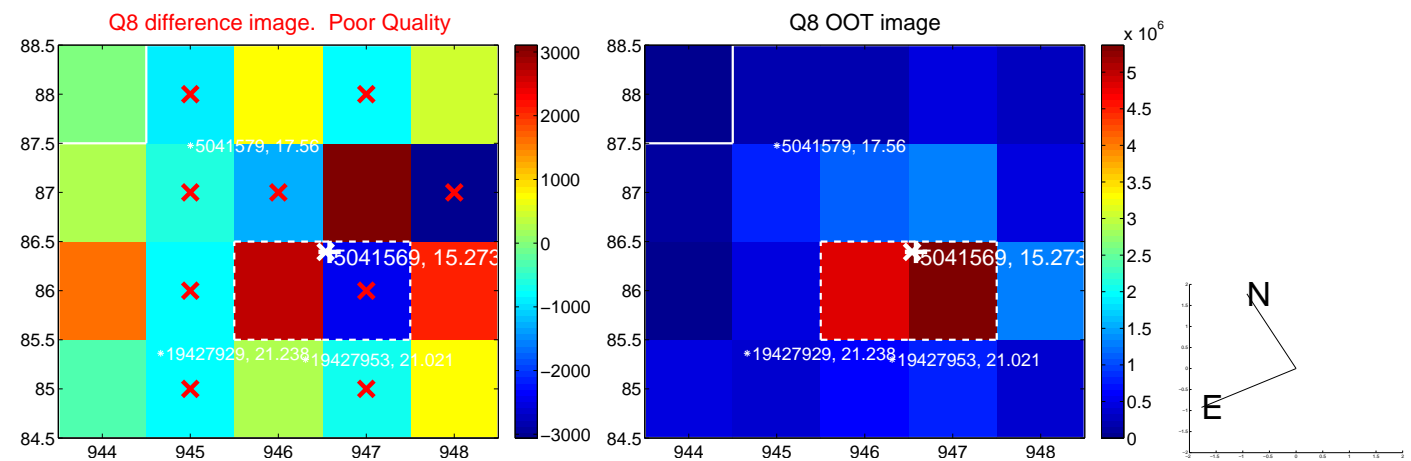
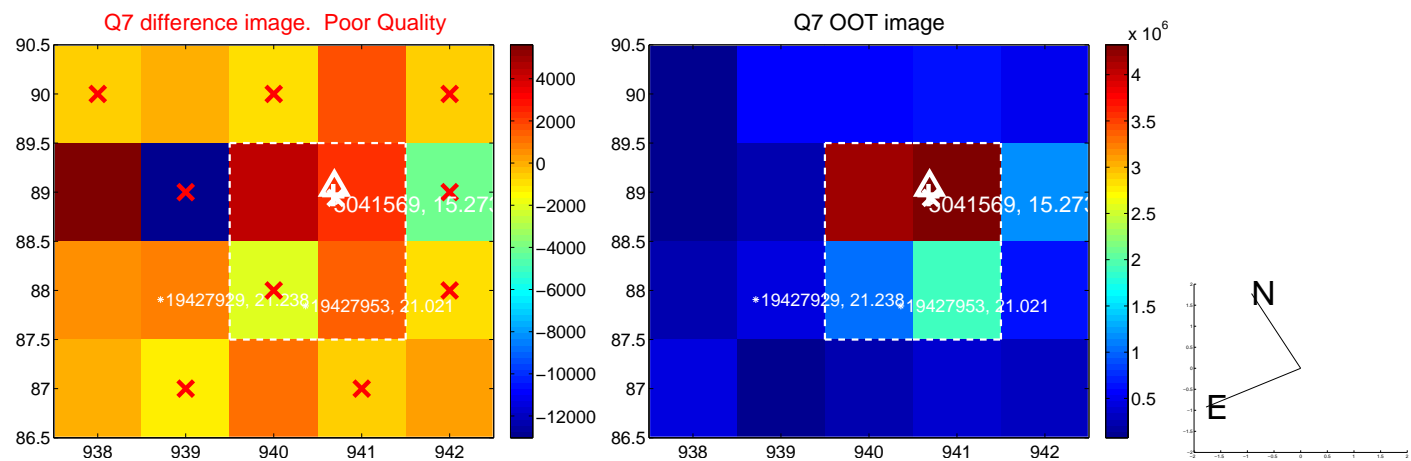
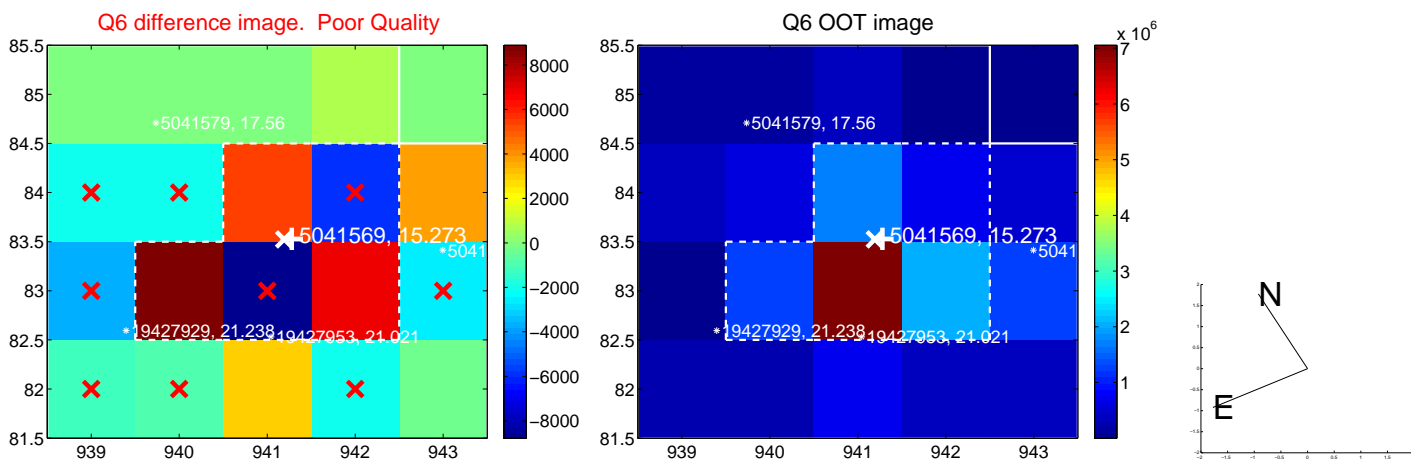
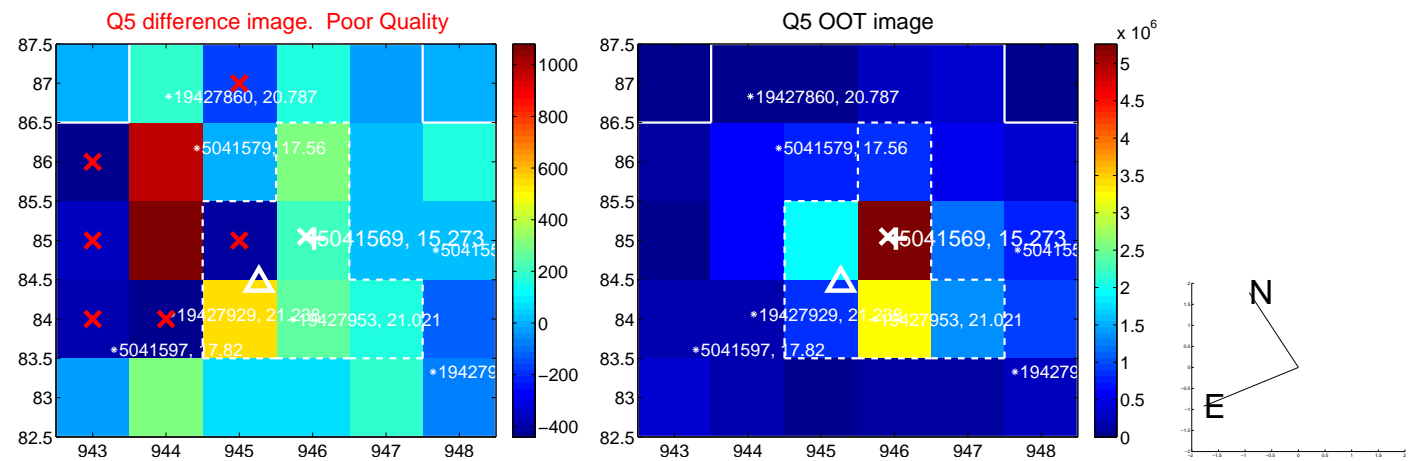


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

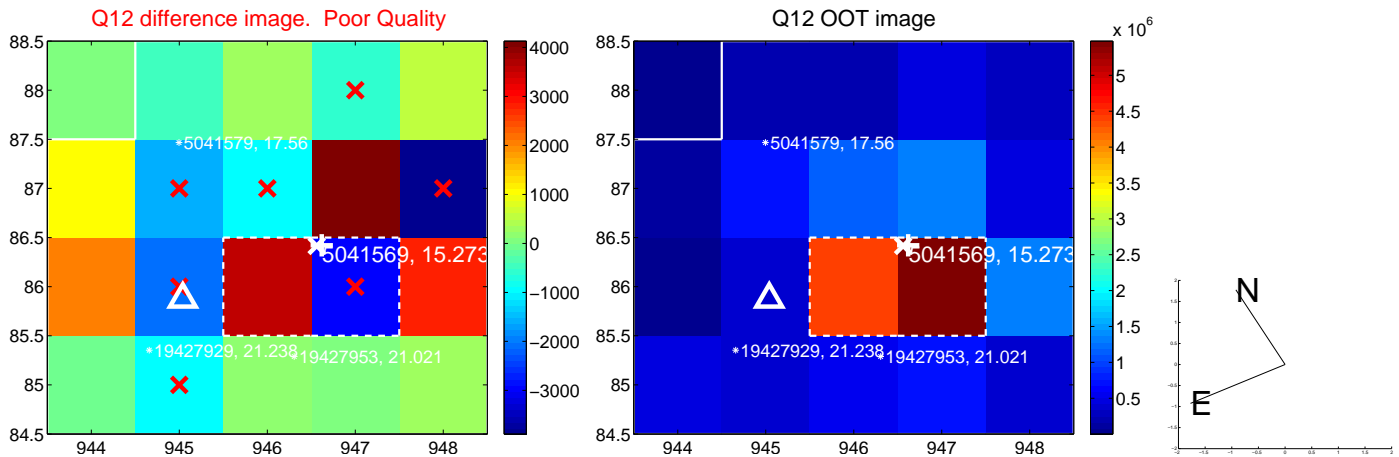
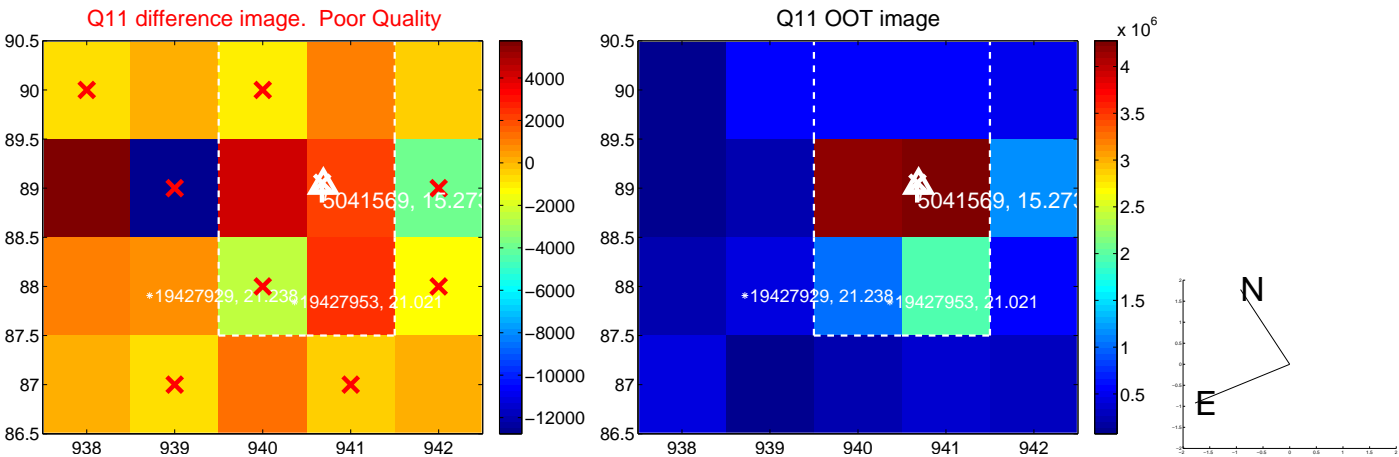
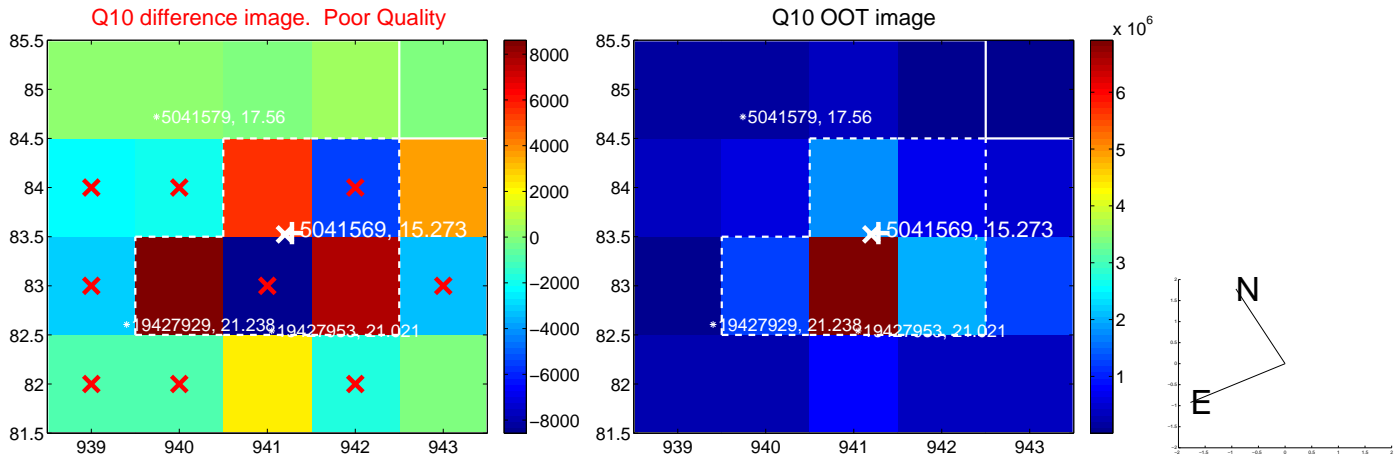
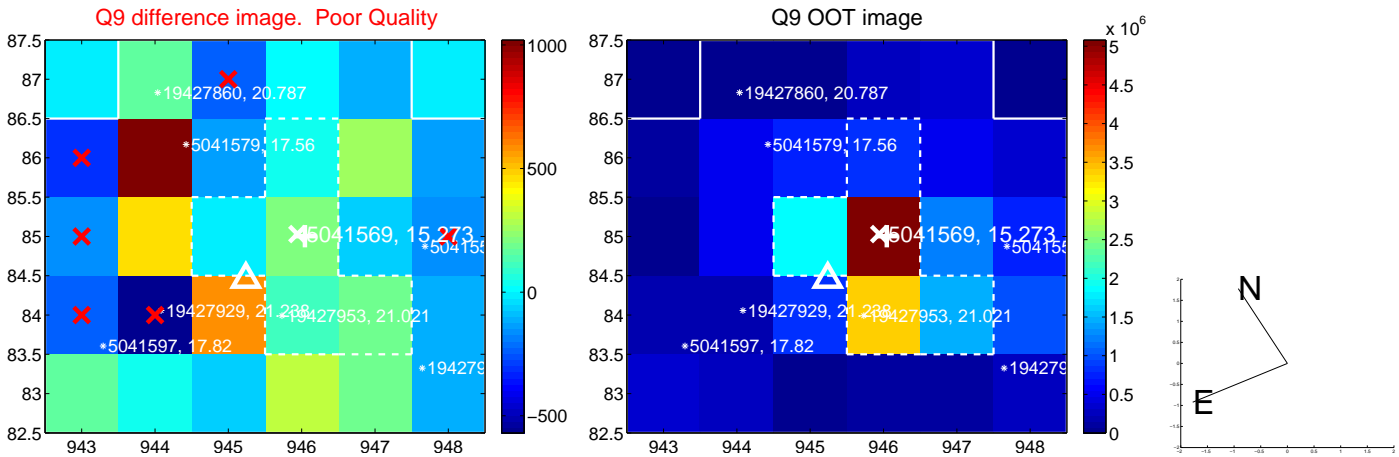
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



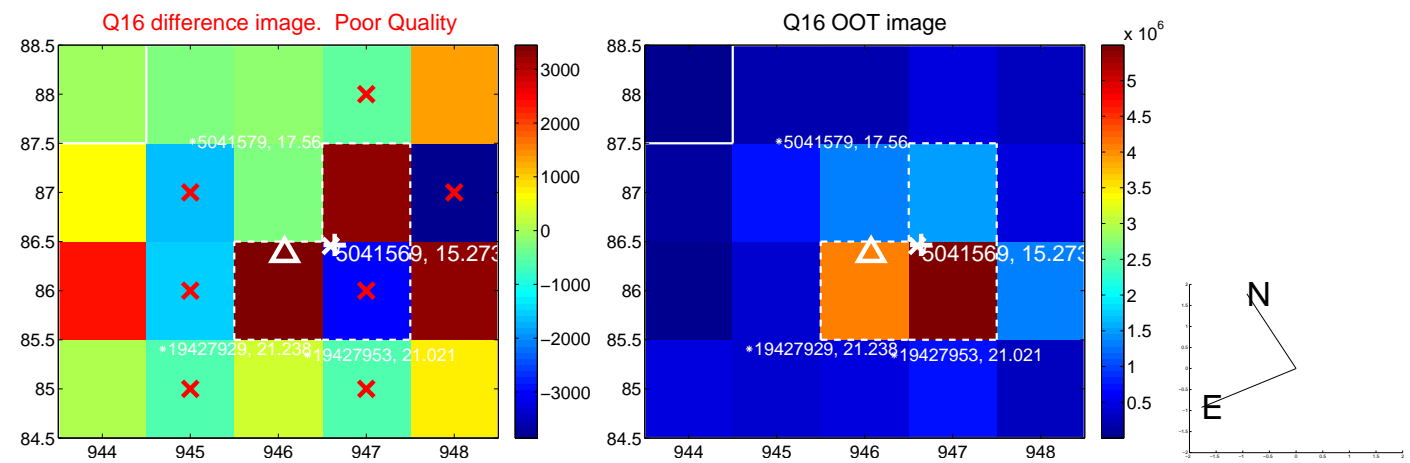
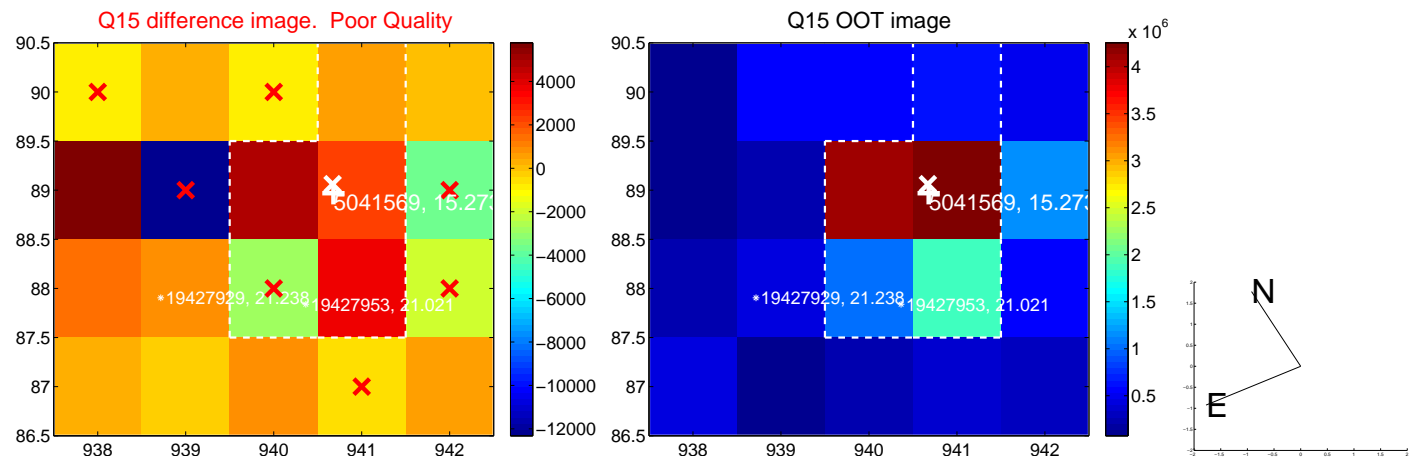
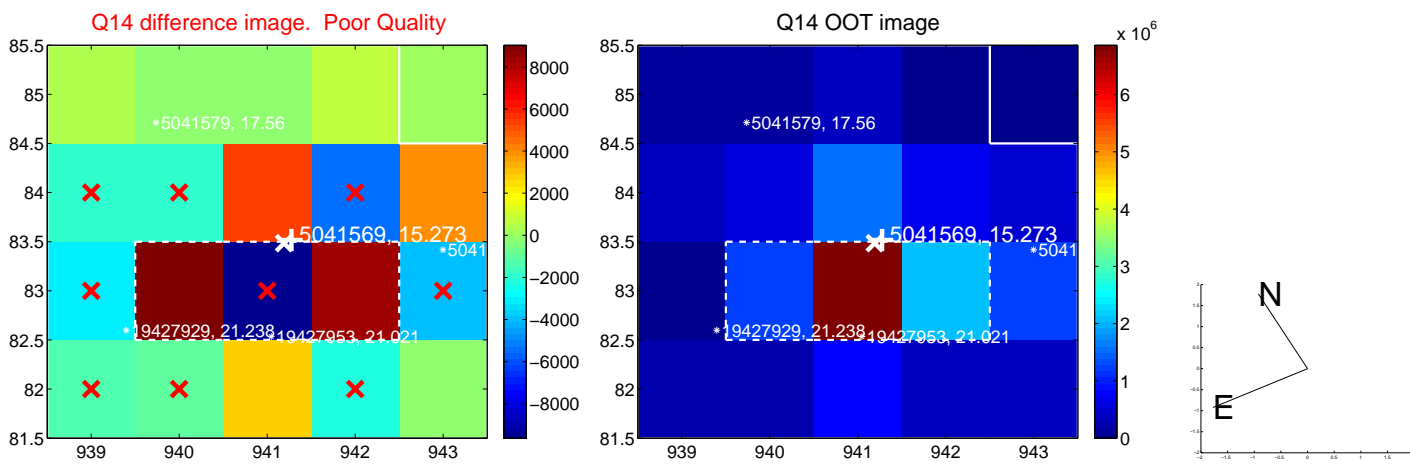
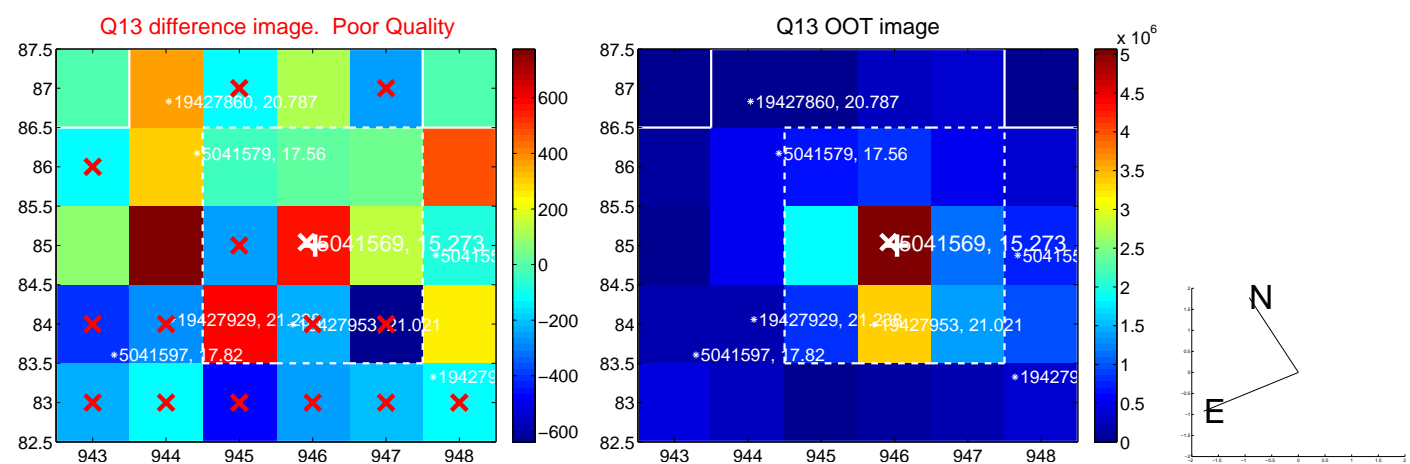
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



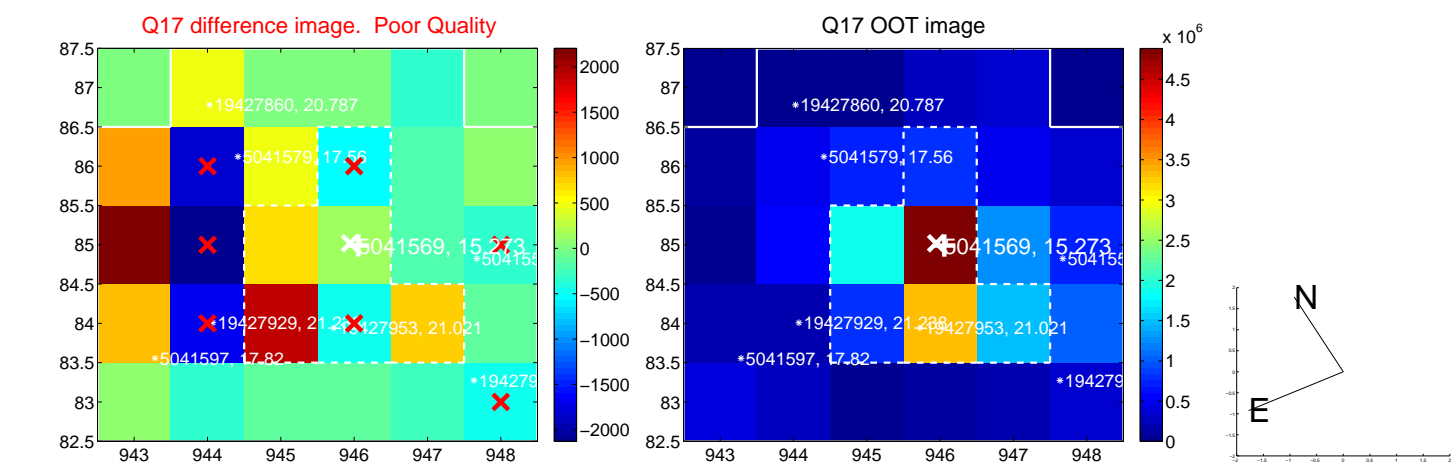
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



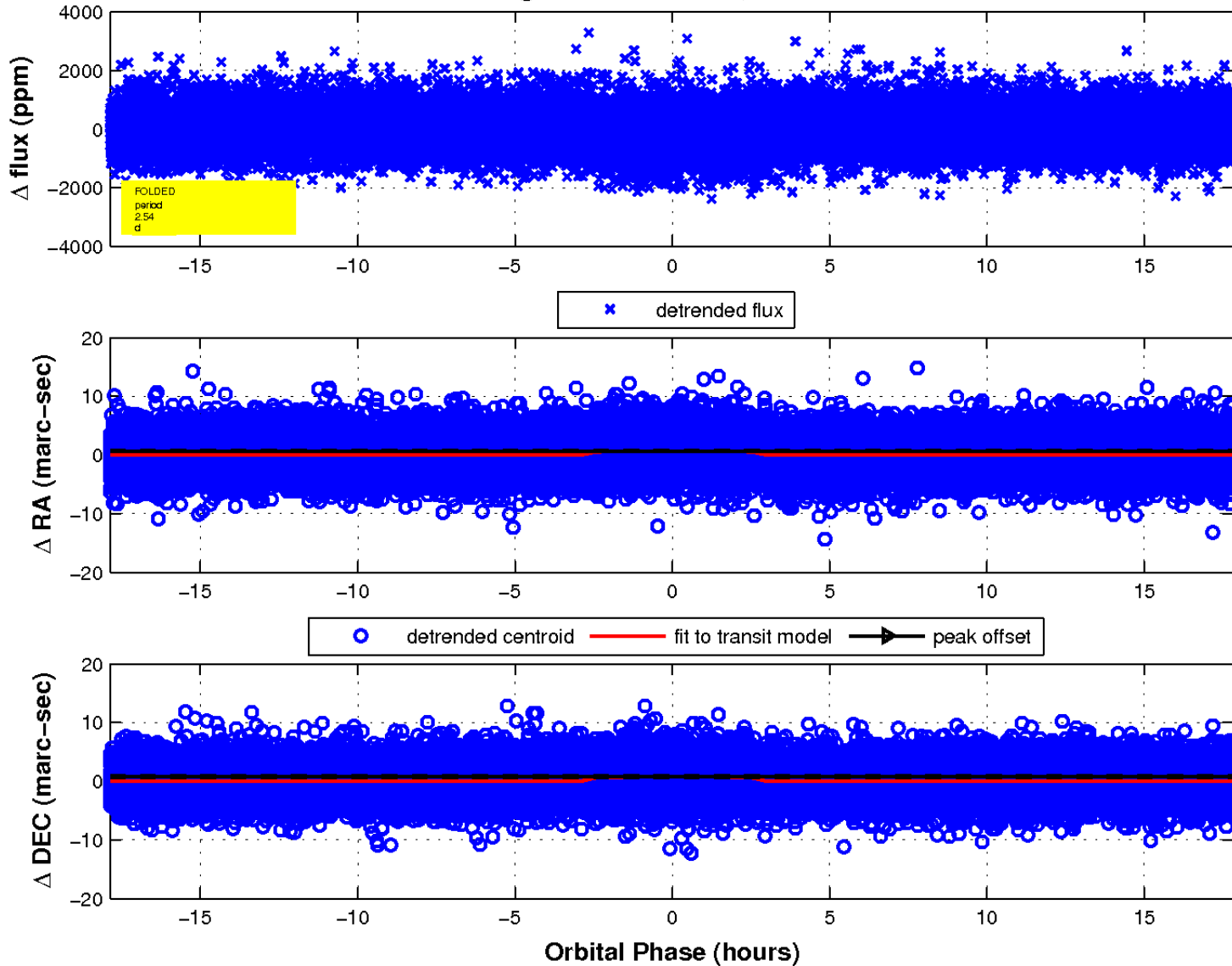
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

