

KIC 005652678

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})
005652678-01	OBS	No	0.599910	131.959584	31.8	2.228	9.5	8.5	4.73	6826	3.10	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005652678-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_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.

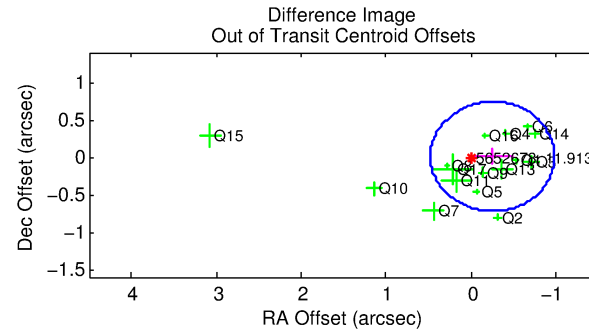
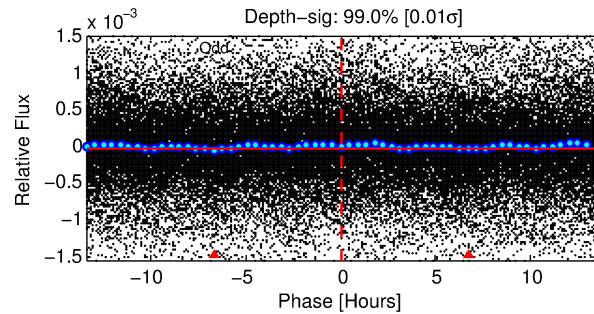
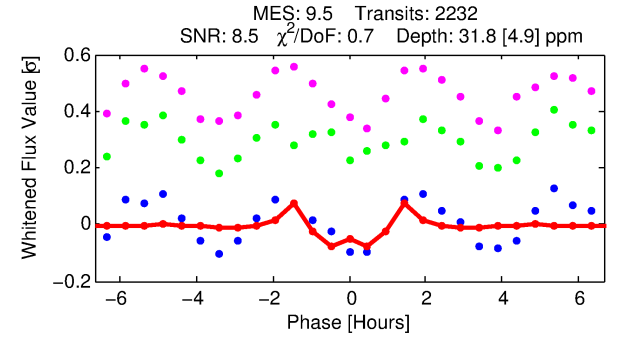
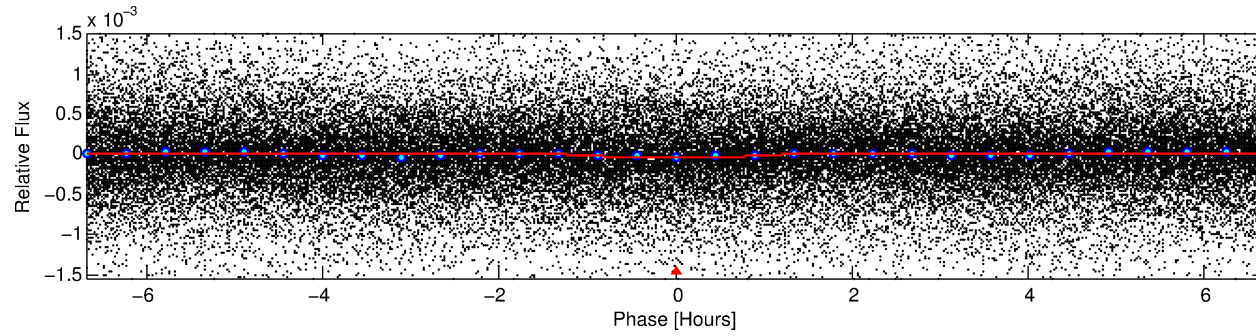
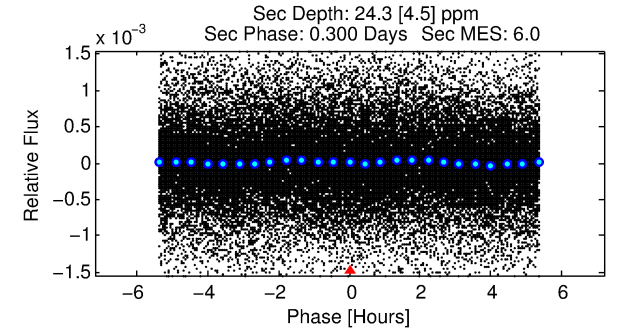
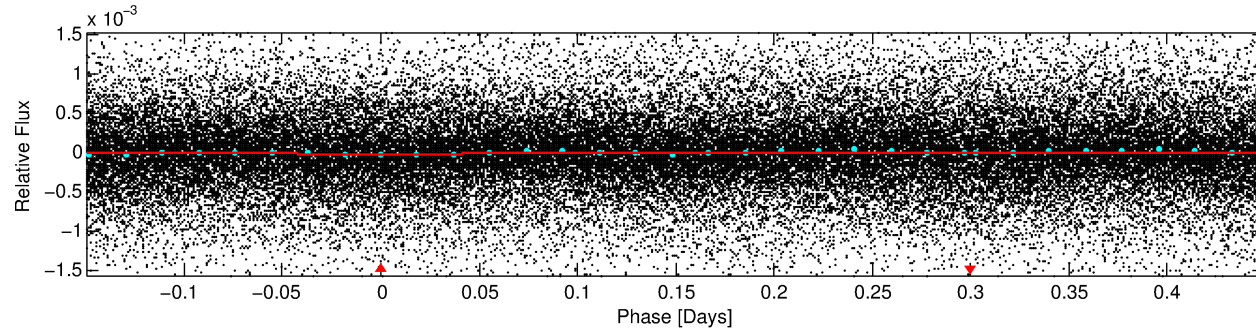
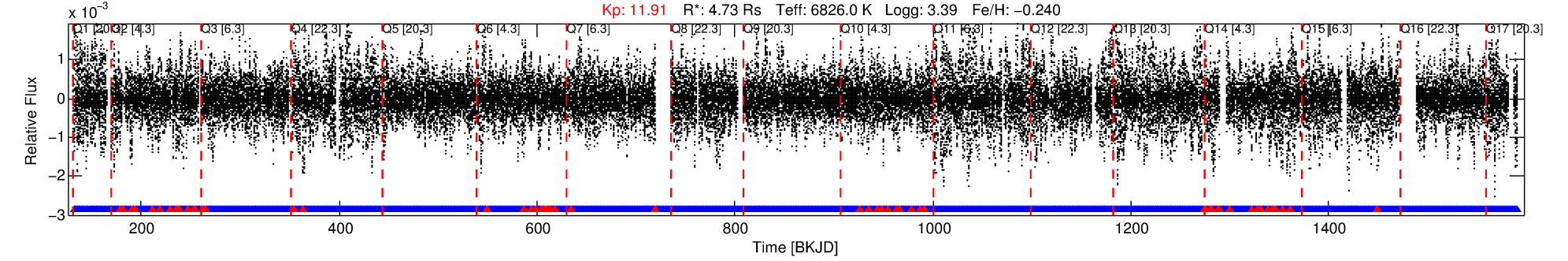
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005652678-01

No Significant Match Found

DV One-Page Summary

KIC: 5652678 Candidate: 1 of 1 Period: 0.600 d



DV Fit Results:

Period = 0.59991 [0.00001] d
Epoch = 131.9596 [0.0014] BKJD
Rp/R* = 0.0060 [0.0013]
a/R* = 1.32 [0.66]
b = 0.90 [0.25]
Seff = N/A
Teq = N/A
Rp = 3.10 [1.41] Re
a = N/A
Ag = N/A
Teffp = N/A

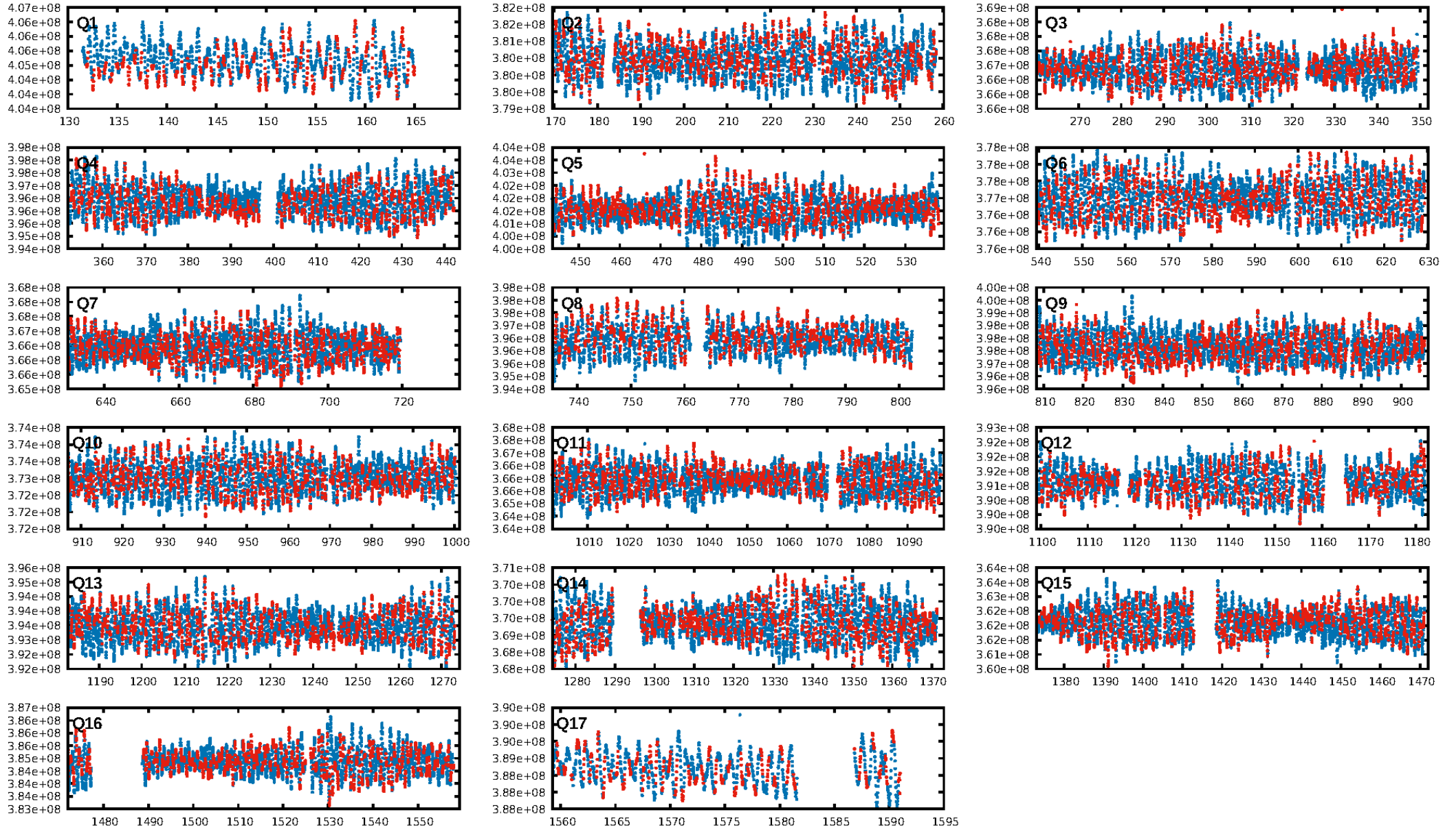
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.69e-24
RollingBand-fgt: 0.97 [2066/2132]
GhostDiagnostic-chr: 1.012
Centroid-sig: 80.1%
Centroid-so: 0.453 arcsec [0.86σ]
OotOffset-rm: 0.256 arcsec [1.05σ]
KicOffset-rm: 0.346 arcsec [1.61σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 1.00 [17/17]

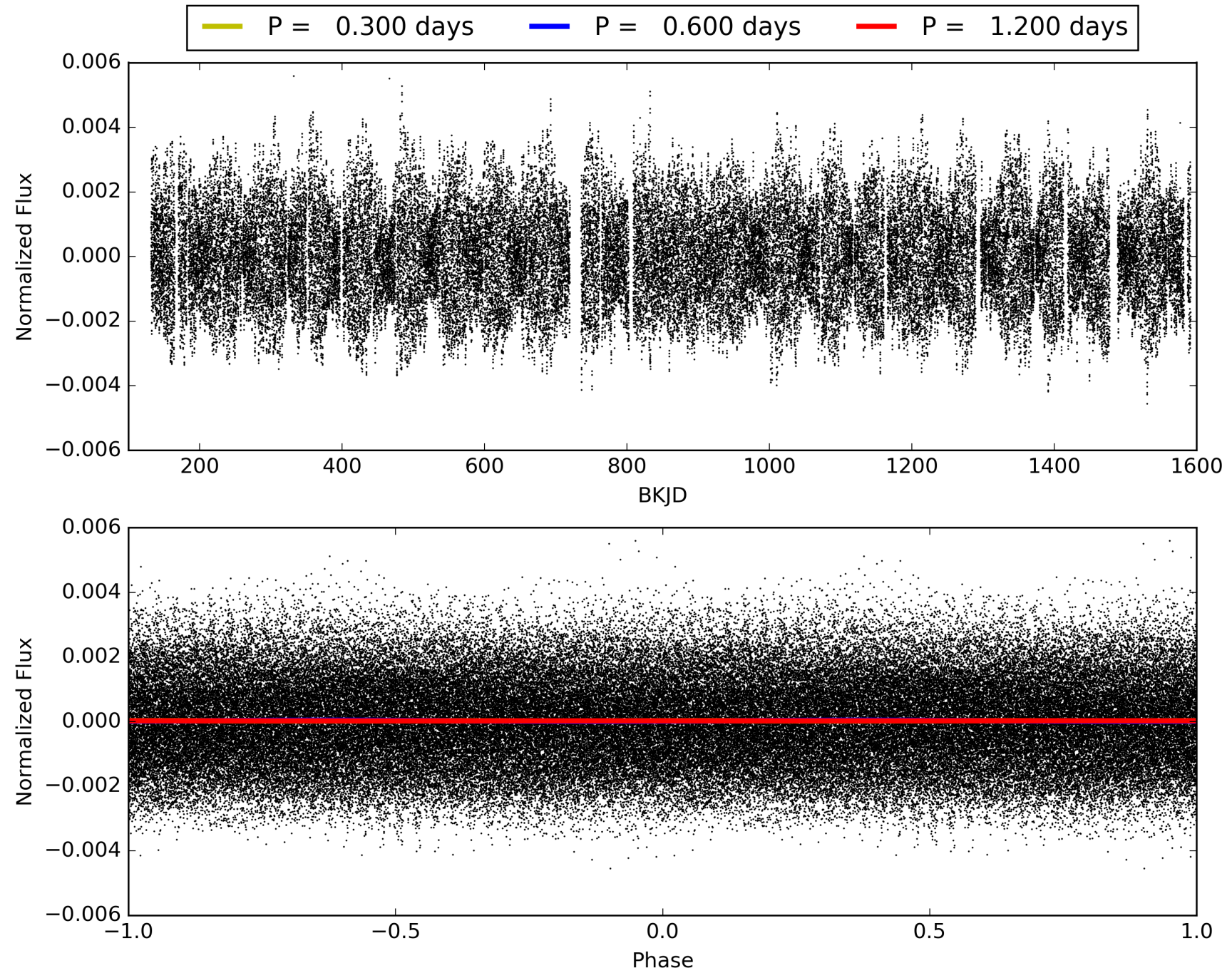
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:18:56 Z

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

TCE 005652678-01, PDC Light Curves

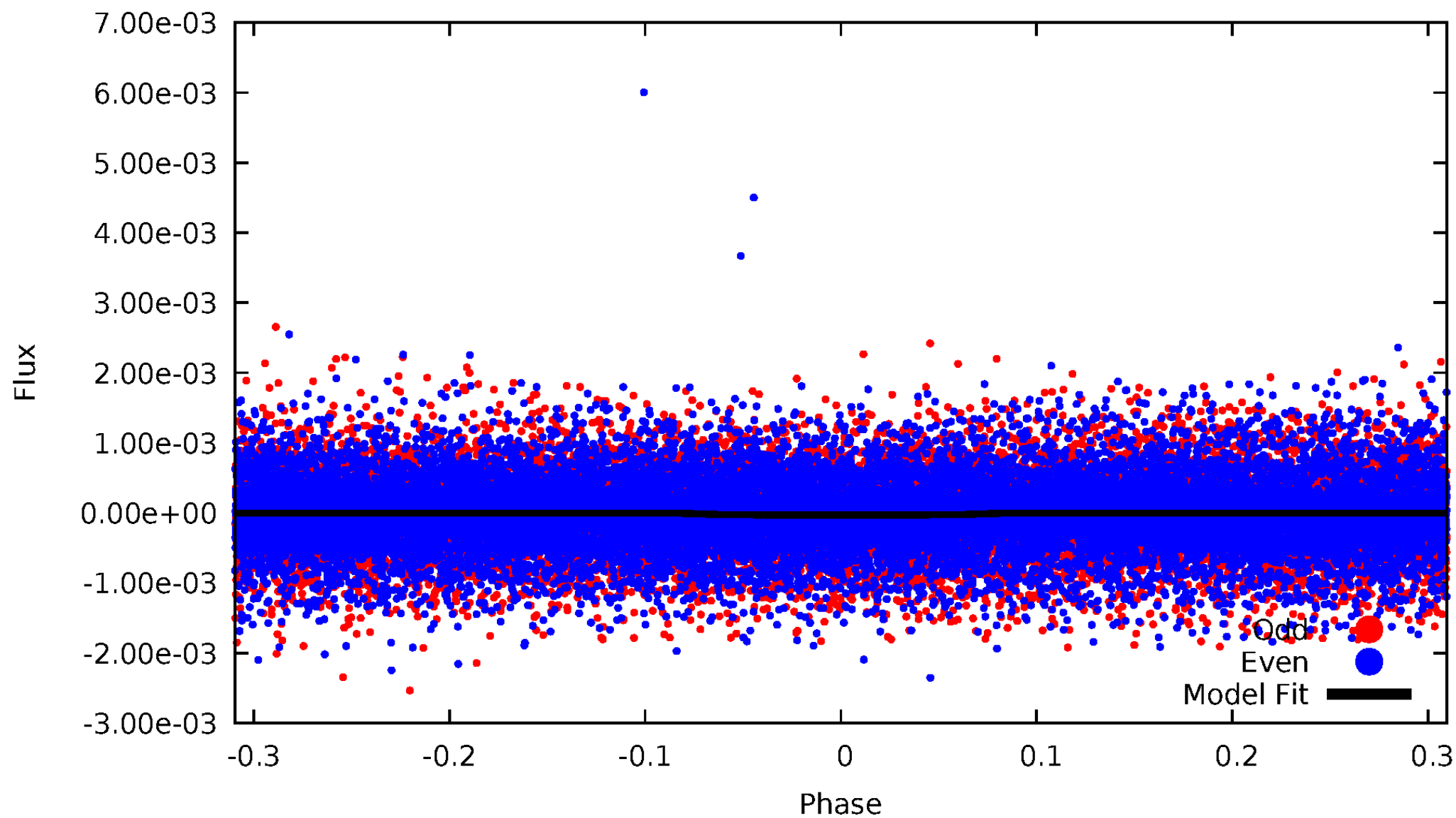


TCE 005652678-01



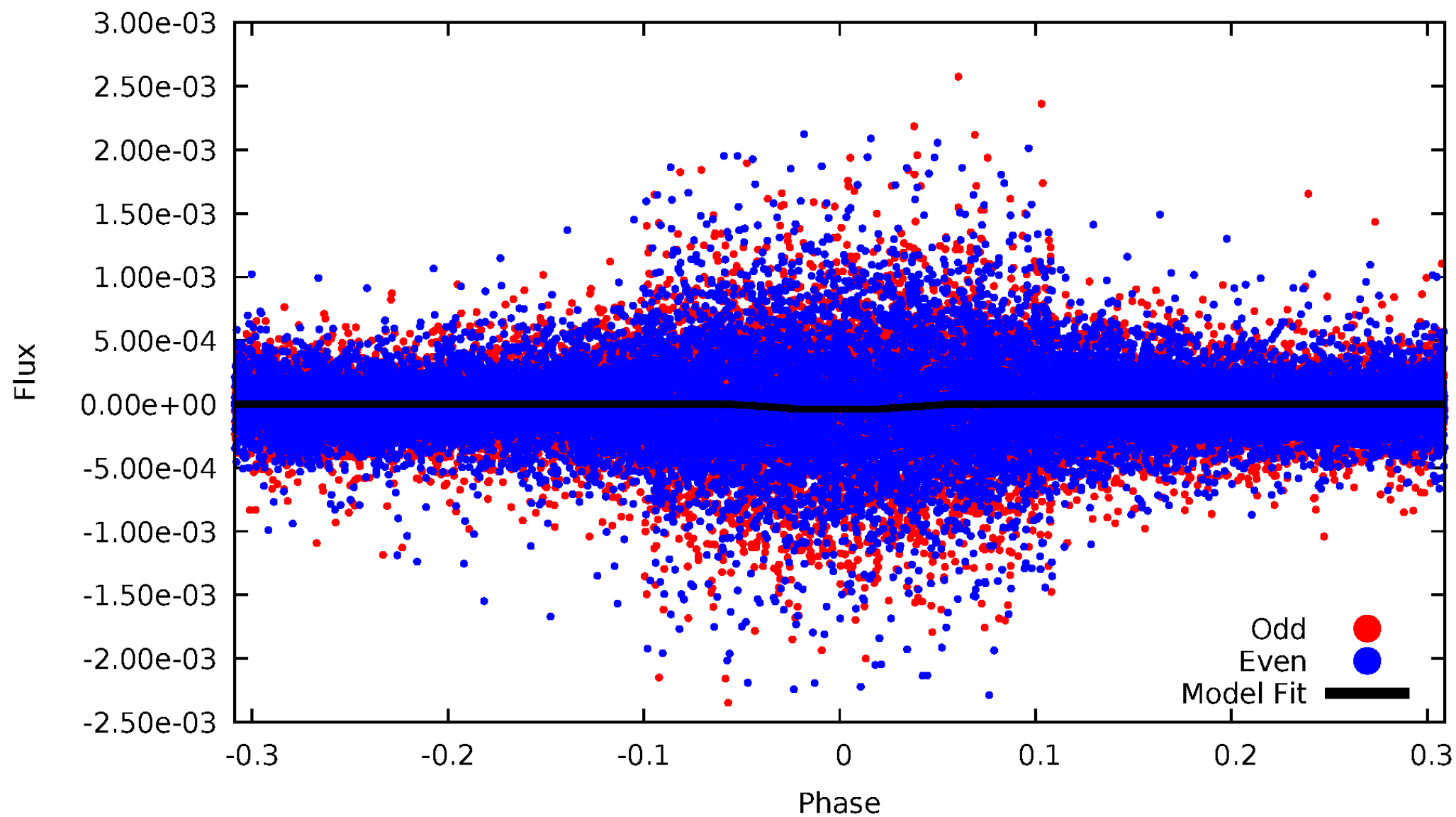
DV Odd/Even

TCE 005652678-01



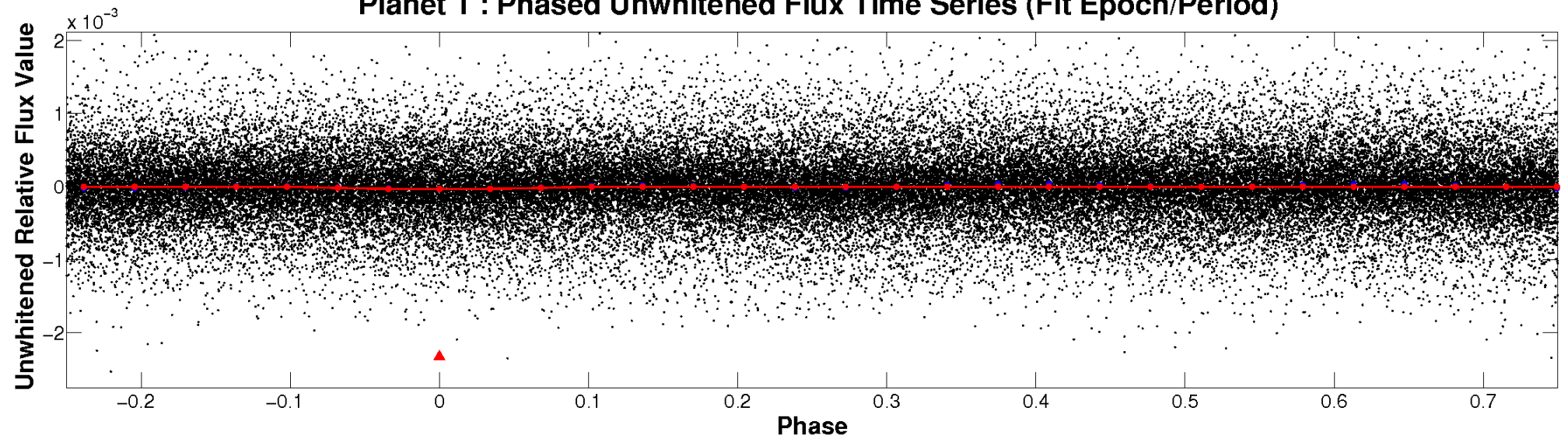
ALT Odd/Even

TCE 005652678-01

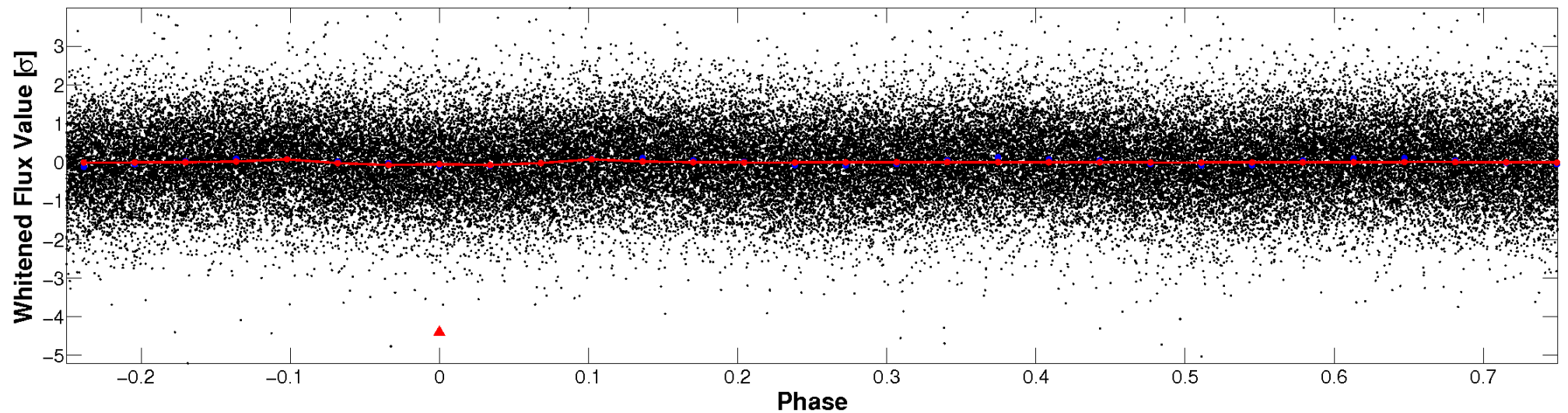


Non-Whitened Vs. Whitened Light Curve

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

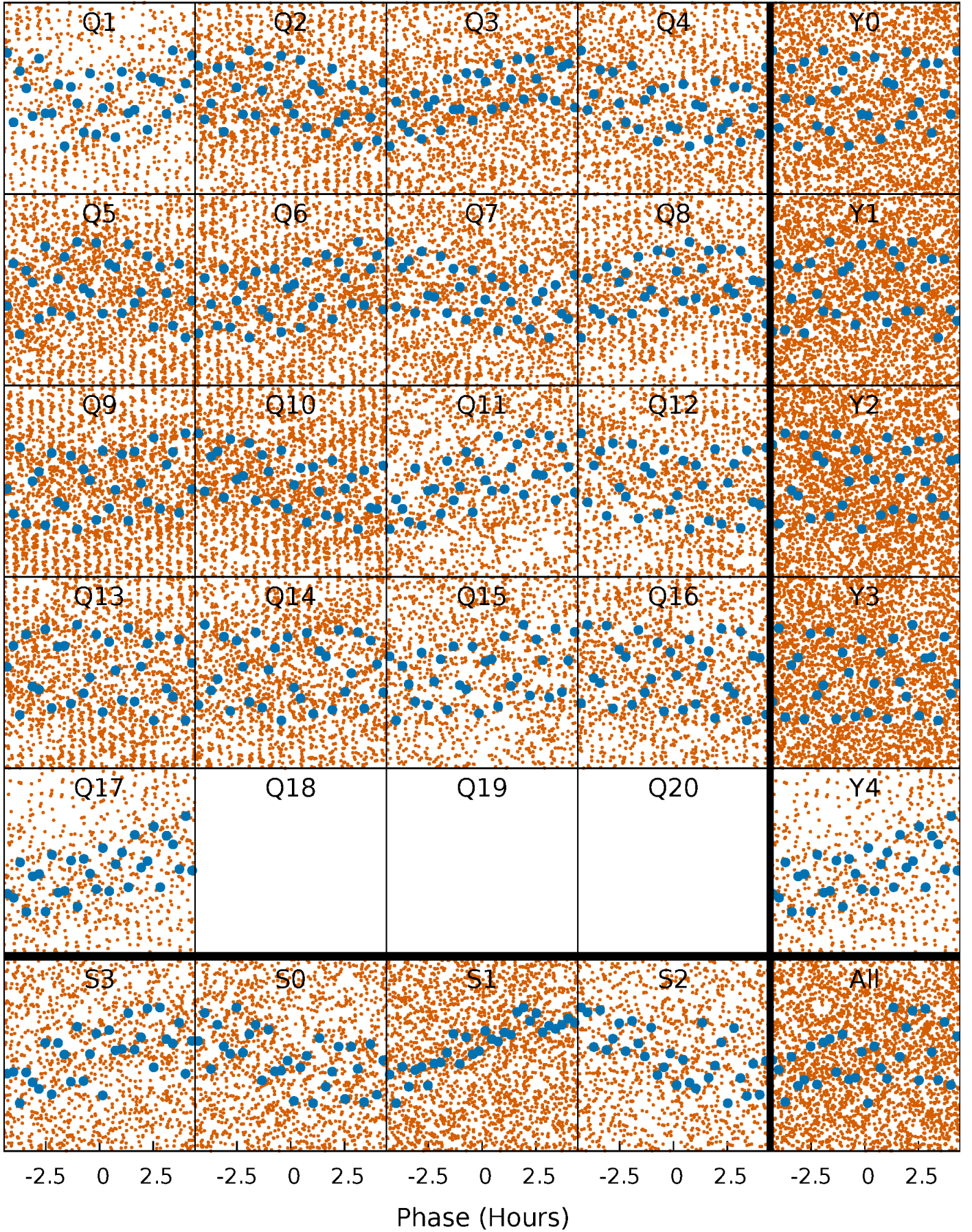


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



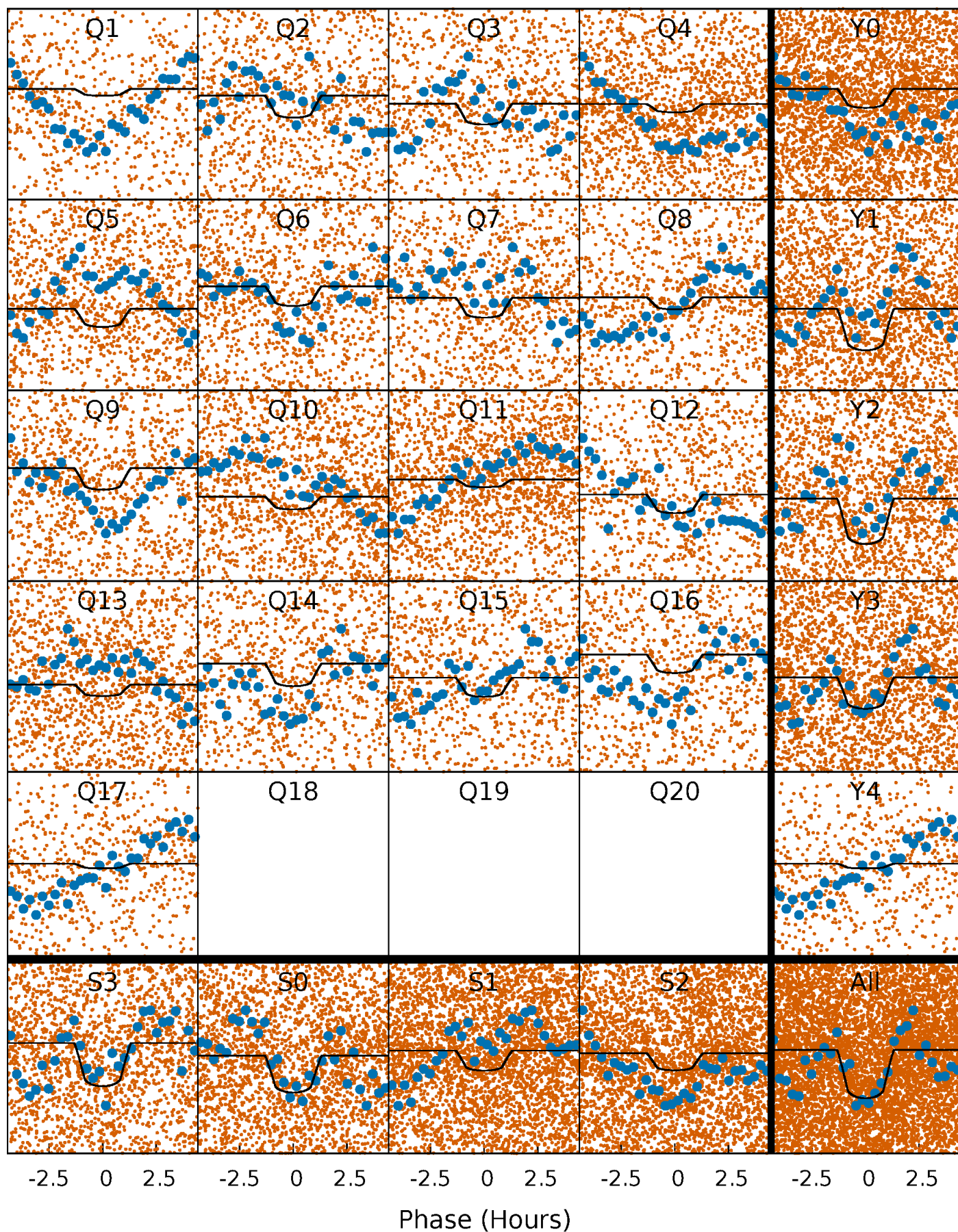
PDC Quarter-Phased Transit Curves

TCE 005652678-01 P= 0.599910 Days $T_0=131.959584$ (BKJD)



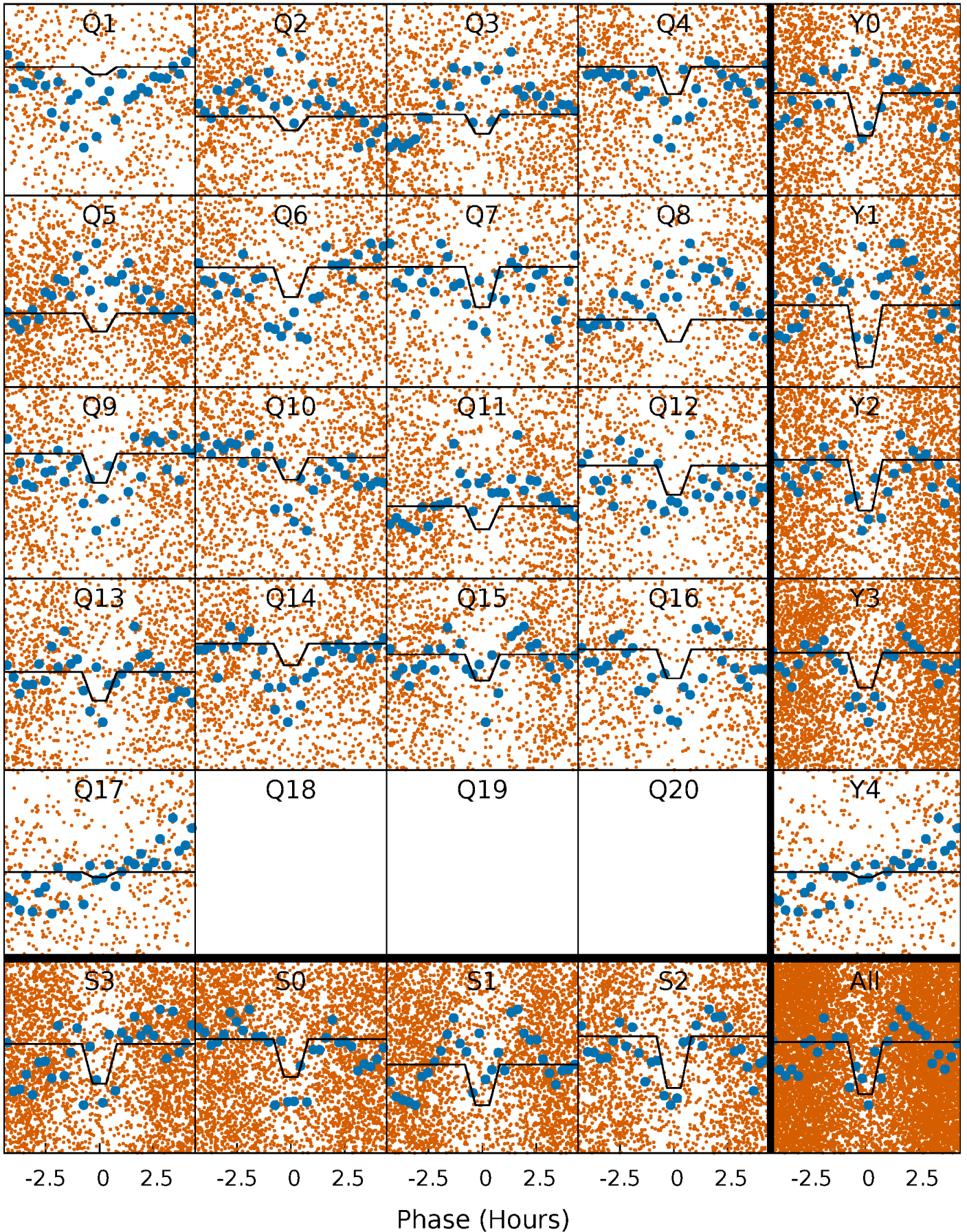
DV Quarter-Phased Transit Curves

TCE 005652678-01 P= 0.599910 Days $T_0=131.959584$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

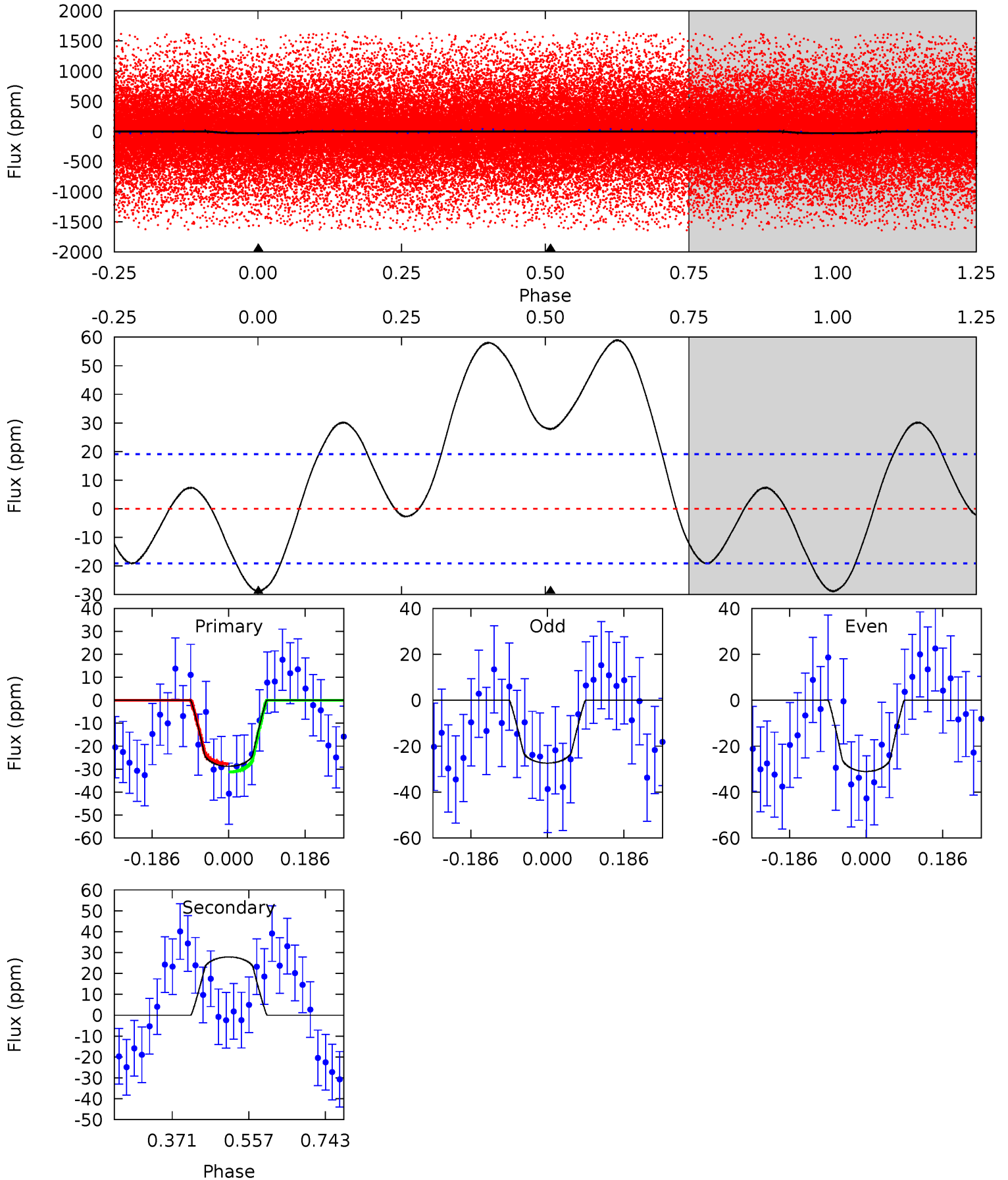
TCE 005652678-01 P= 0.599914 Days $T_0=131.958830$ (BKJD)



DV Model-Shift Uniqueness Test

005652678-01, P = 0.599910 Days, E = 131.359674 Days

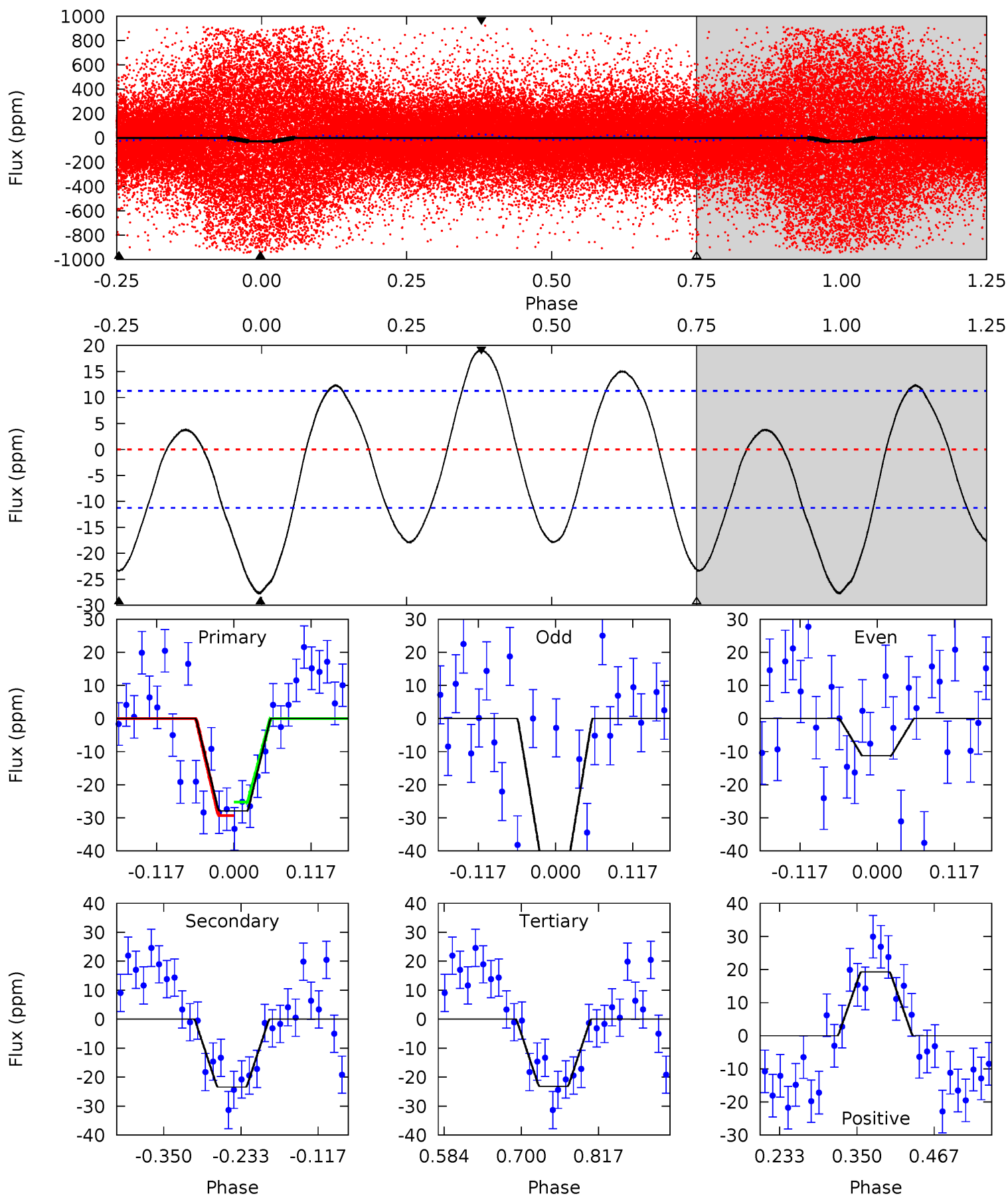
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.68	-6.47	0	0	4.43	1.32	2.85	6.68	6.68	-6.47	-6.47	0.43	0.90	0.67	0.42



Alt Model-Shift Uniqueness Test

005652678-01, P = 0.599914 Days, E = 131.358916 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	9.43	9.33	7.77	4.53	1.57	4.92	1.89	3.45	0.10	1.67	5.25	1.34	0.41	0.81



Stellar Parameters For KIC 005652678

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6826^{+184}_{-204}	$3.389^{+0.374}_{-0.066}$	$-0.240^{+0.350}_{-0.250}$	$4.729^{+0.334}_{-1.895}$	$1.997^{+0.122}_{-0.391}$	$0.027^{+0.077}_{-0.006}$
	+3%/-3%	+11%/-2%	+146%/-104%	+7%/-40%	+6%/-20%	+289%/-21%
Source	PHO1	FLK73	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 005652678-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	28 ± 4	$2.85^{+0.80}_{-0.77}$	6790^{+331}_{-672}	-7166^{+570}_{-817}	$-0.569^{+0.239}_{-0.466}$
Alt.	-23 ± 2	$2.91^{+0.78}_{-0.78}$	6785^{+350}_{-679}	4778^{+1201}_{-7988}	$0.468^{+0.354}_{-0.181}$

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

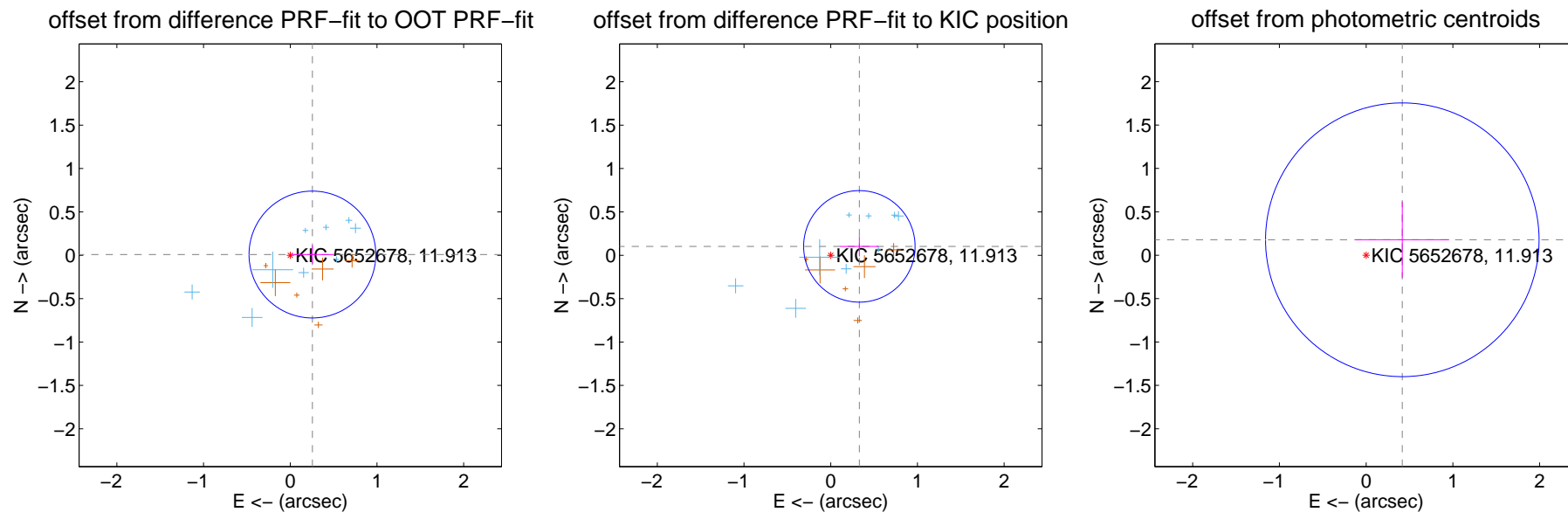
DV Centroid Data

Supplemental centroid analysis for 005652678-01. **Kepler magnitude: 11.91.** Transit SNR 8.46

There are 9 quarters with good PRF difference image offsets

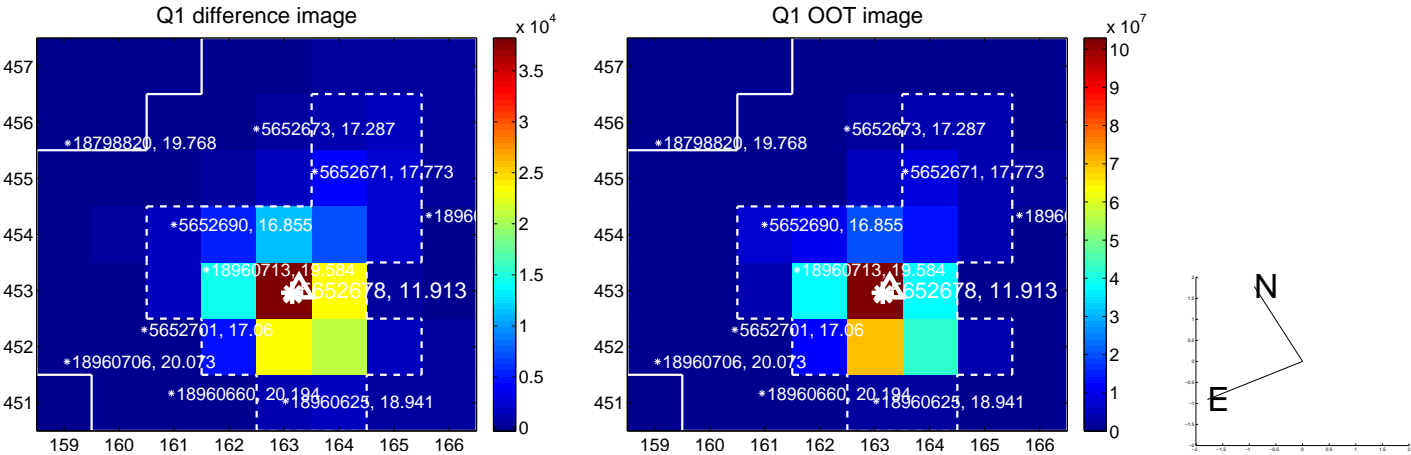
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.256 ± 0.244	1.05	-0.255 ± 0.244	0.009 ± 0.105
PRF-fit source offset from KIC position	0.346 ± 0.214	1.61	-0.330 ± 0.222	0.102 ± 0.116
photometric centroid source offset	0.45 ± 0.53	0.86	-0.42 ± 0.54	0.18 ± 0.44

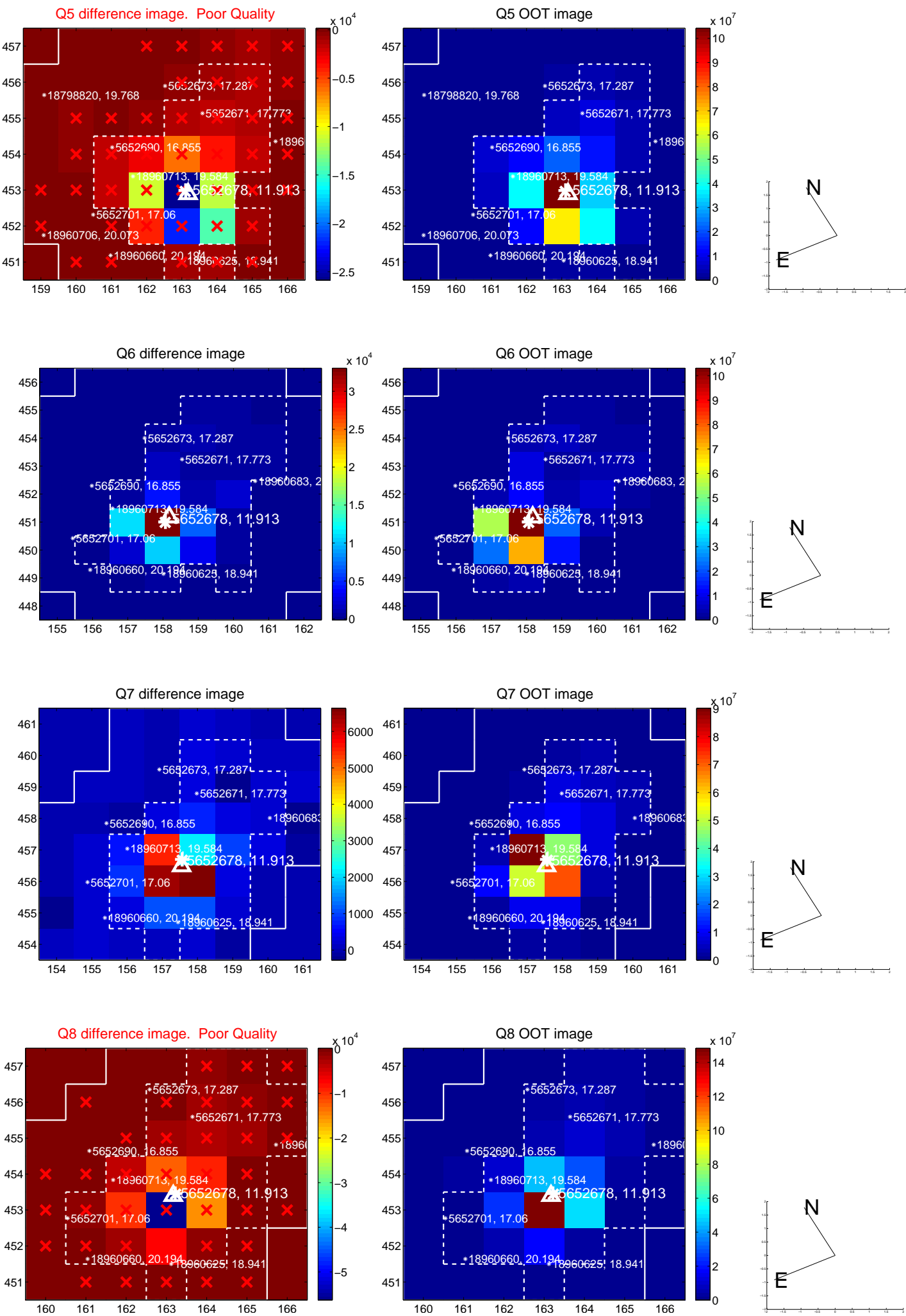


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

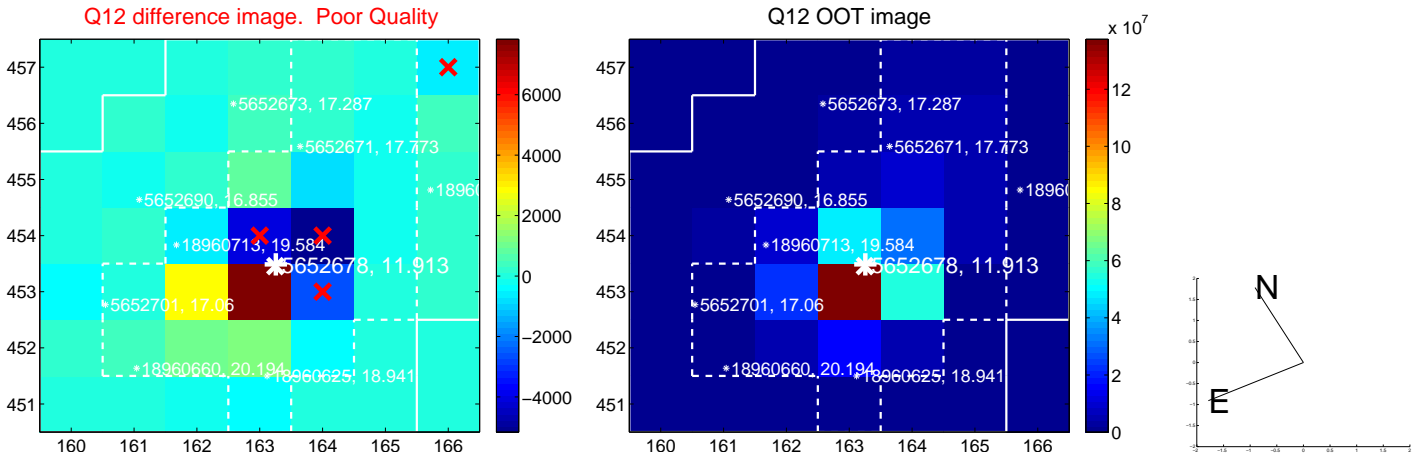
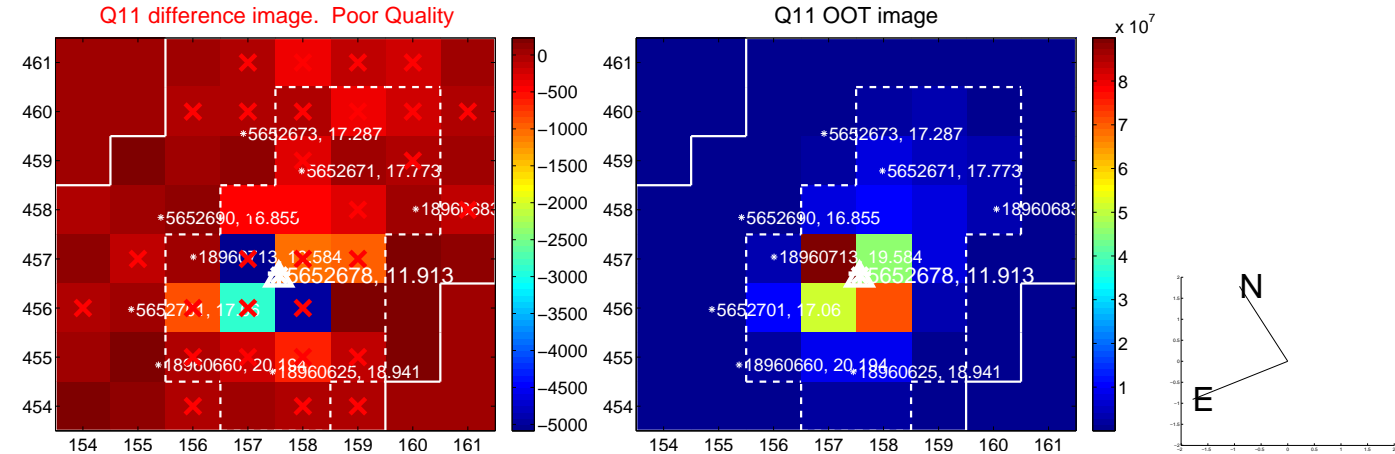
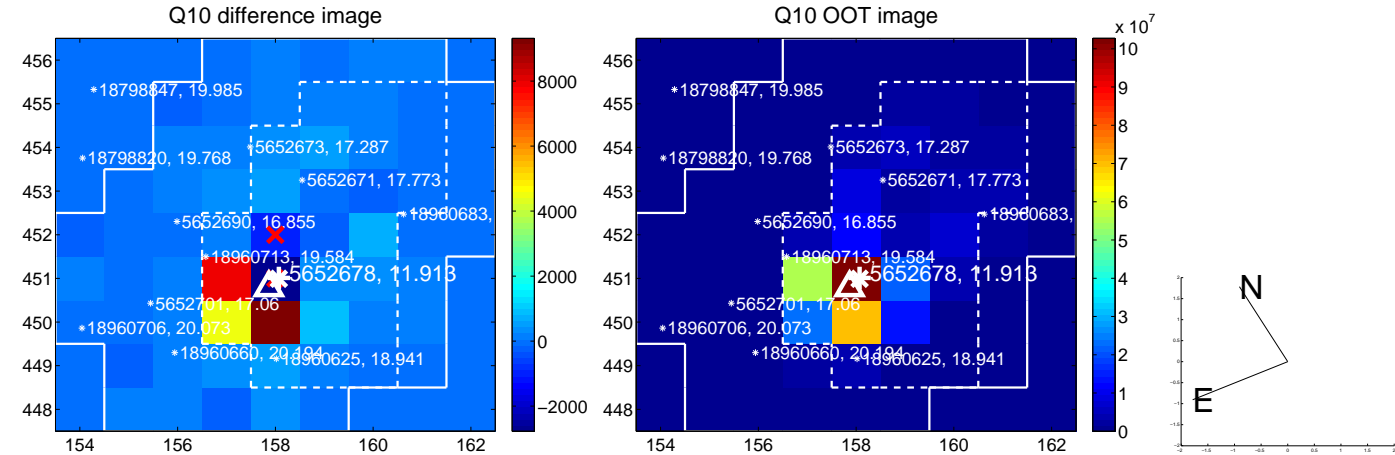
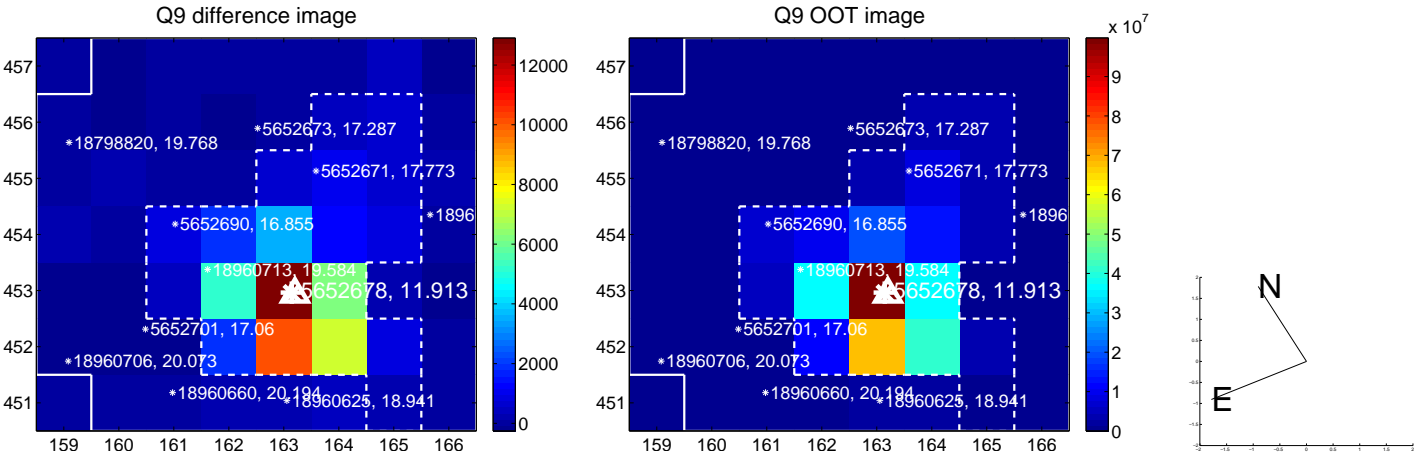
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



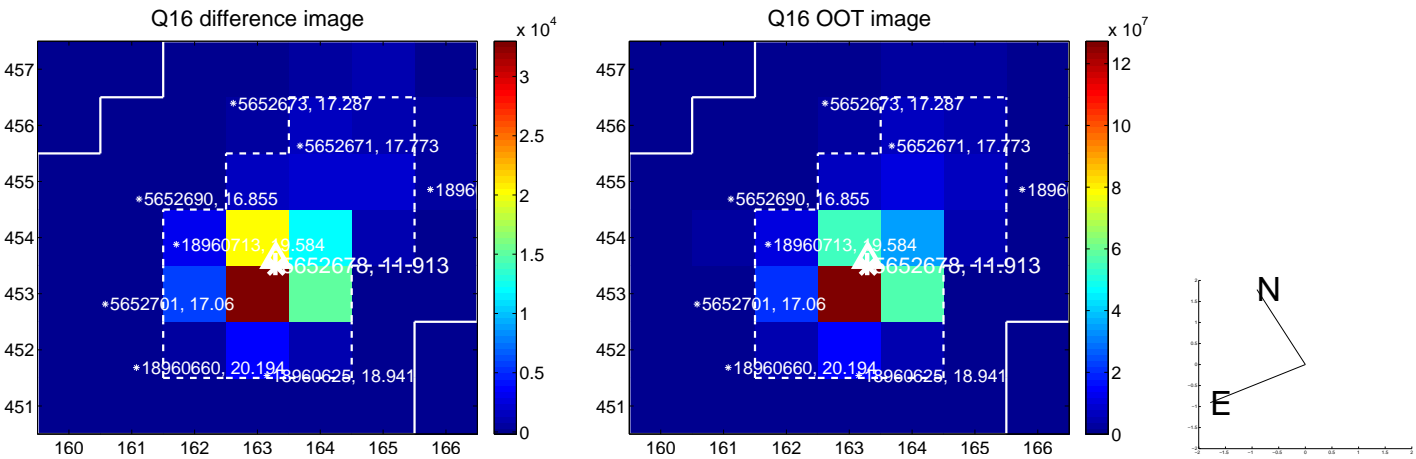
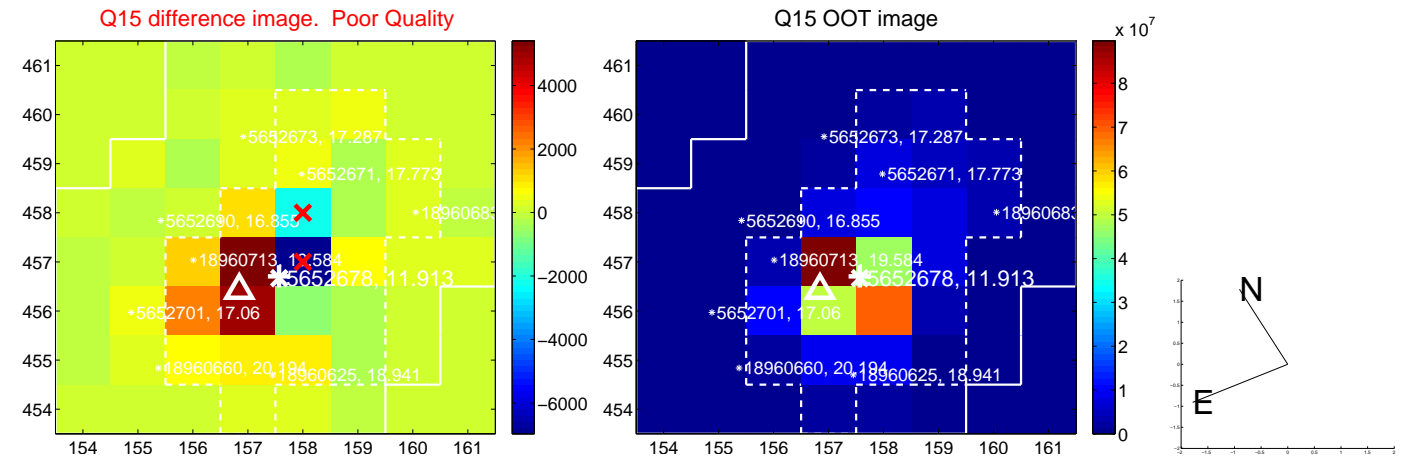
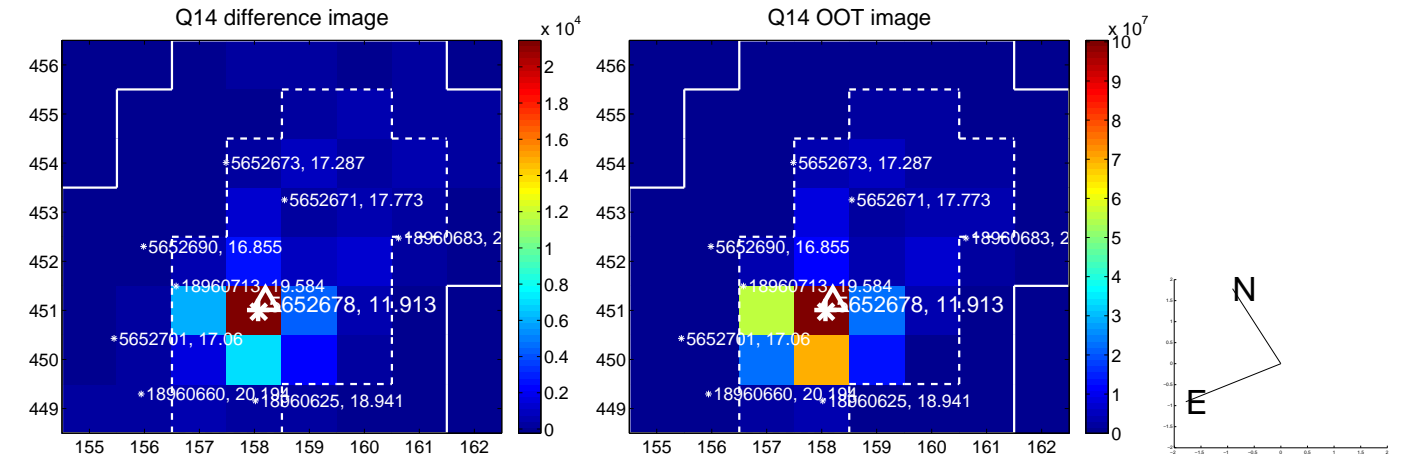
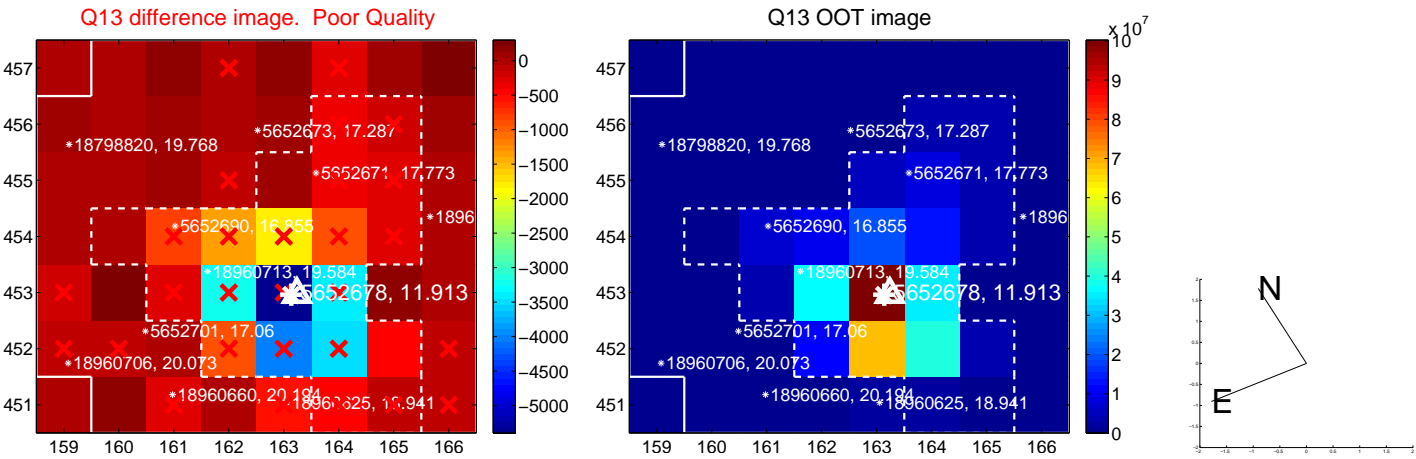
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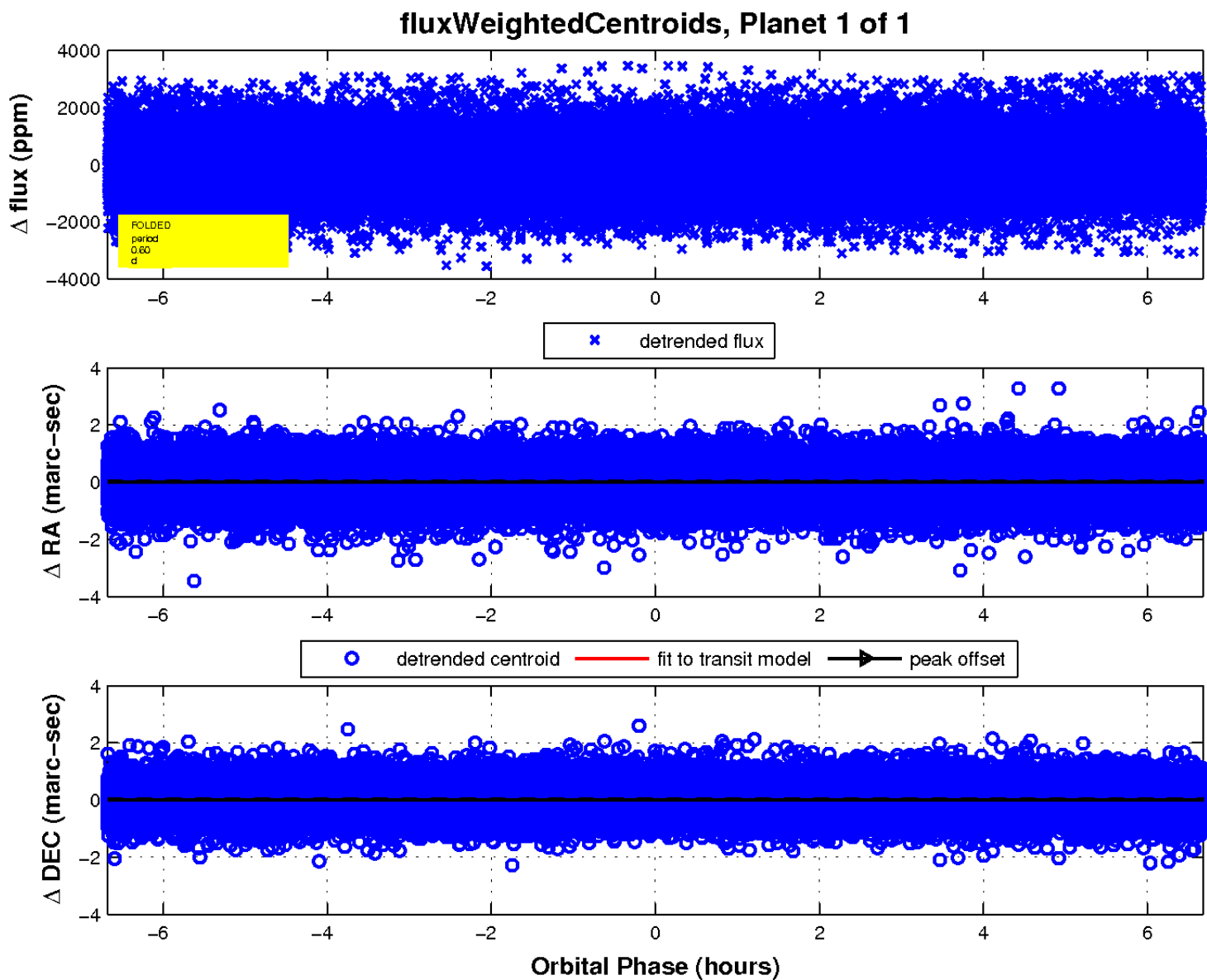
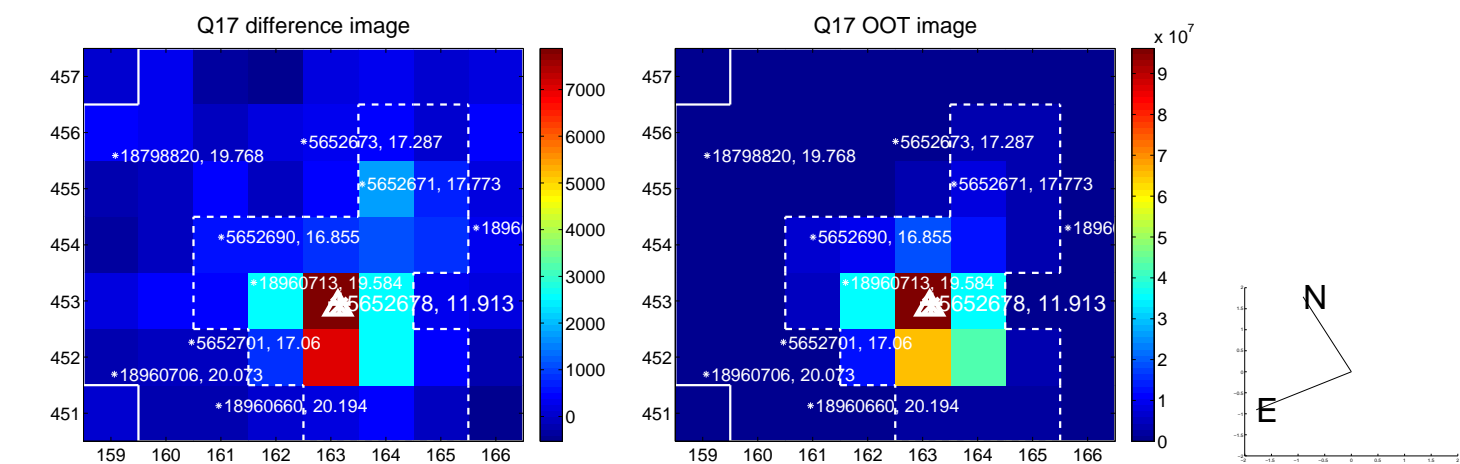
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UKIRT Image

Declination

