

KIC 009790479

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})
009790479-01	OBS	No	0.555595	131.962328	9.6	1.938	11.2	7.3	2.12	8066	0.77	65694.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009790479-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

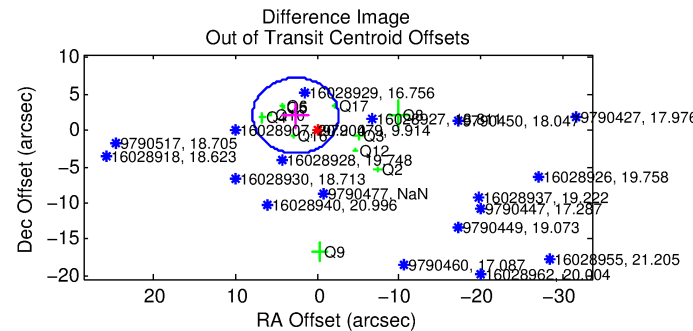
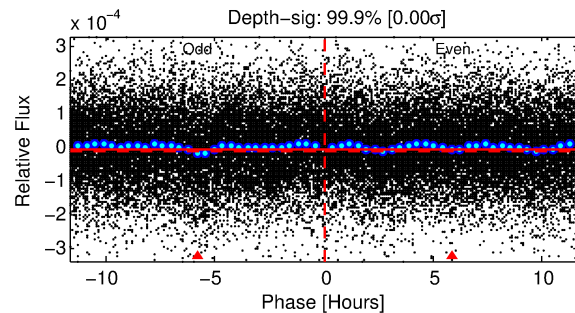
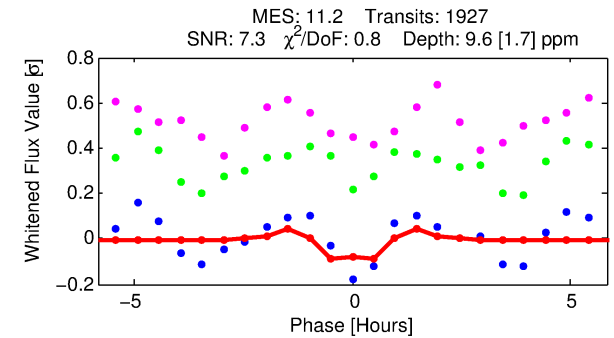
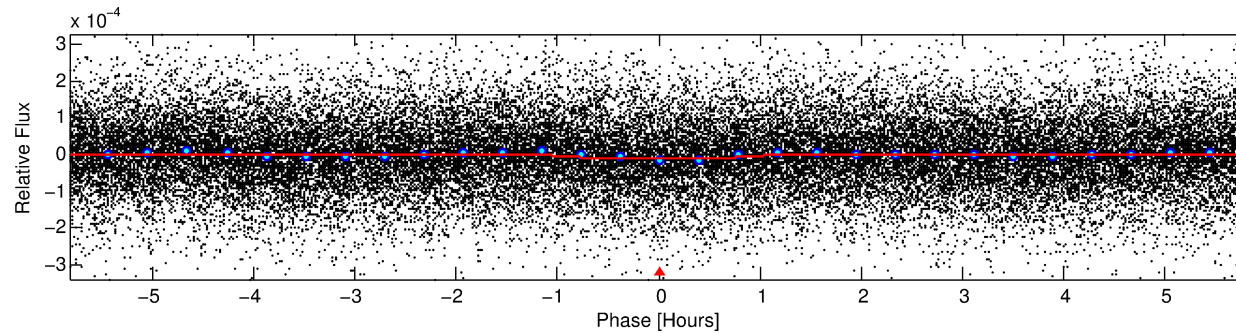
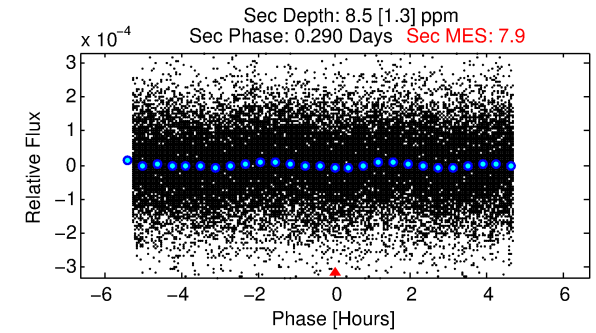
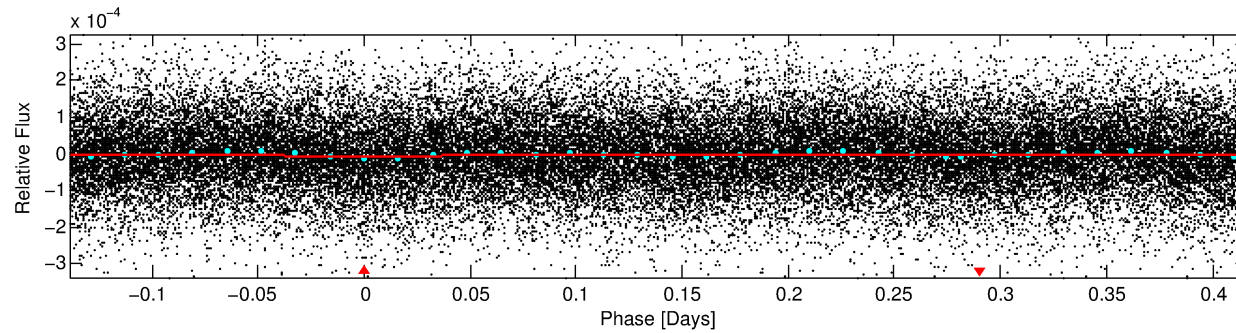
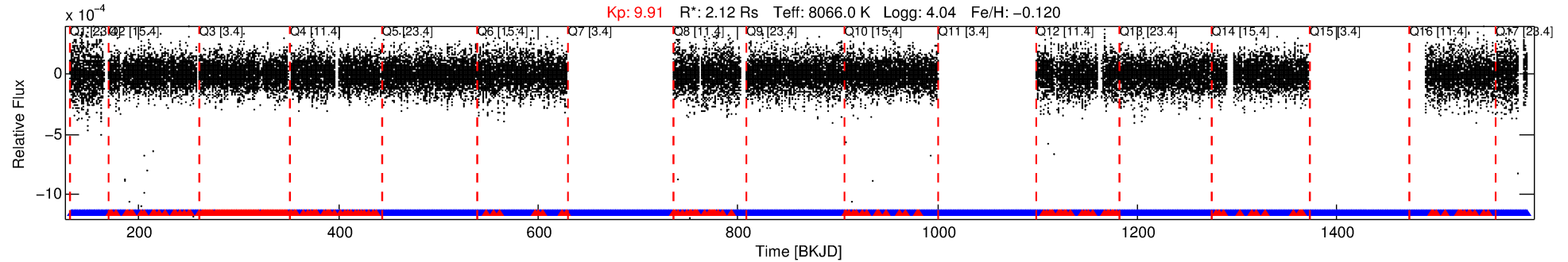
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009790479-01

No Significant Match Found

DV One-Page Summary

KIC: 9790479 Candidate: 1 of 1 Period: 0.556 d



DV Fit Results:

Period = 0.55559 [0.00001] d
Epoch = 131.9623 [0.0021] BKJD
Rp/R* = 0.0033 [0.0005]
a/R* = 1.34 [0.41]
b = 0.90 [0.14]
Seff = 65694.20 [25692.48]
Teq = 4082 [399] K
Rp = 0.77 [0.23] Re
a = 0.0161 [0.0038] AU
Ag = 2.06 [0.99] [1.08σ]
Teffp = 7565 [689] K [4.37σ]

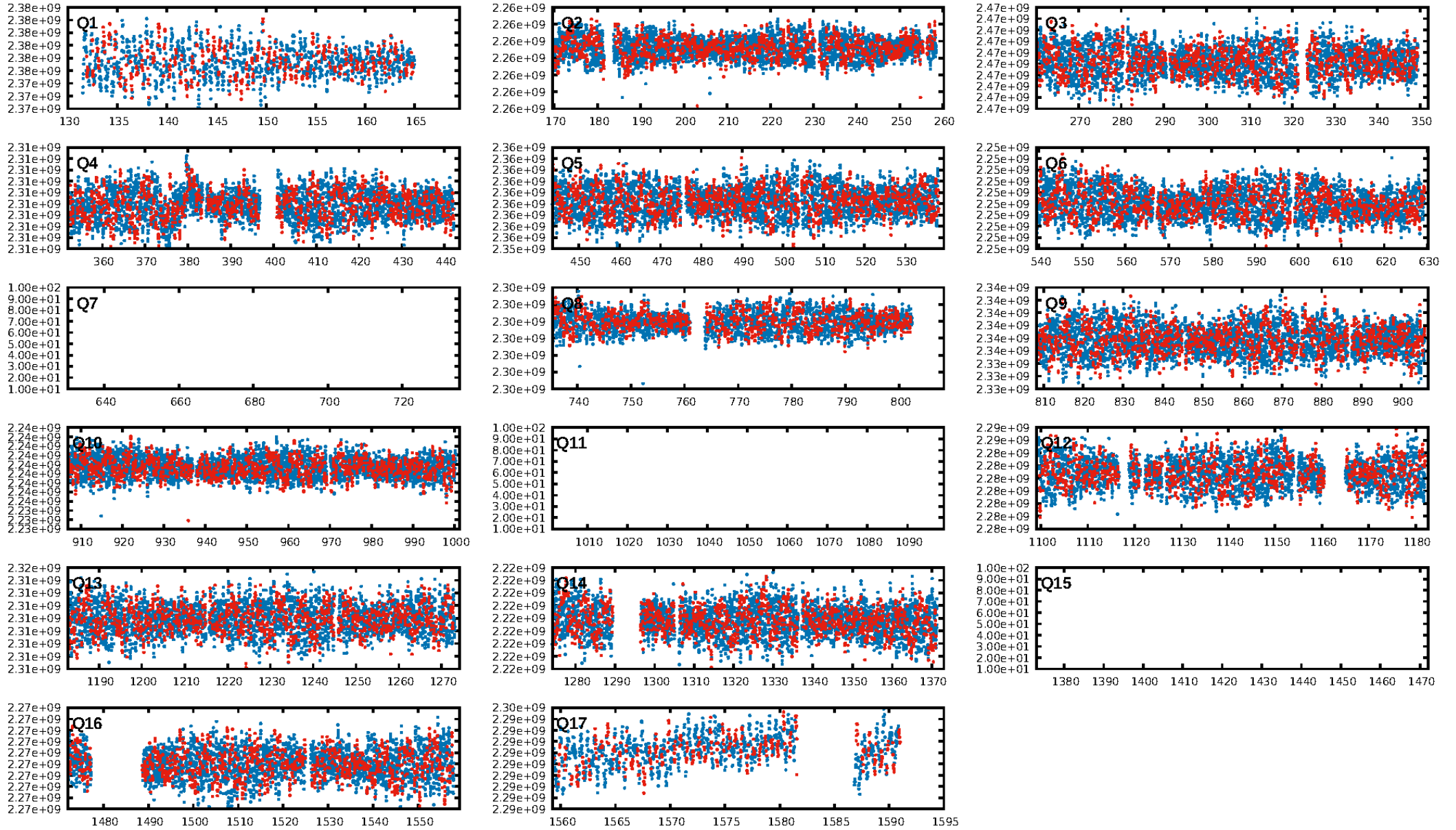
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.23e-26
RollingBand-fgt: 0.86 [1556/1818]
GhostDiagnostic-chr: N/A
Centroid-sig: 29.5%
Centroid-so: 1.170 arcsec [1.00σ]
OotOffset-rm: 3.331 arcsec [1.92σ]
KicOffset-rm: 3.764 arcsec [2.16σ]
OotOffset-st: 3/1/4/3 [11]
KicOffset-st: 3/1/4/3 [11]
DiffImageQuality-fgm: 0.18 [2/11]
DiffImageOverlap-fno: 1.00 [14/14]

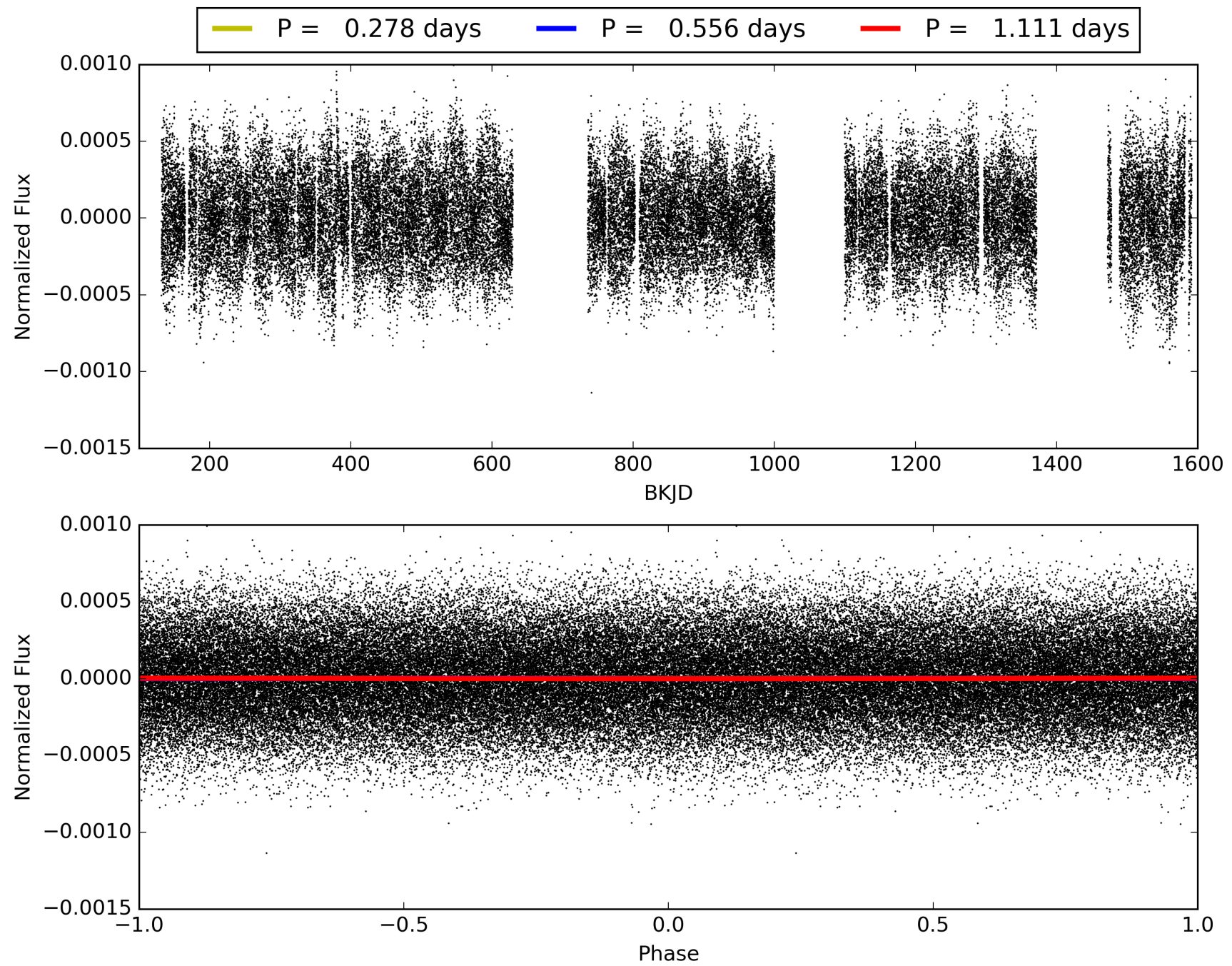
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:35:17 Z

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

TCE 009790479-01, PDC Light Curves

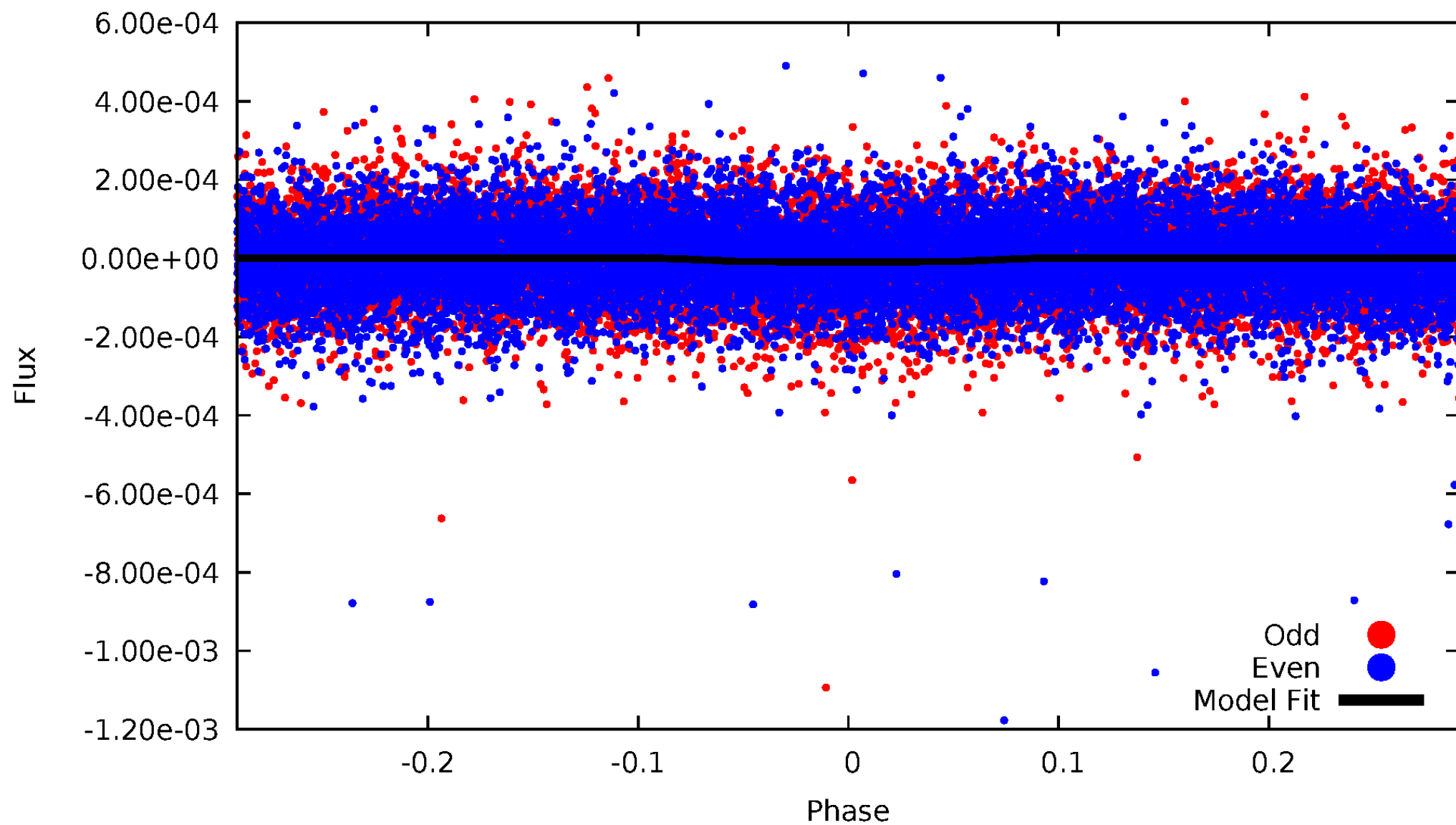


TCE 009790479-01



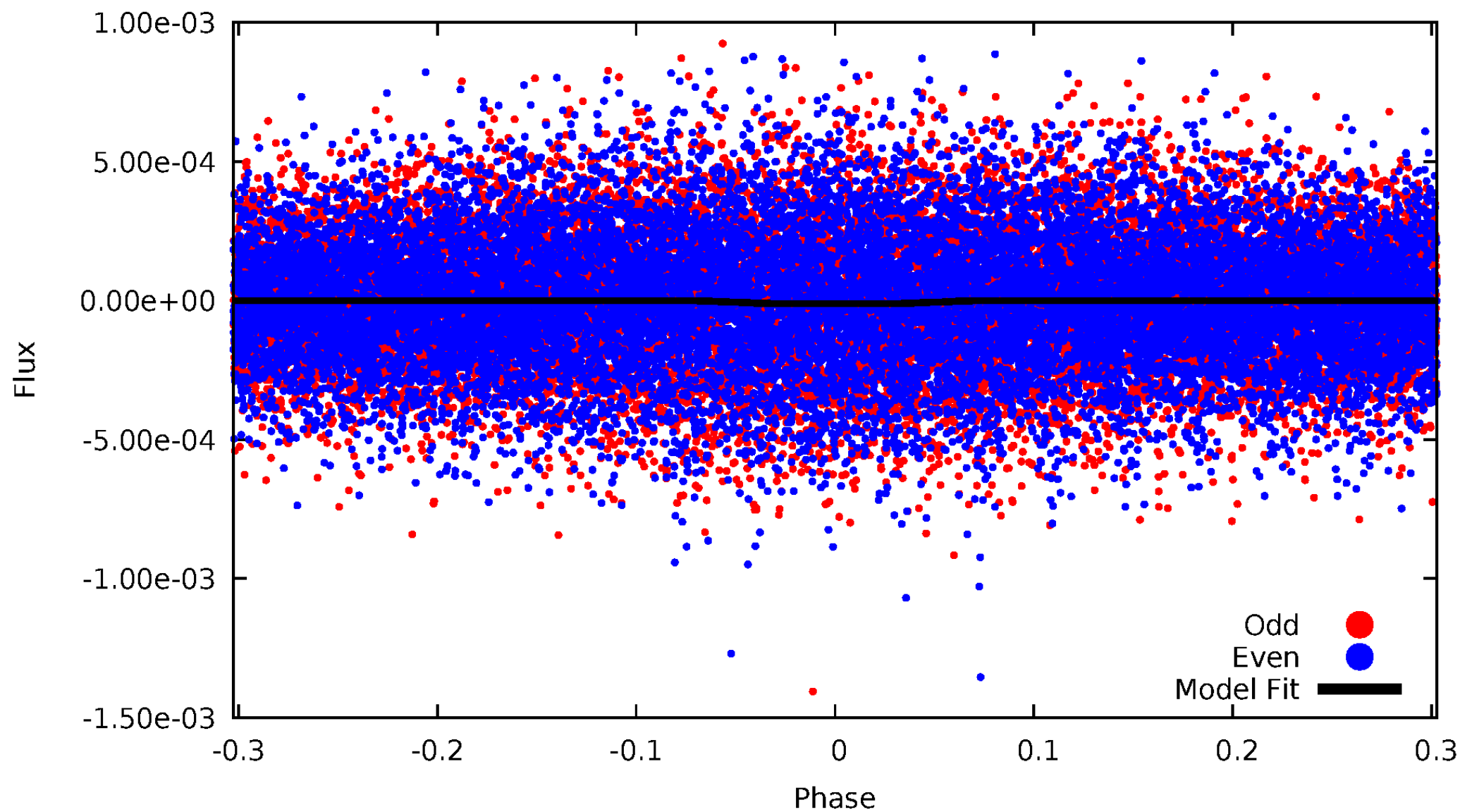
DV Odd/Even

TCE 009790479-01



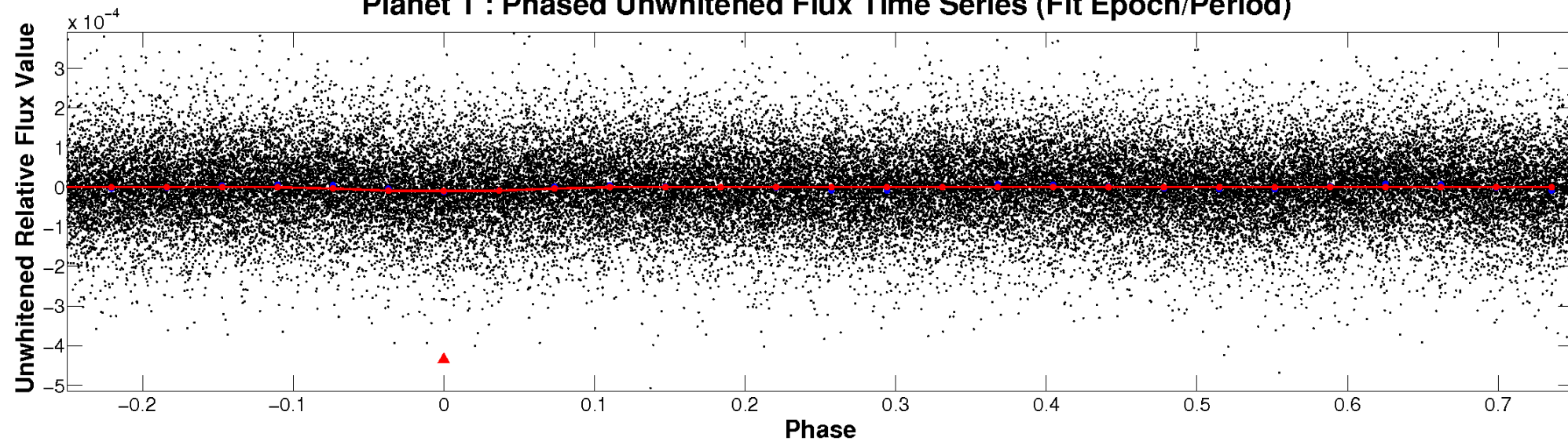
ALT Odd/Even

TCE 009790479-01

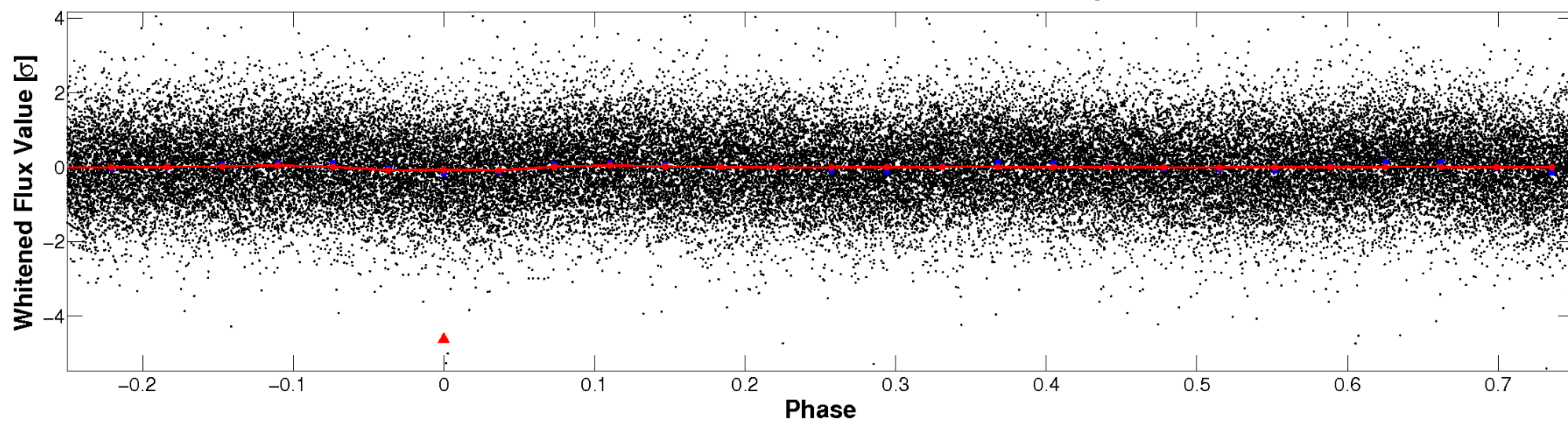


Non-Whitened Vs. Whitened Light Curve

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

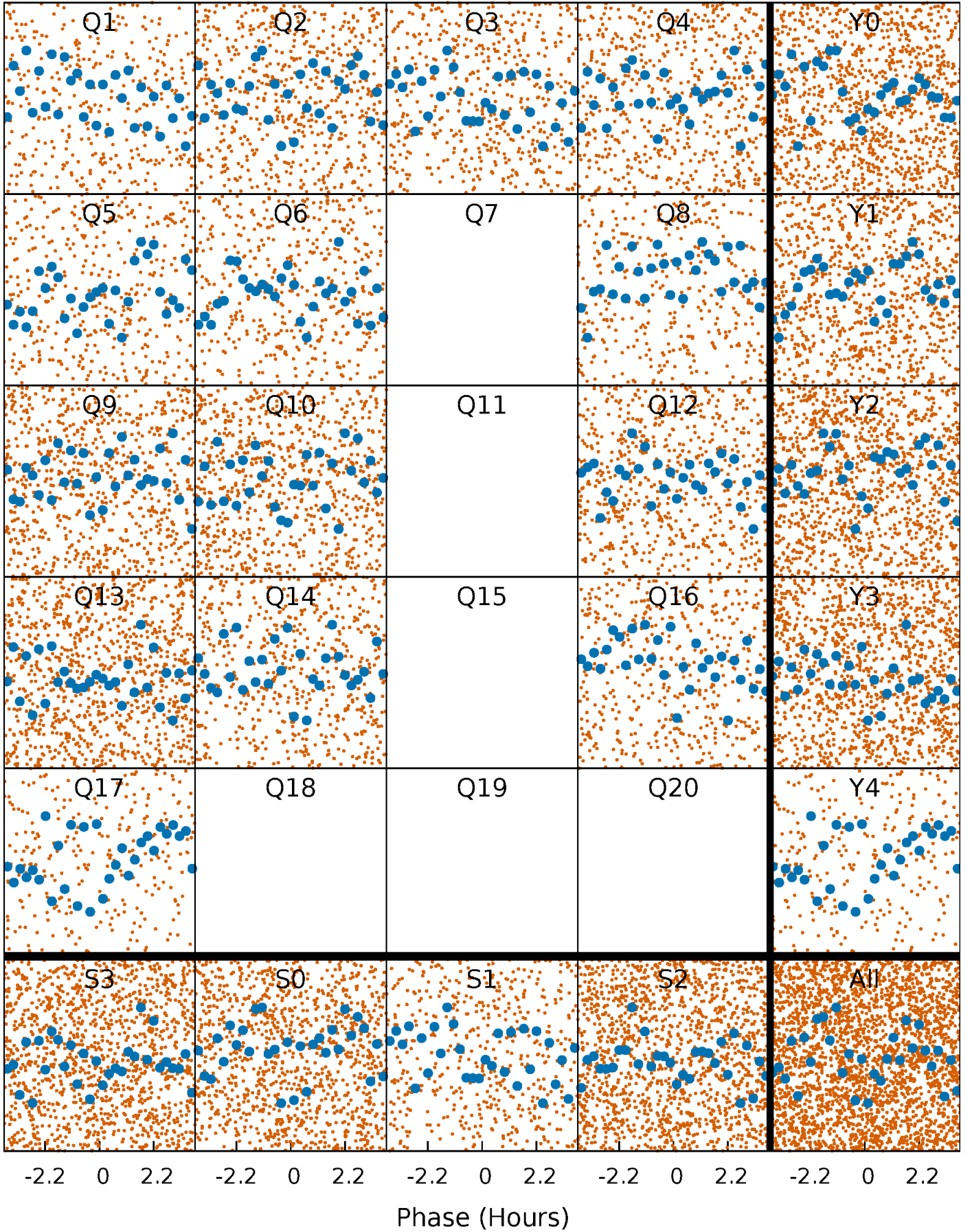


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



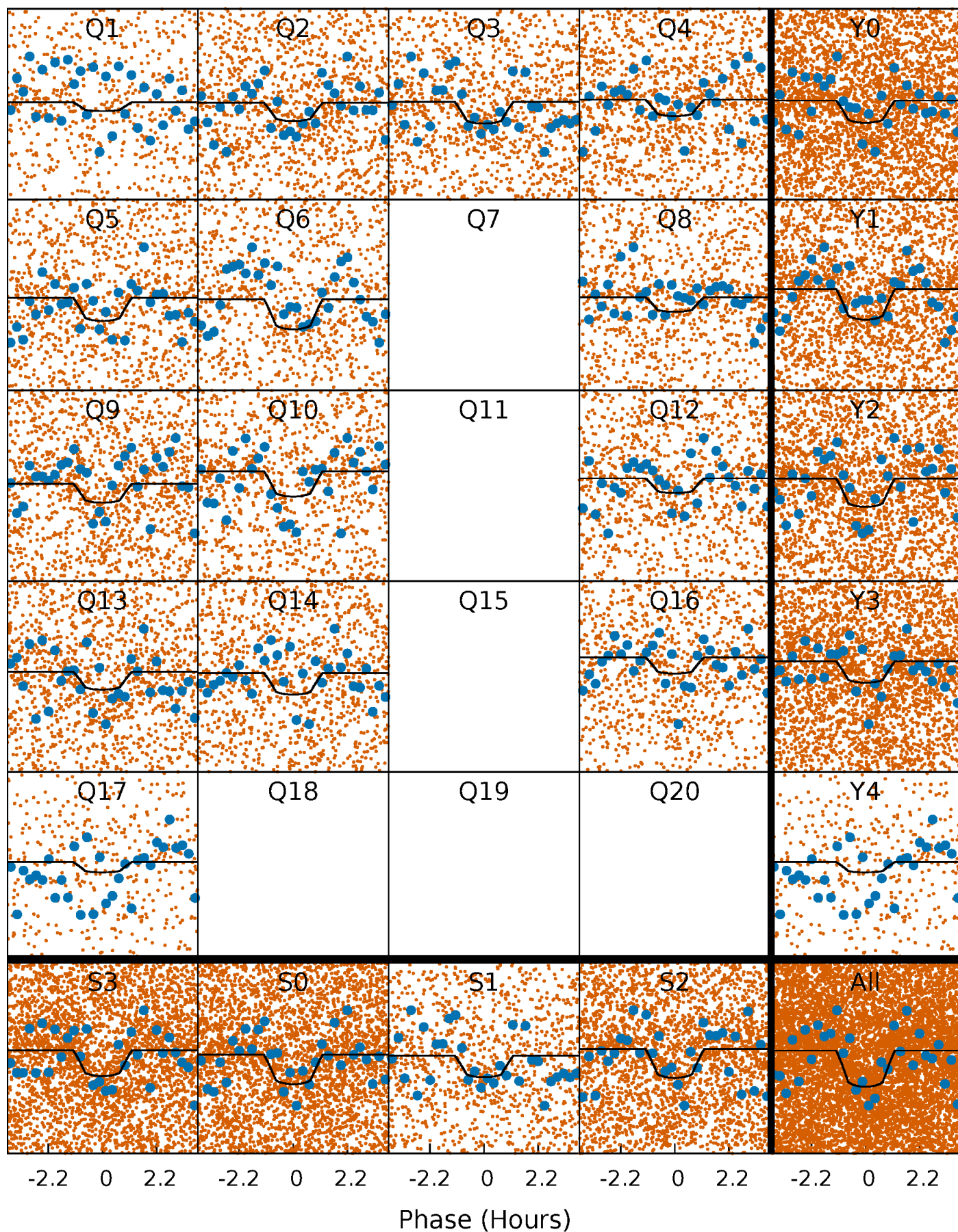
PDC Quarter-Phased Transit Curves

TCE 009790479-01 P= 0.555595 Days $T_0=131.962328$ (BKJD)



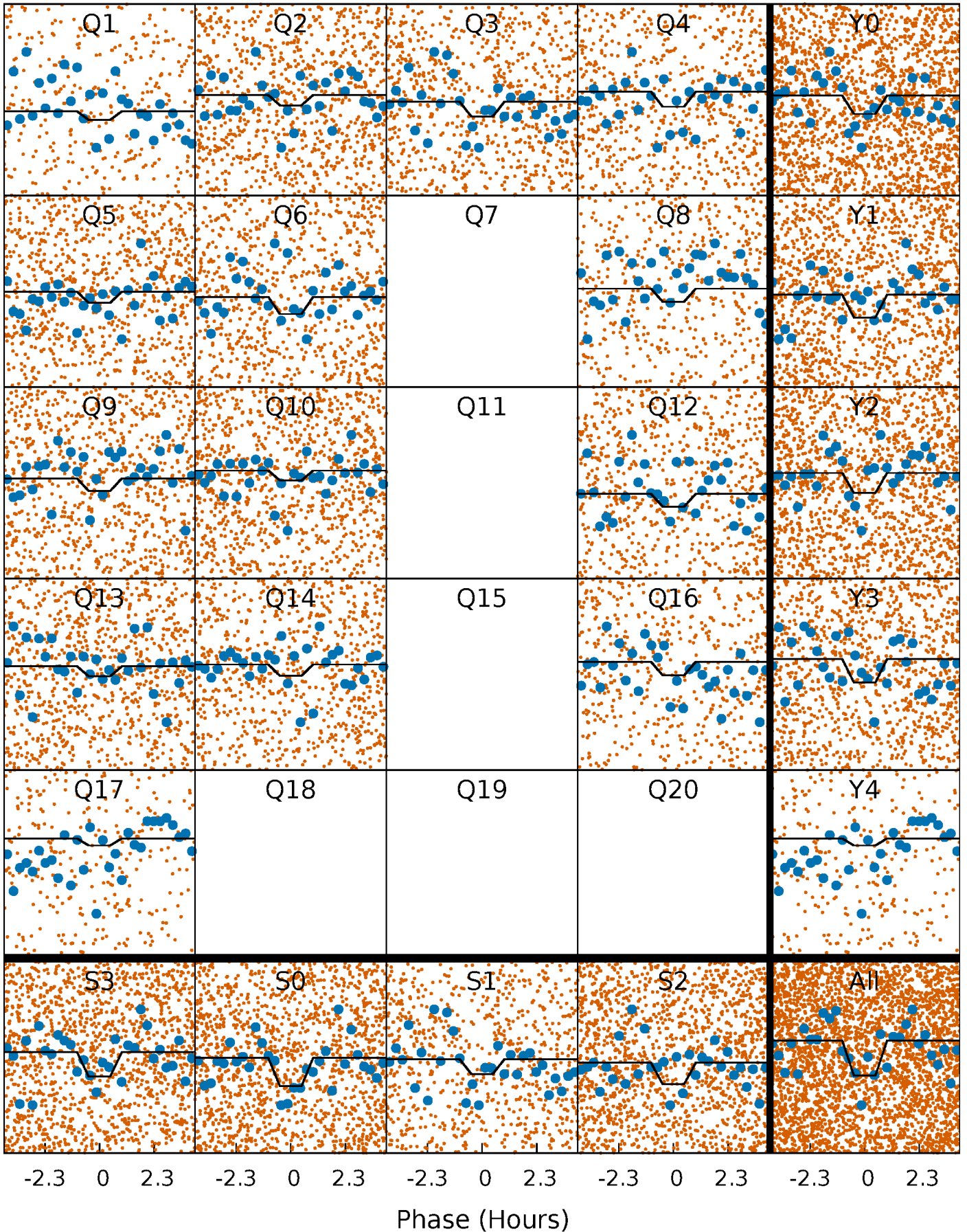
DV Quarter-Phased Transit Curves

TCE 009790479-01 P= 0.555595 Days $T_0=131.962328$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

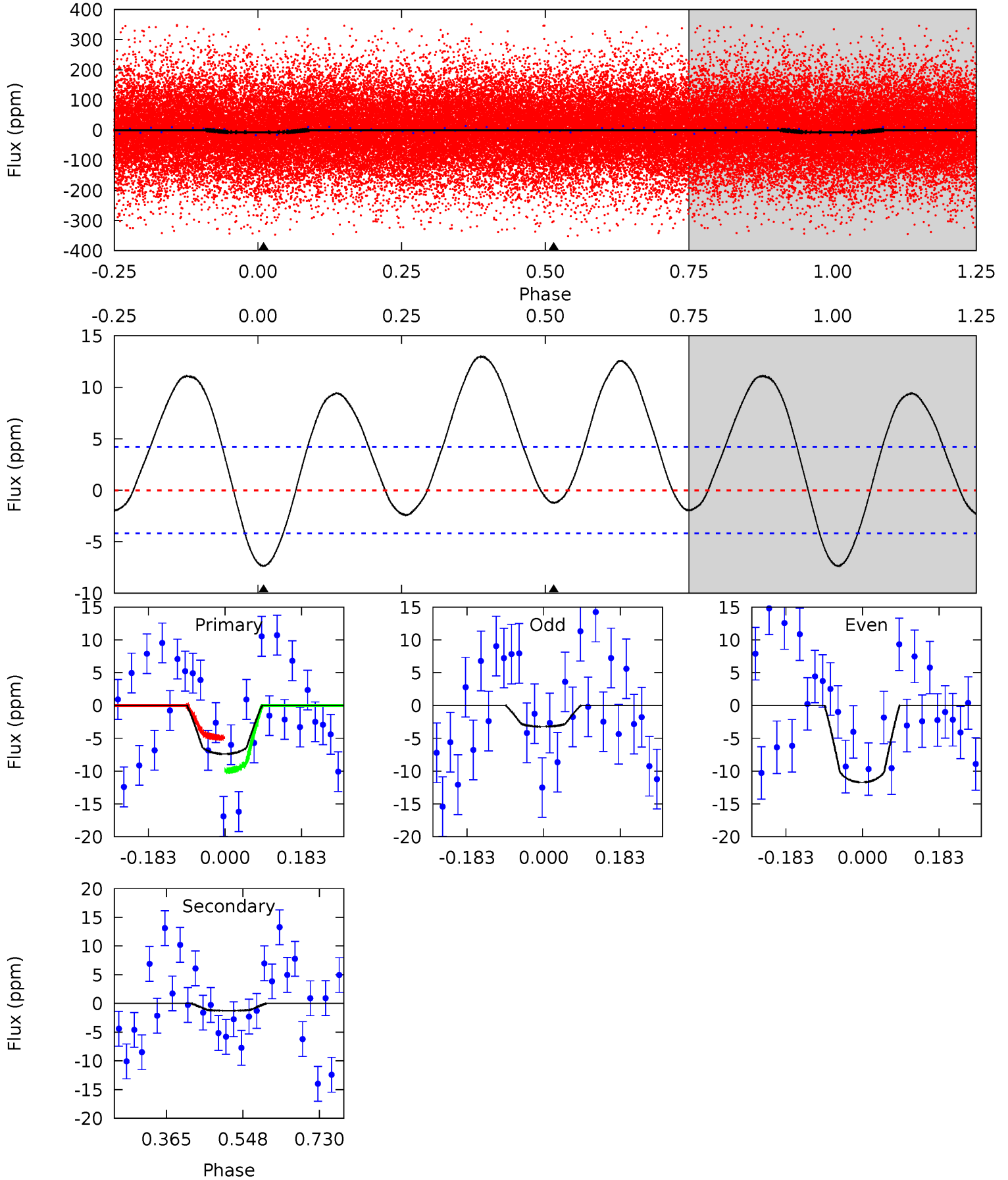
TCE 009790479-01 P= 0.555597 Days $T_0=131.962230$ (BKJD)



DV Model-Shift Uniqueness Test

009790479-01, P = 0.555595 Days, E = 131.406733 Days

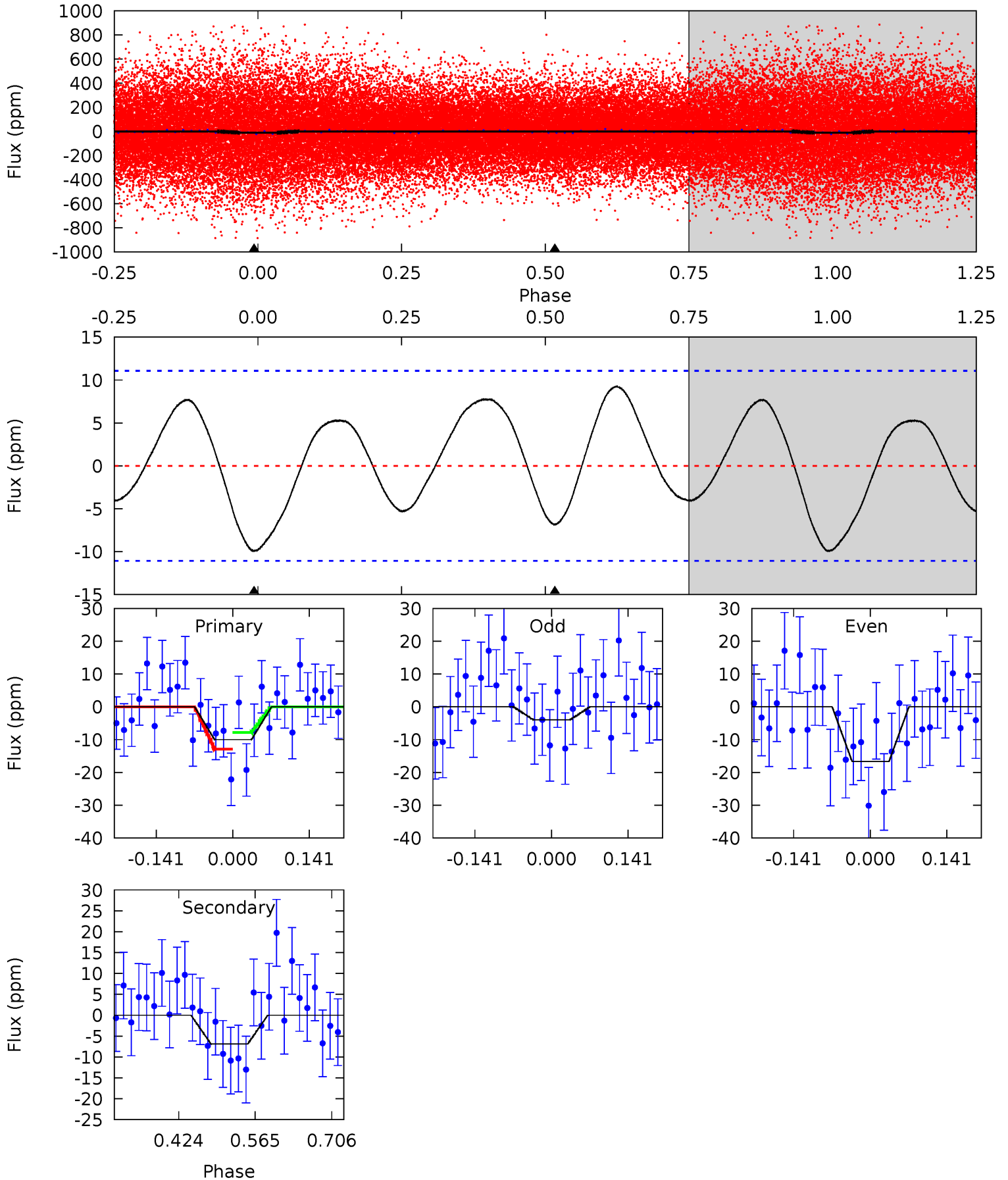
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.83	1.34	0	0	4.44	1.33	2.56	7.83	7.83	1.34	1.34	4.54	0.87	0.64	2.64



Alt Model-Shift Uniqueness Test

009790479-01, P = 0.555597 Days, E = 131.406633 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.06	2.79	0	0	4.49	1.47	1.51	4.06	4.06	2.79	2.79	2.41	1.93	0.48	0.90



Stellar Parameters For KIC 009790479

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8066^{+225}_{-338}	$4.041^{+0.198}_{-0.132}$	$-0.120^{+0.200}_{-0.400}$	$2.116^{+0.416}_{-0.572}$	$1.794^{+0.119}_{-0.356}$	$0.267^{+0.307}_{-0.107}$
	+3%/-4%	+5%/-3%	+167%/-333%	+20%/-27%	+7%/-20%	+115%/-40%
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 009790479-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 1	$0.75^{+0.16}_{-0.14}$	5631^{+409}_{-369}	-2589^{+7199}_{-1830}	$0.294^{+0.324}_{-0.210}$
Alt.	-7 ± 2	$0.74^{+0.14}_{-0.14}$	5664^{+380}_{-451}	6679^{+1057}_{-989}	$1.770^{+1.203}_{-0.747}$

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 $A_{obs} \gg 1.0$

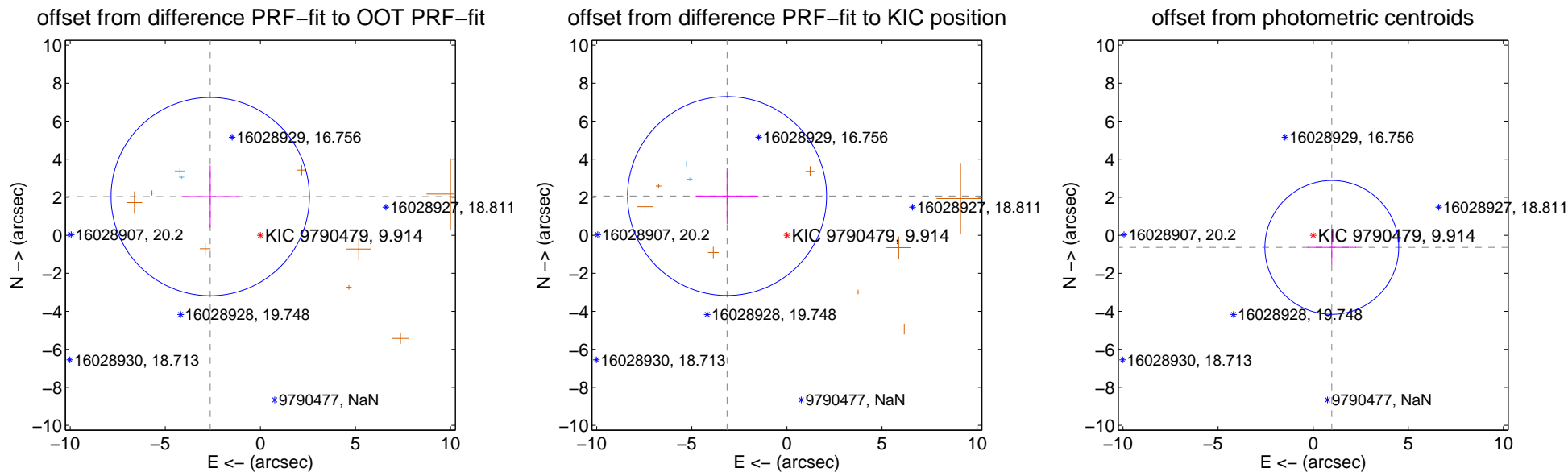
DV Centroid Data

Supplemental centroid analysis for 009790479-01. **Kepler magnitude: 9.91.** Transit SNR 7.26

There are 2 quarters with good PRF difference image offsets

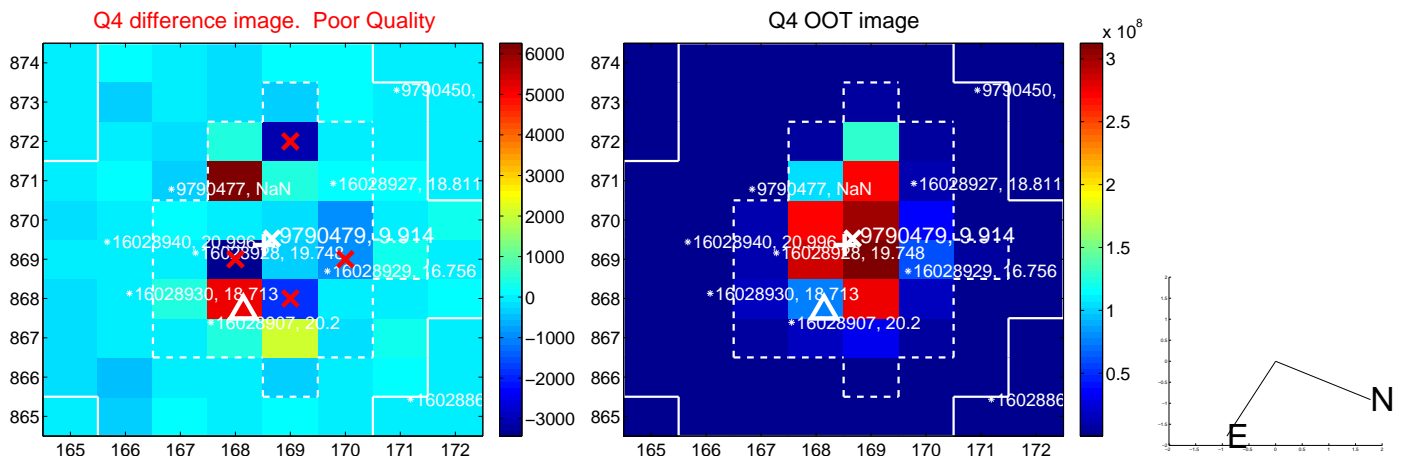
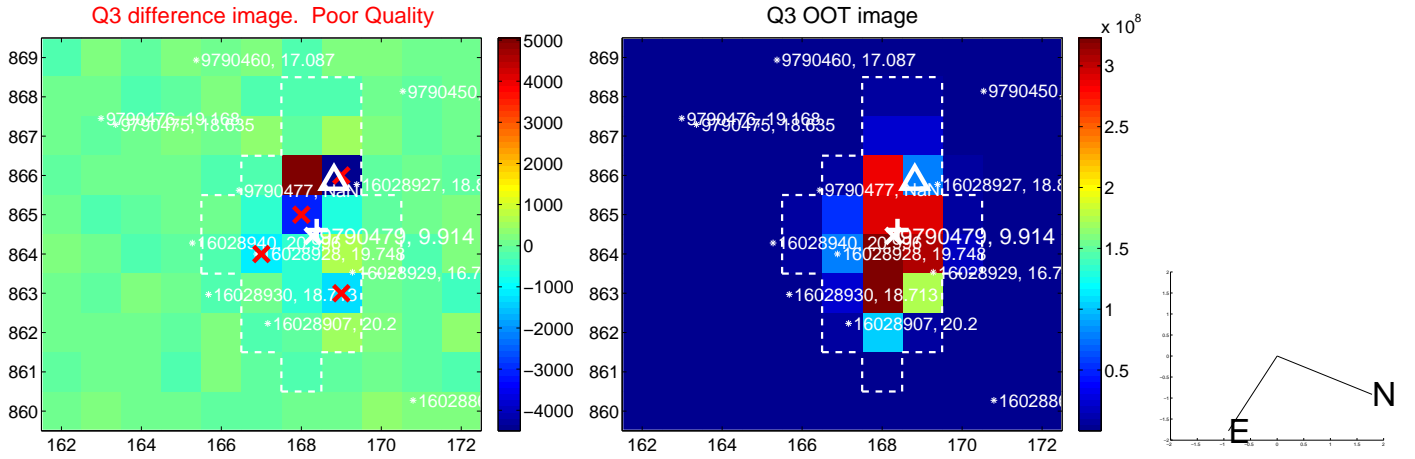
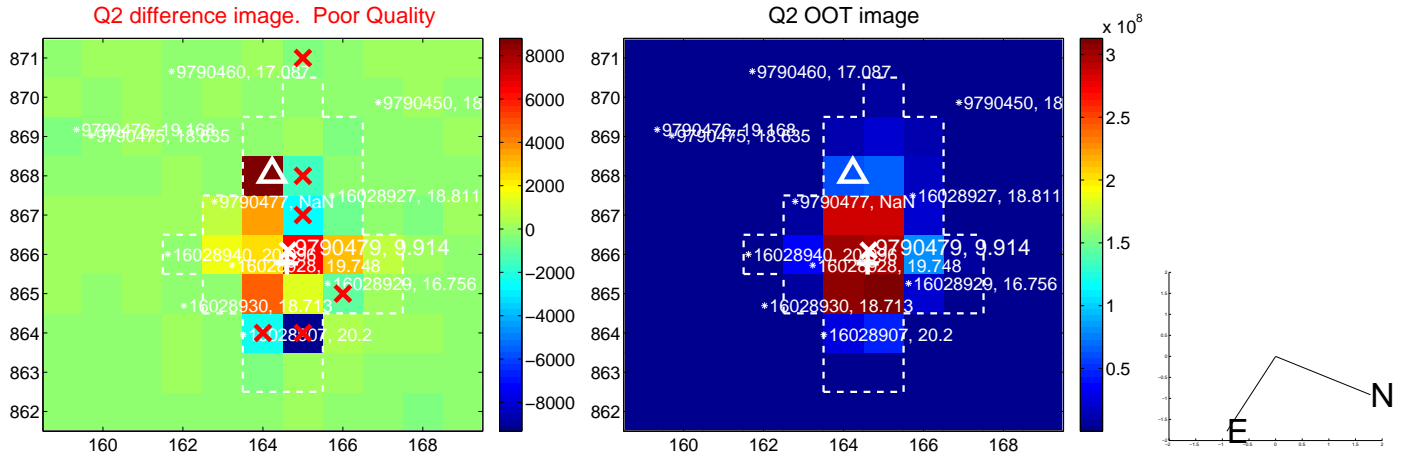
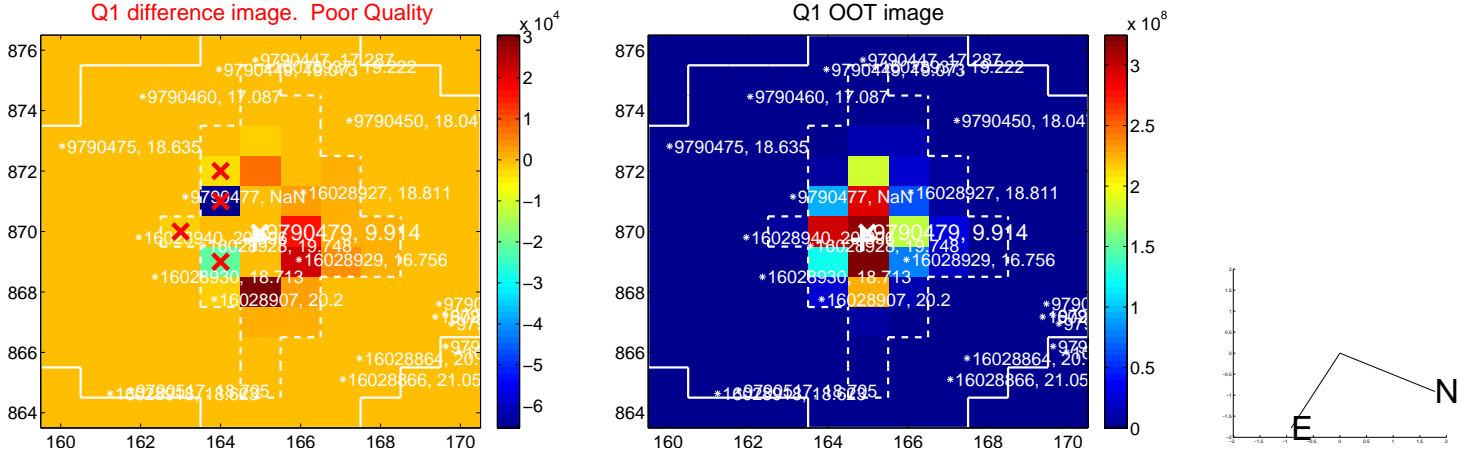
The direct PRF centroid is offset from the target star catalog position by about 0.95 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.331 ± 1.739	1.92	2.637 ± 1.513	2.034 ± 1.636
PRF-fit source offset from KIC position	3.764 ± 1.744	2.16	3.147 ± 1.651	2.065 ± 1.471
photometric centroid source offset	1.17 ± 1.17	1.00	-0.98 ± 1.28	-0.64 ± 0.89

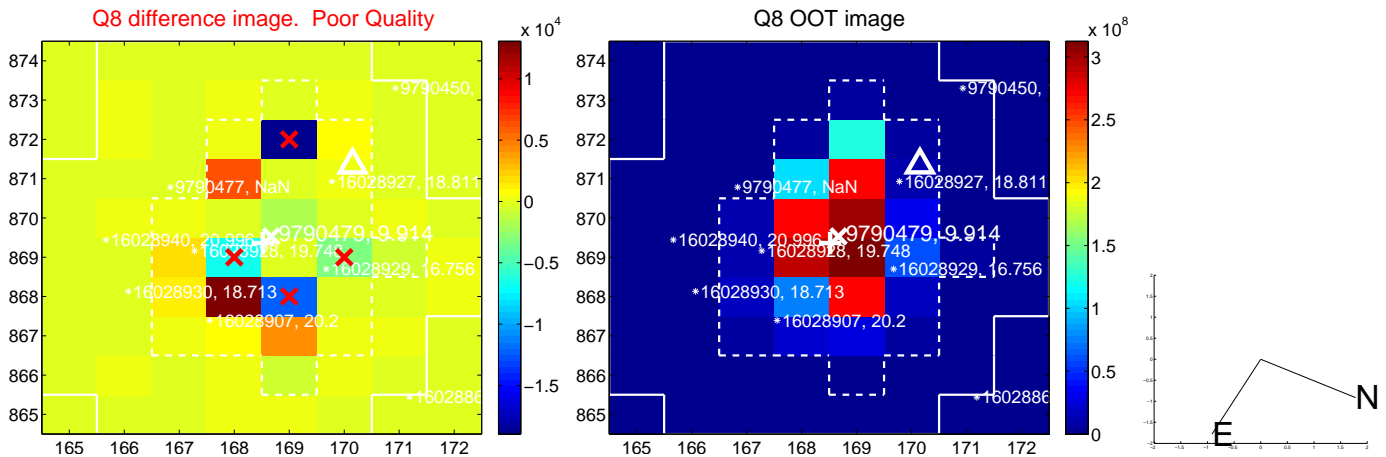
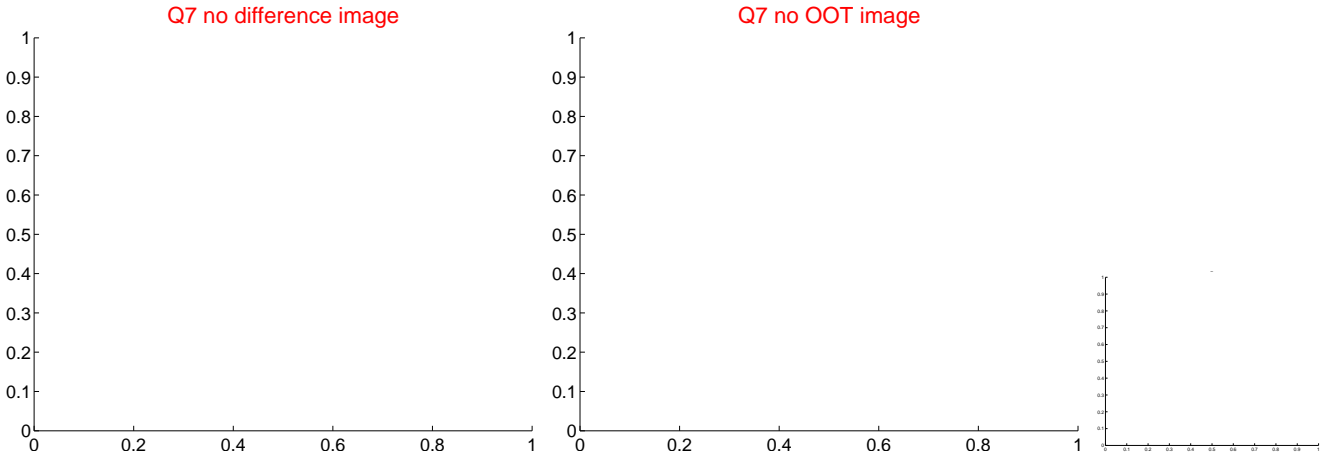
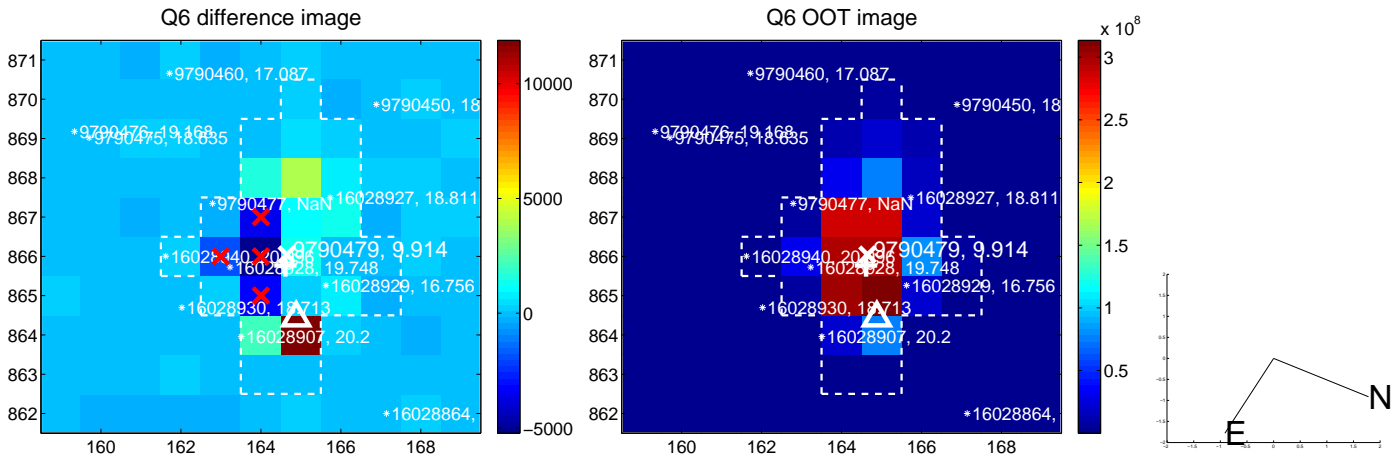
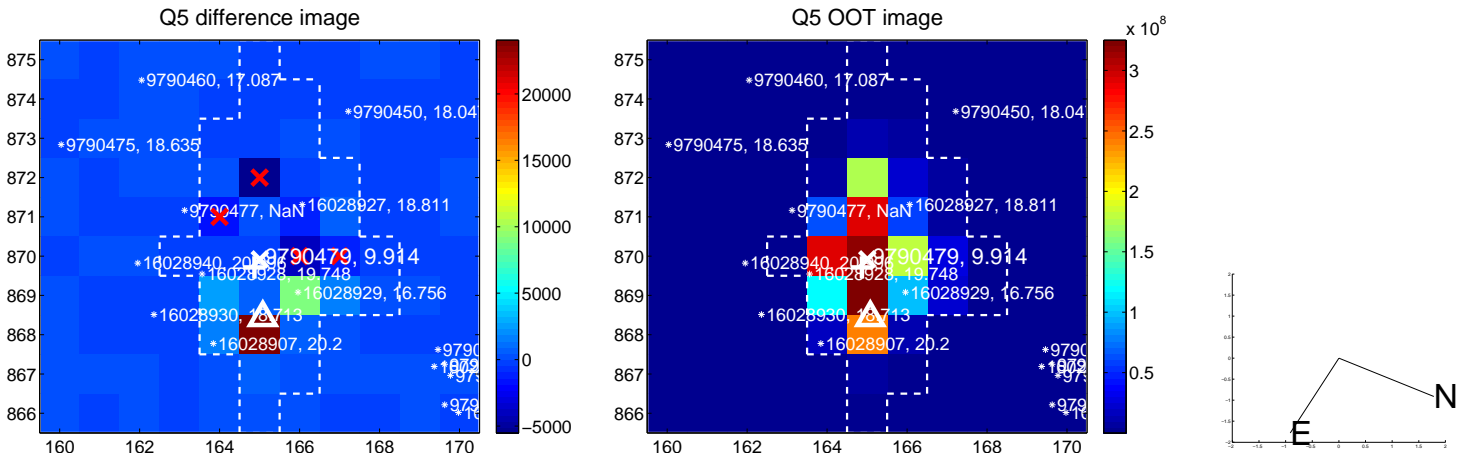


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

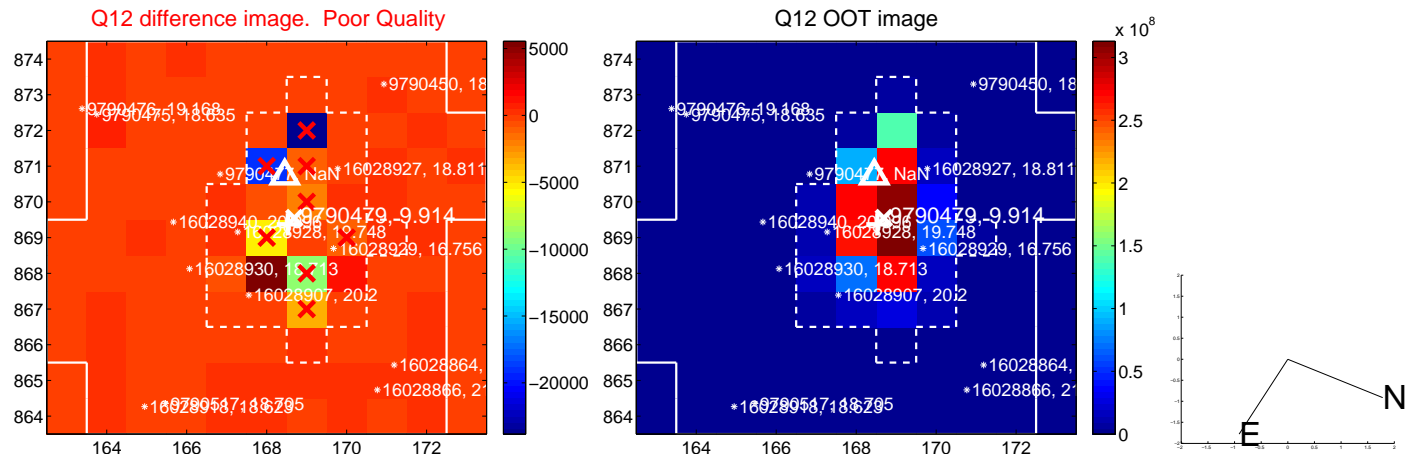
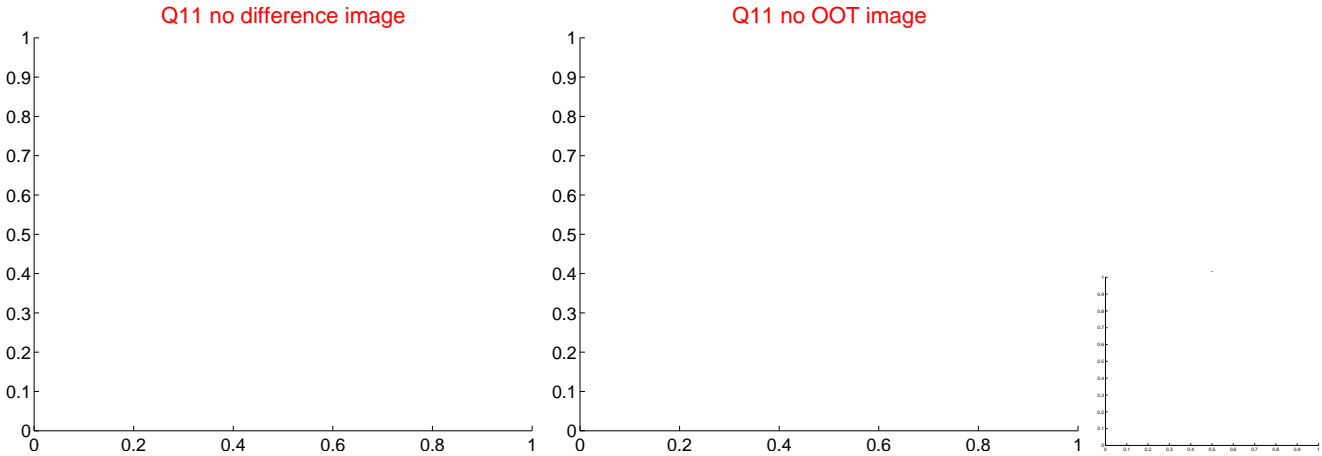
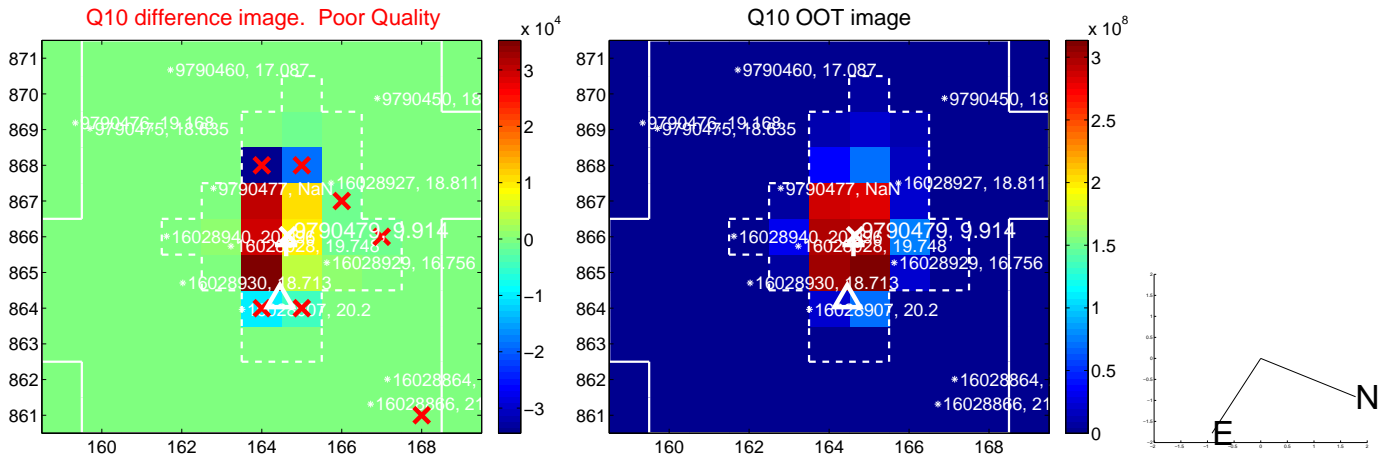
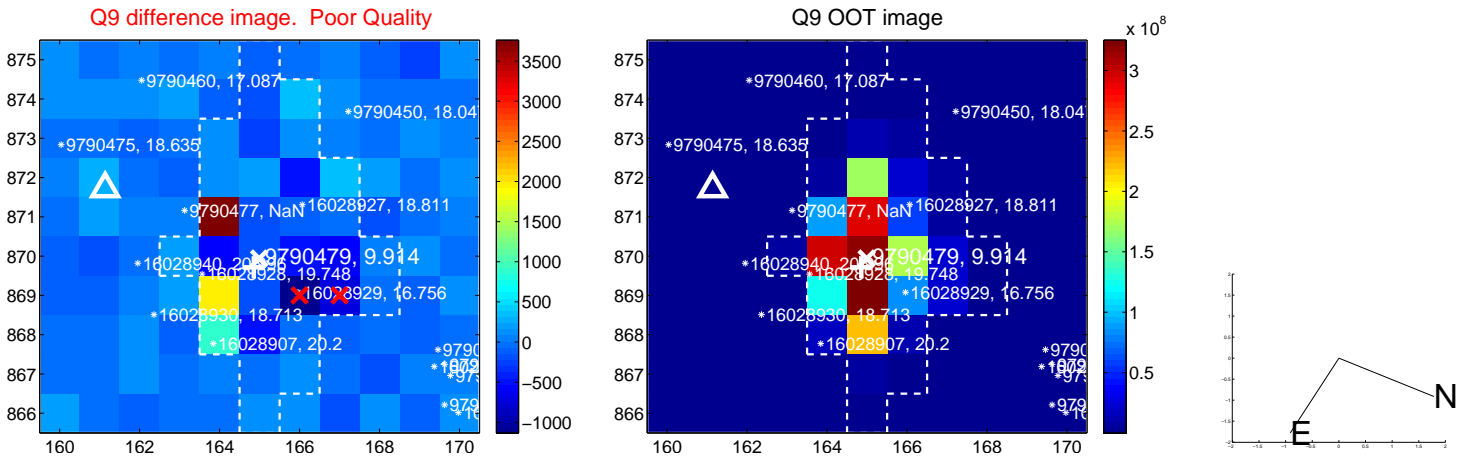
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



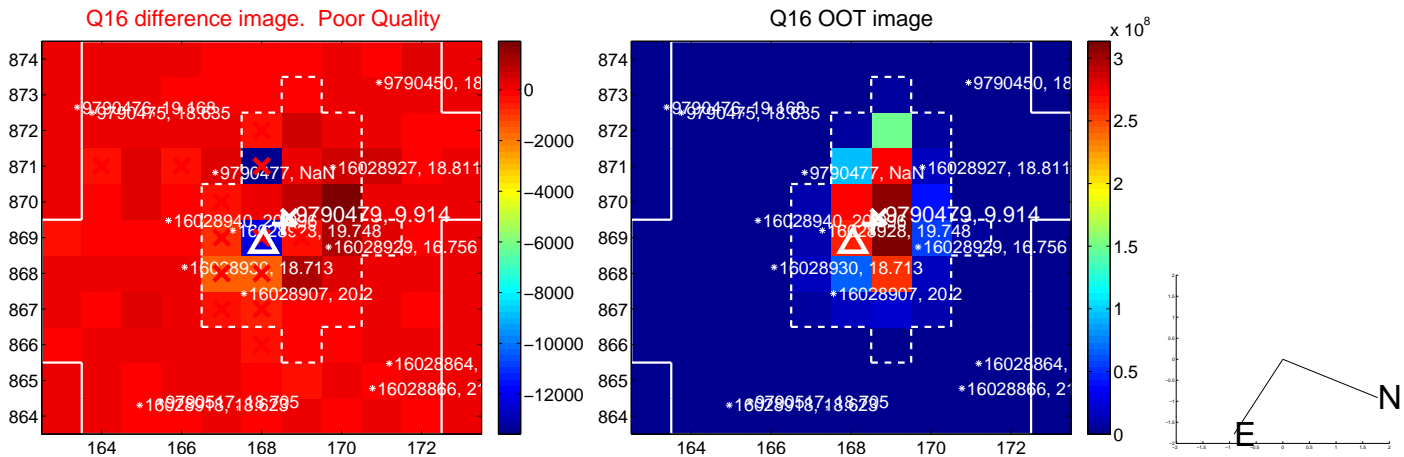
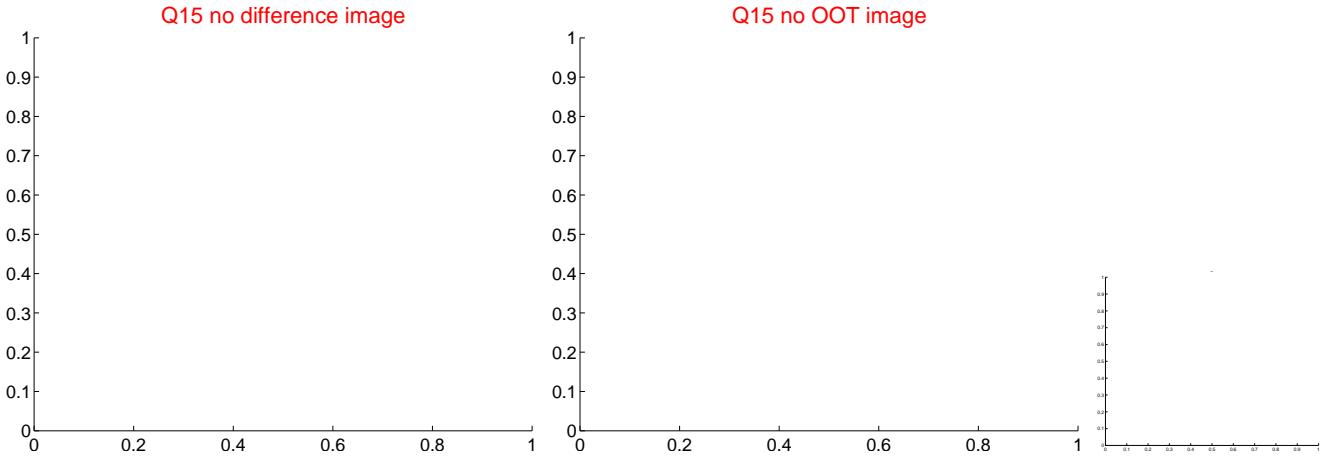
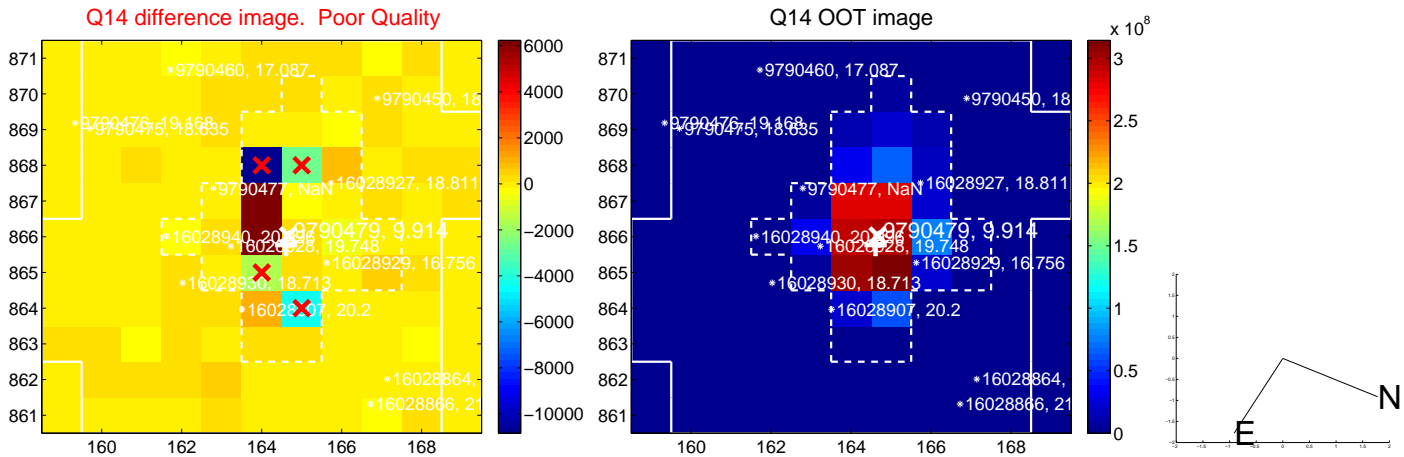
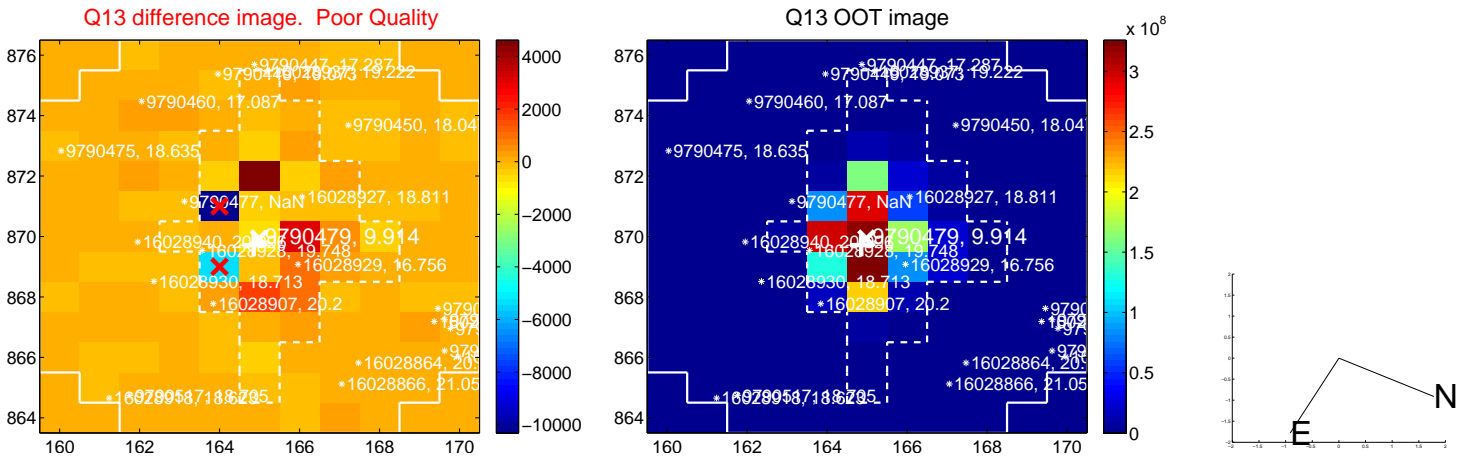
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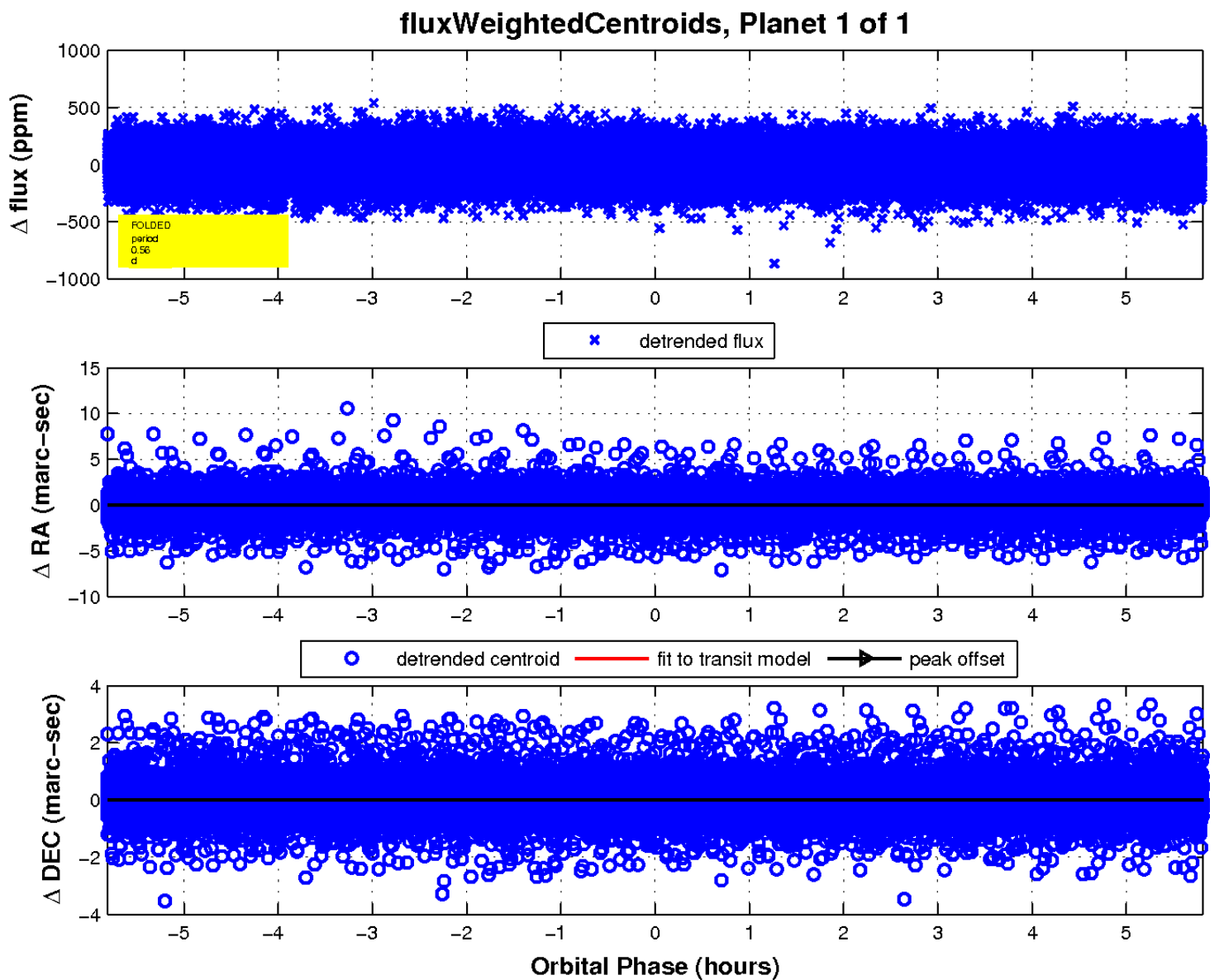
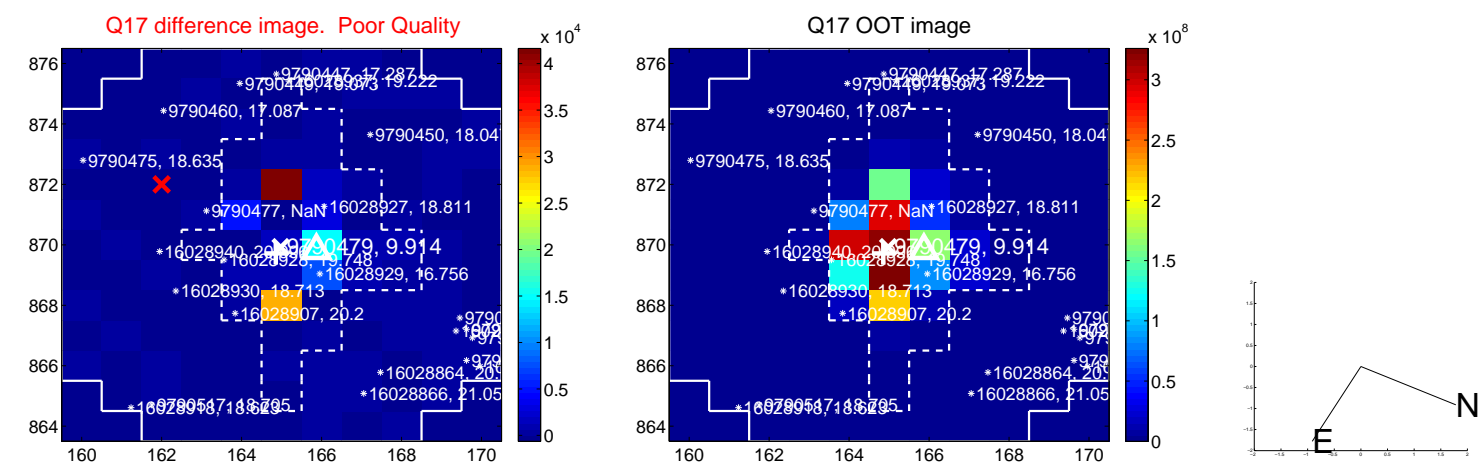
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

